

# Dahua HDCVI Standalone DVR User's Manual

V2.3.1

# **Table of Contents**

1	FE/	ATURES AND SPECIFICATIONS	1
1.1	0	verview	1
1.2	F	eatures	1
1.3	S	pecifications	2
1	.3.1	HCVR5104C Series	2
1	.3.2	HCVR51XXC-V2 Series	6
1	.3.3	HCVR7104C-V2 Series	
1	.3.4	HCVR410XC-S2 Series	9
1	.3.5	HCVR510XC-S2 Series	
1	.3.6	HCVR7104C-S2 Series	
1	.3.7	HCVR2108C-S2 Series	
1	.3.8	HCVR410XC-S3 Series	
1	.3.9	HCVR510XC-S3 Series	16
1	.3.10	HCVR7104C-S3 Series	
1	.3.11	HCVR51XXH Series	
1	.3.12	HCVR51XXH-V2 Series	23
1	.3.13	HCVR51XXHC Series	25
1	.3.14	HCVR51XXHC-V2 Series	
1	.3.15	HCVR51XXHE Series	
1	.3.16	HCVR51HE-V2 Series	
1	.3.17	HCVR71XXH-V2 Series	
1	.3.18	HCVR71XXHC-V2 Series	
1	.3.19	HCVR71XHE-V2 Series	
1	.3.20	HCVR41XXHE-S2 Series	40
1	.3.21	HCVR51XXH-S2 Series	41
1	.3.22	HCVR51XXHE-S2 Series	
1	.3.23	HCVR710XH-S2 Series	
1	.3.24	HCVR710XHE-S2 Series	
1	.3.25	HCVR41XXHE-S3 Series	47
1	.3.26	HCVR51XXH-S3 Series	
1	.3.27	HCVR51XXHE-S3 Series	
1	.3.28	HCVR71XXHE-S3 Series	
1	.3.29	HCVR71XXH-S3 Series	54
1	.3.30	HCVR41XXHS-S2 Series	
1	.3.31	HCVR21XXHS-S2 Series	

1.3.32	HCVR21XXHS-S3 Series	59
1.3.33	HCVR41XXHS-S3 Series	
1.3.34	HCVR51XXHS-S3 Series	62
1.3.35	HCVR71XXHS-S3 Series	64
1.3.36	HCVR52XXA-V2 Series	65
1.3.37	HCVR72XXA-V2 Series	67
1.3.38	HCVR42XXA-S2/4216AN-S2 Series	68
1.3.39	HCVR4224/4232AN-S2 Series	69
1.3.40	HCVR52XXA-S2/HCVR5216AN-S2 Series	71
1.3.41	HCVR720XA-S2 Series	72
1.3.42	HCVR42XXA-S3 Series	74
1.3.43	HCVR42XXAN-S3 Series	76
1.3.44	HCVR52XXA-S3 Series	78
1.3.45	HCVR52XXAN-S3 Series	80
1.3.46	HCVR72XXA-S3/HCVR7216AN-S3 Series	81
1.3.47	HCVR52XXL-V2 Series	84
1.3.48	HCVR54XXL-V2 Series	85
1.3.49	HCVR4224/32L-S2 Series	87
1.3.50	HCVR44XXL-S2 Series	88
1.3.51	HCVR48XXS-S2 Series	91
1.3.52	HCVR58XXS-V2 Series	94
1.3.53	HCVR71XXH-4M Series	95
1.3.54	HCVR72XXAN-4M Series	97
1.3.55	XVR410XC Series	99
1.3.56	XVR510XC Series	100
1.3.57	XVR7104C Series	102
1.3.58	XVR41XXHE Series	103
1.3.59	XVR51XXH Series	105
1.3.60	XVR51XXHE Series	107
1.3.61	XVR71XXHE Series	109
1.3.62	XVR71XXH Series	111
1.3.63	XVR21XXHS Series	113
1.3.64	XVR41XXHS Series	115
1.3.65	XVR51XXHS Series	116
1.3.66	XVR7104HS Series	118
1.3.67	XVR42XXA Series	120
1.3.68	XVR42XXAN Series	122
1.3.69	XVR52XXA Series	126
1.3.70	XVR52XXAN Series	128
1.3.71	XVR72XXA Series	132
1.3.72	XVR72XXAN Series	134
1.3.73	XVR54XXL Series	136
1.3.74	XVR74XXL Series	138
1.3.75	XVR58XXS Series	140

1.3.76	XVR78XXS Series	142
1.3.77	HCVR710XH-4K Series	144
1.3.78	HCVR720XAN-4K Series	146
1.3.79	XVR5104C-4M/XVR5104HS-4M/XVR5104H-4M Series	148
1.3.80	XVR5204AN-4M Series	149
1.3.81	XVR5108HS-4KL/XVR5108H-4KL/XVR5116H-4KL Series	151
1.3.82	XVR5208AN-4KL/XVR5216AN-4KL Series	153
1.3.83	XVR7104HE-4KL/XVR7108HE-4KL/XVR7116HE-4KL Series	155
1.3.84	XVR7204A-4KL/XVR7208A-4KL/XVR7216A-4KL Series	157
1.3.85	XVR7208A-4K Series	159

## 

2.1	F	ront Panel	161
2.1	1.1	HCVR5104C/HCVR51XXC-V2/HCVR71XXC-V2/ HCVR4104/4108C-S2/	
Н	VR	5104 5108C-S2/ HCVR7104C-S2/ HCVR2108C-S2/	
Н	VR	410XC-S3/HCVR510XC-S3/7104C-S3/	
X١	/R41	10XC/XVR510XC/7104C/XVR51XXC-4M Series	161
2.1	1.2	HCVR51XXH/HCVR51XXHE/ HCVR51XXH-V2 /	
НС	VR	51XXHE-V2/HCVR71XXH-V2 / HCVR71XXHE-V2 Series	161
2.1	1.3	HCVR51XXHC/ HCVR51XXHC-V2/ HCVR71XXHC-V2 Series	162
2.7	1.4	HCVR41XXHE-S2/ HCVR51XXH-S2/ HCVR51XXHE-S2/ HCVR710XH-S2/	
HC	VR	710XHE-S2/	
Н	VR	41XXHE-S3/HCVR51XXH-S3/HCVR51XXHE-S3/HCVR71XXH-S3/HCVR71XXH	E-
S3	/HC	CVR41XXHS-S2/HCVR21XXHS-S2/	
HC	VR	21XXHS-S3/HCVR41XXHS-S3/51XXHS-S3/7104HS-S3/	
X١	/R41	1XXHE/XVR51H/XVR51XXHE/XVR71XXH/XVR71XXHE /HCVR41XXHS-S2/	
HC	VR	21XXHS-S2/	
X١	/R21	1XXHS/XVR41XXHS/51XXHS/7104HS/HCVR71XX-4M/HCVR710XH-4K/XVR51	XX
HS	6-4N	1/XVR51XXHS-4KL/XVR51XXH-4M/ XVR51XXH-4KL/ XVR71XXHE-4KL Series	163
2.7	.5	HCVR52XXA-V2/ HCVR72XXA-V2 Series	164
2.1	6.1	HCVR42XXA-S2/ HCVR42XXAN-S2/ HCVR52XXA-S2/	
HC	VR	5216AN-S2/HCVR720XA-S2/	
Н	VR	42XXA-S3/HCVR42XXAN-S3/HCVR52XXA-S3/HCVR52XXAN-S3/HCVR72XXA-	-S3
/H	CVR	7216AN-S3/XVR42XXA/XVR42XXAN/XVR52XXA/XVR52XXAN/XVR72XXA/XVI	R7
21	6AN	I/HCVR 72XXAN-4M/HCVR720XAN-4K/XVR52XXAN-4M/	
X١	/R52	2XXAN-4KL/XVR72XXA-4KL/XVR72XXA-4K Series	166
2.1	.7	HCVR42XXL-S2/HCVR44XXL-S2/ XVR54XXL/ XVR74XXL Series	166
2.1	8.	HCVR52XXL-V2/ HCVR54XXL-V2 Series	167
2.1	.9	HCVR58XXS-V2 Series	168
2.1	1.10	HCVR48XXS-S2/ XVR58XXS/ XVR78XXS Series	171

2.2	Rea	ar Panel	.171
2	.2.1 F	HCVR5104C Series	.171
2		HCVR5104C-V2/HCVR5108C-V2 Series	.172
2		HCVR7104C-V2 Series	.174
2		HCVR4104/HCVR4108C-S2/HCVR2108C-S2 Series	.175
2		HCVR5104/5108C-S2 Series	.176
2		HCVR7104C-S2 Series	.177
2	.2.7		
	ŀ	HCVR410XC-S3/HCVR510XC-S3/7104C-S3/XVR410XC/XVR510XC/7104C/X	VR
5	104C-4	M Series	.178
2	.2.8 H	HCVR5104H/HCVR5108H Series	.180
2	.2.9 H	HCVR5104H-V2/HCVR5108H-V2/HCVR5116H-V2 Series	.181
2	.2.10	HCVR5104HC/HCVR5108HC Series	.183
2	.2.11	HCVR5104HC-V2/HCVR5108HC-V2/HCVR5116HC-V2 Series	.184
2	.2.12	HCVR5104HE/HCVR5108HE Series	.186
2	.2.13	HCVR5104HE-V2/HCVR5108HE-V2/HCVR5116HE-V2 Series	.187
2	.2.14	HCVR7104H-V2/HCVR7108H-V2 Series	.189
2	.2.15	HCVR7104HC-V2/HCVR7108HC-V2 Series	. 191
2	.2.16	HCVR7104HE-V2/HCVR7108HE-V2 Series	. 192
2	.2.17	HCVR4104/4108/4116HE-S2 Series	.194
2	.2.18	HCVR5104/5108/5116H-S2 Series	. 196
2	.2.19	HCVR5104/5108/5116HE-S2 Series	. 198
2	.2.20	HCVR7104/7108H-S2 Series	.200
2	.2.21	HCVR7104/7108HE-S2 Series	.202
2	.2.22	HCVR41XXHE-S3/HCVR51XXH-S3/HCVR71XXH-S3/HCVR71XXHE-S3	
//	XVR41X	XHE/XVR51XXH/XVR51XXHE/XVR71XXH/XVR71XXHE/ XVR51XXH-4M/	
Х	VR51X	XH-4KL/XVR71XXHE-4KL Series	.203
2	.2.23	HCVR41XXHS-S2/ HCVR2108HS-S2/ HCVR2116HS-S2 Series	.205
2	.2.24	HCVR21XXHS-S3/HCVR41XXHS-S3/HCVR51XXHS-S3/HCVR7104HS-S3	
//	XVR21X	XHS/XVR41XXHS/XVR51XXHS/XVR7104HS/XVR51XXHS-4M/XVR51XXHS	-4K
L	Series	207	
2	.2.25	HCVR52XXA-V2/ HCVR72XXA-V2 Series	.209
2	.2.26	HCVR42XXA-S2/ HCVR4216AN-S2 Series	.210
2	.2.27	HCVR4224/HCVR4232AN-S2 Series	.213
2	.2.28	HCVR52XXA-S2/ HCVR5216AN-S2 Series	.214
2	.2.29	HCVR720XA-S2 Series	.216
2	.2.30		
		HCVR42XXA-S3/HCVR42XXAN-S3/HCVR52XXA-S3/HCVR52XXAN-S3/HC	CVR
7	2XXA-S	33/HCVR7216AN-S3/XVR42XXA/XVR42XXAN/XVR52XXA/XVR52XXAN/XVR	72X
X	A/XVR7	7216AN/ XVR52XXAN-4M/XVR52XXAN-4K/XVR72XXA-4K/XVR72XXA-4K Se	eries
		217	
2	.2.31	HCVR52XXL-V2/ HCVR54XXL-V2/HCVR44L-S2 Series	.220
2	.2.32	HCVR42XXL-S2 Series	.223

2.2.3	33 HCVR58XXS-V2/HCVR48XXS-S2 Series	
2.2.3	34 HCVR71XXH-4M Series	
2.2.3	35 HCVR72XXAN-4M Series	
2.2.3	36 XVR54XXL/ XVR74XXL Series	
2.2.3	37 XVR58XXS/ XVR78XXS Series	
2.2.3	38 HCR710XH-4K Series	
2.2.3	39 HCVR720XAN-4K Series	
2.3	Connection Sample	
2.3.	1 Smart Box Series	
2.3.2	2 Smart 1U Series	
2.3.3	3 Compact 1U Series	
2.3.4	4 Mini 1U Series	
2.3.	5 1U Series	
2.3.6	6 1.5U Series	
2.3.7	7 2U Series	
2.4	Remote Control	
2.5	Mouse Control	254
2.6	Virtual Keyboard & Front Panel	
2.6.1	1 Virtual Keyboard	
2.6.2	-	
3 11	NSTALLATION AND CONNECTIONS	257
3.1	Check Unpacked DVR	
3.2	About Front Panel and Rear Panel	
3.3	HDD Installation	
3.3.7	1 Smart Box Series	
3.3.2	2 Smart 1U Series	
3.3.3	3 Compact 1U and Mini 1U Series	
3.3.4	4 The 1U Series	
3.3.5	5 The 1.5U Series	
3.3.6	6 The 2U Series	

3.3.7	Rack Installation	
3.4 (	Connecting Power Supply	
3.5 (	Connecting Video Input and Output Devices	
3.5.1	Connecting Video Input	
3.5.2	Connecting Video Output	
3.6 0	Connecting Audio Input & Output, Bidirectional Audio	
3.6.1	Audio Input	
3.6.2	Audio Output	
3.7 A	Alarm Input and Output Connection	
3.7.1	Alarm Input and Output Details	
3.7.2	Alarm Input Port	
3.7.3	Alarm Output Port	
3.8 F	RS485	
3.9 (	Other Interfaces	
4 OV	ERVIEW OF NAVIGATION AND CONTROLS	268
4.1 I	nitial Settings	
4.1.1	Boot up	
4.1.2	Device Initialization	
4.1.3	Reset Password	
4.1.4	Quick Settings	
4.2 F	Preview	
4.2.1	Preview Window	
4.2.2	Preview Control	
4.3 F	Right-Click Menu	
4.3.1	Window Switch	
4.3.2	Previous Screen/Next Screen	

4.3.3	PTZ Control	312
4.3.4	Auto Focus	317
4.3.5	Color	318
4.3.6	Display	320
4.3.7	Face Search	320
4.3.8	Search	320
4.3.9	Record Control	321
4.3.10	Alarm Output	321
4.3.11	Remote Device	321
4.3.12	Video Matrix	321
4.3.13	Main menu	321

4.4	Na	vigation Bar	321
4.4.1	1	Main Menu	321
4.4.2	2 (	Output Screen	321
4.4.3	3	Previous/Next Screen	321
4.4.4	4 .	Tour	321
4.4.5	5	Favorites	321
4.4.6	6	Channel	322
4.4.7	7	PTZ	322
4.4.8	8	Color	322
4.4.9	9	Search	322
4.4.1	10	Alarm Status	322
4.4.1	11	Channel Info	322
4.4.1	12	Registration	323
4.4.1	13	Network	323
4.4.1	14	HDD Manager	323
4.4.1	15	USB Manager	323
4.5	US	B Device Auto Pop-up	323
4.6	Ма	ain Menu	324
4.7	0-	peration	225
4./	Op		
4.7.1	1	Search	325
4.7.2	2	Human Face Search	334
4.7.3	3	Backup	335
4.7.4	4	Shut Down	337
4.8	Info	ormation	337
4.8.2	1	System Info	337

4.8.2	Event	
4.8.3	Network	
4.8.4	Log	
4.9 S	Setting	
4.9.1	Camera	
4.9.2	Network	
4.9.3	Event	
4.9.4	Storage	414
4.9.5	System	
5 WE	B OPERATION	
5.1 N	letwork Connection	467
0.1		
5.2 D	Device Initialization	
5.3 L	ogin	
5.4 R	Reset Password	
5.5 L	AN Mode	173
0.0 L		······································
5.6 R	Real-time Monitor	
5.6.1	Fisheye de-warp	
5.7 P	PTZ	477
5.8 lr	mage/Relay-out	
5.8.1	Image	479
5.8.2	Relay output	
5.9 V	VAN Login	479
5.5 V		
5.10 S	Setup	
	Comera	404
5.10.1	Camera	
5.10.2	Network	
		viii

5.10.3	3 Event	517
5.10.4	4 Storage	
5.10.5	5 Setting	
5.11	Information	576
5.11.1	1 Version	
5.11.2		
5.11.3	-	
5.11.4	4 HDD	
5.12	Playback	
5.12.1	1 Search Record	579
5.12.2		
5.12.3		
5.12.4		
5.12.5	-	
5.12.6		
5.13	Face Search	58/
5.15		
5.14	Alarm	
5.15	Log out	
5 16	Un-install Web Control	
0.10		
6 SN	MARTPSS	588
0 30	MARTESS	
7 64	٨Q	590
1 67	102	
	NDIX A HDD CAPACITY CALCULATION	507
APPEN	NDIX A HDD CAPACITY CALCULATION	
	NDIX B COMPATIBLE BACKUP DEVICES	E00
APPEN	NUIA D GUIVIFATIDLE DAGRUP DEVIGES	
Appendi	x B-1 Compatible USB list	

Appendix B-2	Compatible SD Card list600
Appendix B-3	Compatible Portable HDD list600
Appendix B-4	Compatible USB DVD List600
Appendix B-5 (	Compatible SATA DVD List600
Appendix B-6	Compatible SATA HDD List601
APPENDIX C	COMPATIBLE CD/DVD BURNER LIST605
APPENDIX D	COMPATIBLE DISPLAYER LIST606
APPENDIX E	COMPATIBLE SWITCHER607
APPENDIX F	COMPATIBLE WIRELESS MOUSE LIST608
APPENDIX G	EARTHING609

## Welcome

Thank you for purchasing our HDCVI DVR!

This user's manual is designed to be a reference tool for the installation and operation of your system.

Here you can find information about this series standalone DVR features and functions, as well as a detailed menu tree.

Before installation and operation please read the following safeguards and warnings carefully!

## **Cybersecurity Recommendations**

#### Cybersecurity Recommendations Mandatory actions to be taken towards cybersecurity

#### 1. Change Passwords and Use Strong Passwords:

The number one reason systems get "hacked" is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

#### 2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

#### "Nice to have" recommendations to improve your network security

#### 1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

#### 2. Change Default HTTP and TCP Ports:

• Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.

• These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

#### 3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

#### 4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses,

from accessing the system.

#### 5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

#### 6. Forward Only Ports You Need:

• Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.

• You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

#### 7. Disable Auto-Login on SmartPSS:

Those using SmartPSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

#### 8. Use a Different Username and Password for SmartPSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want someone collecting those passwords and trying them out on your video surveillance system. Using a different username and password for your security system will make it more difficult for someone to guess their way into your system.

#### 9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

#### 10. UPnP:

• UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.

• If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

#### 11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

#### 12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no

known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

#### 13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

#### 14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

#### 15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

#### 16. Isolate NVR and IP Camera Network

The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

## **Important Safeguards and Warnings**

#### 1 . Electrical safety

All installation and operation here should conform to your local electrical safety codes. The product must be grounded to reduce the risk of electric shock.

An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

#### 2. Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

#### 3. Installation

Keep upwards. Handle with care. Do not apply power to the DVR before completing installation. Do not place objects on the DVR.

#### 4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.

#### 5. Environment

The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

#### 6. Accessories

Be sure to use all the accessories recommended by manufacturer. Before installation, please open the package and check all the components are included. Contact your local retailer ASAP if something is broken in your package.

#### 7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury! When replace the battery, please make sure you are using the same model! **RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.** 

#### DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

	Note			
	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.			
	Indicates a potentially hazardous situation, which if not avoided, could result in device damage, data loss, performance degradation, or unexpected results.			
	Indicates a potentially hazardous situation, which if not avoided, could result in device damage, data loss, performance degradation, or unexpected results.			
Anti-static	Indicates it is the static sensitive device.			
Electric shock	Indicates presence of dangerous high voltage. There is a risk o electric shock to persons.			
High power	Indicates presence of high power laser radiation.			
laser radiation risk				
©≓ Tips	It is intended to help you to fix a problem or save your time.			
NoteProvides additional information to emphasize or sup important points of the main text.				

#### Safety Instruction

## **1 FEATURES AND SPECIFICATIONS**

### 1.1 Overview

The standalone series DVR is an excellent digital monitor product designed for security field.

It adopts embedded Linux OS to maintain reliable operation. Popular H.264 compression algorithm and G.711 audio compression technology realize high quality, low bit stream. Unique frame by frame play function is suitable for detailed analysis. It has various functions such as record, playback, monitor at the same time and can guarantee audio video synchronization. This series product has advanced technology and strong network data transmission function.

This series device adopts embedded design to achieve high security and reliability. It can work in the local end, and at the same time, when connecting it to the professional surveillance software (PSS), it can connect to the security network to realize strong network and remote monitor function.

This series product can be widely used in various areas such as banking, telecommunication, electric power, interrogation, transportation, intelligent resident zone, factory, warehouse, resources, and water conservancy.

## 1.2 Features

This series product has the following features:

#### • Real-time surveillance

Support VGA port and HDMI port. Realize the surveillance through displayer. Support HDMI, VGA, and TV output at the same time.

#### Storage function

Special data format to guarantee data security and can remove the risk of the vicious data modification. Support digital watermark.

#### • Compression format

Support multiple-channel audio and video. An independent hardware decodes the audio and video signal from each channel to maintain video and audio synchronization.

#### Backup function

Support backup operation via USB port (such as U disk, portable HDD, burner) Client-end user can download the file to local HDD to backup via network.

#### • Record & playback function

Support each channel real-time record independently, and at the same time it can support search, forward play, network monitor, record search, download and etc.

Support various playback modes: slow play, fast play, backward play and frame by frame play.

Support time title overlay so that you can view event accurate occurred time Support customized zoom function during the preview.

#### • Network operation

Support network remote real-time monitor, remote record search and remote PTZ control.

#### • Alarm activation function

Several relay alarm outputs to realize alarm activation and on-site light control. The alarm input port and output has the protection circuit to guarantee device safety.

#### • Communication port

RS485 port can realize alarm input and PTZ control.

RS232 port can connect to keyboard to realize central control, and can also connect to PC COM to upgrade system and realize maintenance, and matrix control.

Standard Ethernet port can realize network access function.

The dual-network port has the multiple-access, fault-tolerance, load-balance setup mode.

#### • PTZ control

Support PTZ decoder via RS485.

#### • Intelligent operation

Mouse operation function In the menu, support copy and paste setup function

#### • UPnP (Universal Plug and Play)

Establish mapping connection between LAN and WAN via UPnP protocol.

#### Slight function differences may be found due to different series.

#### **1.3 Specifications**

#### 1.3.1 HCVR5104C Series

	Parameter	HCVR5104C		
System	Main	High-performance industrial embedded micro controller		
	Processor			
	OS	Embedded LINUX		
	System	Multiplex operations: Multiple-channel record, multiple-channel playback		
	Resources	and network operation simultaneously		
	Interface	User-friendly graphical user interface		

	Input	USB mouse			
	Devices				
	Input	Arabic number, English character, donation and extension Chinese			
	Method	(optional)			
	Shortcut	Copy/paste operation, USB mouse right-key shortcut menu, double click			
	Function	USB mouse to switch screen.			
Compression	Video				
Standard	Compressio	H.264			
	n				
	Audio				
	Compressio	G711A, G711U, PCM			
	n				
	Video Input	4-CH composite video input: (NTSC/PAL) BNC (1.0V <sub>P-P</sub> ,75Ω)			
	Video	1-ch VGA output.			
	Output	1-ch HDMI output.			
		Support VGA/HDMI video output at the same time.			
Video monitor	Video Standard	Support PAL/NTSC.			
	Record	Real-time Mode: PAL 1f/s to 25f/s per channel and NTSC 1f/s to 30f/s per			
	Speed	channel			
	Video	1/4 windows(Optional)			
	Partition				
	Monitor	Support monitor tour functions such as motion detection, and schedule			
	Touring	auto control.			
		PAL/NTSC			
		Real-time monitor:			
		720P 1280*720			
	Resolution	Playback:			
	(PAL/NTSC)	All-ch: 720P 1280*720, 960H 960 ×576/960×480, D1			
		704×576/704×480, HD1 352×576/352×480, 2CIF 704×288/704×240,			
		CIF 352×288/ 352×240 , QCIF 176×144/176×120			
		Support dual streams: extra stream resolution CIF 352×288/ 352×240,			
		QCIF 176×144/176×120.			
	Image	6-level image quality (Adjustable)			
	Quality				
	Privacy	Support one privacy mask of user-defined size in full screen.			
	mask	Support max 4 zones.			
	Image Information	Channel information, time information and privacy mask zone.			
	TV Adjust	Adjust TV output zone suitable to anamorphic video.			

	Channel Lock	Cover secret channel with black screen though system is encoding normally. Screen-lock function to prevent unauthorized user seeing secret video.			
	Channel Information	Channel name, recording status, screen lock status, video loss status and motion detection status are shown on the bottom left of display screen.			
	Color Configuratio n	Hue, brightness, contrast, saturation and gain setup for each channel.			
Audio	Audio Input	N/A			
	Audio Output	N/A			
	Bidirectional Audio	N/A			
	Hard Disk	1 built-in SATA port. Support 1 HDD.			
Hard disk	One HDD Space	4T			
	Hard Disk	Audio:PCM 28.8MByte/h			
	Occupation	Video:56-900MByte/h			
Record and	Recording Mode	Manual recording, motion detection recording, schedule recording and alarm recording Priority: Manual recording> alarm recording>motion detection			
Record and playback	Storage Mode	recording>schedule recording. Support channel record quota setup			
	Recording Length	1 to 120 minutes single record duration (Default setup is 60 minutes)			
	Playback Repeat Way	When hard disk is full, system can overwrite previous video file.			
	Record Search	Various search engines such as time, type and channel.			
	Playback Mode	Various fast play, slow play speeds, manual frame by frame playback and reverse play mode.			
	Various File	Can switch to previous or next file or any file in current play list.			
	Switch	Can switch to file on other channel of the same time. (If there is a file)			
	Ways	Support file continuous play, when a file is end system auto plays the next file in the current channel			
	Playback Way	Support mark playback			
	Multi-chann el Playback	There is 1/4-channel playback mode.			
	Window Zoom	Switch between self-adaptive screen/full screen when playback			

	Partial	When in one-window full-screen playback mode, you can select any zone		
	Enlargemen	to activate partial enlargement function.		
	t			
Backup		HDD backup		
function		Support peripheral USB backup device. (Flash disk, portable disk and		
Turiotion	Backup	etc.)		
	Mode	Support peripheral USB burner.		
		Support network download and save		
		View monitor channel remotely.		
		DVR configuration through client-end and web browser		
		Upgrade via client or browser to realize remote maintenance.		
Network		View alarm information such as motion detection and video loss via client.		
Function				
1 diffetion	Network	Support network PTZ lens control		
	control	File download backup and playback		
	Control	Multiple devices share information via corresponding software such as professional surveillance software (PSS)		
		Duplex transparent COM		
		Network alarm input and output		
		Zero-channel encoding		
	Mation	Bidirectional audio.		
Mation	Motion	Zone setup: support 396((PAL 22×18, NTSC 22×15)) detection zones.		
Motion	Detection	Various sensitivity levels.		
Detection and		Alarm can activate record or external alarm or screen message prompt		
Alarm	Video Loss	Alarm can activate screen message prompt.		
	External	N/A		
	Alarm			
	Manual	N/A		
	Alarm			
	Control	N/A		
	Alarm Input Alarm	N/A		
		N/A		
	Output Alarm Relay	N/A		
	USB			
Interface	Interface	2 USB 2.0 port.		
intenace	Network	1 RJ45 10M/100M self-adaptable Ethernet port		
	connection			
	RS485	N/A		
	RS232	N/A		
Sustem				
System Information	Hard Disk Information	Display HDD current status		
momation	momation			

	Data	Data stream statistics for each channel (in wave mode)	
	Stream		
	Statistics		
	Log	Backup to 1024 log files.	
statistics		Support various search engines such as time and type.	
	Statistics	Display version information: channel amount, system version and release	
	Version	date.	
	On line upor		
	On-line user	Display current on-line user	
User		Multi-lever user management; various management modes	
Management	User	Integrated management for local user, serial port user and network user.	
	Manageme	Configurable user power.	
	nt	Support user /group and its corresponding rights modification.	
		No limit to the user or group amount.	
	Password	Password modification	
	Authenticati	Administrator can modify other user's password.	
	on	Account lock strategy	
		Five times login failure in thirty minutes may result in account lock.	
Upgrade		Web browser, client-end and update tool.	
		Password login protection to guarantee safety	
		User-friendly interface when login. Provide the following options: Logout	
Login, Logout a	and Shutdown	/shutdown/ restart.	
		Right authentication when shut down to make sure only those proper	
		people can turn off DVR	
	Power	DC 12V	
	Power		
General	Consumptio		
Parameter	n	$\leq$ 15W (With adapter, no HDD)	
	Working	-10℃~+55℃	
	Temperatur		
	e		
	Working	10%-90%	
	Humidity		
	Air Pressure	86kpa-106kpa	
	Dimension	SMART 1U case 270(W) x205 (D) x41mm(H)	
	Weight	1.25KG(no HDD)	
	Installation	Desktop installation	
	Mode		
	Mode		

## 1.3.2 HCVR51XXC-V2 Series

	Parameters	HCVR5104C-V2	HCVR5108C-V2
System	Main Processor	Industrial embedded micro controller	
OS Embedded LINUX			

	Parameters	HCVR5104C-V2	HCVR5108C-V2	
Video	Video Encode	H.264		
Parameters	meters Standard			
	Encode	720P/D1/HD1/2CIF/CIF/QCIF		
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	1536Kbps-4096Kbps,		
		For 720P: default setup is 2Mbps, max supports 4Mbps		
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	N/A		
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	N/A		
	Audio Output	N/A		
	Bidirectional	N/A		
	Talk Input			
Record	Record Mode	Schedule record/manual record/ME	D record/Alarm record	
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, network backup		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support eSATA port		
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	N/A		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤15W (With power adapter, no HDD)		

Parameters	HCVR5104C-V2	HCVR5108C-V2
Consumption		
Working	-10°C~+55°C	
Temperature		
Working	10%~90%	
Humidity		
Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)	
Weight 1.25KG (No HDD)		
Installation	Desk	
Mode		

### 1.3.3 HCVR7104C-V2 Series

	Parameters	HCVR7104C-V2	
System	Main Processor	Industrial embedded micro controller	
	OS	Embedded LINUX	
Video	Video Encode	H.264	
Parameters	Standard		
	Encode	1080P /720P/D1/HD1/2CIF/CIF/QCIF	
	Resolution		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s	
	Rate		
	Video Bit Rate	2048Kbps-6144Kbps,	
		For 1080P: default setup is 4Mbps, max supports 6Mbps	
	Bit Stream Type	Video stream/composite stream	
	Dual-Stream	Support	
Audio	Encode	G.711A/G.711U/PCM	
Parameters	Standard		
	Audio Sampling	8KHz, 16Bit	
	Rate		
	Audio Bit Rate	64Kbps	
Video Port	Analog Video	4-channel, BNC port	
	Input		
	Network Video	N/A	
	Input		
	Video Output	1-channel VGA output,	
		1-channel HDMI output (of the same video source),	
		HDMI/ VGA video output at the same time.	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port	Audio Input	N/A	
	Audio Output	N/A	
	Bidirectional	N/A	

	Parameters	HCVR7104C-V2		
	Talk Input			
Record	Record Mode Schedule record/manual record/MD record/Alarm record			
	Record	Max 4-channel playback		
	Playback			
	Backup Mode	HDD, burner, USB device, networ	rk backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support es	SATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet p	ort	
Port	Communication	N/A		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤20W(With power adapter, no H	IDD)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%	10%~90%	
	Humidity			
Dimensions		SMART 1U case, 270mm (W) x205mm (D) x41mm (H)		
	Weight	1.25KG(No HDD)		
Installation Desk		Desk		
	Mode			
1.3.4 HCVR41	0XC-S2 Series			
	Parameters	HCVR4104C-S2	HCVR4108C-S2	
System	Main Processor	Industrial embedded micro contro	ller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	720P/960H/D1/HD1/	720P(1~15fps)/960H/D1/	
	Resolution	2CIF/CIF/QCIF	HD1/2CIF/CIF/QCIF	
	Video Frame	HDCVI:1~25f/s (PAL); 1~30f/s	HDCVI:1 $\sim$ 15f/s ( The 1st	
	Rate	(NTSC)	channel supports 25/30f)	
		CVBS:1~25f/s (PAL); 1~30f/s	CVBS:1~25f/s (PAL); 1~30f/s	

(NTSC)

2048Kbps-4096Kbps,

For 720P: default setup is

For 960H: default setup is

2Mbps, max supports 4Mbps.

1Mbps, max supports 3Mbps.

Video stream/composite stream

Video Bit Rate

Bit Stream Type

For 720P: default setup is

For 960H: default setup is

1Mbps, max supports 4Mbps.

1Mbps, max supports 3Mbps.

(NTSC)

1024Kbps-4096Kbps,

	Parameters	HCVR4104C-S2	HCVR4108C-S2	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	Max 2-channel IPC connections (	8M)	
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the sa	me video source),	
		HDMI/ VGA video output at the sa	ame time.	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/output port.		
	Talk Input			
Record	Record Mode	Schedule record/manual record/MD record/Alarm record		
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, network backup		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support es	SATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet p	ort	
Port	Communication	N/A		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤15W (With power adapter, no H	DD)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)		
	Weight	1.25KG (No HDD)		
	Installation	Desk		
	Mode			

## 1.3.5 HCVR510XC-S2 Series

	Parameters	HCVR5104C-S2	HCVR5108C-S2	
System	Main Processor	Industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080P(1~15fps) /720P/960H/D1/	HD1/2CIF/CIF/QCIF	
	Resolution			
	Video Frame	HDCVI:1~25f/s (PAL); 1~30f/s (NTSC)		
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)	
	Video Bit Rate	2048Kbps-4096Kbps,		
		For 1080P/720P: default setup is		
		For 960H: default setup is 1Mbps	, max supports 3Mbps.	
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate	1		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	Max 2-channel IPC connections (8M)		
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/output port.		
	Talk Input			
Record	Record Mode	Schedule record/manual record/N		
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, network backup		
Alarm				
	Alarm Output	N/A		
HDD Port 1 SATA port, does not support eSATA port	SATA port			
	One HDD Space	4T		

	Parameters	HCVR5104C-S2	HCVR5108C-S2
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	N/A	
	USB	2 USB ports	
Others	Power	DC12V	
	Power	≤15W(With power adapter, no H	DD)
	Consumption	-10℃~+55℃	
	Working		
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm	
	Weight	1.25KG(No HDD)	
	Installation	Desk	
Mode			

### 1.3.6 HCVR7104C-S2 Series

Parameters	HCVR7104C-S2		
Main Processor Industrial embedded micro controller			
OS	Embedded LINUX		
Video Encode	H.264		
Standard			
Encode	1080P/720P/960H/D1/HD1/2CIF/CIF/QCIF		
Resolution			
Video Frame	HDCVI:1~25f/s (PAL); 1~30f/s (NTSC)		
Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)		
Video Bit Rate	2048Kbps-6144Kbps,		
	For 1080P: default setup is 4Mbps, max supports 6Mbps.		
	For 720P: default setup is 2Mbps, max supports 4Mbps.		
Bit Stream Type	Video stream/composite stream		
Dual-Stream	Support		
Encode	G.711A/G.711U/PCM		
Standard			
Audio Sampling	8KHz, 16Bit		
Rate			
Audio Bit Rate	64Kbps		
Analog Video	4-channel, BNC port		
Input			
Network Video	Max 2-channel IPC connections (16M)		
Input			
Video Output	1-channel VGA output,		
	1-channel HDMI output (of the same video source),		
	Parameters         Main Processor         OS         Video       Encode         Standard         Encode         Resolution         Video       Frame         Rate         Video Bit Rate         Bit Stream Type         Dual-Stream         Encode         Standard         Audio Sampling         Rate         Audio Bit Rate         Analog       Video         Input       Video		

	Parameters	HCVR7104C-S2	
		HDMI/ VGA video output at the same time.	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port	Audio Input	1-channel RCA port.	
	Audio Output	1-channel RCA port.	
	Bidirectional	Reuse the audio input/output port.	
	Talk Input		
Record	Record Mode	Schedule record/manual record/MD record/Alarm record	
	Record	Max 4-channel playback	
	Playback		
	Backup Mode	HDD, burner, USB device, network backup	
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port 1 SATA port, does not support eSATA port		
	One HDD Space	4T	
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	N/A	
	USB	2 USB ports	
Others	Power	DC12V	
	Power	≤15W (With power adapter, no HDD)	
	Consumption		
	Working	-10℃~+55℃	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)	
	Weight	1.25KG(No HDD)	
	Installation	Desk	
	Mode		

## 1.3.7 HCVR2108C-S2 Series

	Parameters	HCVR2108C-S2	
System	Main Processor	Industrial embedded micro controller	
	OS	Embedded LINUX	
Video	Video Encode	H.264	
Parameters	Standard		
	Encode	720P(1~15fps) /960H/D1/HD1/2CIF/CIF/QCIF	
	Resolution		
	Video Frame	HDCVI:1~12f/s	
	Rate	CVBS:1~20f/s (PAL); 1~20f/s (NTSC)	
	Video Bit Rate	1024Kbps-4096Kbps,	

	Parameters	HCVR2108C-S2	
		For 720P: default setup is 1Mbps, max supports 4Mbps.	
		For 1080P: default setup is 1Mbps, max supports 2Mbps.	
	Bit Stream Type	Video stream/composite stream	
	Dual-Stream	Support	
Audio	Encode	G.711A/G.711U/PCM	
Parameters	Standard		
	Audio Sampling	8KHz, 16Bit	
	Rate		
	Audio Bit Rate	64Kbps	
Video Port	Analog Video	8-channel, BNC port	
	Input		
	Video Output	1-channel VGA output,	
		1-channel HDMI output (of the same video source),	
		HDMI/ VGA video output at the same time.	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port	Audio Input	1-channel RCA port.	
	Audio Output	1-channel RCA port.	
	Bidirectional	Reuse the audio input/output port.	
	Talk Input		
Record	Record Mode	Schedule record/manual record/MD record/Alarm record	
	Record	Max 8-channel playback	
	Playback		
	Backup Mode	HDD, burner, USB device, network backup	
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	1 SATA port, does not support eSATA port	
	One HDD Space	4T	
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	N/A	
	USB	2 USB ports	
Others	Power	DC12V	
	Power	≤15W (With power adapter, no HDD)	
	Consumption		
	Working	-10℃~+55℃	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)	
1			
	Weight	1.25KG(No HDD)	

Parameters	HCVR2108C-S2
Mode	

## 1.3.8 HCVR410XC-S3 Series

	Parameters	HCVR4104C-S3	HCVR4108C-S3
System	Main Processor	Industrial embedded micro controller	
	OS	Embedded LINUX	
Video	Video Encode	H.264	
Parameters	Standard		
	Encode Resolution	1080N/720P/960H/D1/HD1/2CIF/CII	F 1080N@12f/720P(Non realtime)/960H/D1/HD1/2C IF/CIF
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s	
	Video Bit Rate	32Kbps-4096Kbps,	
		For 720P: default setup is 1.5Mbps,	max supports 4Mbps.
		For 1080P: default setup is 1.5Mbps, max supports 4Mbps.	
	Bit Stream Type	Video stream/composite stream	
	Dual-Stream	Support	
Audio	Encode	G.711A/G.711U/PCM	
Parameters	Standard		
	Audio Sampling	8KHz, 16Bit	
	Rate		
	Audio Bit Rate	64Kbps	
Video Port	Analog Video Input	4-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)
	Network Video Input	<ul> <li>Max add 1 IP channel connection</li> <li>Analog/digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:4Mbps-20Mbps</li> </ul>	<ul> <li>Max add 2 IP channel connections</li> <li>Analog/digital channel switch. Max 10 IP channel connections</li> <li>Connection bandwidth:8Mbps-56Mbp s</li> </ul>
	Video Output	1-channel VGA output, 1-channel HDMI output (of the same video source), HDMI/ VGA video output at the same time.	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port Audio Input 1-channel RCA port.			
	Coaxial Audio	4-ch	8-ch
	Input		

	Parameters	HCVR4104C-S3	HCVR4108C-S3
	Audio Output	1-channel RCA port. Reuse the audio input/output port of the 1 <sup>st</sup> channel.	
	Bidirectional		
	Talk Input		
Record	Record Mode	Schedule record/manual record/MD	record/Alarm record
	Playback Mode	Instant playback, normal playback, event playback, mark playback, smart playback	
	Backup Mode	HDD, burner, USB device, network b	backup
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	1 SATA port, does not support eSA	TA port
	One HDD Space	6T	
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	RS485 port	
	USB	2 USB2.0 ports( at the rear panel)	
Others	Power	DC12V	
	Power	≤7W	≤8W
	Consumption		
	(No HDD)		
	Working	-10℃~+55℃	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)	
	Weight (No	≤0.5KG	≤0.55KG
	HDD)		
	Installation	Desk	
	Mode		

## 1.3.9 HCVR510XC-S3 Series

	Parameters	HCVR5104C-S3	HCVR5108C-S3	
System	Main Processor	Industrial embedded micro controller Embedded LINUX		
	OS			
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF/		
	Resolution	<ul> <li>PAL:1~25f/s; NTSC:1~30f/s</li> <li>32Kbps-6144Kbps,</li> </ul>		
	Video Frame			
	Rate			
	Video Bit Rate			
		For 720P: default setup is 2Mbps, max supports 4Mbps.		
		For 1080P: default setup is 2Mbps, max supports 6Mbps.		

	Parameters	HCVR5104C-S3	HCVR5108C-S3
	Bit Stream Type	Video stream/composite stream	
	Dual-Stream	Support	
Audio	Encode	G.711A/G.711U/PCM	
Parameters	Standard	8KHz, 16Bit	
	Audio Sampling		
	Rate		
	Audio Bit Rate	64Kbps	
Video Port	Analog Video	4-ch BNC port(HDCVI HD	8-ch BNC port(HDCVI HD
	Input	video/general standard definition	video/general standard
		video self-adaptive)	definition video self-adaptive)
	Network Video	<ul> <li>Max add 1 IP channel</li> </ul>	Max add 2 IP channel
	Input	connection	connections
		<ul> <li>Analog/digital channel switch.</li> </ul>	Analog/digital channel
		Max 5 IP channel	switch. Max 10 IP channel
		connections	connections
		Connection	Connection
		bandwidth:8Mbps-24Mbps	bandwidth:16Mbps-48Mb
			ps
	Video Output	1-channel VGA output,	
		1-channel HDMI output (of the same video source), HDMI/ VGA video output at the same time.	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port	Audio Input	1-channel RCA port.	
Addio F off	Coaxial Audio	4-ch	8-ch
	Input	<b></b>	0-01
	Audio Output	1-channel RCA port.	
	Bidirectional	Reuse the audio input/output port o	f the 1st channel
	Talk Input		
Record	Record Mode	Schedule record/manual record/MD	record/Alarm record
	Playback Mode	Instant playback, normal playback,	event playback, mark playback,
	,	smart playback	
	Backup Mode	HDD, burner, USB device, network	backup
Alarm	Alarm Input	N/A	•
	Alarm Output	N/A	
HDD	HDD Port	1 SATA port, does not support eSATA port	
	One HDD Space		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	RS485 port	
	USB	2 USB2.0 ports( at the rear panel)	
Others	Power	DC12V	
	1		

Parameters	HCVR5104C-S3	HCVR5108C-S3
Power	≤7W	≤8W
Consumption		
(No HDD)		
Working	-10℃~+55℃	
Temperature		
Working	rking 10%~90%	
Humidity		
Dimensions	SMART 1U case, 270mm (W) x20	05mm (D) ×41mm (H)
Weight (No	≪0.5KG	≪0.55KG
HDD)		
Installation	Desk	
Mode		

### 1.3.10 HCVR7104C-S3 Series

	Parameters	HCVR7104C-S3	
System	Main Processor	Industrial embedded micro controller	
	OS	Embedded LINUX	
Video	Video Encode	H.264	
Parameters	Standard		
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF	
	Resolution		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s	
	Rate		
	Video Bit Rate	32Kbps-6144Kbps,	
		For 720P: default setup is 2Mbps, max supports 4Mbps.	
		For 1080P: default setup is 4Mbps, max supports 6Mbps.	
	Bit Stream Type	Video stream/composite stream	
	Dual-Stream	Support	
Audio	Encode	G.711A/G.711U/PCM	
Parameters	Standard		
	Audio Sampling	8KHz, 16Bit	
	Rate		
	Audio Bit Rate	64Kbps	
Video Port	Analog Video	4-ch BNC port(HDCVI HD video/general standard definition video	
	Input	self-adaptive)	
	Network Video	<ul> <li>Max add 2 IP channel connections.</li> </ul>	
	Input	• Analog/digital channel switch. Max 6 IP channel connections.	
		<ul> <li>Connection bandwidth:8Mbps-24Mbps</li> </ul>	
	Video Output	1-channel VGA output,	
		1-channel HDMI output (of the same video source),	
		HDMI/ VGA video output at the same time.	

	Parameters	HCVR7104C-S3	
	Matrix Output	N/A	
Audio Port	Audio Input	1-channel RCA port.	
	Coaxial Audio	4-ch	
	Input		
	Audio Output	1-channel RCA port.	
	Bidirectional	Reuse the audio input/output port of the 1st channel.	
	Talk Input		
Record	Record Mode	Schedule record/manual record/MD record/Alarm record	
	Playback Mode	Instant playback, normal playback, event playback, mark playback,	
		smart playback	
	Backup Mode	HDD, burner, USB device, network backup	
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	1 SATA port, does not support eSATA port	
	One HDD Space	6T	
Communication Network		1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	RS485 port	
	USB	2 USB2.0 ports( at the rear panel)	
Others	Power	DC12V	
	Power	≤8W	
	Consumption		
	(No HDD)		
	Working	-10℃~+55℃	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)	
	Weight (No	≤0.5KG	
	HDD)		
	Installation	Desk	
	Mode		

### 1.3.11 HCVR51XXH Series

	Parameter	HCVR5104H	HCVR5108H			
System	Main Processor	High-performance industrial embedded micro controller				
	OS	Embedded LINUX				
	System	Multiplex operations: Multiple-channel record, multiple-channel playba				
	Resources	and network operation simultaneously				
	Interface	User-friendly graphical user interfac	ce			

	Input Devices	USB mouse	
	Input Method	Arabic number, English character (optional)	, donation and extension Chinese
	Shortcut	Copy/paste operation, USB mouse r	ight-key shortcut menu, double click
	Function	USB mouse to switch screen.	
Compression Video Standard Compressio n		H.264	
	Audio Compressio n	G711A, G711U, PCM	
	Video Input	4-CH composite video input: (NTSC/PAL) BNC (1.0V <sub>P-P</sub> ,75Ω)	8-CH composite video input: (NTSC/PAL) BNC (1.0V <sub>P-P</sub> ,75Ω)
	Video Output	1-ch VGA output. 1-ch HDMI output. Support VGA/HDMI video output at tl	he same time.
Video monitor	Video Standard	Support PAL/NTSC.	
	Record Speed	Real-time Mode: PAL 1f/s to 25f/s pe channel	r channel and NTSC 1f/s to 30f/s per
	Video Partition	1/4 windows(Optional)	1/4/8/9 windows
	Monitor Touring	Support monitor tour functions such auto control.	as motion detection, and schedule
		PAL/NTSC Real-time monitor: 720P 1280*720	
	Resolution (PAL/NTSC)	CIF 352×288/ 352×240 , QCIF 176	352×480, 2CIF 704×288/704×240,
		QCIF 176×144/176×120.	
	Image Quality	6-level image quality (Adjustable)	
	Privacy mask	Support one privacy mask of user-de Support max 4 zones.	fined size in full screen.
	Image Information	Channel information, time information	n and privacy mask zone.
	TV Adjust	Adjust TV output zone suitable to ana	amorphic video.

	Channel Lock Channel Information Color Configuratio	Cover secret channel with black screen though system is encoding normally. Screen-lock function to prevent unauthorized user seeing secret video. Channel name, recording status, screen lock status, video loss status and motion detection status are shown on the bottom left of display screen. Hue, brightness, contrast, saturation and gain setup for each channel.
Audio	Audio Input	1-ch 200-2000mv 10KΩ(RCA)
	Audio Output	1-ch audio output 200-3000mv 5KΩ(RCA)
	Bidirectional Audio	Reuse the audio input/output channel.
	Hard Disk	1 built-in SATA port. Support 1 HDD.
Hard disk	One HDD Space	4T
	Hard Disk Occupation	Audio:PCM 28.8MByte/h Video:56-900MByte/h
Record and	Recording Mode	Manual recording, motion detection recording, schedule recording and alarm recording Priority: Manual recording> alarm recording>motion detection recording>schedule recording.
playback	Storage Mode	Support channel record quota setup
	Recording Length	1 to 120 minutes single record duration (Default setup is 60 minutes)
	Playback Repeat Way	When hard disk is full, system can overwrite previous video file.
	Record Search	Various search engines such as time, type and channel.
	Playback Mode	Various fast play, slow play speeds, manual frame by frame playback and reverse play mode.
	Various File Switch Ways	Can switch to previous or next file or any file in current play list. Can switch to file on other channel of the same time. (If there is a file) Support file continuous play, when a file is end system auto plays the next file in the current channel
	Playback Way	Support mark playback
	Multi-chann el Playback	There is 1/4-channel playback mode.
	Window Zoom	Switch between self-adaptive screen/full screen when playback

	Partial	When in one-window full-screen playback mode, you can select any zone
	Enlargemen	to activate partial enlargement function.
	t	
Backup		HDD backup
function	Backup	Support peripheral USB backup device. (Flash disk, portable disk and
	Mode	etc.)
		Support network download and save
		View monitor channel remotely.
		DVR configuration through client-end and web browser
		Upgrade via client or browser to realize remote maintenance.
Network		View alarm information such as motion detection and video loss via client.
Function		Support network PTZ lens control
	Network	File download backup and playback
	control	Multiple devices share information via corresponding software such as
		professional surveillance software (PSS)
		Duplex transparent COM
		Network alarm input and output
		Zero-channel encoding.
		Bidirectional audio.
	Motion	Zone setup: support 396((PAL 22×18, NTSC 22×15)) detection zones.
Motion	Detection	Various sensitivity levels.
Detection and		Alarm can activate record or external alarm or screen message prompt.
Alarm	Video Loss	Alarm can activate screen message prompt.
	External	N/A
	Alarm	
	Manual	N/A
	Alarm	
	Control	
	Alarm Input	N/A
	Alarm	N/A
	Output	
	Alarm Relay	N/A
	USB	2 USB 2.0 ports.
Interface	Interface	
	Network	1 RJ45 10M/100M self-adaptable Ethernet port
	connection	
	RS485	PTZ control port
	1.0400	Support various PTZ control protocols.
	RS232	N/A
System	Hard Disk	Display HDD current status
Information	Information	

	Data	Data stream statistics for each channel (in wave mode)
	Stream	
	Statistics	
	Log	Backup to 1024 log files.
	statistics	Support various search engines such as time and type.
	3121131103	Display version information: channel amount, system version and release
	Version	date.
	On-line user	
Lleer	On-line user	Display current on-line user
User	11	Multi-lever user management; various management modes
Management	User	Integrated management for local user, serial port user and network user.
	Manageme	Configurable user power.
	nt	Support user /group and its corresponding rights modification.
		No limit to the user or group amount.
	Password	Password modification
	Authenticati	Administrator can modify other user's password.
	on	Account lock strategy
		Five times login failure in thirty minutes may result in account lock.
Upgrade		Web browser, client-end and update tool.
		Password login protection to guarantee safety
		User-friendly interface when login. Provide the following options: Logout
Login, Logout a	ind Shutdown	/shutdown/ restart.
		Right authentication when shut down to make sure only those proper
		people can turn off DVR
	Power	DC 12V
	Power	
General	Consumptio	
Parameter	n	$\leq$ 15W (With adapter, exclude HDD)
	Working	-10℃~+55℃
	Temperatur	
	e	
	Working	10%-90%
	Humidity	
	Air Pressure	86kpa-106kpa
	Dimension	325(W) x245 (D) x45mm(H)
	Weight	1.25KG(Exclude HDD)
	Installation	Desktop installation
	Mode	
	Wode	

# 1.3.12 HCVR51XXH-V2 Series

	Parameters	HCVR5104H-V2	HCVR5108H-V2	HCVR5116H-V2
System	Main Processor	Industrial embedded r	nicro controller	
	OS	Embedded LINUX		

	Parameters	HCVR5104H-V2	HCVR5108H-V2	HCVR5116H-V2	
Video	Video Encode	H.264	•	•	
Parameters	Standard				
	Encode	720P/D1/HD1/2CIF/C	IF/QCIF		
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	1536Kbps-4096Kbps,			
		For 720P: default setu	ip is 2Mbps, max supp	orts 4Mbps	
	Bit Stream Type	Video stream/compos	ite stream		
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz,16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	16-channel, BNC	
	Input			port	
	Network Video	N/A			
	Input				
	Video Output	1-channel VGA output,			
			1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.			
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA			
	Audio Output	1-channel RCA			
	Bidirectional	Support (reuse the audio port)			
	Talk Input				
Record	Record Mode	Schedule record/man	ual record/MD record/A	larm record	
	Record	Max 4-channel	Max 8-channel	Max 16-channel	
	Playback	playback	playback	playback	
	Backup Mode	HDD, burner, USB de	vice, network backup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does no	ot support eSATA port		
	One HDD Space	4T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤30W (With power adapter, no HDD)			

Parameters	HCVR5104H-V2	HCVR5108H-V2	HCVR5116H-V2
Consumption			
Working	-10℃~+55℃		
Temperature			
Working	10%~90%		
Humidity			
Dimensions	Mini 1U case, 325mn	n (W) x245mm (D)	x45mm (H)
Weight	1.25KG (No HDD)		
Installation	Desk		
Mode			

## 1.3.13 HCVR51XXHC Series

	Parameter	HCVR5104HC	HCVR5108HC
	Main	n High-performance industrial embedded micro controller	
System	Processor		
	OS	Embedded LINUX	
	System	Multiplex operations: Multiple-channe	el record, multiple-channel playback
	Resources	and network operation simultaneousl	у
	Interface	User-friendly graphical user interfac	ce
	Input	USB mouse	
	Devices		
	Input Method	Arabic number, English character (optional)	, donation and extension Chinese
	Shortcut		ight-key shortcut menu, double click
	Function	USB mouse to switch screen.	ight-key shorteut menu, double click
Compression	Video		
Standard	Compressio	H.264	
	n		
	Audio		
	Compressio	N/A	
	n		
	Video Input	4-CH composite video input: (NTSC/PAL) BNC (1.0V <sub>P-P</sub> 75Ω)	8-CH composite video input: (NTSC/PAL) BNC ( $1.0V_{P-P}$ , 75 $\Omega$ )
		1-ch VGA output.	
	Video	1-ch HDMI output.	
	Output	Support VGA/HDMI video output at the	ne same time.
Video monitor	Video	Support PAL/NTSC.	
	Standard		
	Record	-	r channel and NTSC 1f/s to 30f/s per
	Speed	channel	
	Video	1/4 windows(Optional)	1/4/8/9 windows
	Partition		

	Monitor	Support monitor tour functions such as motion detection, and schedule
	Touring	auto control.
		PAL/NTSC
		Real-time monitor:
		720P 1280*720
		Playback:
	Resolution	All-ch: 720P 1280*720, 960H 960 ×576/960×480, D1
	(PAL/NTSC)	704×576/704×480, HD1 352×576/352×480, 2CIF 704×288/704×240,
		CIF 352×288/352×240 , QCIF 176×144/176×120
		Support dual streams: extra stream resolution CIF 352×288/ 352×240,
		QCIF 176×144/176×120.
	Image	6-level image quality (Adjustable)
	Quality	
	Privacy	Support one privacy mask of user-defined size in full screen.
	mask	Support max 4 zones.
	Image	Channel information, time information and privacy mask zone.
	Information	
	TV Adjust	Adjust TV output zone suitable to anamorphic video.
	Channel	Cover secret channel with black screen though system is encoding
	Lock	normally.
		Screen-lock function to prevent unauthorized user seeing secret video.
	Channel	Channel name, recording status, screen lock status, video loss status and
	Information	motion detection status are shown on the bottom left of display screen.
	Color	Hue, brightness, contrast, saturation and gain setup for each channel.
	Configuratio	
	n	
Audio	Audio Input	N/A
	Audio	N/A
	Output	
	Bidirectional	N/A
	Audio	
	Hard Disk	1 built-in SATA port. Support 1 HDD.
	One HDD	4T
Hard disk	Space	
	Hard Disk	Audio:PCM 28.8MByte/h
	Occupation	Video:56-900MByte/h
		Manual recording, motion detection recording, schedule recording and
	Recording	alarm recording
	Mode	Priority: Manual recording> alarm recording>motion detection
Record and		recording>schedule recording.

playback	Storage Mode	Support channel record quota setup
	Recording Length	1 to 120 minutes single record duration (Default setup is 60 minutes)
	Playback Repeat Way	When hard disk is full, system can overwrite previous video file.
	Record Search	Various search engines such as time, type and channel.
	Playback Mode	Various fast play, slow play speeds, manual frame by frame playback and reverse play mode.
	Various File Switch Ways	Can switch to previous or next file or any file in current play list. Can switch to file on other channel of the same time. (If there is a file) Support file continuous play, when a file is end system auto plays the next
		file in the current channel
	Playback Way	Support mark playback
	Multi-chann el Playback	There is 1/4-channel playback mode.
	Window Zoom	Switch between self-adaptive screen/full screen when playback
	Partial Enlargemen t	When in one-window full-screen playback mode, you can select any zone to activate partial enlargement function.
Backup		HDD backup
function	Backup Mode	Support peripheral USB backup device. (Flash disk, portable disk and etc.)
		Support network download and save
Network		View monitor channel remotely.
Function		DVR configuration through client-end and web browser
		Upgrade via client or browser to realize remote maintenance.
		View alarm information such as motion detection and video loss via client.
		Support network PTZ lens control
	Network	File download backup and playback
	control	Multiple devices share information via corresponding software such as
		professional surveillance software (PSS)
		Duplex transparent COM
		Network alarm input and output
		Zero-channel encoding.
		Bidirectional audio.
Motion	Motion	Zone setup: support 396((PAL 22×18, NTSC 22×15)) detection zones.
Detection and	Detection	Various sensitivity levels.
Alarm		Alarm can activate record or external alarm or screen message prompt.
	Video Loss	Alarm can activate screen message prompt.

Alarm Manual Alarm Control Alarm Input Alarm N/A Alarm N/A Output Alarm Relay N/A USB 2 USB 2.0 port. Interface Network 1 RJ45 10M/100M self-adaptable Ethernet port connection RS485 N/A		External	N/A
Manual       N/A         Alarm       Control         Alarm Input       N/A         Alarm       N/A         Output       N/A         Alarm Relay       N/A         USB       2 USB 2.0 port.         Interface       Network         Network       1 RJ45 10M/100M self-adaptable Ethernet port			
Alarm       Control         Alarm Input       N/A         Alarm       N/A         Output       N/A         Alarm Relay       N/A         USB       2 USB 2.0 port.         Interface       Interface         Network       1 RJ45 10M/100M self-adaptable Ethernet port         connection       Value			N/A
Control       Alarm Input       N/A         Alarm       N/A       Output         Output       Alarm Relay       N/A         Interface       USB       2 USB 2.0 port.         Interface       Network       1 RJ45 10M/100M self-adaptable Ethernet port         connection       VISI 10M/100M self-adaptable Ethernet port			
Alarm Input       N/A         Alarm       N/A         Output          Alarm Relay       N/A         USB       2 USB 2.0 port.         Interface          Network       1 RJ45 10M/100M self-adaptable Ethernet port         connection			
Alarm       N/A         Output       Alarm Relay         Alarm Relay       N/A         USB       2 USB 2.0 port.         Interface       Interface         Network       1 RJ45 10M/100M self-adaptable Ethernet port         connection       1			N/A
Output     Output       Alarm Relay     N/A       Interface     2 USB 2.0 port.       Interface     Network       Network     1 RJ45 10M/100M self-adaptable Ethernet port       connection		•	
Alarm Relay       N/A         USB       2 USB 2.0 port.         Interface       Interface         Network       1 RJ45 10M/100M self-adaptable Ethernet port         connection       Interface			
Interface     USB     2 USB 2.0 port.       Interface     Network     1 RJ45 10M/100M self-adaptable Ethernet port       connection     1		•	Ν/Α
Interface Interface 1 RJ45 10M/100M self-adaptable Ethernet port connection			
Network connection         1 RJ45 10M/100M self-adaptable Ethernet port	Interface		
connection	interface		1 R.I45 10M/100M self-adaptable Ethernet port
			N/A
RS232 N/A			
System         Hard         Disk         Display HDD current status	System		
Information Information	-		
Data Data stream statistics for each channel (in wave mode)			Data stream statistics for each channel (in wave mode)
Stream			
Statistics			
Log Backup to 1024 log files.			Backup to 1024 log files.
statistics Support various search engines such as time and type.		•	
Display version information: channel amount, system version and release		 	Display version information: channel amount, system version and release
Version date.		Version	
On-line user Display current on-line user		On-line user	Display current on-line user
User Multi-lever user management; various management modes	User		Multi-lever user management; various management modes
Management User Integrated management for local user, serial port user and network user	Management	User	Integrated management for local user, serial port user and network user.
Manageme Configurable user power.	-	Manageme	Configurable user power.
nt Support user /group and its corresponding rights modification.		nt	Support user /group and its corresponding rights modification.
No limit to the user or group amount.			No limit to the user or group amount.
Password modification		Deserver	Password modification
Password         Administrator can modify other user's password.			Administrator can modify other user's password.
Authenticati Account lock strategy			Account lock strategy
Five times login failure in thirty minutes may result in account lock.		on	Five times login failure in thirty minutes may result in account lock.
Upgrade Web browser, client-end and update tool.	Upgrade		Web browser, client-end and update tool.
Password login protection to guarantee safety			Password login protection to guarantee safety
User-friendly interface when login. Provide the following options: Logo			User-friendly interface when login. Provide the following options: Logout
Login, Logout and Shutdown /shutdown/ restart.	Login, Logout a	nd Shutdown	/shutdown/ restart.
Right authentication when shut down to make sure only those prop			Right authentication when shut down to make sure only those proper
people can turn off DVR			people can turn off DVR
Power DC 12V			

	Power	
General	Consumptio	$\leqslant$ 15W (With adapter, exclude HDD)
Parameter	n	
	Working	-10°C~+55°C
	Temperatur	
	е	
	Working	10%-90%
	Humidity	
	Air Pressure	86kpa—106kpa
	Dimension	325(W) x245 (D) x45mm(H)
	Weight	1.25KG(Exclude HDD)
	Installation	Desktop installation
	Mode	

# 1.3.14 HCVR51XXHC-V2 Series

	Parameters	HCVR5104HC-V2	HCVR5108HC-V2	HCVR5116HC-V2		
System	Main Processor	Industrial embedded micro controller				
	OS	Embedded LINUX	Embedded LINUX			
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	720P/D1/HD1/2CIF/C	IF/QCIF			
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:1	1~30f/s			
	Rate					
	Video Bit Rate	1536Kbps-4096Kbps,				
		For 720P: default setup is 2Mbps, max supports 4Mt				
	Bit Stream Type	Video stream/compos	ite stream			
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	8KHz,16Bit				
	Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	16-channel , BNC		
	Input			port		
	Network Video	N/A				
	Input					
	Video Output	1-channel VGA output				
		1-channel HDMI output (of the same video source),				
		HDMI/ VGA video output at the same time.				
	Loop Output	N/A				
Matrix Output N/A						
Audio Port	Audio Input	N/A				
	Audio Output	o Output N/A				

	Parameters	HCVR5104HC-V2	HCVR5108HC	-V2	HCVR51	16HC-V2
	Bidirectional	N/A				
	Talk Input					
Record	Record Mode	Schedule record/manu	ual record/MD re	ecord/Ala	arm recor	ď
	Record	Max 4-channel	Max 8-cł	hannel	Max	16-channel
	Playback	playback	playback		playback	(
	Backup Mode	HDD, burner, USB dev	vice, network ba	ackup		
Alarm	Alarm Input	N/A				
	Alarm Output	N/A				
HDD	HDD Port	1 SATA port, does no	t support eSATA	A port		
	One HDD Space	4T				
Communication	Network	1 RJ45 port, 100Mbps	1 RJ45 port, 100Mbps Ethernet port			
Port	Communication	RS485 port				
	USB	2 USB ports				
Others	Power	DC12V				
	Power	≤30W (With power ac	dapter, no HDD)	)		
	Consumption					
	Working	-10℃~+55℃				
	Temperature					
	Working	10%~90%				
	Humidity	Mini 1U case, 325mm (W) x245mm (D) x45mm (H)				
	Dimensions					H)
	Weight	1.25KG (No HDD)				
	Installation	Desk				
	Mode					

## 1.3.15 HCVR51XXHE Series

	Parameter	HCVR5104HE	HCVR5108HE		
System	Main	High-performance industrial embedde	ed micro controller		
	Processor				
	OS	Embedded LINUX			
	System	Multiplex operations: Multiple-channe	el record, multiple-channel playback		
	Resources	and network operation simultaneously User-friendly graphical user interface			
	Interface				
	Input	USB mouse			
	Devices				
	Input	Arabic number, English character	, donation and extension Chinese		
	Method	(optional)Copy/paste operation, USB mouse right-key shortcut menu, double clic			
	Shortcut				
	Function	USB mouse to switch screen.			

Compression	Video			
Standard	Compressio	H.264		
Clandara	n	11.201		
	Audio			
	Compressio	G711A, G711U, PCM		
	n .			
		4-CH composite video input:	8-CH composite video input:	
	Video Input	(NTSC/PAL) BNC (1.0V <sub>P-P</sub> ,75Ω)	(NTSC/PAL) BNC (1.0V <sub>P-P</sub> , 75Ω)	
	Video	1-ch VGA output.		
	Output	1-ch HDMI output.		
		Support VGA/HDMI video output at t	he same time.	
Video monitor	Video	Support PAL/NTSC.		
	Standard			
	Record		r channel and NTSC 1f/s to 30f/s per	
	Speed	channel		
	Video	1/4 windows(Optional)	1/4/8/9 windows	
	Partition			
	Monitor		as motion detection, and schedule	
	Touring	auto control.		
		PAL/NTSC		
		Real-time monitor:		
		720P 1280*720		
	Resolution	Playback: All-ch: 720P 1280*720,	960H 960 ×576/960×480, D1	
	(PAL/NTSC)		960H  960 ×576/960×480, D1 352×480, 2CIF 704×288/704×240,	
		CIF 352×288/ 352×240 , QCIF 176		
			resolution CIF 352×288/ 352×240,	
		QCIF 176×144/176×120.		
	Image	6-level image quality (Adjustable)		
	Quality			
	Privacy	Support one privacy mask of user-de	fined size in full screen.	
	mask	Support max 4 zones.		
	Image		and privacy mask zone	
Information Channel information, time information and privacy ma				
	TV Adjust Adjust TV output zone suitable to anamorphic video.			
	Channel	Cover secret channel with black screen though system is end normally.		
	Lock			
		Screen-lock function to prevent unau	thorized user seeing secret video.	
	Channel		een lock status, video loss status and	
	Information	motion detection status are shown or	n the bottom left of display screen.	

	Color Configuratio n	Hue, brightness, contrast, saturation and gain setup for each channel.
Audio	Audio Input	1-ch 200-2000mv 10KΩ(RCA)
	Audio Output	1-ch audio output 200-3000mv 5KΩ(RCA)
	Bidirectional Audio	Reuse the audio input/output channel.
	Hard Disk	1 built-in SATA port. Support 1 HDD.
Hard disk	One HDD Space	4T
	Hard Disk	Audio:PCM 28.8MByte/h
	Occupation	Video:56-900MByte/h
Record and playback	Recording Mode	Manual recording, motion detection recording, schedule recording and alarm recording Priority: Manual recording> alarm recording>motion detection recording>schedule recording.
	Storage Mode	Support channel record quota setup
	Recording Length	1 to 120 minutes single record duration (Default setup is 60 minutes)
	Playback Repeat Way	When hard disk is full, system can overwrite previous video file.
	Record Search	Various search engines such as time, type and channel.
	Playback Mode	Various fast play, slow play speeds, manual frame by frame playback and reverse play mode.
	Various File Switch Ways	Can switch to previous or next file or any file in current play list. Can switch to file on other channel of the same time. (If there is a file) Support file continuous play, when a file is end system auto plays the next file in the current channel
	Playback Way	Support mark playback
	Multi-chann el Playback	There is 1/4-channel playback mode.
	Window Zoom	Switch between self-adaptive screen/full screen when playback
	Partial Enlargemen t	When in one-window full-screen playback mode, you can select any zone to activate partial enlargement function.

Backup		HDD backup			
function	Backup	Support peripheral USB backup de	vice. (Flash disk, portable disk and		
	Mode	etc.)			
		Support network download and save			
		View monitor channel remotely.			
		DVR configuration through client-end and web browser			
		Upgrade via client or browser to realize remote maintenance			
Network		View alarm information such as motion	on detection and video loss via client.		
Function	Network	Support network PTZ lens control			
	Network	File download backup and playback			
	control	Multiple devices share information	via corresponding software such as		
		professional surveillance software (P	SS)		
		Duplex transparent COM			
		Network alarm input and output			
		Bidirectional audio.			
-	Motion	Zone setup: support 396((PAL 22×18	, NTSC 22×15)) detection zones.		
Motion	Detection	Various sensitivity levels.			
Detection and		Alarm can activate record or external	alarm or screen message prompt.		
Alarm	Video Loss	Alarm can activate screen message	prompt.		
	External	Support record activation function of	or activate external alarm or screen		
	Alarm	message in specified period.			
	Manual	Enable or disable alarm input channe	el		
	Alarm	Support analog alarm signal to speci	fic alarm output channel.		
	Control				
	Alarm Input	4-ch alarm input (NO/NC)	8-ch alarm input (NO/NC)		
	Alarm	3-channel relay output.			
	Output				
	Alarm Relay	30V DC 2A, 125VAC 1A (activation	ation alarm )		
	USB	2 USB 2.0 ports.			
Interface	Interface				
	Network	One RJ45 10M/100M self-adaptable	Ethernet port		
	connection				
	RS485	PTZ control port			
	1.5405	Support various PTZ control protocol	S.		
	RS232	N/A			
System	Hard Disk	Display HDD current status			
Information	Information	formation			
	Data	Data stream statistics for each chann	nel (in wave mode)		
	Stream				
	Statistics				
	Log	Backup to 1024 log files.			
	statistics	Support various search engines such	as time and type.		

	Version	Display version information: channel amount, system version and release	
		date.	
	On-line user	Display current on-line user	
User		Multi-lever user management; various management modes	
Management	User	Integrated management for local user, serial port user and network user.	
	Manageme	Configurable user power.	
	nt	Support user /group and its corresponding rights modification.	
		No limit to the user or group amount.	
	Deserverd	Password modification	
	Password	Administrator can modify other user's password.	
	Authenticati	Account lock strategy	
	on	Five times login failure in thirty minutes may result in account lock.	
Upgrade		Web browser, client-end and update tool.	
		Password login protection to guarantee safety	
		User-friendly interface when login. Provide the following options: Logout	
Login, Logout a	and Shutdown	/shutdown/ restart.	
		Right authentication when shut down to make sure only those proper	
		people can turn off DVR	
	Power	DC 12V	
	Power		
General	Consumptio		
Parameter	n .	$\leq$ 15W (With adapter, exclude HDD)	
	Working	-10℃~+55℃	
	Temperatur		
	e .		
	Working	10%-90%	
	Humidity		
	Air Pressure	86kpa—106kpa	
	Dimension	325(W) x245 (D) x45mm(H)	
	Weight	1.25KG(Exclude HDD)	
	Installation	Desktop installation	
	Mode		
	INIOUC		

## 1.3.16 HCVR51HE-V2 Series

	Parameters	HCVR5104HE-V2	HCVR5108HE-V2	HCVR5116HE-V2	
System	Main Processor	Industrial embedded micro controller			
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	ncode 720P/D1/HD1/2CIF/CIF/QCIF			
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			

	Parameters	HCVR5104HE-V2	HCVR5108HE-V2	HCVR5116HE-V2		
	Rate					
	Video Bit Rate	1536Kbps-4096Kbps,				
			ip is 2Mbps,max supp	orts 4Mbps		
	Bit Stream Type	Video stream/composite stream				
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	8KHz,16Bit				
	Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	16-channel, BNC		
	Input			port		
	Network Video	N/A				
	Input					
	Video Output	1-channel VGA output	,			
	1-channel HDMI output (of the same video source),			ource),		
		HDMI/ VGA video output at the same time.				
	Loop Output	N/A				
	Matrix Output	N/A				
Audio Port	Audio Input	4-channel RCA				
	Audio Output	1-channel RCA				
	Bidirectional	Support (reuse the au	dio port)			
	Talk Input					
Record	Record Mode	Schedule record/manu	ual record/MD record/A	larm record		
	Record	Max 4-channel	Max 8-channel	Max 16-channel		
	Playback	playback	playback	playback		
	Backup Mode	HDD, burner, USB dev	vice, network backup			
Alarm	Alarm Input	4-channel alarm	8-channel alarm	16-channel alarm		
		input	input	input		
	Alarm Output	3-channel alarm outpu	ıt			
HDD	HDD Port	1 SATA port, does no	t support eSATA port			
	One HDD Space	4T				
Communication	Network	1 RJ45 port, 100Mbps Ethernet port				
Port	Communication	RS485 port				
	USB	2 USB ports				
Others         Power         DC12V           Power         ≤30W (With power adapter, no HDD)						
			dapter, no HDD)			
Consumption						
Working Temperature-10℃~+55℃						
	Working	10%~90%				

P	Parameters	HCVR5104HE-V2	HCVR5108HE-V2	HCVR5116HE-V2	
Н	Humidity				
D	Dimensions Mini		Mini 1U case, 325mm (W) x245mm (D) x45mm (H)		
V	Veight	1.25KG (No HDD)			
Ir	nstallation	Desk			
Ν	Node				

#### 1.3.17 HCVR71XXH-V2 Series

	Parameters	HCVR7104H-V2	HCVR7108H-V2		
System	Main Processor	Industrial embedded micro contro	ller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P /720P/D1/HD1/2CIF/CIF/C	QCIF		
	Resolution				
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s			
	Video Bit Rate	2048Kbps-6144Kbps,			
		For 1080P: default setup is 4Mbp	s, max supports 6Mbps		
	Bit Stream Type	Video stream/composite stream			
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	g 8KHz, 16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video Input	4-channel, BNC port	8-channel, BNC port		
	Network Video Input	N/A			
	Video Output	1-channel VGA output,			
		1-channel HDMI output (of the sa	me video source),		
		HDMI/ VGA video output at the sa	ame time.		
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA			
	Audio Output	1-channel RCA			
	Bidirectional	Support (reuse the audio port)			
	Talk Input				
Record	Record Mode	Schedule record/manual record/M	1D record/Alarm record		
	Record	Max 4-channel playback	Max 8-channel playback		
	Playback				

	Parameters	HCVR7104H-V2	HCVR7108H-V2	
	Backup Mode	HDD, burner, USB device, network backup		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support es	SATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet p	ort	
Port	Communication	N/A		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤30W (With power adapter, no H	DD)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm (W) ×245mm (D) ×45mm (H)		
	Weight	1.25KG (No HDD) Desk		
	Installation Mode			

# 1.3.18 HCVR71XXHC-V2 Series

	Parameters	HCVR7104HC-V2	HCVR7108HC-V2		
System	Main Processor	Industrial embedded micro contro	ller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P/720P/D1/HD1/2CIF/CIF/Q	CIF		
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	2048Kbps-6144Kbps,			
		For 1080P: default setup is 4Mbps, max supports 6Mbps			
	Bit Stream Type	Video stream/composite stream			
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz,16Bit			
	Rate	64Kbps			
	Audio Bit Rate				
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port		
	Input				

	Parameters	HCVR7104HC-V2	HCVR7108HC-V2	
	Network Video	N/A		
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the sa	me video source),	
		HDMI/ VGA video output at the sa	ame time.	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	N/A		
	Audio Output	N/A		
	Bidirectional	N/A		
	Talk Input			
Record	Record Mode	Schedule record/manual record/M	ID record/Alarm record	
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, networ	rk backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support es	SATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet p	ort	
Port	Communication	RS485 port		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤30W (With power adapter, no H	IDD)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature	10%~90%		
	Working			
	Humidity			
	Dimensions	Mini 1U case, 325mm (W) x24	5mm (D) ×45mm (H)	
	Weight	1.25KG (No HDD)		
	Installation	Desk		
	Mode			

## 1.3.19 HCVR71XHE-V2 Series

	Parameters	HCVR7104HE-V2	HCVR7108HE-V2
System	Main Processor	Industrial embedded micro controller	
	OS	Embedded LINUX	
Video	Video Encode	H.264	
Parameters	Standard	rd	
	Encode	1080P/720P/D1/HD1/2CIF/CIF/QCIF	

	Parameters	HCVR7104HE-V2	HCVR7108HE-V2	
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	2048Kbps-6144Kbps,		
		For 1080P: default setup is 4Mbp	s, max supports 6Mbps	
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	N/A		
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the sa		
		HDMI/ VGA video output at the sa	ame time.	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-channel RCA		
	Audio Output	1-channel RCA		
	Bidirectional	Support (reuse the audio port)		
	Talk Input			
Record	Record Mode	Schedule record/manual record/N	/ID record/Alarm record	
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, netwo	•	
Alarm	Alarm Input	4-channel alarm input	16-channel alarm input	
	Alarm Output	3-channel alarm output		
HDD	HDD Port	1 SATA port, does not support e	SATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet p	ort	
Port	Communication	RS485 port		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤30W (With power adapter, no H	IDD)	
	Consumption			
	Working	-10°C~+55°C		
	Temperature			

Parameters	HCVR7104HE-V2	HCVR7108HE-V2
Working Humidity	10%~90%	
Dimensions	Mini 1U case, 325mm (W) x245mm (D) x45mm (H)	
Weight	1.25KG (No HDD)	
Installation	Desk	
Mode		

## 1.3.20 HCVR41XXHE-S2 Series

	Parameters	HCVR4104HE-S2	HCVR4108HE-S2	HCVR4116HE-S2	
System	Main Processor	Industrial embedded mic	ro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	720P/960H/D1/	720P(1~15fps)/960H/		
	Resolution	HD1/2CIF/CIF/QCIF	D1/HD1/2CIF/CIF/QCI	F	
	Video Frame	HDCVI:1 $\sim$ 25f/s	HDCVI:1 $\sim$ 15f/s (	The 1 <sup>st</sup> channel	
	Rate	( PAL ); 1~30f/s	supports 25/30f)		
		(NTSC)	CVBS:1~25f/s(PAL)	; 1~30f/s(NTSC)	
		CVBS:1~25f/s (PAL);			
		1~30f/s (NTSC)			
	Video Bit Rate	2048Kbps-4096Kbps,	1024Kbps-4096Kbps,		
		For 720P: default setup	For 720P: default set	up is 1Mbps, max	
		is 2Mbps , max	supports 4Mbps.	·	
		supports 4Mbps.	For 960H: default set	up is 1Mbps, max	
		For 960H: default	supports 3Mbps.		
		setup is 1Mbps, max supports 3Mbps.			
	Bit Stream Type	Video stream/composite	stream		
	Dual-Stream	Support	Silean		
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard	0.7 117/0.7 110/1 010			
	Audio Sampling	8KHz, 16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	16-channel,	
	Input			BNC port	
	Network Video	Max 2-channel IPC conr	ections (8M)		
	Input				
	Video Output	1-channel VGA output,			
		1-channel HDMI output (	of the same video sour	ce),	
		HDMI/ VGA video output	at the same time.		
	Loop Output	N/A			

	Parameters	HCVR4104HE-S2	HCVR4108HE-S2	HCVR4116HE-S2	
	Matrix Output	N/A			
Audio Port	Audio Input	4-channel RCA port.			
	Audio Output	1-channel RCA port.			
	Bidirectional	Reuse the audio input/ou	itput port.		
	Talk Input				
Record	Record Mode	Schedule record/manual	record/MD record/Ala	Irm record	
	Record	Max 4-channel playback	Max 8-channe	el Max 16-channel	
	Playback		playback	playback	
	Backup Mode	HDD, burner, USB device	e, network backup		
Alarm	Alarm Input	4-channel input	8-channel input	16-channel input	
	Alarm Output	3-channel output			
HDD	HDD Port	1 SATA port, does not s	upport eSATA port		
	One HDD Space	4T			
Communication	Network	1 RJ45 port, 100Mbps Et	hernet port		
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤15W(With power adap	oter, no HDD)		
	Consumption				
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Mini 1U case, 325mm (	W) x245mm (D) x4	45mm (H)	
	Weight	1.25KG(No HDD)			
	Installation	Desk			
	Mode				
1.3.21 HCVR51	XXH-S2 Series				
	Parameters	HCVR5104H-S2 H	CVR5108H-S2	HCVR5116H-S2	
System	Main Processor	Industrial embedded mic	ro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P(1~15fps)/720P/96	0H/D1/HD1/2CIF/CIF	/QCIF	
	Resolution				
	Video Frame	HDCVI:1~25f/s (PAL);			
	Rate	CVBS:1~25f/s (PAL); 1	~30f/s(NTSC)		
	Video Bit Rate	2048Kbps-4096Kbps,			
		For 1080P/720P: default	• • •	••	
		For 960H: default setup i		orts 3Mbps.	
	Bit Stream Type	Video stream/composite	stream		

	Parameters	HCVR5104H-S2	HCVR5108H-S2	HCVR5116H-S2	
	Dual-Stream	Support		L	
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz,16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC por	t 16-channel,	
	Input	BNC port			
	Network Video	Max 2-channel IPC co	nnections (8M)		
	Input				
	Video Output	1-channel VGA output	,		
		1-channel HDMI outpu	it (of the same video so	ource),	
		HDMI/ VGA video outp	out at the same time.		
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA port.			
	Audio Output 1-channel RCA port.				
	Bidirectional	Reuse the audio input/output port.			
	Talk Input				
Record	Record Mode	Schedule record/manual record/MD record/Alarm record			
	Record	Max 4-channel	Max 8-channe	el Max 16-channel	
	Playback	playback	playback	playback	
	Backup Mode	HDD, burner, USB dev	vice, network backup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does no	t support eSATA port		
	One HDD Space	4T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤15W (With power adapter, no HDD)			
	Consumption				
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions		n (W) ×245mm (D) >	<b>«</b> 45mm (H)	
	Weight	1.25KG(No HDD)			
	Installation	Desk			
	Mode				

#### 1.3.22 HCVR51XXHE-S2 Series

	Parameters	HCVR5104HE-S2	HCVR5108HE-S2	HCVR5116HE-S2
System	Main Processor	Industrial embedded m	nicro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080P(1~15fps)/720P/960H/D1/HD1/2CIF/CIF/QCIF		
	Resolution			
	Video Frame	HDCVI:1~25f/s(PAL	); 1~30f/s (NTSC)	
	Rate	CVBS:1~25f/s (PAL);	1~30f/s(NTSC)	
	Video Bit Rate	2048Kbps-4096Kbps,		
			ult setup is 2Mbps, max	
			p is 1Mbps, max suppo	orts 3Mbps.
	Bit Stream Type	Video stream/composit	te stream	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling			
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video			
	Input	Marchine	(014)	BNC port
	Network Video	Max 2-channel IPC connections (8M)		
	Input Video Output	1 shapped VCA output		
	video Output	1-channel VGA output, 1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-channel RCA port.		
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/	output port.	
	Talk Input			
Record	Record Mode	Schedule record/manu	al record/MD record/Ala	Irm record
	Record	Max 4-channel	Max 8-channe	I Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	•
Alarm	Alarm Input	4-channel input	8-channel input	16-channel input
	· · · · · · · · · · · · · · · · · · ·			
	Alarm Output	3-channel output		
HDD	Alarm Output HDD Port	3-channel output 1 SATA port, does not	support eSATA port	
HDD	•	•	support eSATA port	

	Parameters	HCVR5104HE-S2	HCVR5108H	E-S2	HCVR5116HE-S2
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤15W(With power ad	lapter, no HDD	))	
	Consumption		1 /		
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Mini 1U case, 325mm (W) x245mm (D) x45mm (H)			
	Weight	1.25KG(No HDD)			
	Installation				
	Mode				
1.3.23 HCVR7	710XH-S2 Series				
	Parameters	HCVR7104H-S2		HCVR71	08H-S2
System	Main Processor	Industrial embedded m	nicro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P/720P/960H/D1/	/HD1/2CIF/CIF	/QCIF	
	Resolution				
	Video Frame	HDCVI:1~25f/s (PAL); 1~30f/s (NTSC)			
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)			
	Video Bit Rate	2048Kbps-6144Kbps,			
		For 1080P: default set	• • •		· ·
		For 720P: default setu		nax supp	orts 4Mbps.
	Bit Stream Type	Video stream/composi	te stream		
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM	G711A/G711U/PCM		

	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	Max 2-channel IPC connections (16	δM)	
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.		
	Loop Output	N/A		

	Parameters	HCVR7104H-S2	HCVR7108H-S2	
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/output port.		
	Talk Input			
Record	Record Mode	Schedule record/manual record/ME	) record/Alarm record	
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, network	backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support eSA	ATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet por	t	
Port	Communication	RS485 port		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤15W(With power adapter, no HD	D)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm (W) x245r	mm (D) ×45mm (H)	
	Weight	1.25KG(No HDD)		
	Installation	Desk		
	Mode			
1.3.24 HCVR71	0XHE-S2 Series			
	Parameters	HCVR7104HE-S2	HCVR7108HE-S2	
System	Main Processor	Industrial embedded micro controlle	er	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080P/720P/960H/D1/HD1/2CIF/C	IF/QCIF	
	Resolution			
		HDCVI:1~25f/s (PAL); 1~30f/s (		
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (N	ITSC)	
	Video Bit Rate	2048Kbps-6144Kbps,		
		For 1080P: default setup is 4Mbps,		
		For 720P: default setup is 2Mbps, max supports 4Mbps.		
	Bit Stream Type	Video stream/composite stream		

	Parameters	HCVR7104HE-S2	HCVR7108HE-S2	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-channel, BNC port	8-channel, BNC port	
	Input			
	Network Video	Max 2-channel IPC connection (16	VI)	
	Input			
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the sam	e video source),	
		HDMI/ VGA video output at the same	ne time.	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	ut 4-channel RCA port.		
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/output port.		
	Talk Input			
Record	Record Mode	Schedule record/manual record/MD record/Alarm record		
	Record	Max 4-channel playback	Max 8-channel playback	
	Playback			
	Backup Mode	HDD, burner, USB device, network	<u>k</u> backup	
Alarm	Alarm Input	8-channel input	16-channel input	
	Alarm Output	3-channel output		
HDD	HDD Port	1 SATA port, does not support eSA	ATA port	
	One HDD Space	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet por	t	
Port	Communication	RS485 port		
	USB	2 USB ports		
Others	Power	DC12V		
	Power	≤15W (With power adapter, no HD	D)	
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm (W) x245r	mm (D) x45mm (H)	
	Weight	1.25KG(No HDD)		
	Installation	Desk		
	Mode			

## 1.3.25 HCVR41XXHE-S3 Series

	Parameters	HCVR4104HE-S3	HCVR4108HE-S3	HCVR4116HE-S3
System	Main Processor	Industrial embedded m	nicro controller	
	OS	Embedded LINUX		
Video Parameters	Video Encode Standard	H.264		
	Encode Resolution Video Frame Rate	1080N/720P/960H/ D1/HD1/2CIF/CIF PAL:1~25f/s; NTSC:1	1080N@12f/720P@15f, /CIF ~30f/s	/960H/D1/HD1/2CIF
	Video Bit Rate Bit Stream Type		p is 1.5Mbps,max supp up is 1.5Mbps,max sup te stream	•
	Dual-Stream	Support		
Audio Parameters	Encode Standard	G.711A/G.711U/PCM		
	Audio Sampling Rate	8KHz,16Bit		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	port(HDCVI HD
	Network Video Input	<ul> <li>Max add 1 IP channel Connection.</li> <li>Analog /digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:4Mbp s-20Mbps</li> </ul>	<ul> <li>Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 10 IP channel connections</li> <li>Connection bandwidth:8Mbp s-40Mbps</li> </ul>	channel connections • Analog /digital
	Video Output	1-channel VGA output, 1-channel HDMI outpu HDMI/ VGA video outp	t (of the same video sou	

	Parameters	HCVR4104HE-S3	HCVR4108HE-S3	HCVR4116HE-S3	
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA	
	, laalo inpat			port.	
	Coaxial Audio	4-ch	8-ch-	16-ch	
	Input				
	Audio Output	1-channel RCA port.			
	Bidirectional	Support (Reuse the a	udio port of the 1st char	nnel)	
	Talk Input				
Record	Record Mode				
	Playback Mode				
		smart playback	layback		
	Record	Max 4-channel	Max 8-channe	l Max 16-channel	
	Playback	playback	playback	playback	
	Backup Mode	HDD, burner, USB device, network backup			
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input	
	Alarm Output	t 3-channel output			
HDD	HDD Port	1 SATA port, does no	t support eSATA port		
	One HDD Space	6T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One a	t the front panel and one	e at the rear panel)	
Others	Power	DC12V	1		
	Power	≤7W	≪8W	≤10W	
	Consumption				
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	•	n (W) ×245mm (D) ×		
	Weight	≤1.1KG	≤1.25KG	≤1.45KG	
	Installation	Desk			
	Mode				

## 1.3.26 HCVR51XXH-S3 Series

	Parameters	HCVR5104HS3	HCVR5108H-S3	HCVR5116H-S3
System	Main Processor	Industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080P (non-realtime)	/1080N/720P /720P/960	)H/D1/HD1/2CIF/CIF

	Parameters	HCVR5104HS3	HCVR5108H-S3 H	ICVR5116H-S3
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1-	~30f/s	
	Rate			
	Video Bit Rate	32Kbps-6144Kbps,		
		•	o is 2Mbps, max support	•
			up is 4Mbps, max suppo	orts 61010ps.
	Bit Stream Type	Video stream/composit	e stream	
	Dual-Stream	Support		
Audio Parameters	Encode Standard	G.711A/G.711U/PCM		
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC port(HDCVI	16-ch BNC
	Input	(HDCVI HD	HD video/general	port(HDCVI HD
		video/general	standard definition	video/general
		standard definition	video self-adaptive)	standard definition
		video self-adaptive)		video
				self-adaptive)
	Network Video Input Video Output	<ul> <li>Max add 2 IP channel Connection.</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> <li>1-channel VGA output,</li> </ul>		Max add 8 IP channel connections Analog /digital channel switch. Max 24 IP channel connections Connection bandwidth:32 Mbps-96Mbp s
			t (of the same video sour	ce),
		HDMI/ VGA video outpu	ut at the same time.	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Coaxial Audio Input	4-ch	8-ch-	16-ch
	Audio Output	1-channel RCA port.	1	1
	Bidirectional		udio port of the 1st chann	nel)

	Parameters	HCVR5104HS3	HCVR5108H-S3	HCVR5116H-S3
	Talk Input			
Record	Record Mode	Schedule record/manu	al record/MD record/Ala	arm record
	Playback Mode	Instant playback, norm	al playback, event play	back, mark playback,
		smart playback		
	Record	Max 4-channel	Max 8-channe	l Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input
	Alarm Output	3-channel output		
HDD	HDD Port	1 SATA port, does not support eSATA port		
	One HDD Space	6T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One	1 USB2.0 port at the	e 1 USB2.0 port at
		at the front panel and	front panel and one	e the front panel
		one at the rear panel)	USB3.0 port at the	e and one USB3.0
			rear panel	port at the rear panel
Others	Power	DC12V		
	Power	< 014/	<1014	
	Consumption	≪8W	≤10W	≤15W
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm	(W) ×245mm (D) ×	45mm(H)
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	Installation Mode	Desk		

## 1.3.27 HCVR51XXHE-S3 Series

	Parameters	HCVR5104HE-S3	HCVR5108HE-S3	HCVR5116HE-S3	
System	Main Processor	Industrial embedded r	Industrial embedded micro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P@12f/720P@1	5f/960H/D1/HD1/2CIF/0	CIF	
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:	I~30f/s		
	Rate				
	Video Bit Rate	32Kbps-6144Kbps,	32Kbps-6144Kbps,		

	Parameters	HCVR5104HE-S3	HCVR5108HE-S3	HCVR5116HE-S3
		For 720P: default setup	is 2Mbps, max suppor	rts 4Mbps.
		For 1080P: default setu	ip is 2Mbps, max suppo	orts 6Mbps.
	Bit Stream Type	Video stream/composit	e stream	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		1
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	port(HDCVI HD
	Network Video Input	<ul> <li>Max add 2 IP channel Connection.</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> </ul>	<ul> <li>Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12IP channel connections</li> <li>Connection bandwidth:16Mb ps-48Mbps</li> </ul>	<ul> <li>Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:32 Mbps-96Mbp s</li> </ul>
	Video Output	1-channel VGA output, 1-channel HDMI output HDMI/ VGA video outpu	t (of the same video sou ut at the same time.	rce),
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA port.
	Coaxial Audio Input	4-ch	8-ch-	16-ch
	Audio Output	1-channel RCA port.		-
	Bidirectional	Support (Reuse the audio port of the 1st channel)		
	Talk Input			
Record	Talk Input Record Mode	Schedule record/manua	al record/MD record/Ala	rm record

	Parameters	HCVR5104HE-S3	HCVR5108HE-S3	HCVR5116HE-S3
		smart playback		
	Record	Max 4-channel	Max 8-channe	I Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input
	Alarm Output	3-channel output		
HDD	HDD Port	1 SATA port, does not support eSATA port		
	One HDD Space	6Т		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at	the front panel and one	e at the rear panel)
Others	Power	DC12V		
	Power Consumption	≤7W	≪8W	≤10W
	Working Temperature	-10℃~+55℃		
	Working Humidity	10%~90%		
	Dimensions	Mini 1U case, 325mm	(W) x245mm (D) x	45mm(H)
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	Installation Mode	Desk		

## 1.3.28 HCVR71XXHE-S3 Series

	Parameters	HCVR7104HE-S3	HCVR7108HE-S3	HCVR7116HE-S3	
System	Main Processor	Industrial embedded n	nicro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080P/720P/960H/D1	/HD1/2CIF/CIF		
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	32Kbps-6144Kbps,			
		For 720P: default setu	ıp is 2Mbps,max supp	orts 4Mbps.	
		For 1080P: default set	tup is 4Mbps, max sup	ports 6Mbps.	
	Bit Stream Type	Video stream/compos	ite stream		
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz, 16Bit			

	Parameters	HCVR7104HE-S3	HCVR7108HE-S3	HCVR7116HE-S3
	Rate	L		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	16-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)
	Network Video Input	<ul> <li>Max add 2 IP channel Connection.</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> </ul>	<ul> <li>Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12IP channel connections</li> <li>Connection bandwidth:16Mb ps-48Mbps</li> </ul>	<ul> <li>Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:32 Mbps-96Mbp s</li> </ul>
	Video Output	1-channel VGA output, 1-channel HDMI outpu HDMI/ VGA video outp	t (of the same video sour	ce),
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA port.
	Coaxial Audio Input	4-ch	8-ch-	16-ch
	Audio Output	1-channel RCA port.		
	Bidirectional Talk Input	Support (Reuse the a	udio port of the 1st chanr	nel)
Record	Record Mode	Schedule record/manu	al record/MD record/Alar	m record
	Playback Mode	Mode Instant playback, normal playback, event playback, mark pl smart playback		ack, mark playback,
	Record	Max 4-channel	Max 8-channel	Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input
	Alarm Output	3-channel output		
HDD	HDD Port	1 SATA port, does not		

	Parameters	HCVR7104HE-S3	HCVR7108HE-S3	HCVR7116HE-S3
	One HDD Space	6T		
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port	
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One	1 USB2.0 port at the	e 1 USB2.0 port at
		at the front panel and	front panel and one	e the front panel
		one at the rear panel)	USB3.0 port at the	e and one USB3.0
			rear panel	port at the rear
				panel
Others	Power	DC12V		
	Power	≪8W	≤10W	≤15W
	Consumption		<10₩	< 15W
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm	(W) x245mm (D) x4	45mm(H)
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	Installation	Desk		
	Mode			

#### 1.3.29 HCVR71XXH-S3 Series

	Parameters	HCVR7104HS3	HCVR7108H-S3	HCVR7116H-S	3	
System	Main Processor	Industrial embedded micro controller				
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF				
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s				
	Rate					
	Video Bit Rate	32Kbps-6144Kbps,				
		For 720P: default setup is 2Mbps, max supports 4Mbps.				
		For 1080P: default setup is 4Mbps, max supports 6Mbps.				
	Bit Stream Type	Video stream/composite stream				
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	8KHz,16Bit				
	Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-ch BNC por	t 8-ch BNC port(HDC)	/I 16-ch	BNC	
	Input	(HDCVI HE	HD video/genera	al port(HDCVI	HD	

	Parameters	HCVR7104HS3	HCVR7108H-S3	HCVR7116H-S3	
	Network Video Input	video/general standard definition video self-adaptive) • Max add 2 IP channel Connection.	<ul> <li>standard definition</li> <li>video self-adaptive)</li> <li>Max add 4 IP</li> <li>channel</li> <li>connections</li> </ul>	video/general standard definition video self-adaptive) Max add 8 IP channel connections	
		<ul> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> </ul>	<ul> <li>Analog /digital channel switch. Max 12IP channel connections</li> <li>Connection bandwidth:16Mb ps-48Mbps</li> </ul>	<ul> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:32 Mbps-96Mbp s</li> </ul>	
	Video Output	1-channel VGA output, 1-channel HDMI output (of the same video source), HDMI/ VGA video output at the same time. N/A N/A			
	Loop Output				
	Matrix Output				
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA port.	
	Coaxial Audio Input	4-ch	8-ch-	16-ch	
	Audio Output	1-channel RCA port.			
	Bidirectional Talk Input	Support (Reuse the audio port of the 1st channel)			
Record	Record Mode	Schedule record/manual record/MD record/Alarm record			
	Playback Mode	Instant playback, normal playback, event playback, mark playback, smart playback			
	Record	Max 4-channel	Max 8-channel	Max 16-channel	
	Playback	playback	playback	playback	
	Backup Mode	HDD, burner, USB dev	ice, network backup	•	
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input	
	Alarm Output	3-channel output			
HDD	HDD Port	1 SATA port, does not support eSATA port			
	One HDD Space	6T			
Communication	Network	1 RJ45 port, 100Mbps Ethernet port			
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One	1 USB2.0 port at the	1 USB2.0 port at	

	Parameters	HCVR7104HS3	HCVR7108H-S3	HCVR7116H-S3
		at the front panel and	front panel and one	e the front panel
		one at the rear panel)	USB3.0 port at the	and one USB3.0
			rear panel	port at the rear
				panel
Others	Power	DC12V		
	Power	≪8W	≤10W	≤15W
	Consumption	MONN	≪10₩	<15W
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Mini 1U case, 325mm	(W) x245mm (D) x4	45mm(H)
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	Installation	Desk		
	Mode			

### 1.3.30 HCVR41XXHS-S2 Series

	Parameters	HCVR4104HS-S2	HCVR4108HS-S2	HCVR4116HS-S2
System	Main Processor	Industrial embedded n	nicro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	720P/960H/D1/HD1/	720P(1-15f/s)/960	H/D1/HD1/
	Resolution	2CIF/CIF/QCIF	2CIF/CIF/QCIF	
	Video Frame	HDCVI:1 $\sim$ 25f/	s HDCVI:1 $\sim$ 15f/s	s (The 1 <sup>st</sup> channel
	Rate	( PAL ); 1~30f/	s supports 25/30fps/	)
		(NTSC)	CVBS:1~25f/s(P/	AL); 1~30f/s (NTSC)
		CVBS:1~25f/s (PAL)	;	
		1~30f/s (NTSC)		
	Video Bit Rate	2048Kbps-4096Kbps,	1024Kbps-4096Kb	ops,
		For 720P: default setu	p For 720P: default	setup is 1Mbps, max
		is 2Mbps , ma	x supports 4Mbps.	
		supports 4Mbps.		setup is 1Mbps, max
		For 960H: defau		
		setup is 1Mbps, ma	x	
		supports 3Mbps.		
	Bit Stream Type	Video stream/composi	te stream	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			

	Parameters	HCVR4104HS-S2	HCVR4108HS-S2	HC	VR4116HS-S2
	Audio Bit Rate	64Kbps			
Video Port	Analog Video Input	4-channel, BNC port	8-channel, BN	C port	16-channel, BNC port
	Network Video	Max 2-channel IPC co	nnections (8M)		I I
	Input		()		
	Video Output	1-channel VGA output	5		
		1-channel HDMI outpu	ut (of the same vide	o sourc	e),
		HDMI/ VGA video out	out at the same time	э.	
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA port.			
	Audio Output	1-channel RCA port.			
	Bidirectional	Reuse the audio input	/output port.		
	Talk Input				
Record	Record Mode	Schedule record/manu		d/Alarm	n record
	Record	Max 4-channe		hannel	Max 16-channel
	Playback	playback	playback		playback
	Backup Mode	HDD, burner, USB device, network backup			
Alarm	Alarm Input				
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does no	t support eSATA po	ort	
	One HDD Space	4T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤15W (With power ac	lapter, no HDD)		
	Consumption				
	Working	-10℃~+55℃			
	Temperature Working	10%~90%			
	Humidity	10%~90%			
	Dimensions	Compact 1U case, 26	$(M) \times 220 mm$	n ( <b>D</b> ) ·	v44mm (H)
	Weight	1.25KG (No HDD)			
	Installation	Desk			
	Mode	Desk			
1.3.31 HCVR21	XXHS-S2 Series				
	Parameters	HCVR2108HS-S2	HCV	′R2116ŀ	HS-S2
System	Main Processor	Industrial embedded n			
OS Embedded LINUX					
Video	Video Encode	H.264			

	Parameters	HCVR2108HS-S2	HCVR2116HS-S2		
Parameters	Standard				
	Encode	720P(1-15f/s)/960H/D1/HD1/2CIF/0	CIF/QCIF		
	Resolution				
	Video Frame	HDCVI:1~12f/s			
	Rate	CVBS:1~20f/s (PAL); 1~20f/s (NTSC)			
	Video Bit Rate	1024Kbps-4096Kbps,			
		For 720P: default setup is 1Mbps, max supports 4Mbps.			
		For 960H: default setup is 1Mbps, max supports 3Mbps.			
	Bit Stream Type	Video stream/composite stream			
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz,16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	8-channel, BNC port	16-channel, BNC port		
	Input				
	Video Output	1-channel VGA output,			
		1-channel HDMI output (of the same video source),			
		HDMI/ VGA video output at the same time.			
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA port.			
	Audio Output	1-channel RCA port.			
	Bidirectional	Reuse the audio input/output port.			
	Talk Input				
Record	Record Mode	Schedule record/manual record/ME	D record/Alarm record		
	Record	960H: Max 4-channel playback			
	Playback	720P: Max 1-channel playback			
	Backup Mode	HDD, burner, USB device, network	backup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does not support eSA	ATA port		
	One HDD Space	4T			
Communication	Network	1 RJ45 port, 100Mbps Ethernet por	t		
Port	Communication	RS485 port			
	USB	2 USB ports			
Others	Power	DC12V			
	Power	≤15W(With power adapter, no HD	D)		
	Consumption				
	Working	-10℃~+55℃			

Paramete	ers HCVR2108H	IS-S2	HCVR2116HS-S2
Temperat	ure		
Working	10%~90%		
Humidity			
Dimensio	ns Compact 1U	Compact 1U case, 260mm (W) x220mm (D) x44mm	
Weight	1.25KG(No	HDD)	
Installatio	n Desk		
Mode			

# 1.3.32 HCVR21XXHS-S3 Series

	Parameters	2104HS-S3	2108HS-S3	2116HS-S3	
System	Main Processor	Industrial embedded n	nicro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080N@12f/720P@15	5f/960H/D1/HD1/2CIF/CI	IF	
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1	~30f/s		
	Rate				
	Video Bit Rate	32Kbps-4096Kbps,			
		For 720P: default setu	p is 1.5Mbps, max supp	ports 4Mbps.	
		For 1080N: default set	up is 1.5Mbps,max su	pports 4Mbps.	
	Bit Stream Type	Video stream/composi	te stream		
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz, 16Bit			
	Rate				
	Audio Bit Rate	64Kbps	1	-1	
Video Port	Analog Video	4-ch BNC port(HDCVI	8-ch BNC port(HDCV	I 16-ch BNC	
	Input	HD video/general		• •	
		standard definition		· · · · · · ·	
		video self-adaptive)	video self-adaptive)	standard definition	
				video	
				self-adaptive)	
	Network Video	•••	switch. Max 2 IP channe	el connections	
	Input	Connection bandwidth			
	Video Output	1-channel VGA output,			
			t (of the same video sou	irce),	
		HDMI/ VGA video output at the same time.			
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA port.			

	Parameters	2104HS-S3	2108HS-S3	2116HS-S3	
	Coaxial Audio Input	4-ch	8-ch	16-ch	
	Audio Output	1-channel RCA port.			
	Bidirectional		output port of the 1st ch	annel.	
	Talk Input				
Record	Record Mode	Schedule record/manual record/MD record/Alarm record			
	Playback Mode	Instant playback, norm smart playback	al playback, event play	back, mark playback,	
	Backup Mode	HDD, burner, USB device, network backup			
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does not	support eSATA port		
	One HDD Space	6T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One at	t the front panel and one	e at the rear panel)	
Others	Power	DC12V			
	Power	≤10W			
	Consumption				
	(No HDD)				
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions		0mm(W)×220mm(D	-	
	Weight (No HDD)	≤1.25KG	≤1.35KG	≤1.45KG	
	Installation Mode	Desk			

#### 1.3.33 HCVR41XXHS-S3 Series

	Parameters	HCVR4104HS-S3	HCVR4108HS-S3	HCVR4116HS-S3		
System	Main Processor	Industrial embedded m	nicro controller			
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080N/720P/960H/D1	1080N@12f/720P@ <sup>-</sup>	15f/960H/D1/HD1/2CI		
	Resolution	/HD1/2CIF/CIF/	F/CIF/			
	Video Frame	PAL:1~25f/s; NTSC:1	l~30f/s			
	Rate					
	Video Bit Rate	32Kbps-4096Kbps,				

	Parameters	HCVR4104HS-S3	HCVR4108HS-S3	HCVR4116HS-S3
		For 720P: default setur	o is 1.5Mbps, max supp	oorts 4Mbps.
		For 1080P: default set	up is 1.5Mbps, max sup	oports 4Mbps.
	Bit Stream Type	Video stream/composit	te stream	
	Dual-Stream	Support		
Audio	Encode	G.711A/G.711U/PCM		
Parameters	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps	1	T
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	port(HDCVI HD
	Network Video Input	<ul> <li>Max add 1 IP channel connection</li> <li>Analog /digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:4Mbp s-20Mbps</li> </ul>	<ul> <li>Max add 1 IP channel connection</li> <li>Analog /digital channel switch. Max 9 IP channel connections</li> <li>Connection bandwidth:8Mbp s-40Mbps</li> </ul>	channel connections • Analog /digital
	Video Output	1-channel VGA output, 1-channel HDMI outpu HDMI/ VGA video outp	t (of the same video sou	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.	1	
	Coaxial Audio	4-ch	8-ch-	16-ch
	Input			
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/	output port.	
	Talk Input			
Record	Record Mode		al record/MD record/Ala	
	Playback Mode		al playback, event playl	back, mark playback,
		smart playback		

	Parameters	HCVR4104HS-S3	HCVR4108HS-S3	HCVR4116HS-S3	
	Record	Max 4-channel	Max 8-channel	Max 16-channel	
	Playback	playback	playback	playback	
	Backup Mode	HDD, burner, USB dev	ice, network backup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does not support eSATA port			
	One HDD Space	6T			
Communication	Network	1 RJ45 port, 100Mbps Ethernet port			
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)			
Others	Power	DC12V			
	Power				
	Consumption	≤7W	≪8W	≤10W	
	(No HDD)				
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Compact 1U case, 260	mm (W) ×220mm (D	)x44mm(H)	
	Weight (No HDD)	≪0.85KG	≪0.95KG	≤1.05KG	
	Installation Mode	Desk			

## 1.3.34 HCVR51XXHS-S3 Series

	Parameters	HCVR5104HS-S3	HCVR5108HS-S3	HCVR5116HS-S3		
System	Main Processor	Industrial embedded r	nicro controller			
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF/1080P@15f/720				
	Resolution	P@15f/960H/D1/HD1/2CIF/CIF				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s				
	Rate					
	Video Bit Rate	32Kbps-6144Kbps,				
		For 720P: default setu	ıp is 2Mbps, max supp	orts 4Mbps.		
		For 1080P: default set	tup is 2Mbps,max sup	ports 6Mbps.		
	Bit Stream Type	Video stream/compos	ite stream			
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					

	Parameters	HCVR5104HS-S3	HCVR5108HS-S3	HCVR5116HS-S3
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)	8-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)	16-chBNCport(HDCVIHDvideo/generalstandard definitionvideoself-adaptive)
	Network Video Input	<ul> <li>Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> </ul>	<ul> <li>Max add 4 IP channel connection</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connection bandwidth:16Mb ps-48Mbps</li> </ul>	<ul> <li>Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:32 Mbps-96Mbp s</li> </ul>
	Video Output	1-channel VGA output 1-channel HDMI outpu HDMI/ VGA video outp	t (of the same video sou	rce),
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Coaxial Audio Input	4-ch	8-ch-	16-ch
	Audio Output	1-channel RCA port.		
	Bidirectional Talk Input	Reuse the audio input/	output port of the 1 <sup>st</sup> cha	nnel.
Record	Record Mode	Schedule record/manu	al record/MD record/Ala	rm record
	Playback Mode	Instant playback, norm smart playback	al playback, event playb	oack, mark playback,
	Record	Max 4-channel	Max 8-channel	Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not	t support eSATA port	

	Parameters	HCVR5104HS-S3	HCVR5108HS-S3	HCVR5116HS-S3		
	One HDD Space	6T				
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port			
Port	Communication	RS485 port				
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)				
Others	Power	DC12V				
	Power					
	Consumption	≤7W	≪8W	≪10W		
	(No HDD)					
	Working	-10℃~+55℃				
	Temperature					
	Working	10%~90%				
	Humidity					
	Dimensions	Compact 1U case, 260mm (W) x220mm (D) x44mm (H)				
	Weight (No HDD)	≪0.85KG	≪0.95KG	≤1.05KG		
	Installation Mode	Desk				

# 1.3.35 HCVR71XXHS-S3 Series

	Parameters	HCVR7104HS-S3
System	Main Processor	Industrial embedded micro controller
	OS	Embedded LINUX
Video	Video Encode	H.264
Parameters	Standard	
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF
	Resolution	
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s
	Rate	
	Video Bit Rate	32Kbps-6144Kbps,
		For 720P: default setup is 2Mbps, max supports 4Mbps.
		For 1080P: default setup is 4Mbps, max supports 6Mbps.
	Bit Stream Type	Video stream/composite stream
	Dual-Stream	Support
Audio	Encode	G.711A/G.711U/PCM
Parameters	Standard	
	Audio Sampling	8KHz, 16Bit
	Rate	
Audio Bit Rate		64Kbps
Video Port	Analog Video	4-ch BNC port(HDCVI HD video/general standard definition video
	Input	self-adaptive)
	Network Video	Max add 2 IP channel connections

	Parameters	HCVR7104HS-S3		
	Input	Analog/digital channel switch. Max 6 IP channel connections		
		<ul> <li>Connection bandwidth:8Mbps-24Mbps</li> </ul>		
	Video Output	1-channel VGA output,		
		1-channel HDMI output (of the same video source),		
		HDMI/ VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Coaxial Audio	4-ch		
	Input			
	Audio Output	1-channel RCA port.		
	Bidirectional	Reuse the audio input/output port of the 1 <sup>st</sup> channel.		
	Talk Input			
Record	Record Mode	Schedule record/manual record/MD record/Alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback		
		smart playback		
	Backup Mode	HDD, burner, USB device, network backup		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support eSATA port		
	One HDD Space	6T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)		
Others	Power	DC12V		
	Power	≤8W		
	Consumption			
	(No HDD)			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimensions	Compact 1U case, 260mm (W) x220mm (D) x44mm (H)		
	Weight (No	0.85KG		
	HDD)			
	Installation	Desk		
	Mode			

# 1.3.36 HCVR52XXA-V2 Series

Model	Parameters	HCVR5204A-V2	HCVR5208A-V2	HCVR5216A-V2	
System	Main Processor	High-performance industrial embedded micro controller			

Model	Parameters	HCVR5204A-V2	HCVR5208A-V2	HCVR5216A-V2		
	OS	Embedded LINUX		•		
Video	Video Encode	H.264				
	Standard					
	Encode Resolution	720P/960H/D1/HD1	/2CIF/CIF/QCIF (for	sub-stream only)		
	Video Frame Rate	PAL:1~25f/s; NTS	C:1~30f/s			
	Video Bit Rate	1536Kbps-4096Kbps,				
		For 720P:default va	720P:default value is 2Mbps, max value is 4Mbps			
	Bit Stream Type	Video stream/comp	osite stream			
	Dual-Stream	Support				
Audio	Encode Standard	G.711A, G.711U, P	СМ			
	Audio Sampling Rate	8KHz, 16Bit				
	Audio Bit Rate	64Kbps				
Video Port	Analog Video Input	4-ch, BNC port	8-ch, BNC port	16-ch, BNC port		
	Network Video Input	t Switch 2 analog channels to the IP channels (8Mbps)				
	Video Output	1-ch VGA output,				
		1-ch HDMI output,				
		HDMI/ VGA video o	DMI/ VGA video output at the same time (VGA/HDMI of the			
		same video source)				
	Loop Output	N/A				
	Matrix Output	N/A				
Audio Port	Audio Input	4-ch, RCA port, au	dio via coaxial cable	9		
	Audio Output	1-ch, RCA port				
	Bidirectional Talk	Support (Reuse the	e audio port)			
	Input					
Record	Record Mode		al record, motion of	detect record, alarm		
		record		1		
	Record Playback	Max 4-ch playback	Max 8-ch	Max 16-ch		
			playback	playback		
	Backup Mode	HDD, burner, flash o	, ,			
Alarm	Alarm Input	4-ch alarm input	8-ch alarm input	16-ch alarm input		
	Alarm Output	3-ch alarm output				
HDD	HDD Port	2 SATA ports. Does	not support eSATA	port		
	Space/HDD	4T				
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port				
Port	Communication	RS485 port				
	USB	2 USB ports				
Other	Power	DC12V				
	Power Consumption	≤30W (exclude HD	D)			
	Working Temperature	-10℃~+55℃				
	Working Humidity	10%~90%				
	Dimension	1U case, 375mm	(W) x280mm (D)	x50mm (H)		

Model	Parameters	HCVR5204A-V2	HCVR5208A-V2	HCVR5216A-V2	
	Weight	1.5kg~2.5kg (exclude HDD)			
	Installation Mode	Desk installation			

#### 1.3.37 HCVR72XXA-V2 Series

Model	Parameters	HCVR7204A-V2	HCVR7208A-V2	
System	Main Processor	High-performance industrial emb	edded micro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode Resolution	1080P /720P/960H/D1/HD1/2CIF	F/CIF/QCIF (for sub-stream	
		only)		
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s		
	Video Bit Rate	2048Kbps-6144Kbps Kbps-4096	Kbps,	
		For 1080P:default value is 4Mbps	s, max value is 6Mbps	
	Bit Stream Type	Video stream/composite stream Support		
	Dual-Stream			
Audio	Encode Standard	G.711A, G.711U, PCM		
	Audio Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch, BNC port	8-ch, BNC port	
	Network Video Input	Switch 2 analog channels to the IP channels (16Mbps)		
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/ VGA video output at the sa	ame time (VGA/HDMI of the	
		same video source)		
	Loop Output	N/A		
Audia Dart	Matrix Output	N/A		
Audio Port	Audio Input	4-ch, RCA port, audio via coaxia		
	Audio Output Bidirectional Talk	1-ch, RCA port		
	Bidirectional Talk	Support (Reuse the audio port)		
Record	Record Mode	Auto record, manual record, m	otion detect record alarm	
Record	Necola mode	record		
	Record Playback	Max 4-ch playback	Max 16-ch playback	
	Backup Mode	HDD, burner, flash disk, network		
Alarm	Alarm Input	4-ch alarm input 16-ch alarm input		
	Alarm Output	3-ch alarm output		
HDD	HDD Port	2 SATA ports. Does not support eSATA port.		
	Space/HDD	4T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	RS485 port		

Model	Parameters	HCVR7204A-V2	HCVR7208A-V2		
	USB	2 USB ports			
Other	Power	DC12V			
	Power Consumption	≤30W (exclude HDD)			
	Working Temperature	-10°C~+55°C			
	Working Humidity	10%~90%			
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)			
	Weight	1.5kg~2.5kg (exclude HDD)       Desk installation			
	Installation Mode				

#### 1.3.38 HCVR42XXA-S2/4216AN-S2 Series

Model	Parameters	HCVR4204A- S2	HCVR4208A- S2	HCVR4216A- S2	HCVR4216AN -S2	
System	Main Processor	High-performanc	e industrial embe	edded micro contr	oller	
	OS	Embedded LINU	Х			
Video	Video Encode	H.264				
	Standard					
	Encode	720P(1-15fps)/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)				
	Resolution					
	Video Frame	HDCVI:1~15f/s	(The 1 <sup>st</sup> channe	l supports 25/30f/	s)	
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)				
	Video Bit Rate	1024Kbps-4096Kbps,				
		For 720P:default value is 1Mbps, max value is 4Mbps				
		For 960H:default value is 1Mbps, max value is 3Mbps				
	Bit Stream	Video stream/composite stream				
	Туре					
	Dual-Stream	Support				
Audio	Encode	G.711A, G.711U	, PCM			
	Standard					
	Audio	8KHz,16Bit				
	Sampling Rate					
	Audio Bit Rate	64Kbps			1	
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC por		16-ch, BNC	
	Input			port	port	
	Network Video	Max 2 IPC connections (8Mbps)				
	Input					
	Video Output	1-ch VGA output,				
		1-ch HDMI output, HDMI/ VGA video output at the same time (VGA/HDMI of the same				
		video source)				
	Loop Output	N/A				
		N/A				
	Matrix Output	IN/A				

Model	Parameters	HCVR4204A-	HCVR4208A-	HCVR4216A-	HCV	<b>R4216AN</b>
		S2	S2	S2	-S2	
Audio Port	Audio Input	4-ch, RCA port	9			1-ch ,
						RCA
						port
	Audio Output	1-ch, RCA port				
	Bidirectional	Support (Reuse	e the audio port)			
	Talk Input					
Record	Record Mode	Auto record, manual record, motion detect record, alarm record				
	Record	Max 4-ch		ch Max 16-ch p	laybad	:k
	Playback	playback	playback			
	Backup Mode	HDD, burner, flash disk, network backup.				
Alarm	Alarm Input	8-ch alarm input	8-ch alarm inp	ut 16-ch alarm	input	N/A
	Alarm Output	3-ch alarm output N/A			N/A	
HDD	HDD Port	2 SATA ports. D	oes not support e	eSATA port.		
	Space/HDD	4T				
Communication	Network	1 RJ45 port, 100	Mbps Ethernet p	ort		
Port	Communication	RS485 port				
	USB	2 USB ports				
Other	Power	DC12V/4A				
	Power	≤30W (No HDD	))			
	Consumption					
	Working	-10°C~+55°C				
	Temperature					
	Working 10%~90%					
	Humidity					
	Dimension	1U case, 375m	m (W) x280mm	n (D) <b>x</b> 50mm (H	H)	
	Weight	1.5-2.5kg (no HDD)				
	Installation	Desk installation	l			
	Mode					

#### 1.3.39 HCVR4224/4232AN-S2 Series

Model	Paramete	rs	HCVR4224AN-S2	HCVR4232AN-S2
System	Main Processor		High-performance industrial embedde	ed micro controller
	OS		Embedded LINUX	
Video	Video E	ncode	H.264	
	Standard			
	Encode		720P(1-15fps)/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream of	
	Resolutio	n		
	Video	Frame	<b>e</b> HDCVI:1~15f/s (The 1 <sup>st</sup> / 2 <sup>nd</sup> channel supports 25/30f/s)	
	Rate		CVBS:1~25f/s (PAL); 1~30f/s (NTSC)	

Model	Parameters	HCVR4224AN-S2	HCVR4232AN-S2	
	Video Bit Rate	1024Kbps~4096Kbps,		
		For 720P realtime (The first two chan	inels):default value is 2Mbps,	
		max value is 4Mbps.		
		For 720P non-realtime: default val	ue is 1Mbps, max value is	
		2Mbps.		
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	eo 24-ch, BNC port 32-ch, BNC port		
	Input			
	Network Video	Max 4 IPC connections (16Mbps)		
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/ VGA video output at the same time (VGA/HDMI of the same		
		video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-ch, RCA port, Coaxibale audio	1-ch, RCA port. Coaxibale audio	
	Audio Output	1-ch, RCA port		
	Bidirectional	Support (Reuse the audio port)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion of	letect record, alarm record	
	Record	Max 16-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash disk, network bac	kup.	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports. Does not support eSATA port.		
	Space/HDD	4T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication 1 RS485 port			
	USB	2 USB ports		
		-		

Model	Parameters	HCVR4224AN-S2	HCVR4232AN-S2
	Power	≤30W (With adapter, no HDD)	
	Consumption		
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	1U case, 375mm (W) x280mm (D	) ×50mm (H)
	Weight	1.5-2.5kg (no HDD)	
	Installation	Desk installation	
	Mode		

### 1.3.40 HCVR52XXA-S2/HCVR5216AN-S2 Series

Model	Parameters	HCVR5204A-	HCVR5208A-	HCVR5216A-	HCVF	R5216AN
		S2	S2	S2	-S2	
System	Main Processor	High-performanc	e industrial emb	edded micro cont	roller	
	OS	Embedded LINU	Х			
Video	Video Encode	H.264				
	Standard					
	Encode	1080P(1-15fps)	/720P/960H/D1/F	HD1/2CIF/CIF/QC	IF	
	Resolution					
	Video Frame	HDCVI:1~25f/s	(PAL); 1~30f/s	(NTSC)		
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)				
	Video Bit Rate	2048Kbps-4096Kbps				
		For 1080P/720P:default value is 2Mbps, max value is 4Mbps				/lbps
		For 960H:default value is 1Mbps, max value is 3Mbps				
	Bit Stream	am Video stream/composite stream				
	Туре					
	Dual-Stream	Support				
Audio	Encode	G.711A, G.711U	, PCM			
	Standard					
	Audio	8KHz,16Bit				
	Sampling Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC po	ort 16-ch,	BNC	16-ch,
	Input			port		BNC
						port
	Network Video	Max 2 IPC connections (8Mbps)				
	Input					
	Video Output	1-ch VGA output				
		1-ch HDMI outpu	ıt,			
		HDMI/ VGA vide	o output at the sa	ame time (VGA/H	DMI of	the same
		video source)				

Model	Parameters	HCVR5204A-	HCVR5208A-	HCV	/R5216A-	HCVF	R5216AN
		S2	S2	S2		-S2	
	Loop Output	N/A					
	Matrix Output	N/A					
Audio Port	Audio Input	4-ch, RCA port	, audio via coaxia	al cabl	e		
	Audio Output	1-ch, RCA port					
	Bidirectional	Support (Reuse the audio port)					
	Talk Input						
Record	Record Mode	Auto record, ma	nual record, moti	on det	ect record,	alarm r	ecord
	Record	Max 4-c	h Max	8-ch	Max 16-c	h playba	ack
	Playback	playback	playback				
	Backup Mode	HDD, burner, flash disk, network backup.					
Alarm	Alarm Input	8-ch alarm input	8-ch alarm ir	nput	16-ch input	alarm	N/A
	Alarm Output	3-ch alarm output N/A			N/A		
HDD	HDD Port	2 SATA ports. D	oes not support	eSATA	A port.		
	Space/HDD	4T					
Communication	Network	1 RJ45 port, 100	Mbps Ethernet p	ort			
Port	Communication	RS485 port					
	USB	2 USB ports					
Other	Power	DC12V/4A					DC12V/ 5A
	Power	≤30W (No HDD	)				
	Consumption						
	Working	-10°C~+55°C					
	Temperature						
	Working	10%~90%					
	Humidity						
	Dimension		m (W) <b>x</b> 280mm	n (D)	<b>x</b> 50mm (	H)	
	Weight	1.5-2.5kg (No H	IDD)				
	Installation	Desk installation					
	Mode						

# 1.3.41 HCVR720XA-S2 Series

Model	Parameters	HCVR7204A-S2	HCVR7208A-S2	
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080P /720P/960H/D1/HD1/2CIF/CIF/QCIF		
	Resolution			

Model	Parameters	HCVR7204A-S2	HCVR7208A-S2	
	Video Frame	HDCVI:1~25f/s (PAL); 1~30f/s (N		
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NT		
	Video Bit Rate	2048Kbps-6144Kbps		
		For 1080P:default value is 4Mbps, r	max value is 6Mbps	
		For 720P:default value is 2Mbps,m	-	
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC port	
	Input			
	Network Video	Max 2 IPC connections 16Mbps)		
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/ VGA video output at the same	e time (VGA/HDMI of the same	
		video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-ch, RCA port, audio via coaxial ca	able	
	Audio Output	1-ch, RCA port		
	Bidirectional	Support (Reuse the audio port)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion		
	Record	Max 4-ch playback	Max 8-ch playback	
	Playback			
	Backup Mode	HDD, burner, flash disk, network bac	•	
Alarm	Alarm Input	8-ch alarm input	16-ch alarm input	
	Alarm Output	3-ch alarm output		
HDD	HDD Port	2 SATA ports. Does not support eSA	TA port.	
	Space/HDD	4T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB ports		
Other	Power	DC12V/4A	DC12V/5A	
	Power	≤30W(No HDD)		
	Consumption			

Model	Parameters	HCVR7204A-S2	HCVR7208A-S2
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)	
	Weight	1.5-2.5kg (No HDD)	
	Installation	Desk installation	
	Mode		

### 1.3.42 HCVR42XXA-S3 Series

Model	Parameters	HCVR4204A-S3	HCVR4208A-S3 H	CVR4216A-S3
System	Main Processor	High-performance indus	trial embedded micro cor	troller
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080N/720P/	1080N@12f/720P@15f	/960H/D1/HD1/2
	Resolution	960H/D1/HD1/ CIF/CIF		
		2CIF/CIF/		
	Video Frame	PAL:1~25f/s; NTSC:1~	30f/s	
	Rate			
	Video Bit Rate	32Kbps $\sim$ 4096Kbps,		
		For 720P:default value is 1.5Mbps, max value is 4Mbps.		
		For 1080P:default value	is 1.5Mbps, max value i	s 4Mbps.
	Bit Stream Type	Video stream/composite	stream	
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port (HDCVI	8-ch BNC port(HDCVI	16-ch BNC
	Input	HD video/general	HD video/general	port(HDCVI
		standard definition	standard definition	HD
		video self-adaptive)	video self-adaptive)	video/general
				standard
				definition video
				self-adaptive)

Model	Parameters	HCVR4204A-S3	HCVR4208A-S3	HCVR4216A-S3
	Network Video Input	<ul> <li>Max add 1 IP channel connection</li> <li>Analog /digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:4Mbps- 20Mbps</li> </ul>	<ul> <li>Max add 2 channel connections</li> <li>Analog /digital channel switch. Max 10 channel connections</li> <li>Connection bandwidth:8Mbp 40Mbps</li> </ul>	channel switch. Max 18 IP
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/ VGA video outpu video source)	It at the same time (VG	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	External Audio Input	4-ch, RCA port,		
	Coaxial Audio Input	4-ch	8-ch	16-ch
	Audio Output	1-ch RCA port		
		•		
	Bidirectional Talk Input	Support (Reuse the au	dio port of the 1 <sup>st</sup> chan	nel)
Record		•		
Record	Talk Input	Support (Reuse the au	cord, motion detect reco	ord, alarm record
Record	Talk Input Record Mode Playback Mode Record	Support (Reuse the au Auto record, manual rec Instant playback, norma	cord, motion detect reco	ord, alarm record back, mark playback, Max 16-ch
Record	Talk Input Record Mode Playback Mode Record Playback	Support (Reuse the aud Auto record, manual rec Instant playback, norma smart playback Max 4-ch playback	ord, motion detect reco I playback, event playb Max 8-ch playback	ord, alarm record back, mark playback,
	Talk Input Record Mode Playback Mode Record Playback Backup Mode	Support (Reuse the aud Auto record, manual reconstruction Instant playback, normatismart playback Max 4-ch playback HDD, burner, flash disk,	ord, motion detect reco l playback, event playb Max 8-ch playback network backup.	ord, alarm record back, mark playback, Max 16-ch playback
Record	Talk Input Record Mode Playback Mode Record Playback	Support (Reuse the aud Auto record, manual rec Instant playback, norma smart playback Max 4-ch playback	ord, motion detect reco I playback, event playb Max 8-ch playback	ord, alarm record back, mark playback, Max 16-ch playback 16-ch alarm
	Talk Input Record Mode Playback Mode Record Playback Backup Mode Alarm Input	Support (Reuse the aud Auto record, manual reconstruction Instant playback, normatismart playback Max 4-ch playback HDD, burner, flash disk,	ord, motion detect reco l playback, event playb Max 8-ch playback network backup.	ord, alarm record back, mark playback, Max 16-ch playback
	Talk Input Record Mode Playback Mode Record Playback Backup Mode	Support (Reuse the au Auto record, manual rec Instant playback, norma smart playback Max 4-ch playback HDD, burner, flash disk, 8-ch alarm input 3-ch alarm output	cord, motion detect reco I playback, event playb Max 8-ch playback network backup. 8-ch alarm input	ord, alarm record back, mark playback, Max 16-ch playback 16-ch alarm
Alarm	Talk Input Record Mode Playback Mode Record Playback Backup Mode Alarm Input Alarm Output	Support (Reuse the au Auto record, manual rec Instant playback, norma smart playback Max 4-ch playback HDD, burner, flash disk, 8-ch alarm input	cord, motion detect reco I playback, event playb Max 8-ch playback network backup. 8-ch alarm input	ord, alarm record back, mark playback, Max 16-ch playback 16-ch alarm

Model	Parameters	HCVR4204A-S3	HCVR4208A-S3	HCVR4216A-S3
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)		
Other	Power	DC12V		
	Power	≤7W	≤8W	≤10W
	Consumption			
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	1U case, 375mm (W	) x280mm (D) x50m	m (H)
	Weight	≤1.5KG	≤1.65KG	≤1.8KG
	(No HDD)	≪1.5KG	<1.00KG	
	Installation	Desk installation		
	Mode			

# 1.3.43 HCVR42XXAN-S3 Series

Model	Parameters	HCVR4216AN-S3	HCVR4232AN-S3	
System	Main Processor	High-performance industrial embedde	ed micro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080N@12f/720P@15f/960H/D1/HD1/2CIF/CIF		
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	32Kbps~4096Kbps,		
		For 720P:default value is 1.5Mbps, max value is 4Mbps.		
		For 1080P:default value is 1.5Mbps, max value is 4Mbps.		
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	16-ch BNC port(HDCVI HD	32-ch BNC port(HDCVI HD	
	Input	video/general standard definition	video/general standard definition	
		video self-adaptive)	video self-adaptive)	

Model	Parameters	HCVR4216AN-S3	HCVR4232AN-S3
	Network Video Input	<ul> <li>Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 18 IP channel connections</li> <li>Connection bandwidth:8Mbps-56Mbps</li> </ul>	<ul> <li>Analog /digital channel switch. Max 16 IP channel connections</li> <li>Connection bandwidth: Max 64Mbps</li> </ul>
	Video Output	<ul> <li>1-ch VGA output,</li> <li>1-ch HDMI output,</li> <li>HDMI/ VGA video output at the same time (VGA/HDMI of the same vide source)</li> </ul>	
	Loop Output	N/A	
	Matrix Output	N/A	
Audio Port	External Audio Input	1-ch, RCA port	
	Coaxial Audio Input	16-ch	32-ch
	Audio Output	1-ch RCA port	
	Bidirectional Talk Input	Support (Reuse the audio port of the 1 <sup>st</sup> channel)	
Record	Record Mode	Auto record, manual record, motion d	etect record, alarm record
	Playback Mode	Instant playback, normal playback, ev playback	vent playback, mark playback, smart
	Record Playback	Max 16-ch playback	
	Backup Mode	HDD, burner, flash disk, network back	kup.
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	2 SATA ports. Does not support eSA	
	Space/HDD	6Т	8T
Communication	Network	1 RJ45 port, 100Mbps Ethernet port	
Port	Communication	RS485 port	
Other	USB	2 USB2.0 ports(One at the front pane	and one at the rear panel)
Other	Power	DC12V	<2014
	Power Consumption (No HDD)	≤10	≤20W
	Working Temperature	-10°C~+55°C	

Model	Parameters	HCVR4216AN-S3	HCVR4232AN-S3
	Working	10%~90%	
	Humidity		
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)	
	Weight	≤1.8KG	≤3.3KG
	(No HDD)		≈3.3NG
	Installation	Desk installation	
	Mode		

#### 1.3.44 HCVR52XXA-S3 Series

Model	Parameters	HCVR5204A-S3	HCVR5208A-S3	HCVR5216A-S3	
System	Main Processor	High-performance indust	rial embedded micro cont	roller	
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	1080P@15f/1080N/720F	P/960H/D1/HD1/2CIF/CIF		
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~3	30f/s		
	Rate				
	Video Bit Rate	32Kbps~6144Kbps,			
		For 720P:default value is	2Mbps, max value is 4N	/lbps	
		For 1080P:default value	is 2Mbps, max value is 6	Mbps	
	Bit Stream	Video stream/composite stream			
	Туре				
	Dual-Stream	Support			
Audio	Encode	G.711A, G.711U, PCM			
	Standard				
	Audio	8KHz,16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-ch BNC port (HDCVI	8-ch BNC port(HDCVI	16-ch BNC	
	Input	HD video/general	HD video/general	port(HDCVI HD	
		standard definition	standard definition	video/general	
		video self-adaptive)	video self-adaptive)	standard definition	
				video self-adaptive)	

Model	Parameters	HCVR5204A-S3	HCVR5208A-S3	HCVR5216A-S3
	Network Video Input	<ul> <li>Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbps- 24Mbps</li> </ul>	<ul> <li>Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connection bandwidth:16Mbp s-48Mbps</li> </ul>	<ul> <li>Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:32Mb ps-96Mbps</li> </ul>
	Video Output	source)	t at the same time (VGA/F	IDMI of the same video
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	External Audio Input	4-ch, RCA port,		
	Coaxial Audio Input	4-ch	8-ch-	16-ch
	Audio Output	1-ch RCA port	·	
	Bidirectional Talk Input	Support (Reuse the auc	lio port of the 1 <sup>st</sup> channel )	
Record	Record Mode	Auto record, manual reco	ord, motion detect record,	alarm record
	Playback Mode	Instant playback, normal playback	playback, event playback	k, mark playback, smart
	Record Playback	Max 4-ch playback	Max 8-ch playback	Max 16-ch playback
	Backup Mode	HDD, burner, flash disk,	network backup.	
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input
	Alarm Output	3-ch alarm output		
HDD	HDD Port	2 SATA ports. Does not	support eSATA port.	
	Space/HDD	4T	6T	
Communication	Network	1 RJ45 port, 100Mbps E	thernet port	
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)		
Other	Power	DC12V		
	Power Consumption (No HDD)	≤7W	≤8W	≤10W

Model	Parameters	HCVR5204A-S3	HCVR5208A	-S3 HCVR5216A-S3	
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimension	1U case, 375mm (W) :	x280mm (D)	×50mm (H)	
	Weight	≤1.5KG	≤1.65KG	≤1.8KG	
	(no HDD)	<1.5KG			
	Installation	Desk installation			
	Mode				
1.3.45 HC	VR52XXAN-S3 S	eries			
Model	Parameters	HCVR5216AN-S3		HCVR5232AN-S3	
System	Main Processor	High-performance indust	rial embedded	micro controller	
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	1080P@15f/1080N/720P	/960H/D1/HD	1/2CIF/CIF	
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	$32$ Kbps $\sim$ 6144Kbps,			
		For 720P:default value is	-	-	
		For 1080P:default value i		x value is 6Mbps	
	Bit Stream	Video stream/composite	stream		
	Туре				
	Dual-Stream	Support			
Audio	Encode	G.711A, G.711U, PCM			
	Standard				
	Audio	8KHz,16Bit			
	Sampling Rate	C 41/h = e			
Video Dert	Audio Bit Rate	64Kbps			
Video Port	Analog Video	16-ch BNC port(HE		32-ch BNC port(HDCVI HD	
	Input	video/general standard video self-adaptive)		video/general standard definition video self-adaptive)	
	Network Video	<ul> <li>Max add 8 IP channel</li> </ul>		<ul> <li>Analog</li> </ul>	
	Input	connections	51	/digital channel	
		<ul> <li>Analog</li> </ul>		switch. Max 32 IP channel	
		/digital channel		connections	
		switch. Max 24	P channel	<ul> <li>Connection bandwidth: Max</li> </ul>	
		connections		128Mbps	
		<ul> <li>Connection</li> </ul>		·	
		bandwidth:32Mbps-9			

Model	Parameters	HCVR5216AN-S3	HCVR5232AN-S3	
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/ VGA video output at the same	time (VGA/HDMI of the same video	
		source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	External	1-ch, RCA port		
	Audio Input		-	
	Coaxial Audio	16-ch	32-ch	
	Input			
	Audio Output	1-ch RCA port		
	Bidirectional	Support (Reuse the audio port of the	e 1 <sup>st</sup> channel)	
	Talk Input			
Record	Record Mode			
	Playback Mode			
		playback		
	Record	Max 16-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash disk, network bacl	kup.	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports. Does not support eSA		
	Space/HDD	6Т	8T	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at the front pane	el and one at the rear panel)	
Other	Power	DC12V	1	
	Power	≤10W	≤25W	
	Consumption			
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity	111 0000 275mm (MI) - 200mm (D		
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)		
	Weight (no HDD)	≤1.8KG		
	Installation	Desk installation		
	Mode			

# 1.3.46 HCVR72XXA-S3/HCVR7216AN-S3 Series

Model	Parameters	HCVR7204A-S3	HCVR7208A-S3	HCVR7216A-S3	HCVR7216AN- S3
System	Main Processor	High-performance	e industrial embedd	ed micro controller	
	OS	Embedded LINUX	Embedded LINUX		
Video	Video Encode Standard	H.264			
	Encode Resolution	1080P@15f/1080	N/720P/960H/D1/H	ID1/2CIF/CIF	
	Video Frame	PAL:1~25f/s; NT	SC:1~30f/s		
	Rate Video Bit Rate	32Kbps~6144Kbps,         For 720P:default value is 2Mbps, max value is 4Mbps         For 1080P:default value is 2Mbps, max value is 6Mbps         Video stream/composite stream			
	Bit Stream Type				
	Dual-Stream	Support			
Audio	Encode Standard	G.711A, G.711U,	PCM		
	Audio Sampling Rate	8KHz,16Bit			
	Audio Bit Rate	64Kbps			
Video Port	Analog Video Input	4-ch BNC port (HDCVI HD video/general standard definition video	8-ch BNC port(HDCVI HD video/general standard definition video	16-ch BNC port(HDCVI HD video/general standard definition video	16-ch BNC port(HDCVI HD video/general standard definition video
		self-adaptive)	self-adaptive)	self-adaptive)	self-adaptive)

Model	Parameters	HCVR7204A-S3	HCVR7208A-S3	HCVR7216A-S3	HCVR7216AN- S3
	Network Video Input	<ul> <li>Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8 Mbps-24Mb ps</li> </ul>	<ul> <li>Max add 4 IP channel connection</li> <li>Analog /digital channel switch.</li> <li>Max 12 IP channel connection s</li> <li>Connection n bandwidth: 16Mbps-48 Mbps</li> </ul>	<ul> <li>Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:3 2Mbps-96M bps</li> </ul>	<ul> <li>Max add 8 IP channel connection</li> <li>Analog /digital channel switch. Max 24 IP channel connection s</li> <li>Connection bandwidth: 32Mbps-96 Mbps</li> </ul>
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/ VGA video output at the same time (VGA/HDMI of the same video source)			of the same video
	Loop Output	N/A			
	Matrix Output	N/A			1
Audio Port	External Audio Input	4-ch, RCA port,			1-ch, RCA port
	Coaxial Audio Input	4-ch	8-ch-	16-ch	16-ch
	Audio Output	1-ch RCA port			
	Bidirectional Talk Input	Support (Reuse t	he audio port of the	e 1 <sup>st</sup> channel)	
Record	Record Mode	Auto record, manu	ual record, motion of	detect record, alarm	record
	Playback Mode	Instant playback, i playback	normal playback, e	event playback, marl	k playback, smart
	Record	Max 4-ch	Max 8-ch	Max 16-ch playba	ck
	Playback	playback	playback		
	Backup Mode		n disk, network bac		I
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input	N/A
	Alarm Output	3-ch alarm output N/A			
HDD	HDD Port	2 SATA ports. Does not support eSATA port.			
	Space/HDD	4T	6T		
Communication	Network	1 RJ45 port, 100M	Ibps Ethernet port		

Model	Parameters	HCVR7204A-S3	HCVR7208A-S3	HCVR7216A-S3	HCVR7216AN- S3	
Port	Communication	RS485 port				
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)			ar panel)	
Other	Power	DC12V				
	Power	≤8W	≤10W	≤15W	≤15W	
	Consumption					
	(No HDD)					
	Working	-10°C~+55°C				
	Temperature					
	Working	10%~90%				
	Humidity					
	Dimension	1U case, 375mm	n (W) <b>x280mm</b> (E	D) x50mm (H)		
	Weight (no HDD)	≤1.5KG	≤1.65KG	≤1.8KG	≤1.8KG	
	Installation	Desk installation				
	Mode					

# 1.3.47 HCVR52XXL-V2 Series

Model	Parameters	HCVR5204L-V2	HCVR5208L-V2	HCVR5216L-V2	
System	Main Processor	High-performance industrial e	mbedded micro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	720P/960H/D1/HD1/2CIF/CIF	F/QCIF (for sub-stream only	y)	
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	1536Kbps-4096Kbps,			
		For 720P:default value is 2M	ops, max value is 4Mbps		
	Bit Stream	Video stream/composite strea	am		
	Туре				
	Dual-Stream	Support			
Audio	Encode	G.711A, G.711U, PCM			
	Standard				
	Audio	8KHz, 16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-ch, BNC port 8-ch, BNC port 16-ch, BN			
	Input				
	Network Video	Switch 2 analog channels to the IP channels (8Mbps)			
	Input				

Model	Parameters	HCVR5204L-V2	HCVR5208L-V2	HCVR5216L-V2		
	Video Output	1-ch VGA output,				
		1-ch HDMI output,				
		HDMI/ VGA video output at th	ne same time (VGA/HDM	I of the same video		
		source)				
	Loop Output	N/A				
	Matrix Output	N/A				
Audio Port	Audio Input	4-ch, RCA port, audio via coaxial cable				
	Audio Output	1-ch, RCA port				
	Bidirectional	Support (Reuse the audio po	ort)			
	Talk Input					
Record	Record Mode	Auto record, manual record, motion detect record, alarm record				
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch		
	Playback			playback		
	Backup Mode	HDD, burner, flash disk, netw	ork backup.			
Alarm	Alarm Input	4-ch alarm input	8-ch alarm input	16-ch alarm input		
	Alarm Output	3-ch alarm output				
HDD	HDD Port	2 SATA ports. Does not supp	ort eSATA port			
	Space/HDD	4T				
Communication	Network	1 RJ45 port, 1000Mbps Ether	met port			
Port	Communication	RS485 port				
	USB	2 USB ports				
Other	Power	DC12V				
	Power	≤30W (exclude HDD)				
	Consumption					
	Working	-10°C~+55°C				
	Temperature					
	Working	10%~90%				
	Humidity					
	Dimension	1.5U case, 440mm (W) x410mm (D) x70mm (H)				
	Weight	$3.0$ kg $\sim$ $3.5$ kg (exclude HDD)				
	Installation	Desk installation				
	Mode					
1.3.48 HC	VR54XXL-V2 Se	ries				

#### 1.3.48 HCVR54XXL-V2 Series

Model	Parameters	HCVR5404L-V2	HCVR5408L-V2	HCVR5416L-V2	
System	Main Processor	High-performance industrial embedded micro controller			
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	720P/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)		y)	
	Resolution				

Model	Parameters	HCVR5404L-V2	HCVR5408L-V2	HCVR5416L-V2	
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s	3	•	
	Rate				
	Video Bit Rate	1536Kbps-4096Kbps,			
		For 720P:default value is 2M	lbps, max value is 4Mbps	S	
	Bit Stream	Video stream/composite stre	am		
	Туре				
	Dual-Stream	Support			
Audio	Encode	G.711A, G.711U, PCM			
	Standard				
	Audio	8KHz,16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps		1	
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC port	16-ch, BNC port	
	Input				
	Network Video	Switch 2 analog channels to	the IP channels (8Mbps)	)	
	Input				
	Video Output	1-ch VGA output,			
		1-ch HDMI output,			
		1-ch TV output,			
		HDMI/ VGA/TV video outpu	It at the same time (VG	A/HDIVII/IV of the	
	Loop Output	same video source) N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	4-ch, BNC port, audio via c	avial cable		
Addio Fort	Audio Output	1-ch, BNC port			
	Bidirectional	Support (Independent bidire	ectional talk port)		
	Talk Input				
Record	Record Mode	Auto record, manual record,	motion detect record, alar	rm record	
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch	
	Playback			playback	
	Backup Mode	HDD, burner, flash disk, net	vork backup.		
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input	
	Alarm Output	6-ch alarm output	·		
HDD	HDD Port	4 SATA ports. Does not sup	port eSATA port		
	Space/HDD	4T			
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port			
Port	Communication				
	USB	3 USB ports (One at the front panel and two at the rear panel)			
Other	Power	AC90~264V 50+2% Hz (4/8-ch max 75W)			
	Power	≤35W (exclude HDD)			
	Consumption				

Model	Parameters	HCVR5404L-V2	HCVR5408L-V2	HCVR5416L-V2	
	Working	-10°C~+55°C			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimension	1.5U case, 440mm (W) x410mm (D) x70mm (H)			
	Weight	4.5kg~5.5kg (exclude HDD)			
	Installation	Desk/rack installation			
	Mode				

## 1.3.49 HCVR4224/32L-S2 Series

Model	Parameters	HCVR4224L-S2	HCVR4232L-S2	
System	Main Processor	High-performance industrial embedded micro controller		
-	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	720P(1-15fps)/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)		
	Resolution			
	Video Frame	HDCVI:1~15f/s (The 1 <sup>st</sup> / 2 <sup>nd</sup> channel sup	ports 25/30f/s)	
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)		
	Video Bit Rate	1024Kbps $\sim$ 4096Kbps,		
		For 720P realtime (The first two channels):default value is 2Mbps, max		
		value is 4Mbps.		
		For 720P non-realtime: default value is 1M	lbps, max value is 2Mbps.	
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	24-ch, BNC port	32-ch, BNC port	
	Input			
	Network Video	Max 4 IPC connections (16Mbps)		
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/ VGA video output at the same time (VGA/HDMI of the same video		
		source)		
	Loop Output	N/A		
	Matrix Output			
Audio Port	Audio Input	4-ch, RCA port, Coaxible audio	4-ch,RCA port. Coaxible audio	

Model	Parameters	HCVR4224L-S2	HCVR4232L-S2
	Audio Output	1-ch, RCA port	
	Bidirectional	Support (Reuse the audio port)	
	Talk Input		
Record	Record Mode	Auto record, manual record, motion detect record, alarm record	
	Record	Max 16-ch playback	
	Playback		
	Backup Mode	HDD, burner, flash disk, network backup.	
Alarm	Alarm Input	16-channel alarm input	
	Alarm Output	3-channel alarm output	
HDD	HDD Port	2 SATA ports. Does not support eSATA port.	
	Space/HDD	4T	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port	
Port	Communication	1 RS232 port, 1 RS485 port	
	USB	2 USB ports	
Other	Power	DC12V/5A	
	Power	≤30W (With adapter, no HDD)	
	Consumption		
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	1.5U case, 440mm (W) x410mm (D) x70mm (H)	
	Weight	4.5-5.5kg (no HDD)	
	Installation	Desk/rack installation	
	Mode		

# 1.3.50 HCVR44XXL-S2 Series

Model	Parameters	HCVR4404L-S2	HCVR4408L-S2	HCVR4416L-S2
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	720P/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)		only)
	Resolution			
	Video Frame	HDCVI:1~15f/s (The 1st channel supports 25/30f/s)		
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTSC)		
	Video Bit Rate	1536Kbps-4096Kbps,		
		For 720P:default value is 2Mbps, max value is 4Mbps         Video stream/composite stream         Support		S
	Bit Stream Type			
	Dual-Stream			

Model	Parameters	HCVR4404L-S2	HCVR4408L-S2	HCVR4416L-S2	
Audio	Encode				
	Standard				
	Audio Sampling				
	Rate				
	Audio Bit Rate				
Video Port	Analog Video	4-ch, BNC port 8-ch, BNC port 16-ch, E			
	Input				
	Network Video	Switch 2 analog channels	to the IP channels (8Mbp	S)	
	Input				
	Video Output	1-ch VGA output,			
		1-ch HDMI output,			
		1-ch TV output,			
		HDMI/ VGA/TV video out	put at the same time (V	GA/HDMI/TV of the	
		same video source)			
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	4-ch, BNC port, audio via	coaxial cable		
	Audio Output	1-ch, BNC port			
	Bidirectional	Support (Independent bidirectional talk port)			
	Talk Input				
Record	Record Mode	Auto record, manual record			
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch	
	Playback			playback	
	Backup Mode	HDD, burner, flash disk, ne			
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input	
	Alarm Output	6-ch alarm output			
HDD	HDD Port	4 SATA ports. Does not su	pport eSATA port		
	Space/HDD	6T			
Communication	Network	1 RJ45 port, 1000Mbps Etl	•		
Port	Communication	1 RS232 port, 1 RS422 po	•		
	USB	3 USB ports (One at the fro	•	ear panel)	
Other	Power	AC90~264V 50+2% Hz (	4/8-ch max 75W)		
	Power	≤35W (exclude HDD)			
	Consumption				
	Working	-10℃~+55℃ 10%~90% 1.5U case, 440mm (W) ×410mm (D) ×70mm (H) 4.5kg~5.5kg (exclude HDD)			
	Temperature				
	Working				
	Humidity				
	Dimension				
	Weight				

Model	Parameters	HCVR4404L-S2	HCVR4408L-S2	HCVR4416L-S2
	Installation	Desk/rack installation		
	Mode			

Model	Parameters	HCVR4424L-S2	HCVR4432L-S2	
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode Standard	H.264		
	Encode			
	Resolution	720P/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)		
	Video Frame			
	Rate	HDCVI:1~15f/s (The 1 <sup>st</sup> / 2 <sup>nd</sup> channel supports 25/30f/s) CVBS:1~25f/s (PAL); 1~30f/s (NTSC)		
	Video Bit Rate	· · ·		
		1024Kbps-4096Kbps, For 720P realtime (The first two chann	ols):default value is 2Mbps max	
		value is 4Mbps.	eis).derault value is zivibps, max	
		For 720P non-realtime: default value is	1Mbps max value is 2Mbps	
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
Audio	Standard	G.7 HA, G.7 HO, FGM		
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	24-ch, BNC port	32-ch, BNC port	
	Input			
	Network Video	Switch 4 analog channels to the IP cha	nnels (16Mbps)	
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		HDMI/ VGA/TV video output at the same time (VGA/HDMI/TV of the		
		same video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-ch, BNC port, audio via coaxial cabl	e	
	Audio Output	1-ch, BNC port		
	Bidirectional	Support (Independent bidirectional talk port)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion de	tect record, alarm record	
	Record Max 16-ch playback			
	Playback			
	Backup Mode			

Model	Parameters	HCVR4424L-S2	HCVR4432L-S2
Alarm	Alarm Input	16-ch alarm input	
	Alarm Output	6-ch alarm output	
HDD	HDD Port	4 SATA ports. Does not support eSATA port	
	Space/HDD	6Т	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port	
Port	Communication	1 RS232 port, 1 RS422 port	
	USB	3 USB ports (One at the front panel and	d two at the rear panel)
Other	Power	AC110~240V 50+2%HZ (max 220W)	
	Power	≤35W (exclude HDD)	
	Consumption		
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	1.5U case, 440mm (W) x410mm (D) x70mm (H)	
	Weight	4.5kg $\sim$ 5.5kg (exclude HDD)	
	Installation	Desk/rack installation	
	Mode		

# 1.3.51 HCVR48XXS-S2 Series

Model	Parameters	HCVR4804S-S2	HCVR4808S-S2	HCVR4816S-S2
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	<ul> <li>720P/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)</li> <li>HDCVI:1~15f/s (The 1st channel supports 25/30f/s) CVBS:1~25f/s (PAL); 1~30f/s (NTSC)</li> <li>1536Kbps-4096Kbps, For 720P:default value is 2Mbps, max value is 4Mbps</li> </ul>		
	Standard			
	Encode			
	Resolution			
	Video Frame			
	Rate			
	Video Bit Rate			
	Bit Stream Type			
	Dual-Stream			
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC port	16-ch, BNC port
	Input			

Model	Parameters	HCVR4804S-S2	HCVR4808S-S2	HCVR4816S-S2
	Network Video	Switch 2 analog channels t	o the IP channels (8Mb	ps)
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		HDMI/ VGA/TV video outp	out at the same time (	/GA/HDMI/TV of the
		same video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-ch, BNC port, audio via	8-ch , BNC port,	16-ch, BNC port,
		coaxial cable	audio via coaxial	audio via coaxial
			cable	cable
	Audio Output	1-ch, BNC port		
	Bidirectional	Support (Independent bidi	rectional talk port)	
	Talk Input			
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch
	Playback			playback
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input
	Alarm Output	6-ch alarm output		
HDD	HDD Port	8 SATA ports, does not su	pport eSATA port	
	Space/HDD	6T		
Communication	Network	1 RJ45 port, 1000Mbps Eth	nernet port	2 RJ45 ports,
Port				1000Mbps
				Ethernet ports
	Communication	1 RS232 port, 1 RS422 por	•	
	USB	4 USB ports (Two at the fro	•	rear panel)
Other	Power	AC90~264V 50+2% Hz (N	viax 220vv)	
	Power	≤35W (exclude HDD)		
	Consumption			
	Working	-10℃~+55℃		
	Temperature	10%~90%         2U case, 440mm (W) ×460mm (D) ×89mm (H)         7.0kg~8.0kg (exclude HDD)		
	Working Humidity			
	Dimension			
	Weight			
	Installation	Desk/rack installation		
	Mode			
	moue			

Model	Parameters	HCVR4824S-S2	HCVR4832S-S2	
System	Main Processor	High-performance industrial embeddec	l micro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	720P/960H/D1/HD1/2CIF/CIF/QCIF (for sub-stream only)		
	Resolution			
	Video Frame	HDCVI:1~15f/s (The 1 <sup>st</sup> / 2 <sup>nd</sup> channel	supports 25/30f/s)	
	Rate	CVBS:1~25f/s (PAL); 1~30f/s (NTS	C)	
	Video Bit Rate	1024Kbps-4096Kbps, For 720P realtime (The first two channels):default value is 2Mbps, ma value is 4Mbps.		
		For 720P non-realtime: default value is	1Mbps, max value is 2Mbps.	
	Bit Stream Type	Video stream/composite stream Support		
	Dual-Stream			
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	24-ch, BNC port	32-ch, BNC port	
	Input			
	Network Video	Switch 4 analog channels to the IP channels (16Mbps)		
	Input			
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		HDMI/ VGA/TV video output at the s	ame time (VGA/HDMI/TV of the	
		same video source)		
	Loop Output	N/A		
Audio Dari	Matrix Output	N/A	40 ab DNO ment of the t	
Audio Port	Audio Input	16-ch, BNC port, audio via coaxial	16-ch, BNC port, audio via	
	Audia Outrout	cable	coaxial cable	
	Audio Output	1-ch, BNC port	k port)	
	Bidirectional	Support (Independent bidirectional tal	κροπ	
Record	Talk Input	Auto record manual record motion de	tast record alarm record	
Record	Record Mode	Auto record, manual record, motion detect record, alarm record Max 16-ch playback HDD, burner, flash dick, patwork backup		
	Record			
	Playback			
Alarm	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	16-ch alarm input		
	Alarm Output	6-ch alarm output		
HDD	HDD Port	8 SATA ports		

Model	Parameters	HCVR4824S-S2	HCVR4832S-S2
	Space/HDD	6T	
Communication	Network	2 RJ45 ports, 1000Mbps Ethernet ports	3
Port	Communication	1 RS232 port, 1 RS422 port	
	USB	4 USB ports (Two at the front panel and	d two at the rear panel)
Other	Power	AC110~240V 50+2%HZ (Max 220W)	
	Power	≤35W (exclude HDD)	
	Consumption		
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	2U case, 440mm (W) x460mm (D) x89mm (H) 7.0kg~8.0kg (exclude HDD)	
	Weight		
	Installation	Desk/rack installation	
	Mode		

### 1.3.52 HCVR58XXS-V2 Series

Model	Parameters	HCVR5804S-V2	HCVR5808S-V2	HCVR5816S-V2
System	Main Processor	High-performance industria	al embedded micro controll	er
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	720P/960H/D1/HD1/2CIF/0	CIF/QCIF (for sub-stream of	only)
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f	f/s	
	Rate			
	Video Bit Rate	1536Kbps-4096Kbps,		
		For 720P:default value is 2	Mbps, max value is 4Mbp	S
	Bit Stream Type	Video stream/composite st	ream	
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio Sampling	8KHz,16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch, BNC port	8-ch, BNC port	16-ch, BNC port
	Input	Switch 2 analog channels to the IP channels (8Mbps)		
	Network Video			
	Input			

Model	Parameters	HCVR5804S-V2	HCVR5808S-V2	HCVR5816S-V2
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		HDMI/ VGA/TV video outp	out at the same time	(VGA/HDMI/TV of the
		same video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-ch, BNC port, audio via	8-ch, BNC port,	16-ch, BNC port,
		coaxial cable	audio via coaxial	audio via coaxial
			cable	cable
	Audio Output	1-ch, RCA port		
	Bidirectional	Support (Independent bidi	rectional talk port)	
	Talk Input			
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch
	Playback			playback
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input
	Alarm Output	6-ch alarm output		
HDD	HDD Port	8 SATA ports, does not su	pport eSATA port	
	Space/HDD	4T		
Communication	Network	2 RJ45 ports, 1000Mbps E	thernet port	
Port	Communication	1 RS232 port, 1 RS422 por	rt, 1 RS485 port	
	USB	3 USB ports (One at the fro	ont panel and two at the	e rear panel)
Other	Power	AC90~264V 50+2% Hz (M	Max 220W)	
	Power	≤35W (exclude HDD)		
	Consumption			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	2U case, 440mm (W) $\times$ 4	60mm (D) ×89mm (	H)
	Weight	7.0kg~8.0kg (exclude HDD) Desk/rack installation		
	Installation			
	Mode			
1.3.53 HC	/R71XXH-4M Ser	ies		
Model	Parameters	HCVR7104H-4M H	ICVR7108H-4M H	CVR7116H-4M
System	Main Processor	Industrial embedded mic	ro controller	
1				

System	Main Processor		Industrial embedded micro controller		
	OS		Embedded LINUX		
Video	Video	Encode	H.264+/H.264		
Parameters	Standard				

Model	Parameters	HCVR7104H-4M	HCVR7108H-4M	HCVR7116H-4M	
	Encode	Main		stream:	
	Resolution	2K(2560*1440)@15f/1	080P/720P/960H/D1/	HD1/BCIF/CIF/QCIF	
		Sub stream: D1/CIF/Q	CIF		
	Video Frame Rate	2K resolution: PAL:1~	15f/s; NTSC:1~15f/s		
		Other resolutions: PAL	Other resolutions: PAL:1~25f/s; NTSC:1~30f/s		
	Video Bit Rate	32Kbps-6144Kbps,	32Kbps-6144Kbps,		
		For 720P: default setup is 2Mbps, max supports 4Mbps.			
		For 1080N: default setup is 4Mbps, max supports 6Mbps.			
		For 2K: non realtime d	lefault setup is 4Mbps	, max supports 6Mbps.	
	Bit Stream Type	Video stream/composi	te stream		
	Dual-Stream	Support			
Audio	Encode Standard	G.711A/G.711U/PCM			
Parameters	Audio Sampling	8KHz, 16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-ch BNC port	8-ch BNC port	16-ch BNC port	
	Input	(HDCVI/CVBS)	(HDCVI/CVBS)	(HDCVI/CVBS)	
	Network Video	• Max add 2 IP	Max add 4 IP	Max add 8 IP	
	Input	channel	channel	channel	
		connection.	connection.	connection.	
		<ul> <li>Analog</li> </ul>	<ul> <li>Analog</li> </ul>	<ul> <li>Analog</li> </ul>	
		/digital channel	/digital channel	/digital channel	
		switch. Max 6 IP	switch. Max 12	switch. Max 24 IP	
		channel	IP channel	channel	
		connections	connections	connections	
		<ul> <li>Connection</li> </ul>	<ul> <li>Connection</li> </ul>	Connection	
		bandwidth:8Mbp	bandwidth:16	bandwidth:32Mbps-	
		s-24Mbps	Mbps-48Mbps	96Mbps	
	Video Output	1-channel VGA output	,		
		1-channel HDMI outpu	ıt, max 4K(3840*2160	)@30f	
		HDMI/ VGA video out	out at the same time (	of the same video source	
		or different video sour	ce).		
	Loop Output	N/A			
	Matrix Output	When the HDMI and	d VGA are of differe	ent video output, system	
		supports one matrix ou	utput.		
Audio Port	Audio Input	1-channel RCA port.			
	Coaxial Audio	N/A			
	Input	1-channel RCA port.			
	Audio Output				
	Bidirectional Talk				
	Input				
	-				

Model	Parameters	HCVR7104H-4M	HCVR7108H-4M	HCVR7116H-4M	
		record			
	Playback Mode	Instant playback, normal playback, event playback, mark playback,			
		smart playback	smart playback		
	Playback Channel	4-channel	8-channel	16-channel	
	Backup Mode	HDD, burner, USB dev	vice, network backup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port			
	One HDD Space	8T			
Communication	Network	1 RJ45 port, 1000Mbp	os Ethernet port		
Port	Communication	1 RS485 port			
	USB	2 USB ports(One USE	32.0 port at the front p	banel and one USB3.0 port	
		at the rear panel)			
Others	Power	DC12V			
	Power	≤12W	≤13W	≤20W	
	Consumption (No				
	HDD)				
	Working	-10℃~+55℃			
	Temperature				
	Working Humidity	10%~90%			
	Dimensions	Mini 1U case, 325mm (W) x245mm (D) x45mm (H)			
	Weight (No HDD)	≤1.25KG	≤1.25KG	≤1.40KG	
	Installation Mode	Desk			

## 1.3.54 HCVR72XXAN-4M Series

Model	Parameters	HCVR7204AN-4M	HCVR7208AN-4M	HCVR7216AN-4M	
System	Main Processor	Industrial embedded n	Industrial embedded micro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264+/H.264			
Parameters	Standard				
	Encode	Main		stream:	
	Resolution	2K(2560*1440)/1080P	/720P/960H/D1/HD1/I	BCIF/CIF/QCIF	
		Sub stream: D1/CIF/QCIF			
	Video Frame Rate	2K resolution: PAL:1~	15f/s; NTSC:1~15f/s		
		Other resolutions: PAL	.:1~25f/s; NTSC:1~30	Of/s	
	Video Bit Rate	32Kbps-6144Kbps,			
		For 720P: default setu	p is 2Mbps, max sup	ports 4Mbps.	
		For 1080N: default set	up is 4Mbps, max su	pports 6Mbps.	
		For 2K: non realtime d	lefault setup is 4Mbps	, max supports 6Mbps.	
	Bit Stream Type	Video stream/composite stream			
	Dual-Stream	Support			

Model	Parameters	HCVR7204AN-4M	HCVR7208AN-4M	HCVR7216AN-4M
Audio	Encode Standard	G.711A/G.711U/PCM		
Parameters	Audio Sampling	8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC port	16-ch BNC port
	Input	(HDCVI/CVBS)	(HDCVI/CVBS)	(HDCVI/CVBS)
	Network Video	• Max add 2 IP	• Max add 4 IP	• Max add 8 IP
	Input	<ul> <li>channel connection.</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:8Mbp s-24Mbps</li> </ul>	channel connection. • Analog /digital channel switch. Max 12 IP channel connections • Connection bandwidth:16 Mbps-48Mbps	<ul> <li>channel</li> <li>connection.</li> <li>Analog</li> <li>/digital channel</li> <li>switch. Max 24 IP</li> <li>channel</li> <li>connections</li> <li>Connection</li> <li>bandwidth:32Mbps-</li> <li>96Mbps</li> </ul>
	Video Output	<ul> <li>1-channel VGA output,</li> <li>1-channel HDMI output, max 4K(3840*2160)@30f</li> <li>HDMI/ VGA video output at the same time (of the same video sor different video source).</li> </ul>		
	Loop Output	N/A		
	Matrix Output			different video, system
Audia Dart		supports one matrix ou	itput.	
Audio Port	Audio Input Coaxial Audio	1-channel RCA port. N/A		
	Input	IN/A		
	Audio Output	1-channel RCA port.		
	Bidirectional Talk	Reuse the audio input	output port	
	Input			
Record	Record Mode	record		d/Alarm record/intelligent
	Playback Mode	Instant playback, normal playback, event playback, mark play smart playback		
	Playback Channel	4-channel	8-channel	16-channel
	Backup Mode	HDD, burner, USB dev	vice, network backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports		
	One HDD Space	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		

Model	Parameters	HCVR7204AN-4M	HCVR7208AN-4M	HCVR7216AN-4M
	USB	2 USB ports(One USB2.0 port at the front panel and one USB3.0 port		
		at the rear panel)		
Others	Power	DC12V		
	Power	≤12W	≤13W	≤20W
	Consumption (No			
	HDD)			
	Working	-10℃~+55℃		
	Temperature			
	Working Humidity	10%~90%		
	Dimensions	1U case, 375mm (W) x280mm (D) x50mm (H)		
	Weight (No HDD)	≤1.60KG	≤1.60KG	≤1.75KG
	Installation Mode	Desk		

## 1.3.55 XVR410XC Series

	Parameters	XVR4104C	XVR4108C	
System	Main Processor	Industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode Resolution	1080N/720P/960H/D1/HD1/2CIF/CIF	1080N@12f/720P@15f	
			/960H/D1/HD1/2CIF/CIF	
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s		
	Video Bit Rate	32Kbps-4096Kbps		
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		
Audio	Encode Standard	G.711A/G.711U/PCM		
Parameters	Audio Sampling	g 8KHz, 16Bit		
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port(CVBS/CVI/AHD/ other	8-ch BNC port(CVBS/CVI/	
		analog HD video self-adaptive)	AHD/other analog HD video	
			self-adaptive)	
	Network Video Input	• There is no IP channel by default.	• There is no IP channel	
		Max add 1 IP channel	by default.Max add 2 IP	
		connection	channel connections	
		• Analog/digital channel switch. Max	Analog/digital channel	
		5 IP channel connections	switch. Max 10 IP	
		Connection	channel connections	
		bandwidth:0Mbps-20Mbps	Connection	
			bandwidth:0Mbps-40M bps	
	Video Output	1-channel VGA output,	פקט	
4				

	Parameters	XVR4104C	XVR4108C	
		1-channel HDMI output (of the same HDMI/ VGA video output at the same	<i>,</i> .	
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	1-channel RCA port.		
	Coaxial Audio Input	N/A		
	Audio Output	1-channel RCA port.		
	Bidirectional Talk Input	Reuse the audio input/output port of t	he 1 <sup>st</sup> channel.	
Record	Record Mode	Schedule record/manual record/MD re	ecord/Alarm record	
	Playback Mode	Instant playback, normal playback, event playback, mark playback,		
		smart playback		
	Backup Mode	HDD, burner, USB device, network ba	ackup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not support eSAT/	A port	
	One HDD Space	6T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports( at the rear panel)		
Others	Power	DC12V		
	Power Consumption	≤7W	≤8W	
	(No HDD)			
	Working	-10℃~+55℃		
	Temperature			
	Working Humidity	10%~90%		
	Dimensions	SMART 1U case, 270mm(W)x205	mm (D) x41mm (H)	
	Weight (No HDD)	≪0.5KG	≤0.55KG	
	Installation Mode	Desk		

## 1.3.56 XVR510XC Series

	Parameters	XVR5104C	XVR5108C	
System	Main Processor	Industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode Resolution	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF/		
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s		
	Video Bit Rate	32Kbps-6144Kbps		
	Bit Stream Type	Video stream/composite stream		
	Dual-Stream	Support		

	Parameters	XVR5104C	XVR5108C		
Audio	Encode Standard	G.711A/G.711U/PCM			
Parameters	Audio Sampling	8KHz, 16Bit			
	Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video Input	4-ch BNC port(CVBS/CVI/AHD	8-ch BNC		
		/other analog HD video	port(CVBS/CVI/AHD/other		
		self-adaptive)	analog HD video self-adaptive)		
	Network Video Input	• There is no IP channel by	,		
		default. Max add 2 IP channel	default. Max add 4 IP		
			channel connections		
		<ul> <li>Analog/digital channel switch.</li> <li>Max 6 IP channel connections</li> </ul>	<ul> <li>Analog/digital channel switch. Max 12 IP channel</li> </ul>		
		<ul> <li>Connection</li> </ul>	connections		
		bandwidth:0Mbps-24Mbps	<ul> <li>Connection</li> </ul>		
			bandwidth:0Mbps-48Mbp		
			S		
	Video Output	1-channel VGA output,			
		1-channel HDMI output (of the same video source),			
		HDMI/ VGA video output at the same	time.		
	Loop Output	N/A			
	Matrix Output	N/A			
Audio Port	Audio Input	1-channel RCA port.			
	Coaxial Audio Input	N/A			
	Audio Output	1-channel RCA port.			
	Bidirectional Talk	Reuse the audio input/output port of the 1st channel.			
	Input				
Record	Record Mode	Schedule record/manual record/MD re	ecord/Alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback,			
		smart playback			
	Backup Mode	HDD, burner, USB device, network ba	ackup		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
HDD	HDD Port	1 SATA port, does not support eSATA	A port		
	One HDD Space	6Т			
Communication	Network	1 RJ45 port, 100Mbps Ethernet port			
Port	Communication	RS485 port			
	USB	2 USB2.0 ports( at the rear panel)			
Others	Power	DC12V			
	Power Consumption (No HDD)	≤7W	≤8W		
	Working	-10℃~+55℃			

Parameters	XVR5104C	XVR5108C
Temperature		
Working Humidity	10%~90%	
Dimensions SMART 1U case, 270mm (W) x205mm		nm (D) <b>x</b> 41mm (H)
Weight (No HDD)	≤0.5KG	≪0.55KG
Installation Mode	Desk	

#### 1.3.57 XVR7104C Series

	Parameters	XVR7104C
System	Main Processor	Industrial embedded micro controller
	OS	Embedded LINUX
Video	Video Encode	H.264
Parameters	Standard	
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF
	Resolution	
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s
	Rate	
	Video Bit Rate	32Kbps-6144Kbps
	Bit Stream Type	Video stream/composite stream
	Dual-Stream	Support
Audio	Encode	G.711A/G.711U/PCM
Parameters	Standard	
	Audio Sampling	8KHz, 16Bit
	Rate	
	Audio Bit Rate	64Kbps
Video Port	Analog Video	4-ch BNC port(CVBS/CVI/AHD/other analog HD video
	Input	self-adaptive)
	Network Video	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> </ul>
	Input	<ul> <li>Analog/digital channel switch. Max 6 IP channel connections</li> </ul>
		<ul> <li>Connection bandwidth:0Mbps-24Mbps</li> </ul>
	Video Output	1-channel VGA output,
	Video Odiput	1-channel HDMI output (of the same video source),
		HDMI/ VGA video output at the same time.
	Loop Output	N/A
	Matrix Output	N/A
Audio Port	Audio Input	1-channel RCA port.
	Coaxial Audio	N/A
	Input	
	Audio Output	1-channel RCA port.
	Bidirectional	Reuse the audio input/output port of the 1st channel.
	Talk Input	

	Parameters	XVR7104C
Record	Record Mode	Schedule record/manual record/MD record/Alarm record
	Playback Mode	Instant playback, normal playback, event playback, mark playback,
		smart playback
	Backup Mode	HDD, burner, USB device, network backup
Alarm	Alarm Input	N/A
	Alarm Output	N/A
HDD	HDD Port	1 SATA port, does not support eSATA port
	One HDD Space	6T
Communication	Network	1 RJ45 port, 100Mbps Ethernet port
Port	Communication	RS485 port
	USB	2 USB2.0 ports( at the rear panel)
Others	Power	DC12V
	Power	≤8W
	Consumption	
	(No HDD)	
	Working	-10℃~+55℃
	Temperature	
	Working	10%~90%
	Humidity	
	Dimensions	SMART 1U case, 270mm (W) x205mm (D) x41mm (H)
	Weight (No	≤0.5KG
	HDD)	
	Installation	Desk
	Mode	

#### 1.3.58 XVR41XXHE Series

	Parameters	XVR4104HE	XVR4108HE	XVR4116HE	
System	Main Processor	Industrial embedded micro controller			
	OS	Embedded LINUX			
Video	Video Encode	H.264			
Parameters	Standard				
	Encode	1080N/720P/960H/	1080N@12f/720P@1	5f/960H/D1/HD1/2CIF	
	Resolution	D1/HD1/2CIF/CIF	/CIF		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s			
	Rate				
	Video Bit Rate	32Kbps-4096Kbps			
	Bit Stream Type	Video stream/compos	ite stream		
	Dual-Stream	Support			
Audio	Encode	G.711A/G.711U/PCM			
Parameters	Standard				
	Audio Sampling	8KHz, 16Bit			

	Parameters	XVR4104HE	XVR4108HE	XVR4116HE
	Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (CVBS/CVI/AHD /other analog HD video self-adaptive)	8-ch BNC port(CVBS/CVI/AHD /other analog HD video self-adaptive)	port(CVBS/CVI/A
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 1 IP channel connection.</li> <li>Analog /digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:0Mbp s-20Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 10 IP channel connections</li> <li>Connection bandwidth:0Mbp s-40Mbps</li> </ul>	<ul> <li>channel by default. Max add 2 IP channel connections</li> <li>Analog</li> </ul>
	Video Output	1-channel VGA output, 1-channel HDMI output (of the same video source), HDMI/ VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA port.
	Coaxial Audio Input	N/A		
	Audio Output	1-channel RCA port.		
	Bidirectional Talk Input	Support (Reuse the a	udio port of the 1st chan	nnel)
Record	Record Mode	Schedule record/manu	al record/MD record/Ala	arm record
Playback Mode Instant playback, normal playback, event pl smart playback		al playback, event playl	back, mark playback,	
	Record Playback	Max 4-channel playback	Max 8-channel playback	l Max 16-channel playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	

	Parameters	XVR4104HE	XVR4108HE	XVR4116HE	
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input	
	Alarm Output	3-channel output			
HDD	HDD Port	1 SATA port, does not	support eSATA port		
	One HDD Space	6T			
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port		
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)			
Others	Power	DC12V			
	Power	≤7W	≪8W	≤10W	
	Consumption		<000	<1000	
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Mini 1U case, 325mm	(W) ×245mm (D) ×	45mm(H)	
	Weight	≤1.1KG	≤1.25KG	≤1.45KG	
	Installation	Desk			
	Mode				

## 1.3.59 XVR51XXH Series

	All Genes						
	Parameters	XVR5104H	XVR5108H	XVR5116H			
System	Main Processor	Industrial embedded micro controller					
	OS	Embedded LINUX					
Video	Video Encode	H.264	H.264				
Parameters	Standard						
	Encode	1080P@15fps/1080N	720P/960H/D1/HD1/2CIF/	/CIF			
	Resolution						
	Video Frame	PAL:1~25f/s; NTSC:	~30f/s				
	Rate	32Kbps-6144Kbps					
	Video Bit Rate						
	Bit Stream Type	Video stream/compos	ite stream				
	Dual-Stream	Support					
Audio	Encode	G.711A/G.711U/PCM					
Parameters	Standard						
	Audio Sampling	8KHz, 16Bit					
	Rate						
	Audio Bit Rate	64Kbps					
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC			
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHD	port(CVBS/CVI/A			
		/other analog HD	/other analog HD	HD /other analog			
		video self-adaptive)	video self-adaptive)	HD video			

	Parameters	XVR5104H	XVR5108H	XVR5116H
				self-adaptive)
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:0Mbp s-24Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connection bandwidth:0Mbp s-48Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connection bandwidth:0 Mbps-96Mbp s</li> </ul>
	Video Output	1-channel VGA output, 1-channel HDMI outpu HDMI/ VGA video outp	t (of the same video sourc	ce),
	Loop Output	N/A		
	Matrix Output	N/A		VGA/HDMI optional
Audio Port	Audio Input	1-channel RCA port.		
	Coaxial Audio Input	N/A		
	Audio Output	1-channel RCA port.		
	Bidirectional Talk Input	Support (Reuse the a	udio port of the 1st channe	el)
Record	Record Mode	Schedule record/manu	al record/MD record/Alarr	n record
	Playback Mode	Instant playback, norm smart playback	al playback, event playba	ack, mark playback,
	Record	Max 4-channel	Max 8-channel	Max 16-channel
	Playback	playback	playback	playback
	Backup Mode	HDD, burner, USB dev	ice, network backup	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port, does not	t support eSATA port	
	One HDD Space	6T		
Communication Port	Network	1 RJ45 port, 100Mbps	Ethernet port	1 RJ45 port, 1000Mbps Ethernet port

	Parameters	XVR5104H	XVR5108H	XVR5116H
	Communication	RS485 port		
	USB		t the front panel and one	1 USB2.0 port and 1 USB3.0 port (One USB2.0 port at the front panel and one USB3.0 port at the rear panel)
Others	Power	DC12V		
	Power Consumption	≤7W	≪8W	≤10W
	Working Temperature	-10℃~+55℃		
	Working Humidity	10%~90%		
	Dimensions	Mini 1U case, 325mm (W) ×245mm (D) ×45mm (H)		
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	Installation Mode	Desk		

# 1.3.60 XVR51XXHE Series

	Parameters	XVR5104HE	XVR5108HE	XVR5116HE		
System	Main Processor	Industrial embedded mi	cro controller			
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080P@15f/720P/960H	I/D1/HD1/2CIF/CIF			
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:1~	-30f/s			
	Rate					
	Video Bit Rate	32Kbps-6144Kbps				
	Bit Stream Type	Video stream/composite	e stream			
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	8KHz, 16Bit				
	Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC		
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHD	port(CVBS/CVI/A		
		/other analog HD	/other analog HD	HD /other analog		

	Parameters	XVR5104HE	XVR5108HE	XVR5116HE			
		video self-adaptive)	video self-adaptive)	HD video			
				self-adaptive)			
	Network Video	• There is no IP	• There is no IP	• There is no IP			
	Input	channel by	channel by	channel by			
		default. Max add	default. Max add	default. Max			
		2 IP channel	4 IP channel	add 8 IP			
		connections	connections	channel			
		Analog	Analog	connections			
		/digital channel	/digital channel	Analog			
		switch. Max 6 IP	switch. Max 12 IP	/digital			
		channel connections	channel connections	channel switch. Max			
		<ul> <li>Connections</li> </ul>	<ul> <li>Connections</li> </ul>	24 IP channel			
		bandwidth:0Mbp	<ul> <li>bandwidth:0Mbp</li> </ul>	connections			
		s-24Mbps	s-48Mbps	<ul> <li>Connection</li> </ul>			
		0 Z 111690	e lomope	bandwidth:0			
				Mbps-96Mbp			
				S			
	Video Output	1-channel VGA output,					
		1-channel HDMI outpu	t (of the same video sour	ce),			
		HDMI/ VGA video outp	out at the same time.				
	Loop Output	N/A					
	Matrix Output	N/A		VGA/HDMI			
			1	optional			
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port.	16-channel RCA			
				port.			
	Coaxial Audio	N/A					
	Input	· · · ·					
	Audio Output	1-channel RCA port.					
	Bidirectional	Support (Reuse the a	udio port of the 1st chann	el)			
	Talk Input						
Record	Record Mode	Schedule record/manu	al record/MD record/Alarr	m record			
	Playback Mode	Instant playback, norm	nal playback, event playba	ack, mark playback,			
		smart playback					
	Record	Max 4-channel	Max 8-channel	Max 16-channel			
	Playback	playback	playback	playback			
	Backup Mode	HDD, burner, USB dev					
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input			
	Alarm Output	3-channel output					
HDD	HDD Port	1 SATA port, does no	t support eSATA port				
	One HDD Space	6T					

	Parameters	XVR5104HE	XVR5108HE	XVR5116HE		
Communication Port	Network	1 RJ45 port, 100Mbps	1 RJ45 port, 100Mbps Ethernet port			
	Communication	RS485 port				
	USB	2 USB2.0 ports(One a at the rear panel)	1 USB2.0 port and 1 USB3.0 port (One USB2.0 port at the front panel and one USB3.0 port at the rear panel)			
Others	Power	DC12V				
	Power Consumption	≤7W	≪8W	≤10W		
	Working Temperature	-10℃~+55℃				
	Working Humidity	10%~90%				
	Dimensions	Mini 1U case, 325mm	n (W) <b>x</b> 245mm (D) <b>x</b> 45	mm (H)		
	Weight	≤1.1KG	≤1.25KG	≤1.45KG		
	Installation Mode	Desk				

## 1.3.61 XVR71XXHE Series

	Parameters	XVR7104HE	XVR7108HE	XVR7116HE		
System	Main Processor	Industrial embedded i	micro controller			
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF				
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s				
	Rate					
	Video Bit Rate	32Kbps-6144Kbps				
	Bit Stream Type	Video stream/compos	site stream			
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	g 8KHz, 16Bit				
	Rate					
	Audio Bit Rate	64Kbps				

	Parameters	XVR7104HE	XVR7108HE X	VR7116HE		
Video Port	Analog Video Input	4-ch BNC port (CVBS/CVI/AHD /other analog HD video self-adaptive) ● There is no IP	8-ch BNC port(CVBS/CVI/AHD /other analog HD video self-adaptive)	HD video self-adaptive)		
	Network       Video <ul> <li>There is channel default. Mage 1P channel connection</li> <li>Analog /digital char switch. Mage channel connections</li> <li>Connections</li> <li>Connections</li> <li>Connections</li> <li>S-24Mbps</li> <li>S-24Mbp</li> <li>S-24Mbp</li></ul>		<ul> <li>There is no IP channel by default. Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connection bandwidth:0Mbp s-48Mbps</li> </ul>	default. Max add 8 IP channel connections • Analog		
	Video Output	1-channel VGA output, 1-channel HDMI output HDMI/ VGA video outp	rce),			
	Loop Output Matrix Output	N/A N/A	VGA/HDMI optional			
Audio Port	Audio Input	4-channel RCA port.	8-channel RCA port. 16-channel RC port.			
	Coaxial Audio Input	N/A				
	Audio Output	1-channel RCA port.				
	Bidirectional Talk Input	Support (Reuse the at	udio port of the 1st chan	nel)		
Record	Record Mode	Schedule record/manua	al record/MD record/Ala	rm record		
	Playback Mode	Mode Instant playback, normal playback, event playback, mark pla smart playback				
	Record	Max 4-channel	Max 8-channel	Max 16-channel		
	Playback	playback	playback playback			
	Backup Mode	HDD, burner, USB dev	ice, network backup	1		
Alarm	Alarm Input	8-channel input	8-channel input	16-channel input		
		3-channel output				
HDD	Alarm Output HDD Port	3-channel output 1 SATA port, does not				

	Parameters	XVR7104HE	XVR7108HE	XVR7116HE	
	One HDD Space	6T			
Communication	Network	1 RJ45 port,	1 RJ45 port, 1000M	ops Ethernet port	
Port		100Mbps Ethernet			
		port			
	Communication	RS485 port			
	USB	2 USB2.0 ports(One	1 USB2.0 port and	1 USB3.0 port (One	
		at the front panel and	d USB2.0 port at the front panel and o		
		one at the rear panel)	USB3.0 port at the rear panel)		
Others	s Power DC12V				
	Power	≪8W	≤10W	≤15W	
	Consumption	~000	<1000	< 15VV	
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Mini 1U case, 325mm	n (W) ×245mm (D)	×45mm(H)	
	Weight	≤1.1KG	≤1.25KG	≤1.45KG	
	Installation	Desk			
	Mode				

## 1.3.62 XVR71XXH Series

	Parameters	XVR7104H	XVR7108H	XVR7116H		
System	Main Processor	Industrial embedded r	nicro controller			
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080P/720P/960H/D1	/HD1/2CIF/CIF			
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:	1~30f/s			
	Rate					
	Video Bit Rate	32Kbps-6144Kbps				
	Bit Stream Type	Video stream/composite stream				
	Dual-Stream	Support				
Audio	Encode	G.711A/G.711U/PCM				
Parameters	Standard					
	Audio Sampling	8KHz,16Bit				
	Rate					
	Audio Bit Rate	64Kbps				
Video Port	Analog Video	4-ch BNC por	t 8-ch BN	NC 16-ch BNC		
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHE	D port(CVBS/CVI/A		
		/other analog HD	/other analog H	ID HD /other analog		
		video self-adaptive)	video self-adaptive)	HD video		

	Parameters	XVR7104H	XVR7108H X	KVR7116H		
				self-adaptive)		
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connection bandwidth:0Mbp s-24Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12IP channel connections</li> <li>Connection bandwidth:0Mbp s-48Mbps</li> </ul>	<ul> <li>channel by default. Max add 8 IP channel connections</li> <li>Analog</li> </ul>		
	Video Output	1-channel VGA output, 1-channel HDMI output (of the same video source), HDMI/ VGA video output at the same time.				
	Loop Output	N/A				
	Matrix Output	N/A	VGA/HDMI optional			
Audio Port	Audio Input Coaxial Audio Input	1-channel RCA port. N/A				
	Audio Output	1-channel RCA port.				
	Bidirectional Talk Input	Support (Reuse the a	udio port of the 1st chan	nnel)		
Record	Record Mode	Schedule record/manu	al record/MD record/Ala	arm record		
	Playback Mode	Instant playback, norm smart playback	nal playback, event playl	back, mark playback,		
	Record	Max 4-channel	Max 8-channel	I Max 16-channel		
	Playback	playback	playback	playback		
	Backup Mode	HDD, burner, USB dev	vice, network backup			
Alarm	Alarm Input	N/A				
	Alarm Output	N/A				
HDD	HDD Port	1 SATA port, does not	t support eSATA port			
	One HDD Space	6T				
Communication Port	Network	1 RJ45 port, 100Mbps Ethernet port	1 RJ45 port, 1000Mbp	s Ethernet port		
	Communication	RS485 port				

	Parameters	XVR7104H	XVR7108H	XVR7116H	
	USB	2 USB2.0 ports(One	1 USB2.0 port and 1 USB3.0 port (One		
		at the front panel and	USB2.0 port at the	e front panel and one	
		one at the rear panel)	USB3.0 port at the r	ear panel)	
Others	Power	DC12V			
	Power	≪8W	≤10W	≤15W	
	Consumption			<15VV	
	Working	-10℃~+55℃			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimensions	Mini 1U case, 325mm	n (W) ×245mm (D)	×45mm(H)	
	Weight	≤1.1KG	≤1.25KG	≤1.45KG	
	Installation	Desk			
	Mode				

### 1.3.63 XVR21XXHS Series

	Parameters	XVR2104HS XVR2108HS XVR2116HS				
System	Main Processor	Industrial embedded micro controller				
	OS	Embedded LINUX				
Video	Video Encode	H.264				
Parameters	Standard					
	Encode	1080N@12f/720P@12f/960H/D1/HD1/2CIF/CIF				
	Resolution					
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s				
	Rate					
	Video Bit Rate	32Kbps-4096Kbps				
	Bit Stream Type	Video stream				
	Dual-Stream	Support				
Audio	Encode	N/A				
Parameters	Standard					
	Audio Sampling	N/A				
	Rate					
	Audio Bit Rate	N/A				
Video Port	Analog Video	4-ch BNC 8-ch BNC 16-ch BNC				
	Input	port(CVBS/CVI/AHD port(CVBS/CVI/AHD port(CVBS/CVI/AHD				
		/other analog HD /other analog HD /other analog HD				
		video self-adaptive) video self-adaptive) video self-adaptive)				
	Network Video	There is no IP     There is no IP     There is no IP				
	Input	channel by channel by channel by				
		default. Max default. Max default. Max				
		add 0 IP add 0 IP add 0 IP				
		channel channel channel				

	Parameters	XVR2104HS	XVR2108HS	XVR2116HS			
	Video Output	connection <ul> <li>Analog</li> <li>/digital channel</li> <li>switch. Max 2 IP</li> <li>channel</li> <li>connections</li> <li>Connection</li> <li>bandwidth:0Mb</li> <li>ps-8Mbps</li> </ul> 1-channel VGA output 1-channel HDMI output HDMI/ VGA video output	ut (of the same video so	<ul> <li>connection</li> <li>Analog /digital channel switch. Max 2 IP channel connections</li> <li>Connection bandwidth:0Mb ps-8Mbps</li> </ul>			
	Loop Output	N/A	N/A				
	Matrix Output	N/A					
Audio Port	Audio Input	N/A					
	Coaxial Audio Input	N/A					
	Audio Output	N/A					
	Bidirectional Talk Input	N/A					
Record	Record Mode	Schedule record/manu	ual record/MD record/A	larm record			
	Playback Mode	Instant playback, norn smart playback	nal playback, event pla	yback, mark playback,			
	Backup Mode	HDD, burner, USB dev	vice, network backup				
Alarm	Alarm Input	N/A	· · · ·				
	Alarm Output	N/A					
HDD	HDD Port	1 SATA port, does no	t support eSATA port				
	One HDD Space	6T					
Communication	Network	1 RJ45 port, 100Mbps	Ethernet port				
Port	Communication	RS485 port	· ·				
	USB		It the front panel and or	ne at the rear panel)			
Others	Power	DC12V	•	. ,			
	Power	≤10W					
	Consumption						
	(No HDD)						
	Marking	-10℃~+55℃					
	Working						
	Temperature						
	e e	10%~90%					
	Temperature						
	Temperature Working	10%~90%	0mm (W) ×220mm (I	D) x44mm (H)			

Parameters	XVR2104HS	XVR2108HS		XVR2116HS	
HDD)					
Installation	Desk				
Mode					

#### 1.3.64 XVR41XXHS Series

	Parameters	XVR4104HS	XVR4108HS	XVR4116HS
System	Main Processor	Industrial embedded m	icro controller	
	OS	Embedded LINUX		
Video	Video Encode	H.264		
Parameters	Standard			
	Encode	1080N/720P/960H/D1	1080N@12f/720P@15f	/960H/D1/HD1/2CI
	Resolution	/HD1/2CIF/CIF/	F/CIF/	
	Video Frame Rate	PAL:1~25f/s; NTSC:1	~30f/s	
	Video Bit Rate	32Kbps-4096Kbps		
	Bit Stream Type	Video stream/composit	e stream	
	Dual-Stream	Support		
Audio Parameters	Encode Standard	G.711A/G.711U/PCM		
	Audio Sampling Rate	8KHz,16Bit		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (CVBS/CVI/AHD /other analog HD video self-adaptive)	8-ch BNC port(CVBS/CVI/AHD /other analog HD video self-adaptive)	16-chBNCport(CVBS/CVI/AHD /other analogHDvideoself-adaptive)
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 1 IP channel connection</li> <li>Analog /digital channel switch. Max 5 IP channel connections</li> <li>Connection bandwidth:0Mbp s-20Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections.</li> <li>Analog /digital channel switch. Max 10 IP channel connections</li> <li>Connection bandwidth:0Mbp s-40Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 18 IP channel connections</li> <li>Connection bandwidth:0 Mbps-56Mbp</li> </ul>

1-chanr	•	t (of the same video so	s urce),		
Loop Output N/A	nel HDMI outpu	t (of the same video so	ırce),		
Loop Output N/A	•		urce),		
Loop Output N/A	/GA video outp	ut at the same time.			
		HDMI/ VGA video output at the same time.			
Matrix Output N/A		N/A			
Audio Port Audio Input 1-chanr	nel RCA port.				
Coaxial Audio N/A					
Input					
Audio Output 1-chann	nel RCA port.				
Bidirectional Reuse t	he audio input/	output port.			
Talk Input					
Record Record Mode Schedu	le record/manu	al record/MD record/Ala	arm record		
Playback Mode Instant	playback, norm	al playback, event play	back, mark playback,		
smart p	smart playback				
Record Max	4-channel	Max 8-channe	I Max 16-channel		
Playback playbac	k	playback	playback		
Backup Mode HDD, b	bde HDD, burner, USB device, network backup				
Alarm Alarm Input N/A	N/A				
Alarm Output N/A					
HDD HDD Port 1 SATA	1 SATA port, does not support eSATA port				
One HDD Space 6T					
Communication Network 1 RJ45	1 RJ45 port, 100Mbps Ethernet port				
Port Communication RS485	RS485 port				
USB 2 USB2	.0 ports(One at	t the front panel and one	e at the rear panel)		
Others Power DC12V					
Power					
Consumption ≤7W		≪8W	≤10W		
(No HDD)					
Working -10℃~	+ <b>55</b> ℃				
Temperature					
Working 10%~90	)%				
Humidity					
Dimensions Compa	ct 1U case, 260	0mm (W) ×220mm (D	) ×44mm (H)		
Weight (No HDD) ≤0.85k	(G	≤0.95KG	≤1.05KG		
Installation Desk			_1		
Mode					

## 1.3.65 XVR51XXHS Series

Parameters XVR5104HS	XVR5108HS	XVR5116HS
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	Parameters	XVR5104HS	XVR5108HS	XVR5116HS
System	Main Processor	Industrial embedded m	nicro controller	
-	OS	Embedded LINUX		
Video Parameters	Video Encode Standard	H.264		
	Encode Resolution	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF		
	Video Frame Rate	PAL:1~25f/s; NTSC:1~30f/s		
	Video Bit Rate	32Kbps-6144Kbps		
	Bit Stream Type	Video stream/composi	te stream	
	Dual-Stream	Support		
Audio Parameters	Encode Standard	G.711A/G.711U/PCM		
	Audio Sampling Rate	8KHz, 16Bit		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (CVBS/CVI/AHD /other analog HD video self-adaptive)	8-ch BNC port(CVBS/CVI/AHD /other analog HD video self-adaptive)	port(CVBS/CVI/A
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections.</li> <li>Connection bandwidth:0Mbp s-24Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 4 IP channel connection</li> <li>Analog /digital channel switch. Max 12 IP channel connections.</li> <li>Connection bandwidth:0Mbps -48Mbps</li> </ul>	<ul> <li>channel by default.Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel</li> </ul>
	Video Output	HDMI/ VGA video outp	it (of the same video sou	ırce),
	Loop Output	N/A		
	Matrix Output	N/A		VGA/HDMI optional

dio Input axial Audio ut dio Output lirectional k Input cord Mode yback Mode yback Mode yback ckup Mode rm Input rm Output	Schedule record/manu Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	playback	m record ack, mark playback,
ut dio Output lirectional k Input cord Mode yback Mode yback Mode yback ckup Mode irm Input irm Output	1-channel RCA port. Reuse the audio input/ Schedule record/manu Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	ual record/MD record/Alar nal playback, event playb Max 8-channel playback	m record ack, mark playback, Max 16-channel
dio Output lirectional k Input cord Mode tyback Mode tyback cord tyback ckup Mode trm Input trm Output	Reuse the audio input/ Schedule record/manu Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	ual record/MD record/Alar nal playback, event playb Max 8-channel playback	m record ack, mark playback, Max 16-channel
lirectional k Input cord Mode yback Mode yback Mode cord yback ckup Mode irm Input irm Output	Reuse the audio input/ Schedule record/manu Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	ual record/MD record/Alar nal playback, event playb Max 8-channel playback	m record ack, mark playback, Max 16-channel
k Input cord Mode yback Mode cord yback ckup Mode trm Input trm Output	Schedule record/manu Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	ual record/MD record/Alar nal playback, event playb Max 8-channel playback	m record ack, mark playback, Max 16-channel
cord Mode hyback Mode cord hyback ckup Mode hrm Input hrm Output	Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	nal playback, event playb Max 8-channel playback	ack, mark playback, Max 16-channel
yback Mode cord yback ckup Mode irm Input irm Output	Instant playback, norm smart playback Max 4-channel playback HDD, burner, USB dev N/A	nal playback, event playb Max 8-channel playback	ack, mark playback, Max 16-channel
cord nyback ckup Mode nrm Input nrm Output	smart playback Max 4-channel playback HDD, burner, USB dev N/A	Max 8-channel playback	Max 16-channel
yback ckup Mode irm Input irm Output D Port	Max 4-channel playback HDD, burner, USB dev N/A	playback	
yback ckup Mode irm Input irm Output D Port	playback HDD, burner, USB dev N/A	playback	
ckup Mode Irm Input Irm Output	HDD, burner, USB dev N/A		playback
rm Input Irm Output D Port	N/A	vice, network backup	
rm Output D Port			
D Port	/ .		
	N/A		
	1 SATA port, does not	t support eSATA port	
e HDD Space	6T		
twork	1 RJ45 port, 100Mbps Ethernet port 1 RJ45		1 RJ45 port,
	1000Mbps		•
			Ethernet port
mmunication	RS485 port		
В	2 USB2.0 ports(One at the front panel and 1 USB2.0 port and		
	one at the rear panel) 1 USB3.0 por		1 USB3.0 port
			(One USB2.0 port
			at the front panel
			and one USB3.0
			port at the rear
			panel)
wer	DC12V		
wer			
nsumption	≤7W	≪8W	≤10W
b HDD)			
orking	-10℃~+55℃		
nperature			
orking	10%~90%		
midity			
nensions	Compact 1U case, 260	0mm (W) x220mm (D)	x44mm (H)
eight (No PD)	≪0.85KG	≪0.95KG	≤1.05KG
tallation	Desk		
	ver ver nsumption HDD) rking nperature rking midity nensions ight (No D) rallation	verDC12VverDC12Vver $\leq$ 7Wnsumption $\leq$ 7WHDD) $-10^{\circ}C \sim +55^{\circ}C$ rking $-10^{\circ}C \sim +55^{\circ}C$ nperature $10\% \sim 90\%$ nidity $10\% \sim 90\%$ nidity $60.85 \times G$ D) $\leq 0.85 \times G$	verDC12VverDC12Vver $\leq 7W$ nsumption $\leq 7W$ HDD) $\sim 10^{\circ}C \sim +55^{\circ}C$ rking $10^{\circ}C \sim +55^{\circ}C$ nperature10%~90%rking10%~90%nidity $\sim 6000000000000000000000000000000000000$

### 1.3.66 XVR7104HS Series

	Parameters	XVR7104HS
System	Main Processor	Industrial embedded micro controller
-	OS	Embedded LINUX
Video	Video Encode	H.264
Parameters	Standard	
	Encode	1080P/720P/960H/D1/HD1/2CIF/CIF
	Resolution	
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s
	Rate	
	Video Bit Rate	32Kbps-6144Kbps
	Bit Stream Type	Video stream/composite stream
	Dual-Stream	Support
Audio	Encode	G.711A/G.711U/PCM
Parameters	Standard	
	Audio Sampling	8KHz, 16Bit
	Rate	
	Audio Bit Rate	64Kbps
Video Port	Analog Video	4-ch BNC port(CVBS/CVI/AHD /other analog HD video
	Input	self-adaptive)
	Network Video	• There is no IP channel by default. Max add 2 IP channel
	Input	connections.
		Analog/digital channel switch. Max 6 IP channel connections
		Connection bandwidth: 0Mbps-24Mbps.
	Video Output	1-channel VGA output,
		1-channel HDMI output (of the same video source),
		HDMI/ VGA video output at the same time.
	Loop Output	N/A
	Matrix Output	N/A
Audio Port	Audio Input	1-channel RCA port.
	Coaxial Audio	N/A
	Input	
	Audio Output	1-channel RCA port.
	Bidirectional	Reuse the audio input/output port of the 1 <sup>st</sup> channel.
	Talk Input	
Record	Record Mode	Schedule record/manual record/MD record/Alarm record
	Playback Mode	Instant playback, normal playback, event playback, mark playback,
		smart playback
	Backup Mode	HDD, burner, USB device, network backup
Alarm	Alarm Input	N/A
	Alarm Output	N/A
HDD	HDD Port	1 SATA port, does not support eSATA port
	One HDD Space	6T

	Parameters	XVR7104HS
Communication	Network	1 RJ45 port, 100Mbps Ethernet port
Port	Communication	RS485 port
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)
Others	Power	DC12V
	Power	≤8W
	Consumption	
	(No HDD)	
	Working	-10℃~+55℃
	Temperature	
	Working	10%~90%
	Humidity	
	Dimensions	Compact 1U case, 260mm (W) x220mm (D) x44mm (H)
	Weight (No	0.85KG
	HDD)	
	Installation	Desk
	Mode	

#### 1.3.67 XVR42XXA Series

Model	Parameters	XVR4204A	XVR4208A	XVR4216A
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080N/720P/	1080N@12f/720P@15f	f/960H/D1/HD1/2
	Resolution	960H/D1/HD1/	CIF/CIF	
		2CIF/CIF/		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	32Kbps $\sim$ 4096Kbps		
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		

Model	Parameters	XVR4204A	XVR4208A	XVR4216A
Video Port	Analog Video Input Network Video	<ul> <li>4-ch BNC port (CVBS/CVI/AHD /other analog HD video self-adaptive)</li> <li>● There is no IP</li> </ul>	<ul> <li>8-ch BNC</li> <li>port(CVBS/CVI/AHD</li> <li>/other analog HD video</li> <li>self-adaptive)</li> <li>There is no IP</li> </ul>	16-ch BNC port(CVBS/CVI /AHD /other analog HD video self-adaptive) ● There is
	Input	channel by default. Max add 1 IP channel connection • Analog /digital channel switch. Max 5 IP channel connections • Connection bandwidth:0Mbps- 20Mbps	channel by default. Max add 2 IP channel connections Analog /digital channel switch. Max 10 IP channel connections Connection bandwidth:0Mbps- 40Mbps	no IP channel by default. Max add 2 IP channel connectio ns Analog /digital channel switch. Max 18 IP channel connectio ns Connectio ns
	Video Output	1-ch VGA output, 1-ch HDMI output,		
		•	at the same time (VGA/H	DMI of the same
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	External Audio Input	4-ch, RCA port,		
	Coaxial Audio Input	N/A		
	Audio Output	1-ch RCA port		
	Bidirectional Talk Input	Support (Reuse the auc	lio port of the 1 <sup>st</sup> channel)	
Record	Record Mode	Auto record, manual reco	ord, motion detect record,	alarm record

Model	Parameters	XVR4204A	XVR4208A	XVR4216A	
	Playback Mode	Instant playback, normal	playback, event playback	, mark playback,	
		smart playback			
	Record	Max 4-ch playback	Max 8-ch playback	Max 16-ch	
	Playback			playback	
	Backup Mode	HDD, burner, flash disk,	network backup.		
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input	
	Alarm Output	3-ch alarm output		input	
HDD	HDD Port	2 SATA ports. Does not	support eSATA port.		
	Space/HDD	6T			
Communication	Network	1 RJ45 port, 100Mbps Ethernet port			
Port	Communication	RS485 port			
	USB	2 USB2.0 ports(One at the front panel and one at the rear panel)			
Other Power DC12V					
	Power	≤7W	≤8W	≤10W	
	Consumption				
	(No HDD)				
	Working Temperature	-10℃~+55℃			
	Working	10%~90%			
	Humidity		· · · · · · · · · · · · · · · · · · ·		
	Dimension	1U case, 375mm (W)	x280mm (D) x50mm (H	4)	
	Weight	≤1.5KG	≤1.65KG	≤1.8KG	
	(No HDD)			_	
	Installation	Desk installation			
	Mode				

## 1.3.68 XVR42XXAN Series

Model	Parameters	XVR4204AN	XVR4208AN	XVR4216AN
System	Main Processor	High-performance ind	lustrial embedded micro	o controller
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080N/720P/960H/	1080N@12fps/720P@	215fps/960H/D1/HD1/
	Resolution		2CIF/CIF/	
	Video Frame	ame PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	$32$ Kbps $\sim$ 4096Kbps		
	Bit Stream	stream Video stream/composite stream		
	Туре			
	Dual-Stream	Support		

	<b>-</b>			
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate	A.1/4		
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC 8-ch BNC 16-ch BNC		
	Input	port(CVBS/CVI/AHD port(CVBS/CVI/AHD port(CVBS/CVI/AHD		
		/other analog HD /other analog HD /other analog HD		
	Network Video	<ul> <li>video self-adaptive)</li> <li>video self-adaptive)</li> <li>video self-adaptive)</li> <li>video self-adaptive)</li> <li>video self-adaptive)</li> <li>video self-adaptive)</li> </ul>		
	Input	channelbychannelbychannelbydefault.Maxdefault.Maxdefault.Maxadd1IPadd2IPchannelchannelchannelchannelconnectionconnectionsconnectionsconnections•Analog/digital channel/digital channelswitch.Max5switch.Max 10IDchannelchannelswitch.Max 18		
		IPchannelIPchannelIPchannelconnectionsconnectionsconnectionsconnectionsConnectionConnectionConnectionConnectionbandwidth:0Mbbandwidth:0Mbbandwidth:0Mbps-20Mbpsps-40Mbpsps-56Mbps		
	Video Output	1-ch VGA output,		
		1-ch HDMI output, HDMI/ VGA video output at the same time (VGA/HDMI of the same video source)		
	Loop Output	N/A		
	Matrix Output	N/A		
Audio Port	External	1-ch, RCA port		
	Audio Input			
	Coaxial Audio Input	N/A		
	Audio Output	1-ch RCA port		
	Bidirectional	Support (Reuse the audio port of the 1 <sup>st</sup> channel)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback,		
		smart playback		
	Record	Max 16-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	N/A		

	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports. Does not support eSATA port.		
	Space/HDD	6T		
Communication	Network	1 RJ45 port, 100Mbps Ethernet port		
Port	Communication	RS485 port		
	USB	2 USB2.0 ports(One at the front panel and one at the re		
Other	Power	DC12V		
	Power	≤10W	≤20W	
	Consumption			
	(No HDD)			
	Working	-10°C∼+55°C 10%~90%		
	Temperature			
	Working			
	Humidity			
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)		
	Weight	≤1.8KG	≤3.3KG	
	(No HDD)			
	Installation	Desk installation		
	Mode			

Model	Parameters	XVR4232AN		
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard	1080N@12fps/720P@15fps/960H/D1/HD1/2CIF/CIF/		
	Encode			
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate			
	Video Bit Rate	32Kbps~4096Kbps         n       Video stream/composite stream         Support		
	Bit Stream			
	Туре			
	Dual-Stream			
Audio	Encode	G.711A, G.711U, PCM		
Standard				
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	32-ch BNC port(CVBS/CVI/AHD/other analog HD video		
	Input	self-adaptive)		

	Network Video	2		
	Input	• Analog/digital channel switch. Max 16 IP channel connections		
		Connection bandwidth:0Mbps-64Mbps		
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		TV/HDMI/ VGA video output at the same time (TV/VGA/HD		
		the same video source)		
	Loop Output	N/A		
	Matrix Output	VGA/HDMI optional		
Audio Port	External	1-ch, RCA port		
	Audio Input			
	Coaxial Audio	N/A		
	Input			
	Audio Output	1-ch RCA port		
	Bidirectional	Support (Reuse the audio port of the 1 <sup>st</sup> channel)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback,		
		smart playback(motion detect)		
	Record	Max 16-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	N/A		
	Alarm Output N/A			
HDD	HDD Port	2 SATA ports. Does not support eSATA port.		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		
	USB	2 USB ports(One USB2.0 port at the front panel and one USB3.0		
		at the rear panel)		
Other	Power	DC12V		
	Power	≤20W		
	Consumption			
	(No HDD)			
	Working	-10℃~+55℃		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)		
	-	≪2KG		
	Dimension Net Weight (No HDD)	10 case, 375mm (W) ×280mm (D) ×50mm (H) ≤2KG		

Installation	Desk installation
Mode	

# 1.3.69 XVR52XXA Series

Model	Parameters	XVR5204A	XVR5208A	XVR5216A
System	Main Processor	High-performance industrial embedded micro controller Embedded LINUX		
	OS			
Video	Video Encode	H.264		
	Standard			
	Encode	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF		
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s		
	Rate	32Kbps~6144Kbps		
	Video Bit Rate			
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	te 64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC
	Input	(CVBS/CVI/AHD /other	port(CVBS/CVI/AHD	port(CVBS/CVI
		analog HD video	/other analog HD video	/AHD /other
		self-adaptive)	self-adaptive)	analog HD
				video
				self-adaptive)

	Network Video Input		<ul> <li>There is no IP channel by default. Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connection bandwidth:0Mbps-48Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 8 IP channel connectio ns</li> <li>Analog /digital channel switch. Max 24 IP channel connectio ns</li> <li>Connectio ns</li> <li>Connectio n bandwidth :0Mbps-96 Mbps</li> </ul>
		video source) N/A		
	Loop Output Matrix Output	N/A		VGA/HDMI optional
Audio Port	External Audio Input	4-ch, RCA port,		
	Coaxial Audio Input	N/A		
	Audio Output	1-ch RCA port		
	Bidirectional Talk Input	Support (Reuse the audio port of the 1 <sup>st</sup> channel)		
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback, smart playback		
	Record Playback	Max 4-ch playback	Max 8-ch playback	Max 16-ch playback
	Backup Mode	HDD, burner, flash disk,	network backup.	
Alarm	Alarm Input	8-ch alarm input	8-ch alarm input	16-ch alarm input

	Alarm Output	3-ch alarm output		
HDD	HDD Port	2 SATA ports. Does not	support eSATA port.	
	Space/HDD	6T		
Communicatio n Port	Network	1 RJ45 port, 100Mbps E	thernet port	1 RJ45 port, 1000Mbps Ethernet port
	Communicatio n	RS485 port		
	USB	the rear panel) and 1 USB3.0 port (One USB2.0 port a the front pane and one USB3.0 port a		USB2.0 port at the front panel
Other	Power	DC12V		
	Power Consumption (No HDD)	≤7W	≤8W	≤10W
	Working Temperature	-10℃~+55℃		
	Working Humidity	10%~90%		
	Dimension	1U case, 375mm (W)	x280mm (D) x50mm (H	<b>H</b> )
	Weight (No HDD)	≤1.5KG	≤1.65KG	≤1.8KG
	Installation Mode	Desk installation		

# 1.3.70 XVR52XXAN Series

Model	Parame	ters	XVR5204AN	XVR5208AN	XVR5216AN
System	Main Processor		High-performance industrial embedded micro controller		
	OS		Embedded LINUX		
Video	Video Encode		H.264		
	Standar	ď			
	Encode		1080P@15f/1080N/72	20P/960H/D1/HD1/2CIF	F/CIF
	Resolution				
	Video Frame		PAL:1~25f/s; NTSC:1	I~30f/s	
	Rate				
	Video Bit Rate		32Kbps $\sim$ 6144Kbps		
	Bit	Stream	Video stream/composite stream		
	Туре				

	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCN	Λ	
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHD	port(CVBS/CVI/AHD
		/other analog HD	/other analog HD	/other analog HD
		video self-adaptive)	video self-adaptive)	video self-adaptive)
	Network Video Input	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections</li> <li>Analog /digital channel switch. Max 6 IP channel connections</li> <li>Connections</li> <li>Connection bandwidth:0Mb ps-24Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 4 IP channel connections</li> <li>Analog /digital channel switch. Max 12 IP channel connections</li> <li>Connections</li> <li>Connection bandwidth:0Mb ps-48Mbps</li> </ul>	<ul> <li>There is no IP channel by default. Max add 8 IP channel connections</li> <li>Analog /digital channel switch. Max 24 IP channel connections</li> <li>Connections</li> <li>Connection bandwidth:0Mb ps-96Mbps</li> </ul>
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/ VGA video outp video source)	out at the same time (V	GA/HDMI of the same
	Loop Output	N/A		
	Matrix Output	N/A		VGA/HDMI optional
Audio Port	External	1-ch, RCA port		
	Audio Input			
	Coaxial Audio	N/A		
	Input			
	Audio Output	1-ch RCA port	· · ·	
	Bidirectional	Support (Reuse the a	udio port of the 1 <sup>st</sup> cha	nnel)
	Talk Input	•		
Record	Record Mode		ecord, motion detect re	
	Playback Mode	Instant playback, norm smart playback	nal playback, event play	yback, mark playback,
	Record Playback	Max 16-ch playback		
	Backup Mode	HDD, burner, flash dis	k, network backup.	

Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports. Does n	ot support eSATA port.	
	Space/HDD	6T		
Communication Port	Network	1 RJ45 port, 100Mbps	s Ethernet port	1 RJ45 port, 1000Mbps Ethernet port
	Communication	RS485 port		
	USB	one at the rear panel) USB3.0 port (0 USB2.0 port at front panel and USB3.0 port at		1 USB2.0 port and 1 USB3.0 port (One USB2.0 port at the front panel and one USB3.0 port at the rear panel)
Other	Power	DC12V		
	Power	≤7W	≤8W	≤10W
	Consumption (No HDD)			
	Working Temperature	-10℃~+55℃		
	Working Humidity	10%~90%		
	Dimension	1U case, 375mm (V	/) x280mm (D) x50n	nm (H)
	Weight (No HDD)	≤1.5KG	≤1.65KG	≤1.8KG
	Installation Mode	Desk installation		

Model	Parameters	XVR5232AN
System	Main Processor	High-performance industrial embedded micro controller
	OS	Embedded LINUX
Video	Video Encode	H.264
	Standard	
	Encode	1080P@15f/1080N/720P/960H/D1/HD1/2CIF/CIF
	Resolution	
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s
	Rate	
	Video Bit Rate	32Kbps $\sim$ 6144Kbps
	Bit Stream	Video stream/composite stream
	Туре	
	Dual-Stream	Support
Audio	Encode	G.711A, G.711U, PCM
	Standard	

	Audia			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	32-ch BNC port (CVBS/CVI/AHD/other analog HD video		
	Input	self-adaptive)		
	Network Video	There is no IP channel by default.		
	Input	Analog/digital channel switch. Max 32 IP channel connections.		
		Connection bandwidth:0Mbps-128Mbps		
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		1-ch TV output,		
		TV/HDMI/ VGA video output at the same time (TV/VGA/HDMI of		
		the same video source)		
	Loop Output			
Andle Dorf	Matrix Output	VGA/HDMI optional		
Audio Port	External	1-ch, RCA port		
	Audio Input			
	Coaxial Audio	N/A		
	Input			
	Audio Output	1-ch RCA port		
	Bidirectional	Support(Reuse the audio port of the 1 <sup>st</sup> channel)		
	Talk Input			
Record	Record Mode	Auto record, manual record, motion detect record, alarm record		
	Playback Mode	Instant playback, normal playback, event playback, mark playback,		
		smart playback(human face,motion detect)		
	Record	Max 16-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	2 SATA ports. Does not support eSATA port.		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		
	USB	2 USB port (One USB2.0 port at the front panel and one USB3.0		
		port at the rear panel)		
Other	Power	DC12V		
	Power	≤27W		
	Consumption			
	(No HDD)			
Working		-10°C~+55°C		
	Temperature			

Working Humidity	10%~90%
Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)
Net Weight (No HDD)	$ \leq 2KG$
Installation Mode	Desk installation

#### 1.3.71 XVR72XXA Series

Model	Parameters	XVR7204A	XVR7208A	XVR7216A
System	Main Processor	High-performance inc	lustrial embedded micro	o controller
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080P/720P/960H/D	1/HD1/2CIF/CIF	
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:	1~30f/s	
	Rate			
	Video Bit Rate	$32$ Kbps $\sim$ 6144Kbps		
	Bit Stream	Video stream/compos	site stream	
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PC	M	
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHD	port(CVBS/CVI/AHD
		/other analog HD	/other analog HD	/other analog HD
		video self-adaptive)	video self-adaptive)	video self-adaptive)

	Network Video Input	<ul> <li>There is no IP channel by default. Max add 2 IP channel connections.</li> <li>Analog /digital channel switch. Max 6 IP channel switch. Max 6 IP channel connections</li> <li>Connections</li> </ul>
	Video Output	ps-24Mbps ps-48Mbps ps-96Mbps 1-ch VGA output, 1-ch HDMI output, HDMI/ VGA video output at the same time (VGA/HDMI of the same video source)
	Loop Output	N/A
	Matrix Output	N/A VGA/HDMI optional
Audio Port	External Audio Input	4-ch, RCA port,
	Coaxial Audio Input	N/A
	Audio Output	1-ch RCA port
	Bidirectional Talk Input	Support (Reuse the audio port of the 1 <sup>st</sup> channel)
Record	Record Mode	Auto record, manual record, motion detect record, alarm record
	Playback Mode	Instant playback, normal playback, event playback, mark playback, smart playback
	Record Playback	Max 4-ch playback Max 8-ch playback Max 16-ch playback
	Backup Mode	HDD, burner, flash disk, network backup.
Alarm	Alarm Input	8-ch alarm input 8-ch alarm input 16-ch alarm input
	Alarm Output	3-ch alarm output
HDD	HDD Port	2 SATA ports. Does not support eSATA port.
	Space/HDD	6T
Communication Port	Network	1 RJ45 port, 1 RJ45 port, 1000Mbps Ethernet port 100Mbps Ethernet port
	Communication	RS485 port

			-	
	USB	2 USB2.0 ports(One	1 USB2.0 port and	1 USB3.0 port (One
		at the front panel	USB2.0 port at the	front panel and one
		and one at the rear	USB3.0 port at the rea	ar panel)
		panel)		
Other	Power	DC12V		
	Power	≤8W	≤10W	≤15W
	Consumption			
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	1U case, 375mm (W) x280mm (D) x50mm (H)		nm (H)
	Weight	≤1.5KG		≤1.8KG
	(No HDD)	<ul><li>&lt;1.3∧G</li></ul>	≤1.65KG	
	Installation	Desk installation		
	Mode			

### 1.3.72 XVR72XXAN Series

Model	Parameters	XVR7204AN	XVR7208AN	XVR7216AN
System	Main Processor	High-performance inc	dustrial embedded micro	o controller
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	1080P/720P/960H/D	1/HD1/2CIF/CIF	
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC	1~30f/s	
	Rate			
	Video Bit Rate	$32$ Kbps $\sim$ 6144Kbps		
	Bit Stream	Video stream/compos	site stream	
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PC	M	
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	4-ch BNC port	8-ch BNC	16-ch BNC
	Input	(CVBS/CVI/AHD	port(CVBS/CVI/AHD	port(CVBS/CVI/AHD
		/other analog HD	/other analog HD	/other analog HD
		video self-adaptive)	video self-adaptive)	video self-adaptive)

	Network Video	● There is no IP ● There is no IP ● There is no IP
	Input	channel by channel by channel by default. Max default. Max
		add 2 IP add 4 IP add 8 IP
		channel channel channel
		connections. connections connections
		Analog     Analog     Analog     Analog
		/digital channel /digital channel /digital channel
		switch. Max 6 switch. Max 12 switch. Max 24
		IP channel IP channel IP channel
		connections connections connections
		Connection     Connection     Connection
		bandwidth:0Mb bandwidth:0Mb bandwidth:0Mb
		ps-24Mbps ps-48Mbps ps-96Mbps
	Video Output	1-ch VGA output,
	Video Odiput	1-ch HDMI output,
		HDMI/ VGA video output at the same time (VGA/HDMI of the same
		video source)
	Loop Output	N/A
	Matrix Output	N/A VGA/HDMI optional
Audio Port	External	1-ch, RCA port,
	Audio Input	
	Coaxial Audio	N/A
	Input	
	Audio Output	1-ch RCA port
	Bidirectional	Support (Reuse the audio port of the 1 <sup>st</sup> channel)
	Talk Input	
Record	Record Mode	Auto record, manual record, motion detect record, alarm record
	Playback Mode	Instant playback, normal playback, event playback, mark playback,
		smart playback
	Record	Max 4-ch playback Max 8-ch playback Max 16-ch playback
	Record Playback	Max 4-ch playback Max 8-ch playback Max 16-ch playback
		Max 4-ch playbackMax 8-ch playbackMax 16-ch playbackHDD, burner, flash disk, network backup.
Alarm	Playback	
Alarm	Playback Backup Mode	HDD, burner, flash disk, network backup.
Alarm HDD	Playback Backup Mode Alarm Input	HDD, burner, flash disk, network backup. N/A
	Playback Backup Mode Alarm Input Alarm Output	HDD, burner, flash disk, network backup. N/A N/A
	Playback Backup Mode Alarm Input Alarm Output HDD Port	HDD, burner, flash disk, network backup. N/A N/A 2 SATA ports. Does not support eSATA port.
HDD	Playback Backup Mode Alarm Input Alarm Output HDD Port Space/HDD	HDD, burner, flash disk, network backup. N/A N/A 2 SATA ports. Does not support eSATA port. 6T
HDD Communication	Playback Backup Mode Alarm Input Alarm Output HDD Port Space/HDD	HDD, burner, flash disk, network backup. N/A 2 SATA ports. Does not support eSATA port. 6T 1 RJ45 port, 1 RJ45 port, 1000Mbps Ethernet port

			-	
	USB	2 USB2.0 ports(One	1 USB2.0 port and	1 USB3.0 port (One
		at the front panel	USB2.0 port at the	front panel and one
		and one at the rear	USB3.0 port at the rea	ar panel)
		panel)		
Other	Power	DC12V		
	Power	≤8W	≤10W	≤15W
	Consumption			
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	1U case, 375mm (W	/) x280mm (D) x50n	nm (H)
	Weight	≤1.5KG	≤1.65KG	≤1.8KG
	(No HDD)	<1.5KG	<1.00NG	
	Installation	Desk installation		
	Mode			

### 1.3.73 XVR54XXL Series

Model	Parameters	XVR5408L	XVR5416L	XVR5432L	
System	Main Processor	High-performance ind	High-performance industrial embedded micro controller		
	OS	Embedded LINUX			
Video	Video Encode	e H.264H, H.264, H.264B			
	Standard				
	Encode	1080P@15fps/1080N	720P/960H/D1/HD1/20	CIF/CIF	
	Resolution				
	Video Frame	PAL:1~25f/s; NTSC:	~30f/s		
	Rate	32Kbps~6144Kbps (For 720P:default value is 2Mbps, max value is 4Mbps. For 1080P:default value is 2Mbps, max value is 6Mbps)			
	Video Bit Rate				
	Bit Stream	Video stream/compos	ite stream		
	Туре				
	Dual-Stream	Support			
Audio	Encode				
	Standard				
	Audio				
	Sampling Rate				
	Audio Bit Rate				

Video Port       Analog       Video       8-ch       BNC       port       16-ch       BNC       32-ch       BN         Input       (HDCVI       HD       port(HDCVI       HD       video/general       standard       definition         video/general       standard       definition       standard       definition       video/general       standard       definition         Network       Video       •       Support       4       IP       •       Support       8       IP       •       There is no I         Input       •       Support       4       IP       •       Support       8       IP       •       There is no I         channels       by       default.       •       Analog       •       Analog       •       Analog       /digital channel       /digital channel       switch. Max 24       switch. Max 3         IP       channel       IP       IP       channel       IP       IP       IP       IP       IP       IP       IP<
video/general standard definition video self-adaptive)video/general standard definition video self-adaptive)video/general standard definition video self-adaptive)video/general standard definition video self-adaptive)Network Video Input• Support 4 IP channels by default.• Support 8 IP channels by default.• There is no I channel default.• Analog /digital channel switch. Max 12• Analog switch. Max 24• Analog switch. Max 33
standard definition video self-adaptive)standard definition video self-adaptive)standard definition video self-adaptive)standard definition video self-adaptive)Network Video InputSupport 4 IP channels by default.Support 8 IP channels by default.There is no 1 channel default.National (digital channel switch. Max 12Analog switch. Max 24Analog switch. Max 32
video self-adaptive)video self-adaptive)video self-adaptive)Network Video• Support 4 IP channels by default.• Support 8 IP channels by default.• There is no 1 channel default.Network Video• Support 4 IP channels by default.• Analog /digital channel switch. Max 12• Analog switch. Max 24• Analog switch. Max 32
Network Video Input• Support 4 IP channels by default.• Support 8 IP channels by default.• There is no 1 channels by default.• Analog /digital channel switch. Max 12• Analog /digital channel switch. Max 24• Analog /digital channel switch. Max 33
Inputchannels default.channels default.channels default.channel default.• Analog /digital channel switch. Max 12• Analog switch. Max 24• Analog default.
default.       default.       default.       default.         Analog       Analog       Analog       Analog         /digital channel       /digital channel       /digital channel       /digital channel         switch. Max 12       switch. Max 24       switch. Max 33
<ul> <li>Analog</li> <li>Analog</li> <li>Analog</li> <li>Analog</li> <li>/digital channel</li> <li>switch. Max 12</li> <li>switch. Max 24</li> <li>switch. Max 3</li> </ul>
/digital channel     /digital channel     /digital channel       switch. Max 12     switch. Max 24     switch. Max 32
switch. Max 12 switch. Max 24 switch. Max 3
IP channel IP channel IP channel IP channel
connections. connections. connections.
Connection     Connection     Connection
bandwidth:16M bandwidth:32M bandwidth:0M
bps-48Mbps bps-96Mbps ps-128Mbps
Video Output1-ch VGA output,1-ch VGA output,1-ch VGA output,
1-ch HDMI output,2-ch HDMI output,2-ch HDMI output,
1-ch TV output,1-ch TV output,1-ch TV output,
HDMI/VGA/TV video HDMI1/VGA/TV HDMI1/VGA/TV
output at the same video output at the video output at the
time same time same time
( HDMI/VGA/TV of (HDMI1/VGA/TV (HDMI1/VGA/TV
the same video of the same video of the same video
source) source) source)
Loop Output N/A
Matrix Output         N/A         HDMI2 port support matrix output
Audio Port         External         4-channel BNC port,
Audio Input
CoaxialAudio8-channel16-channel32-channel
Audio Output 1-ch BNC port
Bidirectional         Support (Independent bidirectional talk port)
Talk Input
Record         Record Mode         Card number record, mark record, alarm record, motion detection
record, regular record, manual record, intelligent record.
Playback Mode         Instant playback, normal playback, event playback, mark playbac
intelligent playback.
Record         Max 8-ch playback         Max 16-ch playback
Playback
Backup Mode HDD, burner, flash disk, network backup.
Alarm         Alarm Input         8-channel         16-channel
Alarm Output 6-channel

HDD	HDD Port	4 SATA ports. Suppor	t eSATA port.	
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS232 port, 1 RS42	2 port, 1 RS485 port	
	USB	3 USB ports(One at	3 USB ports (One at t	he front panel and two
		the front panel and	at the rear panel. The	e rear panel supports
		two at the rear	USB3.0)	
		panel)		
Other	Power	AC100-240V 1.9A 50/60Hz		
	Power	30W (No HDD)		
	Consumption			
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	1.5U case, 440mm (W) x410mm (D) x70mm (H)		Omm (H)
	Weight	≤7KG (No HDD)	≤7.2KG (No HDD)	≤7.5KG (No HDD)
	(No HDD)			
	Installation	Desk installation		
	Mode			

#### 1.3.74 XVR74XXL Series

Model	Parameters	XVR7408L	XVR7416L
System	Main Processor	High-performance industrial embe	edded micro controller
	OS	Embedded LINUX	
Video	Video Encode	H.264H, H.264, H.264B	
	Standard		
	Encode	1080P/720P/960H/D1/HD1/2CIF/	CIF/
	Resolution		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s	
	Rate	32Kbps∼6144Kbps (For 720P:default value is 2Mbps, max value is 4Mbps.	
	Video Bit Rate		
		For 1080P:default value is 4Mbp	s, max value is 6Mbps)
	Bit Stream	Video stream/composite stream	
	Туре		
	Dual-Stream	Support	
Audio	Encode		
	Standard		
	Audio		
	Sampling Rate		
	Audio Bit Rate		

Video Port	Analog Video Input Video Input Video	<ul> <li>8-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)</li> <li>Support 4 IP channels by default.</li> <li>Analog /digital channel switch. Max 12 IP channel connections.</li> <li>Connection bandwidth:16Mbps-48Mbp s</li> </ul>	<ul> <li>16-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)</li> <li>Support 8 IP channels by default.</li> <li>Analog /digital channel switch. Max 24 IP channel connections.</li> <li>Connection bandwidth:32Mbps-96Mbp s</li> </ul>	
	Video Output	<ul> <li>1-ch VGA output,</li> <li>2-ch HDMI output,</li> <li>1-ch TV output,</li> <li>HDMI1/VGA/TV video output at the same time (HDMI1/VGA of the same video source)</li> </ul>		
	Loop Output	N/A		
	Matrix Output		rt support matrix output	
Audio Port	External Audio Input	4-channel BNC port,		
	Coaxial Audio Input	8-channel	16-channel	
	Audio Output	1-channel BNC port		
	Bidirectional	Support (Independent bidirectional talk port)		
	Talk Input			
Record	Record Mode	Card number record, mark record record, regular record, manual re-	d, alarm record, motion detection cord, intelligent record.	
	Playback Mode	Instant playback, normal playback intelligent playback.	k, event playback, mark playback,	
	Record Playback	Max 8-ch playback	Max 16-ch playback	
	Backup Mode	HDD, burner, flash disk, network	backup.	
Alarm	Alarm Input	16-channel		
	Alarm Output	6-channel		
HDD	HDD Port	4 SATA ports. Support eSATA po	ort.	
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet	port	
Port	Communication	1 RS232 port, 1 RS422 port, 1 RS	S485 port	
	USB	3 USB ports (One at the front panel and two at the rear panel. T		
		rear panel supports USB3.0)		
Other	Power	AC100-240V 1.9A 50/60Hz		

P	ower	30W (No HDD)	
c	onsumption		
(	(No HDD)		
W	Vorking	-10°C~+55°C	
Т	emperature		
W	Vorking	10%~90%	
н	lumidity		
D	Dimension	1.5U case, 440mm (W) ×410m	nm (D) x70mm (H)
	Veight (No HDD)	≪7KG (No HDD)	≤7.2KG (No HDD)
In	nstallation	Desk installation	
M	lode		

## 1.3.75 XVR58XXS Series

1.3./3 AVR30A				
Model	Parameters	XVR5808S	XVR5816S	XVR5832S
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264H, H.264, H.264B		
	Standard			
	Encode	1080P@15fps/1080N	/720P/960H/D1/HD1/20	CIF/CIF
	Resolution			
	Video Frame	PAL:1~25f/s; NTSC:	1~30f/s	
	Rate			
	Video Bit Rate	32Kbps $\sim$ 6144Kbps		
		(For 720P:default val	ue is 2Mbps, max valu	ie is 4Mbps.
		For 1080P:default value is 2Mbps, max value is 6Mbps)		
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support		
Audio	Encode	G.711A, G.711U, PCM		
	Standard			
	Audio	8KHz,16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	8-ch BNC port	16-ch BNC	32-ch BNC
	Input	(HDCVI HD	port(HDCVI HD	port(HDCVI HD
		video/general	video/general	video/general
		standard definition	standard definition	standard definition
		video self-adaptive)	video self-adaptive)	video self-adaptive)

	Network Video	Support 4 IP	Support 8 IP	• There is no IP
	Input	channels by	channels by	channel by
	mput	default.	default.	default.
		<ul> <li>Analog</li> </ul>	<ul> <li>Analog</li> </ul>	<ul> <li>Analog</li> </ul>
		/digital channel	/digital channel	/digital channel
		switch. Max 12	switch. Max 24	switch. Max 32
		IP channel		IP channel
		connections.	connections.	connections.
		<ul> <li>Connection</li> </ul>	<ul> <li>Connection</li> </ul>	<ul> <li>Connection</li> </ul>
		bandwidth:16M	bandwidth:32M	bandwidth:0Mb
		bps-48Mbps	bps-96Mbps	ps-128Mbps
	Video Output	1-ch VGA output,	1-ch VGA output,	1-ch VGA output,
		1-ch HDMI output,	2-ch HDMI output,	2-ch HDMI output,
		1-ch TV output,	1-ch TV output,	1-ch TV output,
		HDMI/VGA/TV video	HDMI1/VGA/TV	HDMI1/VGA/TV
		output at the same	video output at the	video output at the
		time	same time	same time
		(HDMI/VGA/TV of	(HDMI1/VGA/TV	(HDMI1/VGA/TV
		the same video	of the same video	of the same video
		source)	source)	source)
	Loop Output	N/A		
	Matrix Output	N/A HDMI2 port support matrix output		natrix output
Audio Port	External	8-channel BNC port,		
	Audio Input			
	Coaxial Audio	8-channel	16-channel	32-channel
	Input			
	Audio Output	1-ch BNC port		
	Bidirectional	Support (Independer	nt bidirectional talk port)	)
	Talk Input			
Record	Record Mode	Card number record,	mark record, alarm rec	cord, motion detection
		record, regular record	, manual record, intellig	ent record.
	Playback Mode	Instant playback, norn	nal playback, event play	yback, mark playback,
		intelligent playback.		
	Record	Max 8-ch playback	Max 16-ch playback	
	Playback			
	Backup Mode	HDD, burner, flash dis		
Alarm	Alarm Input	8-channel	16-channel	
	Alarm Output	6-channel		
HDD	HDD Port	8 SATA ports. Support eSATA port.		

	l				
Communication	Network	1 RJ45 port,	1 RJ45 port, 2 RJ45 ports, 1000Mbps Ethernet port		
Port		1000Mbps Ethernet			
		port			
	Communication	ication 1 RS232 port, 1 RS422 port, 1 RS485 port			
	USB	4 USB ports(Two at	4 USB ports (Two at t	he front panel and two	
		the front panel and	at the rear panel. Th	e rear panel supports	
		two at the rear	USB3.0)		
		panel)			
Other	Power	AC100-240V 1.9A 50/60Hz			
	Power	35W (No HDD)			
	Consumption				
	(No HDD)				
	Working	-10°C~+55°C			
	Temperature				
	Working	10%~90%			
	Humidity				
	Dimension	2U case, 440mm (W	nm (W) x460mm (D) x89mm (H)		
	Weight				
	(No HDD)	≪9KG (No HDD)	≤9.2KG (No HDD)	≤9.4KG (No HDD)	
	Installation	Desk installation			
	Mode				

## 1.3.76 XVR78XXS Series

Model	Parameters	XVR7808S	XVR7816S
System	Main Processor	High-performance industrial embe	edded micro controller
	OS	Embedded LINUX	
Video	Video Encode	H.264H, H.264, H.264B	
	Standard		
	Encode	1080P/720P/960H/D1/HD1/2CIF/	CIF/
	Resolution		
	Video Frame	PAL:1~25f/s; NTSC:1~30f/s	
	Rate	32Kbps∼6144Kbps (For 720P:default value is 2Mbps, max value is 4Mbps.	
	Video Bit Rate		
		For 1080P:default value is 4Mbp	s, max value is 6Mbps)
	Bit Stream	Video stream/composite stream	
	Туре		
	Dual-Stream	Support	
Audio	Encode		
	Standard		
	Audio		
	Sampling Rate		
	Audio Bit Rate		

Video Port	Analog Video Input Network Video Input	<ul> <li>8-ch BNC port (HDCVI HD video/general standard definition video self-adaptive)</li> <li>Support 4 IP channels by default.</li> <li>Analog /digital channel switch. Max 12 IP channel connections.</li> <li>Connection bandwidth:16Mbps-48Mbp s</li> </ul>	<ul> <li>16-ch BNC port(HDCVI HD video/general standard definition video self-adaptive)</li> <li>Support 8 IP channels by default.</li> <li>Analog /digital channel switch. Max 24 IP channel connections.</li> <li>Connection bandwidth:32Mbps-96Mbp s</li> </ul>	
	Video Output			
	Loop Output	N/A		
	Matrix Output	HDMI2 port support matrix output		
Audio Port	External Audio Input	8-channel BNC port,	16-channel BNC port,	
	Coaxial Audio Input	8-channel	16-channel	
	Audio Output	1-ch BNC port		
	Bidirectional Talk Input	Support (Independent bidirection	nal talk port)	
Record	Record Mode	Card number record mark record	d, alarm record, motion detection	
		record, regular record, manual re-		
	Playback Mode		k, event playback, mark playback,	
	Record Playback	Max 8-ch playback	Max 16-ch playback	
	Backup Mode	HDD, burner, flash disk, network	backup.	
Alarm	Alarm Input	16-channel		
	Alarm Output	6-channel		
HDD	HDD Port	8 SATA ports. Support eSATA po	ort.	
	Space/HDD	8T		
Communication	Network	2 RJ45 ports, 1000Mbps Etherne	•	
Port	Communication	1 RS232 port, 1 RS422 port, 1 RS	•	
	USB	4 USB ports (Two at the front panel and two at the rear panel. The rear panel supports USB3.0)		
Other	Power	AC100-240V 1.9A 50/60Hz		

Power 35W (No HDD)		
Consumption		
(No HDD)		
Working	-10°C~+55°C	
Temperature		
Working	10%~90%	
Humidity		
Dimension	2U case, 440mm (W) ×460mm	n (D) x89mm (H)
Weight (No HDD)	9KG (No HDD)	9.2KG (No HDD)
Installation	Desk installation	
Mode		

## 1.3.77 HCVR710XH-4K Series

	UXH-4K Series	-	
Model	Parameters	HCVR7104H-4K	HCVR7108H-4K
System	Main Processor	High-performance industrial emb	edded micro controller
	OS	Embedded LINUX	
Video	Video Encode	le H.264+/H.264	
	Standard		
	Encode	Main	stream:
	Resolution	4K(3840*2160)/2K(2560*1440)/1	080P/720P/960H/D1/HD1/BCIF/
		CIF/QCIF;	
		Sub stream: D1/CIF/QCIF	
	Video Frame	4K: PAL:1~12f/s; NTSC: 1~15f/s	3
	Rate	Other resolution: PAL:1~25f/s; N	ITSC:1~30f/s
	Video Bit Rate	32Kbps $\sim$ 12288 Kbps	
		(For 720P:default value is 2Mbp	s, max value is 4Mbps;
		For 1080P:default value is 4Mbps, max value is 6Mbps;	
		For 2K:default value is 8Mbps,	max value is 12Mbps;
		For 4K@15frame:default value i	s 8Mbps, max value is 12Mbps;)
	Bit Stream	Video stream/composite stream	
	Туре		
	Dual-Stream	Support	
Audio	Encode	G.711A, G.711U, PCM	
	Standard		
	Audio		
	Sampling Rate		
	Audio Bit Rate		
Video Port	Analog Video	4-ch BNC port (HDCVI/CVBS)	8-ch BNC port (HDCVI/CVBS)
	Input		

	Network Video Input	<ul> <li>Support 2 IP channels by default.</li> <li>Analog /digital channel switch. Max 6 IP channel connections.</li> <li>Connection bandwidth:8Mbps-24Mbps</li> </ul>	<ul> <li>Support 4 IP channels by default.</li> <li>Analog /digital channel switch. Max 12 IP channel connections.</li> <li>Connection bandwidth:16Mbps-48Mbp s</li> </ul>
	Video Output	1-ch VGA output, 1-ch HDMI output(Max 4K: (3840 HDMI/VGA video output the sar video sources at the same time.	*2160)@30frames), ne video source or the different
	Loop Output	N/A	
	Matrix Output		e different video source, one port
Audio Port	External Audio Input	1-channel RCA port	1-channel RCA port
	Coaxial Audio Input	N/A	
	Audio Output 1-channel RCA port		
	Bidirectional Talk Input	Reuse audio input and output port.	
Record	Record Mode Playback Mode	Alarm record, motion detection record, regular record, manual record, intelligent record. Instant playback, normal playback, event playback, mark playback	
		intelligent playback	, over playbaok, mant playbaok,
	Record Playback	Max 4-ch playback	Max 8-ch playback
	Backup Mode	HDD, burner, flash disk, network	backup.
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	1 SATA port.	
	Space/HDD	8T	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port	
Port	Communication		
	USB	2 USB ports (One USB2.0 port at the front panel and on	
		port at the rear panel.)	
Other	Power	DC12V	
	Power Consumption (No HDD)	≤13W	≤20W

Working	-10°C~+55°C	
Temperature		
Working	10%~95%	
Humidity		
Dimension	325mm(W)×245mm(D)×45mm(H)	
Weight (No HDD)	≤1.25KG	≤1.40KG
Installation	Desk installation	
Mode		

## 1.3.78 HCVR720XAN-4K Series

Model	Parameters	;	HCVR7204AN-4K	HCVR7208AN-4K
System	Main Proce	ssor	High-performance industrial embe	edded micro controller
	OS		Embedded LINUX	
Video	Video En	code	H.264+/H.264	
	Standard			
	Encode		Main	stream:
	Resolution		4K(3840*2160)/2K(2560*1440)/10	080P/720P/960H/D1/HD1/BCIF/
			CIF/QCIF;	
			Sub stream: D1/CIF/QCIF	
	Video Fi	rame	4K: PAL:1~12f/s; NTSC: 1~15f/s	
	Rate		Other resolution: PAL:1~25f/s; N	TSC:1~30f/s
	Video Bit R	ate	32Kbps $\sim$ 12288 Kbps	
			(For 720P:default value is 2Mbps	, max value is 4Mbps;
			For 1080P:default value is 4Mbp	os, max value is 6Mbps;
			For 2K:default value is 8Mbps,	max value is 12Mbps;
			For 4K@15frame:default value is 8Mbps, max value is 12Mbps;)	
	Bit Sti	ream	Video stream/composite stream	
	Туре			
	Dual-Stream	n	Support	
Audio	Encode		G.711A, G.711U, PCM	
Standard Audio Sampling Rate				
			8KHz,16Bit	
		ate		
	Audio Bit Rate 64Kbps			
Video Port	Analog V	'ideo	4-ch BNC port (HDCVI/CVBS)	8-ch BNC port (HDCVI/CVBS)
	Input			

	Network Video Input	<ul> <li>Support 2 IP channels by default.</li> <li>Analog /digital channel switch. Max 6 IP channel connections.</li> <li>Connection bandwidth:8Mbps-24Mbps</li> </ul>	<ul> <li>Support 4 IP channels by default.</li> <li>Analog /digital channel switch. Max 12 IP channel connections.</li> <li>Connection bandwidth:16Mbps-48Mbp s</li> </ul>
	Video Output	1-ch VGA output, 1-ch HDMI output(Max 4K: (3840 HDMI/VGA video output the sar video sources at the same time.	*2160)@30frames), me video source or the different
	Loop Output	N/A	
	Matrix Output		e different video source, one port
Audio Port	External Audio Input	1-channel RCA port	1-channel RCA port
	Coaxial Audio Input	N/A	
	Audio Output	1-channel RCA port     Reuse audio input and output port.	
	Bidirectional		
Record	Talk Input Record Mode	Alarm record, motion detection record, regular record, manual	
Record	Record Mode	record, intelligent record.	record, regular record, manual
	Playback Mode		<, event playback, mark playback,
	Record	Max 4-ch playback	Max 8-ch playback
	Playback		
	Backup Mode	HDD, burner, flash disk, network	backup.
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	2 SATA ports.	
	Space/HDD	8T	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port	
Port	Communication	1 RS485 port	
	USB	2 USB ports (One USB2.0 port at the front panel and one USE	
Other	Power	port at the rear panel.)	
Other	Power	DC12V	
	Consumption (No HDD)	≤13W	≤20W

Working	-10°C~+55°C	
Temperature		
Working	10%~95%	
Humidity		
Dimension 1U case, 375mm(W)×280mm(D)×50mm(H)		×50mm(H)
Weight (No HDD)	≤1.60KG	≤1.75KG
Installation	Desk installation	
Mode		

#### 1.3.79 XVR5104C-4M/XVR5104HS-4M/XVR5104H-4M Series

Model	Parameters	XVR5104C-4M	XVR5104HS-4M	XVR5104H-4M
System	Main Processor	High-performance ind	ustrial embedded micr	o controller
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	2560*1440@15fps/2048*1536@15fps/1080P/720P/960H/D1/CIF/		
	Resolution	QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~30f/s		
	Rate			
	Video Bit Rate	32Kbps~6144 Kbps		
	Bit Stream	Video stream/compos	ite stream	
	Туре			
	Dual-Stream	Support. (Sub-stream	max supports 960H er	ncode.)
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)		
	Standard			
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video Input	4-ch BNC port (HDC∖	/I/AHD/TVI/CVBS self-	adaptive)
	Network Video	Support 0 IP chai	nnel by default.	
	Input	Max 6 IP channels connections (Add 2 IP channels and		
		4-channel analog	/digital channel switch.	.).
		<ul> <li>Connection band</li> </ul>	width: 0Mbps-24Mbps.	
	Video Output	1-ch VGA output,		
			1-ch HDMI output,	
		HDMI/VGA video outp	out at the same time.	
	Loop Output	N/A		
Matrix Output N/A				
Audio Port	External	1-channel RCA port		
	Audio Input			

	Coaxial Audio	4-channel BNC port		
	Input			
	Audio Output	1-channel RCA port		
	Bidirectional	Reuse audio input and output port of the first channel.		
	Talk Input			
Record	Record Mode	Alarm record, motion	n detection record, re	egular record, manual
		record, schedule reco	rd.	
	Playback Mode	Instant playback, normal playback, event playback, mark playback,		
		intelligent playback.		
	Record	Max 4-ch playback		
	Playback			
	Backup Mode	HDD, burner, flash dis	sk, network backup.	
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
HDD	HDD Port	1 SATA port		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 100Mbps	s Ethernet port	
Port	Communication	N/A	1 RS485 port	
	USB	2 USB2.0 ports 2 USB2.0 ports (One USB2.0 port at th		e USB2.0 port at the
		(Two USB2.0 ports	front panel and one L	JSB2.0 port at the rear
		at the rear panel.)	panel.)	
Other	Power	DC12V		
	Power			
	Consumption	≤8W		
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	SMART 1U case,	Compact 1U case,	Mini 1U case,
		270mm*205mm*41	260mm*220mm*44	325mm*245mm*45
		mm(W*D*H)	mm(W*D*H)	mm (W*D*H)
	Weight	≪0.55KG	≪0.90KG	≤1.10KG
	(No HDD)			
	Installation	Desk installation	•	•
	Mode			

#### 1.3.80 XVR5204AN-4M Series

Model	Parameters	XVR5204AN-4M
System	Main Processor	High-performance industrial embedded micro controller
	OS	Embedded LINUX
Video	Video Encode	H.264
	Standard	

	Encode	2560*1440@15fpa/2049*1526@15fpa/1090D/720D/060U/D1/CIE/
		2560*1440@15fps/2048*1536@15fps/1080P/720P/960H/D1/CIF/
	Resolution	
	Video Frame	PAL:1~25f/s;NTSC:1~30f/s
	Rate	
	Video Bit Rate	32Kbps~6144 Kbps
	Bit Stream	Video stream/composite stream
	Туре	
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)
	Standard	
	Audio	8KHz, 16Bit
	Sampling Rate	
	Audio Bit Rate	64Kbps
Video Port	Analog Video	4-ch BNC port (HDCVI/AHD/TVI/CVBS self-adaptive)
	Input	
	Network Video	<ul> <li>Support 0 IP channel by default.</li> </ul>
	Input	• Max 6 IP channels connections (Add 2 IP channels and
		4-channel analog/digital channel switch.).
		<ul> <li>Connection bandwidth: 0Mbps-24Mbps.</li> </ul>
	Video Output	1-ch VGA output,
		1-ch HDMI output,
		HDMI/VGA video output at the same time.
	Loop Output	N/A
	Matrix Output	N/A
Audio Port	External	1-channel RCA port
Addio Port	Audio Input	
	Coaxial Audio	4-channel BNC port
	Input	
	Audio Output	1-channel RCA port
	Bidirectional	Reuse audio input and output port of the first channel.
	Talk Input	
Record	Record Mode	Alarm record, motion detection record, regular record, manual
nooonu		record, schedule record.
	Playback Mode	Instant playback, normal playback, event playback, mark playback,
	T layback mode	intelligent playback.
	Record	Max 4-ch playback
		ivian 4-on playback
	Playback	HDD human flagh diak, natwork haskup
A	Backup Mode	HDD, burner, flash disk, network backup.
Alarm	Alarm Input	N/A
	Alarm Output	N/A
HDD	HDD Port	2 SATA ports
	Space/HDD	Т

Communication	Network	1 RJ45 port, 100Mbps Ethernet port
Port	Communication	1 RS485 port
	USB	2 USB2.0 ports (One USB2.0 port at the front panel and one
		USB2.0 port at the rear panel.)
Other	Power	DC12V
	Power	
	Consumption	≪8W
	(No HDD)	
	Working	-10°C~+55°C
	Temperature	
	Working	10%~90%
	Humidity	
	Dimension	1U case,
		375mm*280mm*50mm (W*D*H)
	Weight	≤1.50KG
	(No HDD)	
	Installation	Desk installation
	Mode	

#### 1.3.81 XVR5108HS-4KL/XVR5108H-4KL/XVR5116H-4KL Series

Model	Parameters	XVR5108HS-4KL	XVR5108H-4KL	XVR5116H-4KL	
System	Main Processor	High-performance ind	ustrial embedded micro	o controller	
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	3840*2160@7fps/259	2*1944@12fps/2560*1	440@15fps/2048*153	
	Resolution	6@15fps/1080P/720F	9/960H/D1/CIF/QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~	-30f/s		
	Rate				
	Video Bit Rate	32Kbps~12288Kbps			
	Bit Stream	Video stream/composite stream			
	Туре				
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)			
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)			
	Standard				
	Audio	8KHz, 16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	8-ch BNC port (⊢	IDCVI/AHD/TVI/CVBS	16-ch BNC port	
	Input	self-adaptive)		(HDCVI/AHD/TVI/C	
				VBS self-adaptive)	

	Network Video Input	<ul> <li>Support 0 IP channel by default.</li> <li>Max 12 IP channels connections (Add 4 IP channels and 8-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-48Mbps.</li> </ul>	<ul> <li>Support 0 IP channel by default.</li> <li>Max 24 IP channels connections (Add 8 IP channels and 16-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-96Mbps.</li> </ul>	
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	Support (VGA/HDMI optional)		
Audio Port	External Audio Input	1-channel RCA port		
	Coaxial Audio Input	8-channel BNC port	16-channel BNC port	
	Audio Output	1-channel RCA port		
	Bidirectional Talk Input	Reuse audio input and output port of the first	channel.	
Record	Record Mode	Alarm record, motion detection record, re record, schedule record.	gular record, manual	
	Playback Mode	Instant playback, normal playback, event pla intelligent playback.		
	Record Playback	Max 8-ch playback	Max 16-ch playback	
	Backup Mode	HDD humer flash disk network backup	<u> </u>	
Alarm	Alarm Input	HDD, burner, flash disk, network backup.		
	Alarm Output	N/A		
HDD	HDD Port	N/A 1 SATA port		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		
	USB	2 USB ports (One USB2.0 port at the front p	panel and one USB3.0	
		port at the rear panel. )		

Other	Power	DC12V		
	Power			
	Consumption	≤10W		≤15W
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	Mini 1U case,		
		325mm*245mm*45mr	n (W*D*H)	
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	(No HDD)		<1.25KG	<1.45KG
	Installation	Desk installation		
	Mode			

#### 1.3.82 XVR5208AN-4KL/XVR5216AN-4KL Series

Model	Parameters	XVR5208AN-4KL	XVR5216AN-4KL		
System	Main Processor	High-performance industrial embedded micro controller			
	OS	Embedded LINUX	Embedded LINUX		
Video	Video Encode	H.264			
	Standard				
	Encode	3840*2160@7fps/2592*1944@12	2fps/2560*1440@15fps/2048*153		
	Resolution	6@15fps/1080P/720P/960H/D1/0	CIF/QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~30f/s			
	Rate				
	Video Bit Rate	32Kbps~12288Kbps			
	Bit Stream	Video stream/composite stream			
	Туре				
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)			
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)			
	Standard				
	Audio	8KHz, 16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	8-ch BNC port	16-ch BNC port		
	Input	(HDCVI/AHD/TVI/CVBS	(HDCVI/AHD/TVI/CVBS		
		self-adaptive)	self-adaptive)		

	Network Video Input	<ul> <li>Support 0 IP channel by default.</li> <li>Max 12 IP channels connections (Add 4 IP channels and 8-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-48Mbps.</li> <li>1-ch VGA output,</li> <li>1-ch HDMI output,</li> <li>HDMI/VGA video output at the same same same same same same same sam</li></ul>	<ul> <li>default.</li> <li>Max 24 IP channels connections (Add 8 IP channels and 16-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-96Mbps.</li> </ul>
	Loop Output	N/A	
	Matrix Output	Support (VGA/HDMI optional)	
Audio Port	External Audio Input	1-channel RCA port	
	Coaxial Audio Input	8-channel BNC port	16-channel BNC port
	Audio Output	1-channel RCA port	
	Bidirectional Talk Input	Reuse audio input and output port of the first channel.	
Record	Record Mode Playback Mode	Alarm record, motion detection record, regular record, manual record, schedule record. Instant playback, normal playback, event playback, mark playback,	
	Record	intelligent playback. Max 8-ch playback	Max 16-ch playback
	Playback		
	Backup Mode	HDD, burner, flash disk, network	backup.
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	
HDD	HDD Port	2 SATA ports	
	Space/HDD	8T	
Communication	Network	1 RJ45 port, 1000Mbps Ethernet	port
Port	Communication	1 RS485 port	
	USB	2 USB ports (One USB2.0 port at the front panel and one USB3.0	
		port at the rear panel.)	
Other	Power	DC12V	
	Power Consumption (No HDD)	≪10W	≤15W
	Working Temperature	-10℃~+55℃	

Working	10%~90%	
Humidity		
Dimension	1U case,	
	375mm*280mm*50mm (W*D*H)	
Weight (No HDD)	≤1.65KG	≤1.80KG
Installation	Desk installation	
Mode		

#### 1.3.83 XVR7104HE-4KL/XVR7108HE-4KL/XVR7116HE-4KL Series

Model	Parameters	XVR7104HE-4KL	XVR7108HE-4KL	XVR7116HE-4KL	
System	Main Processor	High-performance industrial embedded micro controller			
	OS	Embedded LINUX	Embedded LINUX		
Video	Video Encode	H.264			
	Standard				
	Encode	3840*2160@7fps/259	2*1944@12fps/2560*1	440@15fps/2048*153	
	Resolution	6@15fps/1080P/720P	/960H/D1/CIF/QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~	-30f/s		
	Rate				
	Video Bit Rate	32Kbps $\sim$ 12288Kbps	32Kbps~12288Kbps		
	Bit Stream	Video stream/composite stream			
	Туре				
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)			
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)			
	Standard				
	Audio	8KHz, 16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-ch BNC port	8-ch BNC port	16-ch BNC port	
	Input	(HDCVI/AHD/TVI/C	(HDCVI/AHD/TVI/C	(HDCVI/AHD/TVI/C	
		VBS self-adaptive)	VBS self-adaptive)	VBS self-adaptive)	

	Network Video Input	<ul> <li>Support 0 IP channel by default.</li> <li>Max 6 IP channels connections (Add 2 IP channels and 4-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-24Mbp.</li> </ul>	<ul> <li>Support 0 IP channel by default.</li> <li>Max 12 IP channels connections (Add 4 IP channels and 8-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-48Mbps.</li> </ul>	<ul> <li>Support 0 IP channel by default.</li> <li>Max 24 IP channels connections (Add 8 IP channels and 16-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-96Mbps.</li> </ul>
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/VGA video outp	out at the same time.	
	Loop Output	N/A		
	Matrix Output	Support (VGA/HDMI o	optional)	
Audio Port	External Audio Input	4-channel RCA port	8-channel RCA port	16-channel RCA port
	Coaxial Audio Input	4-channel BNC port	8-channel BNC port	16-channel BNC port
	Audio Output	1-channel RCA port		
	Bidirectional Talk Input	Reuse audio input and	d output port of the first	channel.
Record	Record Mode	Alarm record, motior record, schedule reco	n detection record, re rd.	gular record, manual
	Playback Mode	Instant playback, norn intelligent playback.	nal playback, event pla	yback, mark playback,
	Record Playback	Max 4-ch playback	Max 8-ch playback	Max 16-ch playback
	Backup Mode	HDD, burner, flash dis	k, network backup.	
Alarm	Alarm Input	8-channel		16-channel
	Alarm Output	3-channel		
HDD	HDD Port	1 SATA port		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		
	USB	2 USB ports (One US port at the rear panel.	B2.0 port at the front p )	panel and one USB3.0

Other	Power	DC12V		
	Power			
	Consumption	≤10W		≤15W
	(No HDD)			
	Working	-10°C~+55°C		
	Temperature			
	Working	10%~90%		
	Humidity			
	Dimension	Mini 1U case,		
		325mm*245mm*45mr	m (W*D*H)	
	Weight	≤1.1KG	≤1.25KG	≤1.45KG
	(No HDD)	<1.1KG	≪1.25KG	<1.45KG
	Installation	Desk installation		
	Mode			

#### 1.3.84 XVR7204A-4KL/XVR7208A-4KL/XVR7216A-4KL Series

Model	Parameters	XVR7204A-4KL	XVR7208A-4KL	XVR7216A-4KL	
System	Main Processor	High-performance ind	High-performance industrial embedded micro controller		
	OS	Embedded LINUX			
Video	Video Encode	H.264			
	Standard				
	Encode	3840*2160@7fps/259	2*1944@12fps/2560*1	440@15fps/2048*153	
	Resolution	6@15fps/1080P/720P	P/960H/D1/CIF/QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~	-30f/s		
	Rate				
	Video Bit Rate	32Kbps~12288Kbps			
	Bit Stream	Video stream/composite stream			
	Туре				
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)			
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)			
	Standard				
	Audio	8KHz, 16Bit			
	Sampling Rate				
	Audio Bit Rate	64Kbps			
Video Port	Analog Video	4-ch BNC port	8-ch BNC port	16-ch BNC port	
	Input	(HDCVI/AHD/TVI/C	(HDCVI/AHD/TVI/C	(HDCVI/AHD/TVI/C	
		VBS self-adaptive)	VBS self-adaptive)	VBS self-adaptive)	

	Network Video Input	<ul> <li>Support 0 IP channel by default.</li> <li>Max 6 IP channels connections</li> <li>(Add 2 IP channels and 4-channel analog/digital channel switch.).</li> <li>Connection 6</li> <li>Connection bandwidth:</li> <li>Max 12 IP channels and 4-channel bandwidth:</li> <li>Connection bandwidth:</li> <li>OMbps-24Mbp.</li> <li>Support 0 IP channel by default.</li> <li>Support 0 IP channel syitch.</li> <li>Support 0 IP channel syitch.</li> <li>Support 0 IP channel syitch.</li> <li>Connection bandwidth:</li> <li>OMbps-24Mbp.</li> </ul>	<ul> <li>Support 0 IP channel by default.</li> <li>Max 24 IP channels connections (Add 8 IP channels and 16-channel analog/digital channel switch.).</li> <li>Connection bandwidth: 0Mbps-96Mbps.</li> </ul>	
	Video Output	1-ch VGA output, 1-ch HDMI output, HDMI/VGA video output at the same time.		
	Loop Output	N/A		
	Matrix Output	Support (VGA/HDMI optional)		
Audio Port	External Audio Input	4-channel RCA port		
	Coaxial Audio Input	4-channel BNC port 8-channel BNC port	16-channel BNC port	
	Audio Output	1-channel RCA port		
	Bidirectional Talk Input	Reuse audio input and output port of the first	channel.	
Record	Record Mode	Alarm record, motion detection record, re record, schedule record.	gular record, manual	
	Playback Mode	Instant playback, normal playback, event pla intelligent playback.	yback, mark playback,	
	Record Playback	Max 4-ch playback Max 8-ch playback	Max 16-ch playback	
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	8-channel	16-channel	
	Alarm Output	3-channel		
HDD	HDD Port	2 SATA ports		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication			
	USB	2 USB ports (One USB2.0 port at the front p port at the rear panel. )	banel and one USB3.0	

Other	Power	DC12V	
	Power		
	Consumption	≤10W	≤15W
	(No HDD)		
	Working	-10°C~+55°C	
	Temperature		
	Working	10%~90%	
	Humidity		
	Dimension	1U case,	
		375mm*280mm*50mm(W*D*H)	
	Weight		≪1.80KG
	(No HDD)	≤1.65KG	
	Installation	Desk installation	
	Mode		

#### 1.3.85 XVR7208A-4K Series

Model	Parameters	XVR7208A-4K		
System	Main Processor	High-performance industrial embedded micro controller		
	OS	Embedded LINUX		
Video	Video Encode	H.264		
	Standard			
	Encode	3840*2160@15fps/2592*1944@15fps/2560*1440/2048*1536/1080		
	Resolution	P/720P/960H/D1/CIF/QCIF		
	Video Frame	PAL:1~25f/s;NTSC:1~30f/s		
	Rate			
	Video Bit Rate	32Kbps~12288Kbps		
	Bit Stream	Video stream/composite stream		
	Туре			
	Dual-Stream	Support. (Sub-stream max supports 960H encode.)		
Audio	Encode	G.711A, G.711U, PCM, AAC (AAC for the first channel only)		
	Standard			
	Audio	8KHz, 16Bit		
	Sampling Rate			
	Audio Bit Rate	64Kbps		
Video Port	Analog Video	8-ch BNC port (HDCVI/AHD/TVI/CVBS self-adaptive)		
	Input			
	Network Video	• Support 0 IP channel by default.		
	Input	• Max 12 IP channels connections (Add 4 IP channels and		
		8-channel analog/digital channel switch.).		
		Connection bandwidth: 0Mbps-48Mbps.		
	Video Output	1-ch VGA output,		
		1-ch HDMI output,		
		HDMI/VGA video output at the same time.		

	Loop Output	N/A		
	Matrix Output	Support (VGA/HDMI optional)		
Audio Port	External	4-channel RCA port		
Audio Input				
	Coaxial Audio Input	8-channel BNC port		
	Audio Output	1-channel RCA port		
	Bidirectional Talk Input	Reuse audio input and output port of the first channel.		
Record	Record Mode	Alarm record, motion detection record, regular record, manual record, schedule record.		
	Playback Mode	Instant playback, normal playback, event playback, mark playback, intelligent playback.		
	Record Playback	Max 8-ch playback		
	Backup Mode	HDD, burner, flash disk, network backup.		
Alarm	Alarm Input	16-channel		
	Alarm Output	3-channel		
HDD	HDD Port	2 SATA ports		
	Space/HDD	8T		
Communication	Network	1 RJ45 port, 1000Mbps Ethernet port		
Port	Communication	1 RS485 port		
	USB	2 USB ports (One USB2.0 port at the front panel and one USB3.0 port at the rear panel.)		
Other	Power	DC12V		
	Power Consumption (No HDD)	≤15W		
Working Temperature Working Humidity		-10℃~+55℃		
		10%~90%		
	Dimension	1U case, 375mm*280mm*50mm (W*D*H)		
	Weight (No HDD)	≤1.80KG		
Installation Mode		Desk installation		

# 2 Overview and Controls

This section provides information about front panel and rear panel. When you install this series DVR for the first time, please refer to this part first.

## 2.1 Front Panel

#### 2.1.1 HCVR5104C/HCVR51XXC-V2/HCVR71XXC-V2/ HCVR4104/4108C-S2/ HCVR5104 5108C-S2/ HCVR7104C-S2/ HCVR2108C-S2/ HCVR410XC-S3/HCVR510XC-S3/7104C-S3/ XVR410XC/XVR510XC/7104C/XVR51XXC-4M Series

The front panel is shown as below. See Figure 2-1.

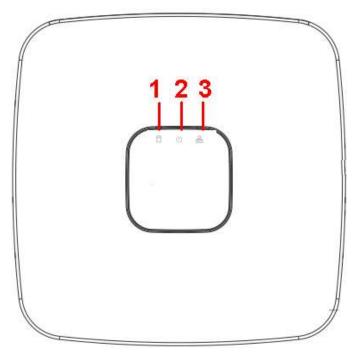


Figure 2-1

Please refer to the following sheet for front panel button information.

SN	Name	Function		
1	HDD status indictor light	The red light becomes on when HDD is abnormal.		
2	Power indicator light	The red light becomes on when the power connection is OK.		
3	Network status indicator light	The red light becomes on when the network connection is abnormal.		

# 2.1.2 HCVR51XXH/HCVR51XXHE/ HCVR51XXH-V2 / HCVR51XXHE-V2/HCVR71XXH-V2 / HCVR71XXHE-V2 Series

The front panel is shown as below. See Figure 2-2.

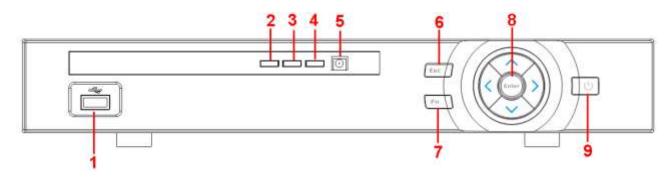


Figure	2-2
Figure	Z-7

Please refer to the following sheet for fror	nt panel button information.

SN	lcon	Name	Function
1	÷	USB port	To connect USB storage device, USB mouse and etc.
2	Alarm	Alarm indicator light	When an alarm occurs, the light becomes red to alert you.
3	NET	Network abnormal indicator light	Network error occurs or there is no network connection, the light becomes red to alert you.
3	HDD	HDD abnormal indicator light	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
5	IR	IR Receiver	It is to receive the signal from the remote control.
6			Go to previous menu, or cancel current operation.
	ESC	ESC	When playback, click it to restore real-time monitor mode.
7	FN	Assist	One-window monitor mode, click this button to display assistant function: PTZ control and image color. Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor. In motion detection setup, working with Fn and direction keys to realize setup. In text mode, click it to switch between numeral, English character(small/capitalized) and etc. Realize other special functions.
8	Enter	ENTER	Confirm current operation Go to default button Go to menu
9	Ċ	Power button	Power button, press this button for three seconds to boot up or shut down DVR.
	▲、▼	Up Down	Activate current control, modify setup, and then move up and down. Increase/decrease numeral. Assistant function such as PTZ menu.
	<b>∢</b> 、►	Left Right	Shift current activated control, When playback, click these buttons to control playback bar.

2.1.3 HCVR51XXHC/ HCVR51XXHC-V2/ HCVR71XXHC-V2 Series

The interface is shown as below. See Figure 2-3.

	нат рил Шор фф		

Figure 2-3

Please refer to the following sheet for front panel button information.

SN	Icon	Name	Function
1	NET	Network abnormal indicator light	Network error occurs or there is no network connection, the light becomes red to alert you.
2	PWR	Power indicator light	
3	HDD	HDD abnormal indicator light	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.

2.1.4 HCVR41XXHE-S2/ HCVR51XXH-S2/ HCVR51XXHE-S2/ HCVR710XH-S2/ HCVR710XHE-S2/ HCVR41XXHE-S3/HCVR51XXH-S3/HCVR51XXHE-S3/HCVR71X XH-S3/HCVR71XXHE-S3 /HCVR41XXHS-S2/ HCVR21XXHS-S2/ HCVR21XXHS-S3/HCVR41XXHS-S3/51XXHS-S3/7104HS-S3/ XVR41XXHE/XVR51H/XVR51XXHE/XVR71XXH/XVR71XXHE /HCVR41XXHS-S2/ HCVR21XXHS-S2/ XVR21XXHS/XVR41XXHS/51XXHS/7104HS/HCVR71XX-4M/HCV R710XH-4K/XVR51XXHS-4M/XVR51XXHS-4KL/XVR51XXH-4M/ XVR51XXH-4KL/ XVR71XXHE-4KL Series

The front panel is shown as below. See Figure 2-4.

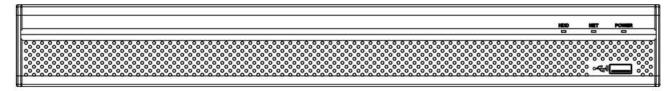


Figure 2-4

Please refer to the following sheet for front panel button information.

Icon	Name	Function
HDD	HDD status indicator	The blue light is on when the HDD is malfunction.
	light	
NET	Network status indicator	The blue light is on when the network connection is
	light	abnormal.

lcon	Name	Function
POWER	Power status indicator light	The blue light is on when the power connection is OK.
~ <del>4</del>	USB2.0 port	Connect to peripheral USB 2.0 storage device, mouse, burner and etc.

#### 2.1.5 HCVR52XXA-V2/ HCVR72XXA-V2 Series

The front panel is shown as below. See Figure 2-5.



# Figure 2-5

Name	lcon	Function
Power button	С С	Power button, press this button for three seconds to boot up or shut down DVR.
Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.
		Activate current control, modify setup, and then move up and down.
Up/1Down/4	▲、▼	Increase/decrease numeral.
		Assistant function such as PTZ menu.
		In text mode, input number 1/4 (English character G/H/I)
		Shift current activated control,
Left/2 Right/3	◀ ▶	When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
		Confirm current operation
Enter	ENTER	Go to default button
		Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.

Slow play/8	Þ	Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).		
		One-window monitor mode, click this button to display assistant function: PTZ control and image color.		
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the		
Assistant	Fn	In motion detection setup, working with Fn and direction keys to realize setup.		
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.		
		Realize other special functions.		
Fast play/7	••	Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).		
Play previous/0	◀	In playback mode, playback the previous video In text mode, input number 0.		
Reverse/Pause/6	◀	In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback.		
Play Next/9	►	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)		
Play/Pause /5	▶	In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).		
USB port	<b>م</b> تي.	To connect USB storage device, USB mouse.		
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.		
HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.		
Record light	1-16	System is recording or not. It becomes on when system is recording.		
IR Receiver	IR	It is to receive the signal from the remote control.		

#### 2.1.6 HCVR42XXA-S2/ HCVR42XXAN-S2/ HCVR52XXA-S2/ HCVR5216AN-S2/HCVR720XA-S2/ HCVR42XXA-S3/HCVR42XXAN-S3/HCVR52XXA-S3/HCVR52XXAN-S3/HCVR72XXA-S3/HCVR7216AN-S3/XVR42XXA/XVR42XXAN/XVR 52XXA/XVR52XXAN/XVR72XXA/XVR7216AN/HCVR 72XXAN-4M/HCVR720XAN-4K/XVR52XXAN-4M/ XVR52XXAN-4KL/XVR72XXA-4KL/XVR72XXA-4K Series

The front panel is shown as below. See Figure 2-6.

000148	100		POINT OF
	0	12	

Figure 2-6

Please refer to the following sheet for front panel button information.

Icon	Name	Function
STATUS	Status indicator light	The blue light is on when the device is working
		properly.
HDD	HDD status indicator	The blue light is on when the HDD is malfunction.
	light	
NET	Network status indicator	The blue light is on when the network connection is
	light	abnormal.
POWER	Power status indicator light	The blue light is on when the power connection is
		OK.
~ <del>~</del>	USB2.0 port	Connect to peripheral USB 2.0 storage device,
		mouse, burner and etc.

2.1.7 HCVR42XXL-S2/HCVR44XXL-S2/ XVR54XXL/ XVR74XXL Series

The front panel is shown as below. See Figure 2-7.

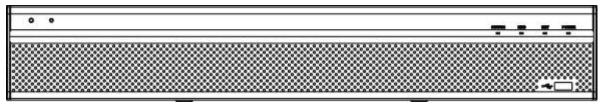


Figure 2-7

Icon	Name	Function	
STATUS	Status indicator light	The blue light is on when the device is working properly.	
		property.	
HDD	HDD status indicator	The blue light is on when the HDD is malfunction.	
	light		
NET	Network status indicator	The blue light is on when the network connection is	
	light	abnormal.	

Icon	Name	Function
POWER	Power status indicator light	The blue light is on when the power connection is OK.
ి <del>ల</del> ి	USB2.0 port	Connect to peripheral USB 2.0 storage device, mouse, burner and etc.

### 2.1.8 HCVR52XXL-V2/ HCVR54XXL-V2 Series

The front panel is shown as in Figure 2-8.

1 2 3 4 5 6 7 8 9 1 8 8 M 8 6 MAA AT	*	
	H/8 H/7 H/8	

# Figure 2-8

Name	Icon	Function
Power button	Ċ	Power button, press this button for three seconds to boot up or shut down DVR.
Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.
Up/1 Down/4	▲、▼	Activate current control, modify setup, and then move up and down. Increase/decrease numeral.
		Assistant function such as PTZ menu. In text mode, input number 1/4 (English character G/H/I)
Left/2 Right/3	• •	Shift current activated control,
		When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F)
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu

Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.
Slow play/8	Þ	Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
		Realize other special functions.
Fast play/7	••	Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).
Play previous/0	◀	In playback mode, playback the previous video In text mode, input number 0.
Reverse/Pause/6	◀	In normal playback or pause mode, click this button to reverse playback
		In reverse playback, click this button to pause playback.
Play Next/9	►	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)
Play/Pause /5	▶	In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).
USB port	<u>م</u> ي.	To connect USB storage device, USB mouse.
Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indication light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.

## 2.1.9 HCVR58XXS-V2 Series

This series products' front panel is shown as below. See Figure 2-9.

|--|--|--|--|--|

## Figure 2-9

Name	lcon	Function	
Power button	ტ	Power button, press this button for three seconds to boot up or shut down DVR.	
Number button	0-9	Input Arabic number Switch channel	
Input number more than 10	-/	If you want to input a number more than 10, please click this button and then input.	
Shift	<b>↑</b>	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc. Enable or disable tour.	
Fast play	••	Various fast speeds and normal playback.	
Slow play	ŀ	Multiple slow play speeds or normal playback.	
Play/Pause	► II In normal playback click this button to pause playback In pause mode, click this button to resume playback.		
Reverse/Pause	◀	In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback.	
Play previous	◀	In playback mode, playback the previous video	
Play Next	▶	In playback mode, playback the next video In menu setup, go to down ward of the dropdown list.	
		Activate current control, modify setup, and then move up and down.	
Up/ Down	<b>▲</b> 、▼	Increase/decrease numeral.	
		Assistant function such as PTZ menu.	
Left/		Shift current activated control, and then move left and right.	
Right		When playback, click these buttons to control playback bar.	

		Go to previous menu, or cancel current operation.		
ESC	ESC	When playback, click it to restore real-time monitor mode.		
		Confirm current operation		
Enter	ENTER	Go to default button		
		Go to menu		
		One-window monitor mode, click this button to display assistant function: PTZ control and image color.		
		Backspace function: in numeral control or text control, press it for 1.5 seconds to delete the previous character before the cursor.		
Assistant	Fn	In motion detection setup, working with Fn and direction keys to realize setup.		
ASSISTANT		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.		
		In HDD management interface, you can click it to switch HDD record information and other information (Menu prompt)		
		Realize other special functions.		
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.		
Window switch	Mult	Click it to switch one-window/multiple-window.		
Shuttle(outer ring)		In real-time monitor mode it works as left/right direction key. Playback mode, counter clockwise to forward and clock wise to backward.		
Jog(inner dial)		Up/down direction key. Playback mode, turn the inner dial to realized frame by frame playback. (Only applies to some special versions.)		
USB port	<b>م</b> نۍ	To connect USB storage device, USB mouse, burner and etc.		
		For 4/8/16 channel device: indication light on means that the channel is in recording.		
Record light	1-32	For 32 channel device: Indication Light on: 1-16 channel is in recording Indication Light flashes: 17-32 channel is in recording Indication Light normally on: the corresponding channels are in recording		
Remote control indication light	ACT	Remote control indication light		

Status indication light	Status	The light is on if device operates properly.
Power indication light	PWR	Power indication light
IR Receiver	IR	It is to receive the signal from the remote control.

### 2.1.10 HCVR48XXS-S2/ XVR58XXS/ XVR78XXS Series

The front panel is shown as below. See Figure 2-10.

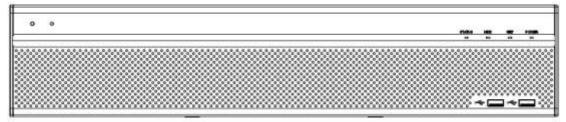


Figure 2-10

Please refer to the following sheet for front panel button information.

lcon	Name	Function
STATUS	Status indicator light	The blue light is on when the device is working
		properly.
HDD	HDD status indicator	The blue light is on when the HDD is malfunction.
	light	
NET	Network status indicator	The blue light is on when the network connection is
	light	abnormal.
POWER	Power status indicator light	The blue light is on when the power connection is
		OK.
~ <del>~</del> ~	USB2.0 port	Connect to peripheral USB 2.0 storage device,
		mouse, burner and etc.

# 2.2 Rear Panel

## 2.2.1 HCVR5104C Series

The HCVR5104C rear panel is shown as below. See Figure 2-11.

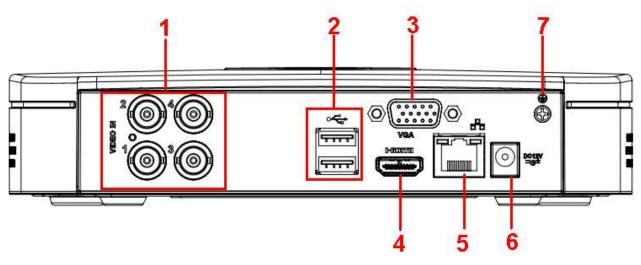


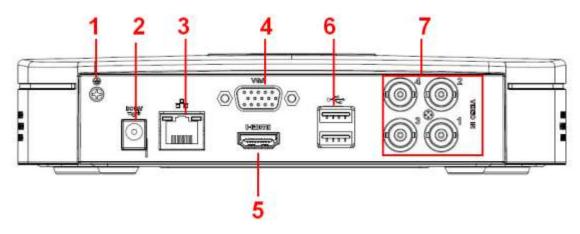
Figure 2-11

Please refer to the following sheet for detailed information.

SN	Icon	Name	Note
1	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.
2	•	USB2.0 port	Connect to USB storage device,
			mouse, burning DVD-ROM and
			etc.
3	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view ananlog
			video output.
4	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition
			video and multiple-channel data to
			the HDMI port of the display
			device.
5		Network port	100M Ethernet port
6	DC 12V 	Power input port	Input 12V DC.
7	Ŧ	GND	Ground end

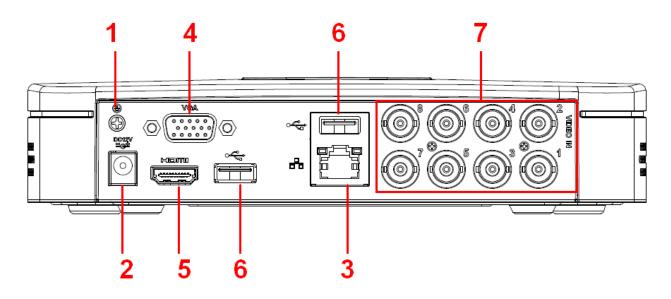
## 2.2.2 HCVR5104C-V2/HCVR5108C-V2 Series

The HCVR5104C-V2 rear panel is shown as below. See Figure 2-12.





The HCVR5108C-V2 rear panel is shown as below. See Figure 2-13.





SN	Icon	Name	Note
1	Ŧ	GND	Ground end
2	DC 12V 	Power input port	Input 12V DC.
3	- <del>-</del>	Network port	100M Ethernet port
4	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view ananlog
			video output.
5	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition

			video and multiple-channel data to the HDMI port of the display device.
6	٠	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
7	VIDEO IN	Video input port	Connect to analog camera, video input signal.

#### 2.2.3 HCVR7104C-V2 Series

The HCVR7104C-V2 rear panel is shown as below. See Figure 2-14.

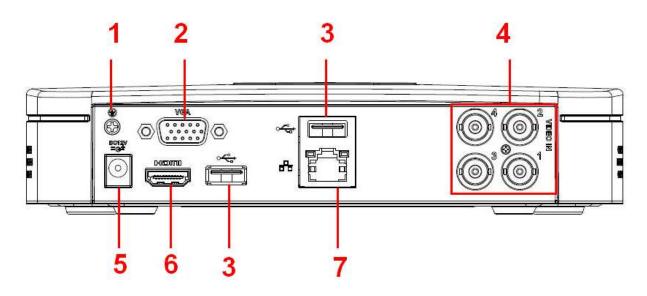


Figure	2-14

SN	lcon	Name	Note
1	Ŧ	GND	Ground end
2	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view ananlog
			video output.
3	•	USB2.0 port	Connect to USB storage device,
			mouse, burning DVD-ROM and
			etc.
4	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.
5	DC 12V 	Power input port	Input 12V DC.
6	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition

		video and multiple-channel data to the HDMI port of the display device.
7	Network port	100M Ethernet port

## 2.2.4 HCVR4104/HCVR4108C-S2/HCVR2108C-S2 Series

The HCVR4104C-S2 series rear panel is shown as below. See Figure 2-15.

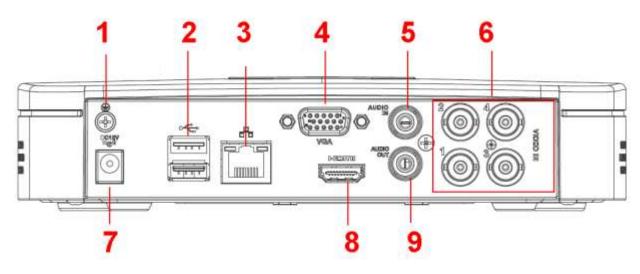


Figure 2-15

The HCVR4108C-S2/HCVR2108C-S2 series rear panel is shown as below. See Figure 2-16.

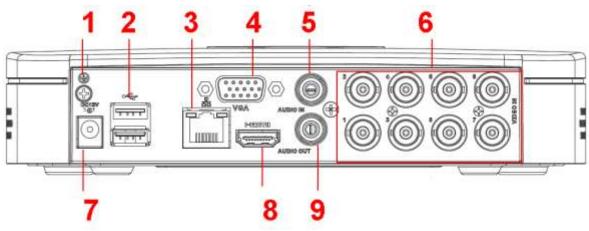


Figure 2-16

SN	Icon	Name	Note
1	Ŧ	GND	Ground end
2	ول	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.

3	6	Network port	100M Ethernet port
4	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
5	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
6	VIDEO IN	Video input port	Connect to analog camera, video input signal.
7	DC 12V C	Power input port	Input 12V DC.
8	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
9	AUDIO OUT	Audio output port	Connect to video output device such as sound box.

#### 2.2.5 HCVR5104/5108C-S2 Series

The HCVR5104C-S2 series rear panel is shown as below. See Figure 2-17.

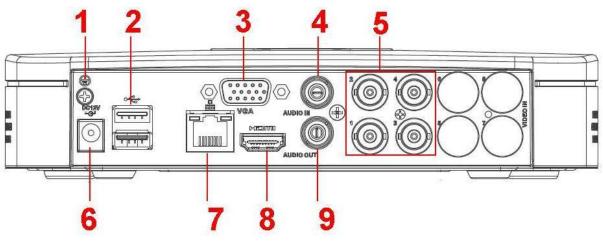


Figure 2-17

The HCVR5108C-S2 series rear panel is shown as below. See Figure 2-18.

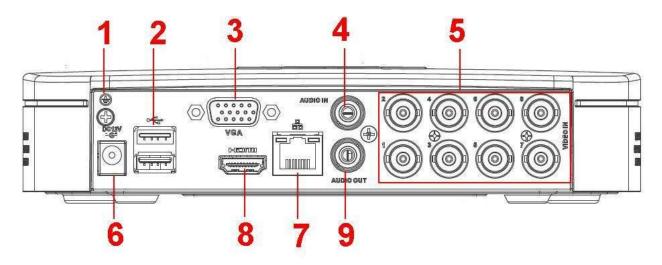


Figure 2-18

Please refer to the following sheet for detailed information.

SN	lcon	Name	Note
1	1	GND	Ground end
2	÷	USB2.0 port	Connect to USB storage device,
			mouse, burning DVD-ROM and
			etc.
3	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view ananlog
			video output.
4	AUDIO IN	Audio input port	Connect to audio input device
			such as speaker.
5	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.
6	DC 12V 	Power input port	Input 12V DC.
7		Network port	100M Ethernet port
8	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition
			video and multiple-channel data
			to the HDMI port of the display
			device.
9	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.

### 2.2.6 HCVR7104C-S2 Series

The HCVR7104C-S2 series rear panel is shown as below. See Figure 2-19.

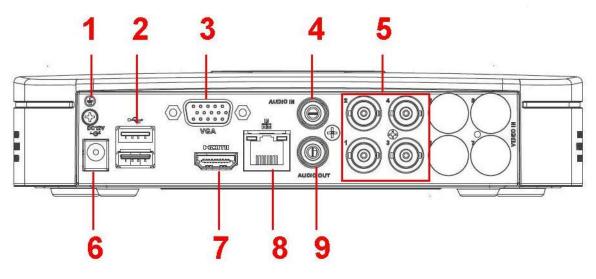


Figure 2-19

Please refer to the following sheet for detailed information.

SN	Icon	Name	Note		
1	Ŧ	GND	Ground end		
2	•	USB2.0 port	Connect to USB storage device mouse, burning DVD-ROM and etc.		
3	VGA	VGA video output       VGA video output port. Output         port       analog video signal. Can connect         to the monitor to view ananlov       video output.			
4	AUDIO IN	Audio input port Connect to audio input de such as speaker.			
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.		
6	DC 12V 	Power input port	Input 12V DC.		
7	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.		
8	- <del>0</del> -	Network port	100M Ethernet port		
9	AUDIO OUT	Audio output port	Connect to video output device such as sound box.		

#### 2.2.7 HCVR410XC-S3/HCVR510XC-S3/7104C-S3/XVR410XC/XVR510XC/7 104C/XVR5104C-4M Series

These series rear panel is shown as below. See Figure 4-158.

The following figure is based on the HCVR4108C-S3/5108C-S3/XVR4108C/5108C series.

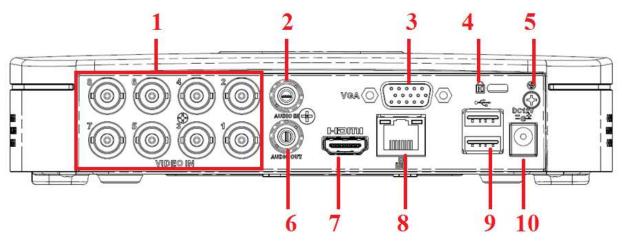


Figure 2-20

SN	Icon	Name	Note	
1	VIDEO IN	Video input port	Connect to analog camera, video	
			input signal.	
2	AUDIO IN	Audio input port	Connect to audio input device	
		such as speaker.		
3	VGA	VGA video output	VGA video output port. Output	
		port	analog video signal. Can connect	
			to the monitor to view analog	
			video output.	
4	Ŕ	Power cable	Use clamp to secure the power	
		fastener	cable on the device in case there	
			is any loss.	
5	Ŧ	GND	Ground end	
6	AUDIO OUT	Audio output port	Connect to video output device	
			such as sound box.	
7	HDMI	High definition	High definition audio and video	
	media interface		signal output port. It transmits	
			uncompressed high definition	
			video and multiple-channel data	
			to the HDMI port of the display	
			device.	
8	<del>, C</del>	Network port	100M Ethernet port	
			·	
9	•	USB2.0 port	Connect to USB storage device,	
			mouse, burning DVD-ROM and	
			etc.	

10	DC 12V 	Power input port	Input 12V DC.
----	------------	------------------	---------------

#### 2.2.8 HCVR5104H/HCVR5108H Series

The HCVR5104H series rear panel is shown as below. See Figure 2-21.

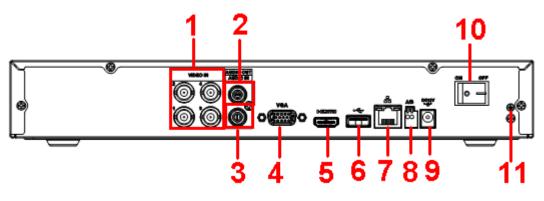


Figure 2-21

The HCVR5108H series rear panel is shown as below. See Figure 2-22.

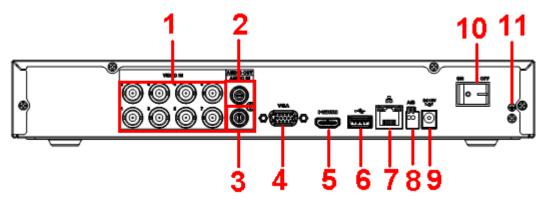


Figure 2-22

SN	lcon	Name Note			
1	VIDEO IN	Video input port	Connect to analog camera, video		
			input signal.		
2	AUDIO OUT	Audio output port	Connect to video output device		
			such as sound box.		
3	AUDIO IN	Audio input port	Connect to audio input device		
			such as speaker.		
4	VGA	VGA video output	VGA video output port. Output		
		port	analog video signal. Can connect		
			to the monitor to view ananlog		
			video output.		
5	HDMI	High definition	High definition audio and video		
		media interface	signal output port. It transmits		

			uncompressed high definition video and multiple-channel data to the HDMI port of the display device.		
6	•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.		
7	66	Network port 100M Ethernet port			
8	AB	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices		
	DC 12V		such as speed dome PTZ.		
9	-G-	Power input port	Input 12V DC.		
10	•	Power on-off button	Power on/off button.		
11	-	GND	Ground end		

### 2.2.9 HCVR5104H-V2/HCVR5108H-V2/HCVR5116H-V2 Series

The HCVR5104H-V2 series rear panel is shown as below. See Figure 2-23.

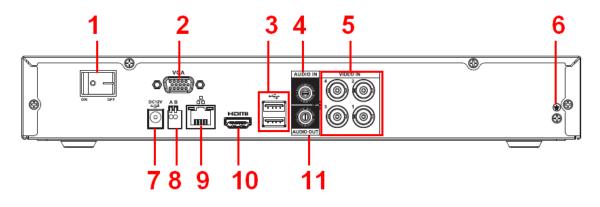


Figure 2-23

The HCVR5108H-V2 series rear panel is shown as below. See Figure 2-24.

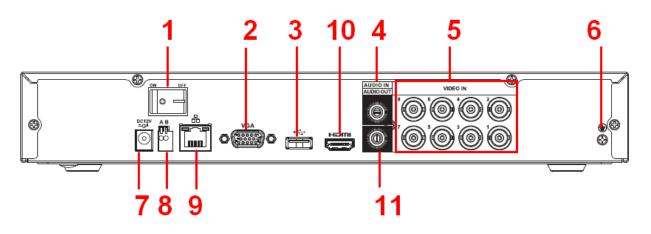


Figure 2-24

The HCVR5116H-V2 series rear panel is shown as below. See Figure 2-25.

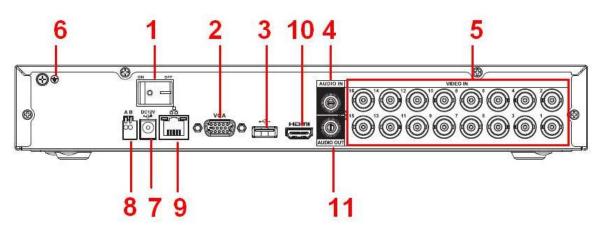


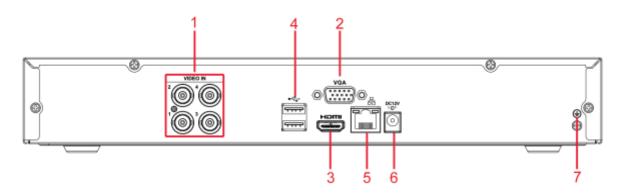
Figure 2-25

SN	lcon	Name	Note
1	•	Power on-off button	Power on/off button.
2	VGA	VGA video output VGA video output port. Or port analog video signal. Can cor to the monitor to view ana video output.	
3	•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.
6	Ŧ	GND	Ground end

7	DC 12V	Power input part		
•	-G-	Power input port	Input 12V DC.	
8	А	RS485 (RS-485)	RS485_A port. It is the cable A.	
		communication port	You can connect to the control	
			devices such as speed dome	
			PTZ.	
	В		RS485_B.It is the cable B. You	
			can connect to the control devices	
			such as speed dome PTZ.	
9	- - -	Network port	100M Ethernet port	
10	HDMI	High definition	High definition audio and video	
		media interface	signal output port. It transmits	
			uncompressed high definition	
			video and multiple-channel data	
			to the HDMI port of the display	
			device.	
11	AUDIO OUT	Audio output port	Connect to video output device	
			such as sound box.	

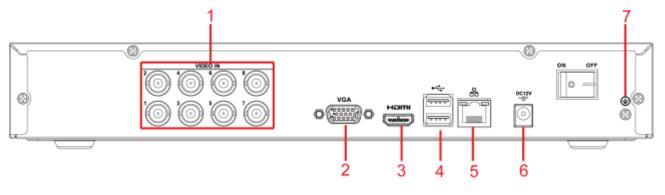
## 2.2.10 HCVR5104HC/HCVR5108HC Series

The HCVR5104HC series rear panel is shown as below. See Figure 2-26.





The HCVR5108HC series rear panel is shown as below. See Figure 2-27.



Please refer to the following sheet for detailed information.

SN	lcon	Name	Note		
1	VIDEO IN	Video input port	Connect to analog camera, video		
			input signal.		
2	VGA	VGA video output	VGA video output port. Output		
		port	analog video signal. Can connect		
			to the monitor to view ananlog		
			video output.		
3	HDMI	High definition	High definition audio and video		
		media interface	signal output port. It transmits		
			uncompressed high definition		
			video and multiple-channel data to		
			the HDMI port of the display		
			device.		
4	•	USB2.0 port	Connect to USB storage device,		
			mouse, burning DVD-ROM and		
			etc.		
5	<b>P</b>	Network port	100M Ethernet port		
6	DC 12V -C-	Power input port	Input 12V DC.		
7	1	GND	Ground end		

**2.2.11 HCVR5104HC-V2/HCVR5108HC-V2/HCVR5116HC-V2 Series** The HCVR5104HC-V2 series rear panel is shown as below. See Figure 2-28.

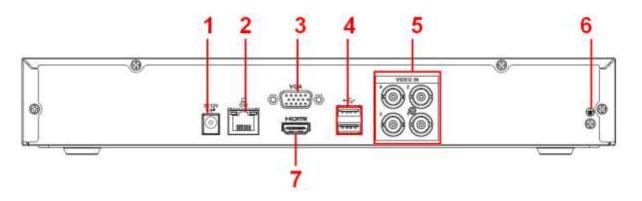
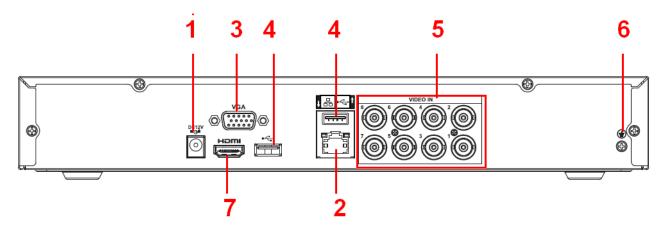


Figure 2-28

The HCVR5108HC-V2 series rear panel is shown as below. See Figure 2-29.





The HCVR5116HC-V2 series rear panel is shown as below. See Figure 2-30.

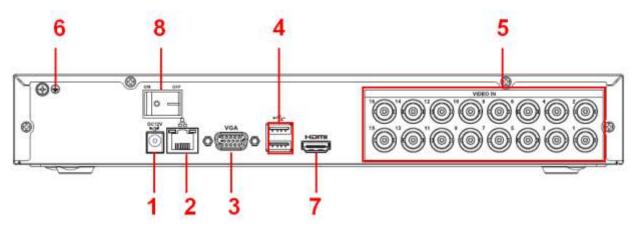


Figure 2-30

Please refer to the following sheet for detailed information.

SN	lcon	Name	Note
1	DC 12V	Power input port	Input 12V DC.
2		Network port 100M Ethernet port	
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
4	⊷	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.
6	Ŧ	GND	Ground end

7	HDMI	High definition		High definition audio and video	
		media interface		signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.	
8	•	Power button	on-off	Power on/off button.	

### 2.2.12 HCVR5104HE/HCVR5108HE Series

The HCVR5104HE4 series rear panel is shown as below. See Figure 2-31.

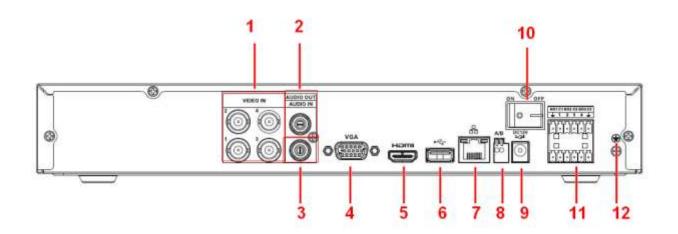


Figure 2-31

The HCVR5108HE series rear panel is shown as below. See Figure 2-32.

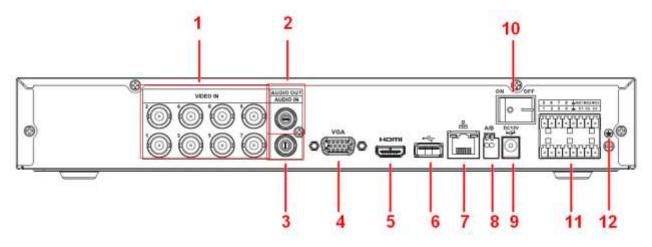


Figure 2-32

SN	Icon	Name	Note		
1	VIDEO IN	Video input port	Connect to	analog	camera,

			video input oignol
			video input signal.
2	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.
3	AUDIO IN	Audio input port	Connect to audio input device
			such as speaker.
4	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can
			connect to the monitor to view
			ananlog video output.
5	HDMI		High definition audio and video
			signal output port. It transmits
		High definition	uncompressed high definition
		media interface	video and multiple-channel data
			to the HDMI port of the display
			device.
6	•	USB2.0 port	Connect to USB storage
			device, mouse, burning
			DVD-ROM and etc.
7		Network port	100M Ethernet port
			100M Ethernet port
8	А	RS485 (RS-485)	RS485_A port. It is the cable A.
		communication	You can connect to the control
		port	devices such as speed dome
			PTZ.
	В		RS485_B.It is the cable B. You
			can connect to the control
			devices such as speed dome
			PTZ.
9	DC 12V 	Power input port	Input 12V DC.
10			
		Power on-off	Power on/off button.
	رىيىسى	button	
11	5 6 7 8 <b>-</b> M01N02N03		
		Alarm input/Alarm	Input/output alarm signal.
		output	
12	1	GND	Ground end
L		1	1

## 2.2.13 HCVR5104HE-V2/HCVR5108HE-V2/HCVR5116HE-V2 Series

The HCVR5104HE-V2 series rear panel is shown as below. See Figure 2-33.

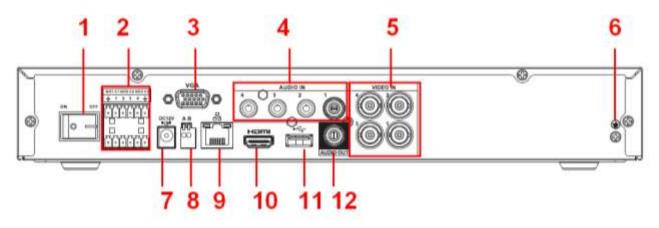


Figure 2-33

The HCVR5108HE-V2 series rear panel is shown as below. See Figure 2-34.

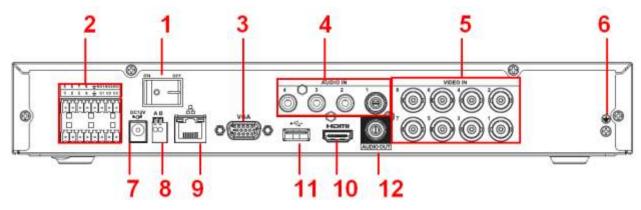


Figure 2-34

The HCVR5116HE-V2 series rear panel is shown as below. See Figure 2-35.

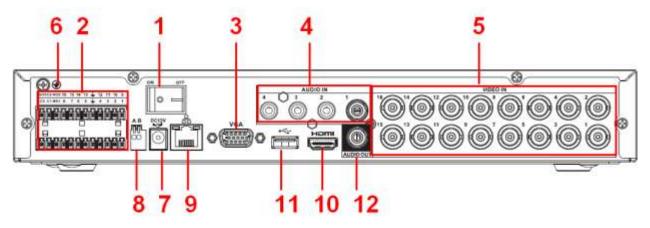


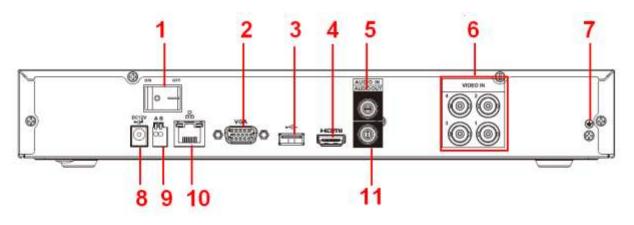
Figure 2-35

SN	lcon	Name	Note
1	•	Power on-off button	Power on/off button.

2	5       6       7       8       → MOINOZMOS         1       2       3       4       ↓ C1 C2 C3         5       6       0       0       0       0         1       0       0       0       0       0       0         1       0       0       0       0       0       0       0         1       0       0       0       0       0       0       0       0         1       0       0       0       0       0       0       0       0       0         1       0	Alarm input/Alarm output	Input/output alarm signal.
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.
6	<u> </u>	GND	Ground end
7	DC 12V 	Power input port	Input 12V DC.
8	AB	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices such as speed dome
9	<del>а</del> <sup>р</sup> а	Network port	PTZ. 100M Ethernet port
10	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
11	⊷	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
12	AUDIO OUT	Audio output port	Connect to video output device such as sound box.

### 2.2.14 HCVR7104H-V2/HCVR7108H-V2 Series

The HCVR7104H-V2 series rear panel is shown as below. See Figure 2-36.





The HCVR7108H-V2 series rear panel is shown as below. See Figure 2-37.

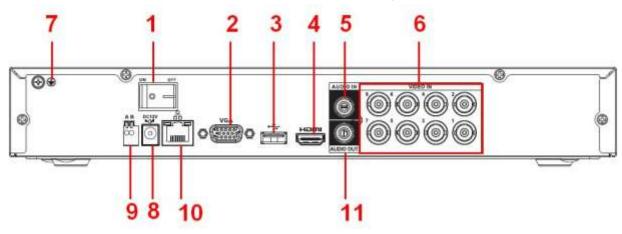


Figure 2-37

SN	lcon	Name	Note
1	•	Power on-off button	Power on/off button.
2	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
3	•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
4	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.

	1	1	
5	AUDIO IN	Audio input port	Connect to audio input device
			such as speaker.
6	VIDEO IN	Video input port	Connect to analog camera,
			video input signal.
7	÷	GND	Ground end
8	DC 12V 	Power input port	Input 12V DC.
9	А	RS485 (RS-485)	RS485_A port. It is the cable A.
		communication	You can connect to the control
		port	devices such as speed dome
			PTZ.
	В		RS485_B.It is the cable B. You
			can connect to the control
			devices such as speed dome
			PTZ.
10		Network port	100M Ethernet port
	0.0		
44			
11	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.

## 2.2.15 HCVR7104HC-V2/HCVR7108HC-V2 Series

The HCVR7104HC-V2 series rear panel is shown as below. See Figure 2-38.

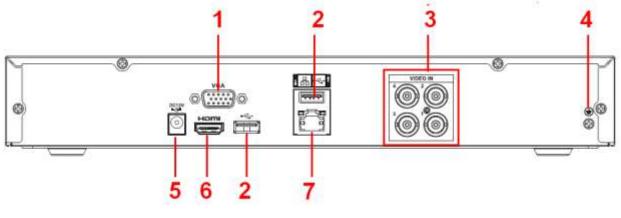
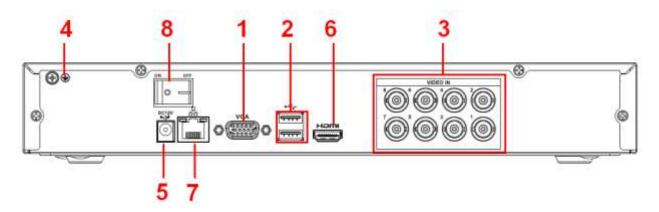


Figure 2-38

The HCVR7108HC-V2 series rear panel is shown as below. See Figure 2-39.





Please refer to the following sheet for detailed information.

SN	lcon	Name	Note
1	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view ananlog
			video output.
2	•	USB2.0 port	Connect to USB storage device,
			mouse, burning DVD-ROM and
			etc.
3	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.
4	Ŧ	GND	Ground end
5	DC 12V	Power input port	Input 12V DC.
6	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition
			video and multiple-channel data
			to the HDMI port of the display
			device.
7		Network port	100M Ethernet port
8		Power on-off	
		button	Power on/off button.
	تغصطنا		

## 2.2.16 HCVR7104HE-V2/HCVR7108HE-V2 Series

The HCVR7104HE-V2 series rear panel is shown as below. See Figure 2-40.

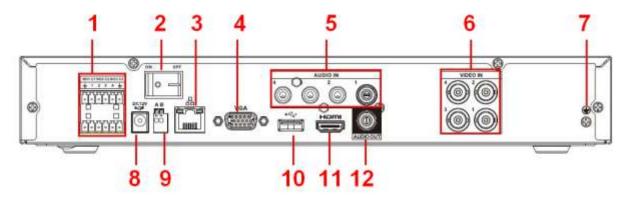


Figure 2-40

The HCVR7108HE-V2 series rear panel is shown as below. See Figure 2-41.

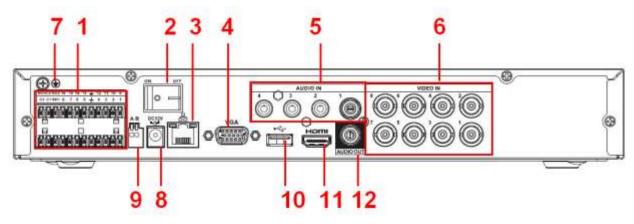


Figure 2-41

SN	Icon	Name	Note
1	5 6 7 8 WOTNO2NO3 1 2 3 4 C1 C2 C3 5 5 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	Alarm input/Alarm output	Input/output alarm signal.
2	•	Power on-off button	Power on/off button.
3	- <del>-</del>	Network port	100M Ethernet port
4	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
5	AUDIO IN	Audio input port	Connect to audio input device such as speaker.

6	VIDEO IN	Video input port	Connect to analog camera, video input signal.
7	÷	GND	Ground end 0
8	DC 12V 	Power input port	Input 12V DC.
9	A	RS485 (RS-485)	RS485_A port. It is the cable A.
		communication	You can connect to the control
		port	devices such as speed dome
			PTZ.
	В		RS485_B.It is the cable B. You
			can connect to the control
			devices such as speed dome
			PTZ.
10	•	USB2.0 port	Connect to USB storage
			device, mouse, burning
			DVD-ROM and etc.
11	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition
			video and multiple-channel data
			to the HDMI port of the display
			device.
12	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.

### 2.2.17 HCVR4104/4108/4116HE-S2 Series

The HCVR4104HE-S2 series rear panel is shown as below. See Figure 2-42.

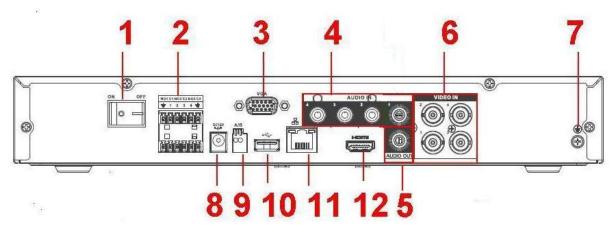


Figure 2-42

The HCVR4108HE-S2 series rear panel is shown as below. See Figure 2-43.

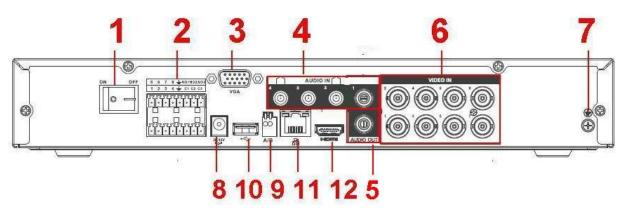


Figure 2-43

The HCVR4116HE-S2 series rear panel is shown as below. See Figure 2-44.

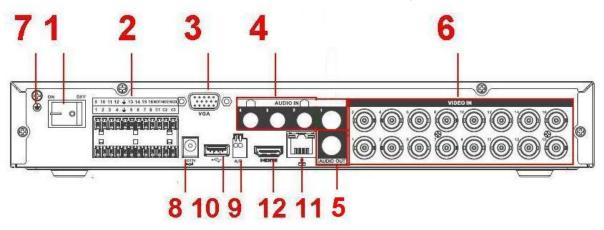


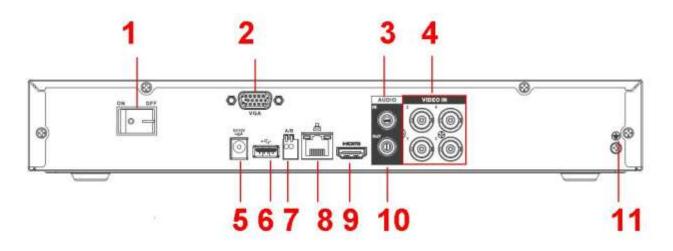
Figure 2-44

SN	Icon	Name	Note
1	•	Power on-off button	Power on/off button.
2	5 6 7 8 WOINO2NO3 1 2 3 4 C1 C2 C3 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	Alarm input/Alarm output	Input/output alarm signal.
3	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can
			connect to the monitor to view
			ananlog video output.
4	AUDIO IN	Audio input port	Connect to audio input device
			such as speaker.
5	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.

6	VIDEO IN	Video input port	Connect to analog camera,
			video input signal.
7	Ŧ	GND	Ground end 0
8	DC 12V =_C=	Power input port	Input 12V DC.
9	A	RS485 (RS-485)	RS485_A port. It is the cable A.
		communication	You can connect to the control
		port	devices such as speed dome
			PTZ.
	В		RS485_B.It is the cable B. You
			can connect to the control
			devices such as speed dome
			PTZ.
10	•	USB2.0 port	Connect to USB storage
			device, mouse, burning
			DVD-ROM and etc.
11	<u>8</u> 6	Network port	
			100M Ethernet port
			·
12	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits
			uncompressed high definition
			video and multiple-channel data
			to the HDMI port of the display
			device.

#### 2.2.18 HCVR5104/5108/5116H-S2 Series

The HCVR5104H-S2 series rear panel is shown as below. See Figure 2-45.





The HCVR5108H-S2 series rear panel is shown as below. See Figure 2-46.

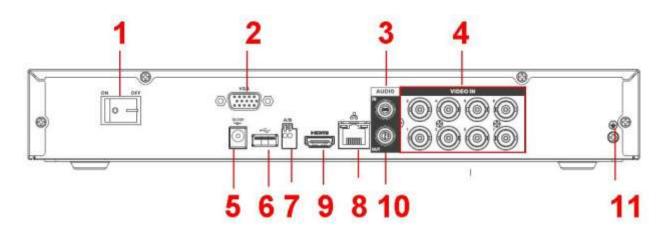


Figure 2-46

The HCVR5116H-S2 series rear panel is shown as below. See Figure 2-47.

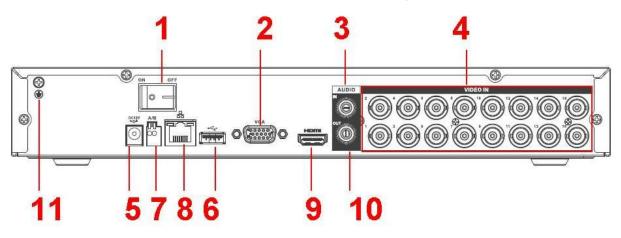


Figure 2-47

SN	lcon	Name	Note
1	•	Power on-off button	Power on/off button.
2	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
3	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
4	VIDEO IN	Video input port	Connect to analog camera, video input signal.
5	DC 12V 	Power input port	Input 12V DC.
6	•	USB2.0 port	Connect to USB storage device,

			mouse, burning DVD-ROM and etc.
7	A B	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
8	<u>с</u> та	Network port	100M Ethernet port
9	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
10	AUDIO OUT	Audio output port	Connect to video output device such as sound box.
11	÷	GND	Ground end

#### 2.2.19 HCVR5104/5108/5116HE-S2 Series

The HCVR5104HE-S2 series rear panel is shown as below. See Figure 2-48.

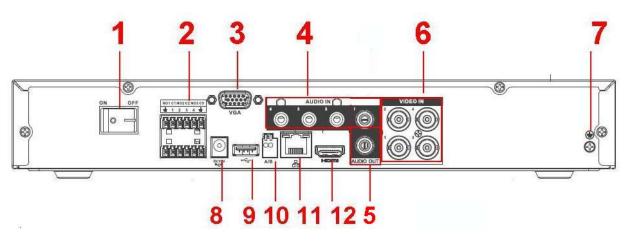


Figure 2-48

The HCVR5108HE-S2 series rear panel is shown as below. See Figure 2-49.

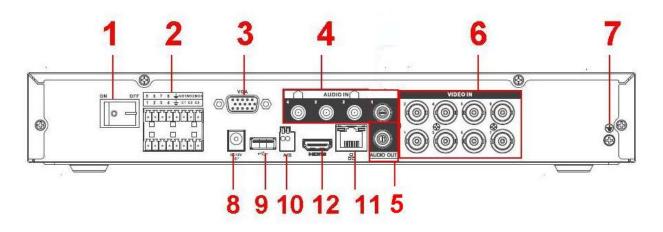


Figure 2-49

The HCVR5116HE-S2 series rear panel is shown as below. See Figure 2-50.

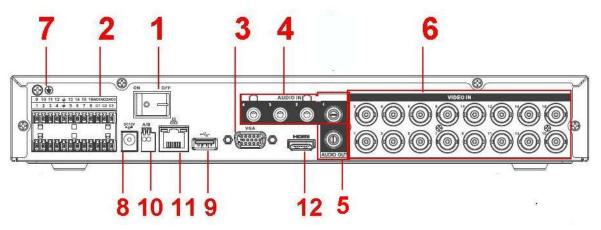


Figure 2-50

SN	Icon	Name	Note
1	• -	Power on-off button	Power on/off button.
2	5 6 7 8 WOINO2NO3 1 2 3 4 C1 C2 C3 5 5 5 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	Alarm input/Alarm output	Input/output alarm signal.
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.

5	AUDIO OUT	Audio output port	Connect to video output device such as sound box.
6	VIDEO IN	Video input port	Connect to analog camera, video input signal.
7	<u> </u>	GND	Ground end
8	DC 12V =G=	Power input port	Input 12V DC.
9	⊷	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
10	A	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
11		Network port	100M Ethernet port
12	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.

### 2.2.20 HCVR7104/7108H-S2 Series

The HCVR7104H-S2 series rear panel is shown as below. See Figure 2-51.

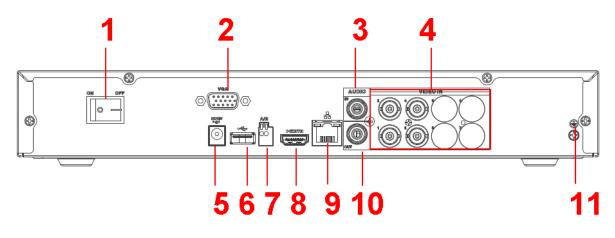


Figure 2-51

The HCVR7108H-S2 series rear panel is shown as below. See Figure 2-52.

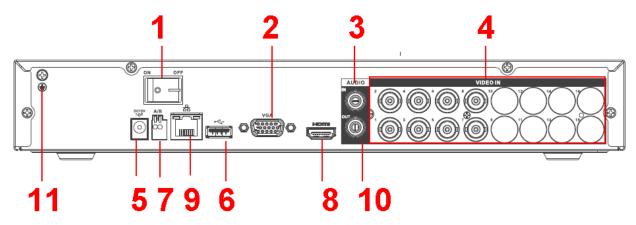


Figure 2-52

SN	lcon	Name	Note
1	•	Power on-off button	Power on/off button.
2	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
3	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
4	VIDEO IN	Video input port	Connect to analog camera, video input signal.
5	DC 12V 	Power input port	Input 12V DC.
6	•€•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
7	A	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
8	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition

			video and multiple-channel data to the HDMI port of the display device.
9		Network port	100M Ethernet port
10	AUDIO OUT	Audio output port	Connect to video output device such as sound box.
11	Ť	GND	Ground end

#### 2.2.21 HCVR7104/7108HE-S2 Series

The HCVR7104HE-S2 series rear panel is shown as below. See Figure 2-53.

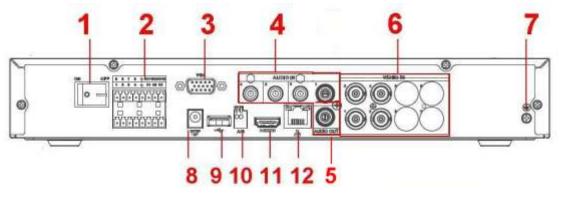


Figure 2-53

The HCVR7108HE-S2 series rear panel is shown as below. See Figure 2-54.

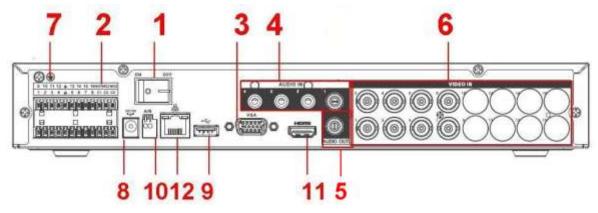


Figure 2-54

SN	Icon	Name		Note
1	•	Power o button	on-off	Power on/off button.

2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Alarm input/Alarm output	Input/output alarm signal.
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
5	AUDIO OUT	Audio output port	Connect to video output device such as sound box.
6	VIDEO IN	Video input port	Connect to analog camera, video input signal.
7	Ť	GND	Ground end
8	DC 12V -C-	Power input port	Input 12V DC.
9	•ج	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
10	A B	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
11	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
12		Network port	100M Ethernet port

### 2.2.22 HCVR41XXHE-S3/HCVR51XXH-S3/HCVR71XXH-S3/HCVR71XXHE-S3 /XVR41XXHE/XVR51XXH/XVR51XXHE/XVR71XXH/XVR71XXHE/ XVR51XXH-4M/ XVR51XXH-4KL/XVR71XXHE-4KL Series

The

HCVR41XXHE-S3/HCVR51XXH-S3/HCVR51XXHE-S3/HCVR71XXHE-S3/XVR41XXHE/ XVR51H/XVR51XXHE/XVR71XXHE/XVR51XXH-4M/XVR51XXH-4KL/XVR71XXHE-4KL series rear panel is shown as below. See Figure 2-55.

The following figure is based on HCVR4116HE-S3/HCVR5116HE-S3/HCVR7116HE-S3/XVR4116HE/XVR5116HE/XVR7116HE series.

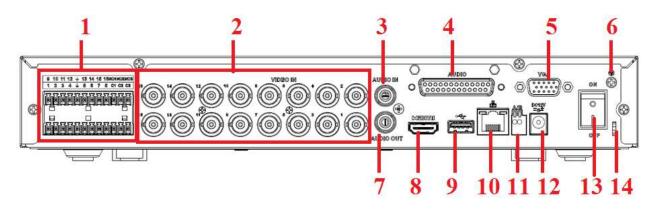


Figure 2-55

The HCVR71XXH-S3/XVR71XXH rear panel is shown as below. See Figure 2-56. The following figure is based on the HCVR7116H-S3/XVR7116H.

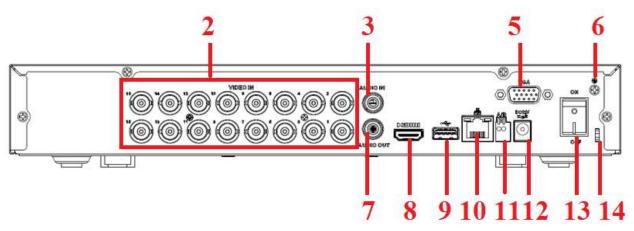


Figure 2-56

SN	Icon	Name	Note
1		Alarm input/Alarm output	Input/output alarm signal.
2	VIDEO IN	Video input port	Connect to analog camera, video input signal.
3	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
4		DB25 port	The 5th to the 16th-channel audio input port.
5	VGA	VGA video output	VGA video output port.

		port	Output analog video signal.
		port	
			Can connect to the monitor
			to view ananlog video
			output.
6	<u> </u>	GND	Ground end
7	AUDIO OUT	Audio output port	Connect to video output
			device such as sound box.
8	HDMI	High definition	High definition audio and
		media interface	video signal output port. It
			transmits uncompressed
			high definition video and
			multiple-channel data to the
			HDMI port of the display
			device.
9	•	USB2.0 port	Connect to USB storage
			device, mouse, burning
			DVD-ROM and etc.
10		Network port	100M Ethernet pert
	66		100M Ethernet port
11	A	RS485 (RS-485)	RS485_A port. It is the
		communication	cable A. You can connect to
		port	the control devices such as
			speed dome PTZ.
	В		RS485_B.It is the cable B.
			You can connect to the
			control devices such as
			speed dome PTZ.
12	DC 12V 	Power input port	Input 12V DC.
13	ож	Power on-off	Power on/off button.
		button	
	077		
14	Ħ	Power cable	Use clamp to secure the
		fastener	power cable on the device
			in case there is any loss.
L	1	1	· · ·

### 2.2.23 HCVR41XXHS-S2/ HCVR2108HS-S2/ HCVR2116HS-S2 Series

The HCVR4104HS-S2 series rear panel is shown as below. See Figure 2-57.

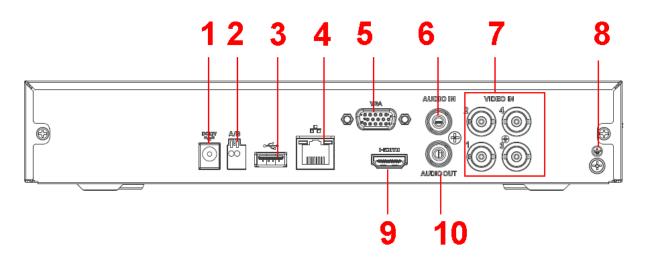


Figure 2-57

The HCVR4108HS-S2/HCVR2108HS-S2 series rear panel is shown as below. See Figure 2-58.

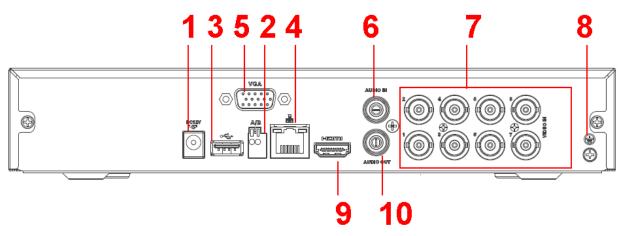


Figure 2-58

The HCVR4116HS-S2/ HCVR2116HS-S2 series rear panel is shown as below. See Figure 2-59.

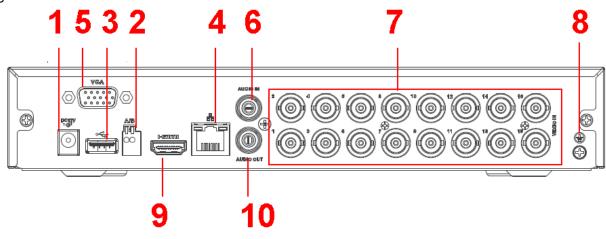


Figure 2-59

Please refer to the following sheet for detailed information.

SN	Icon	Name	Note
1	DC 12V =-C=	Power input port	Input 12V DC.
2	А	RS485 (RS-485)	RS485_A port. It is the cable A.
		communication	You can connect to the control
		port	devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
3	•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
4	60	Network port	100M Ethernet port
5	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
6	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
7	VIDEO IN	Video input port	Connect to analog camera, video input signal.
8	Ŧ	GND	Ground end
9	HDMI	High definition media interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
10	AUDIO OUT	Audio output port	Connect to video output device such as sound box.

# 2.2.24 HCVR21XXHS-S3/HCVR41XXHS-S3/HCVR51XXHS-S3/HCVR7104H S-S3

### /XVR21XXHS/XVR41XXHS/XVR51XXHS/XVR7104HS/XVR51XXHS-4 M/XVR51XXHS-4KL Series

The

HCVR2116HS-S3/HCVR41XXHS-S3/51XXHS-S3/XVR2116HS/XVR41XXHS/XVR51XX HS/ XVR51XXHS-4M/XVR51XXHS-4KL series rear panel is shown as below. See Figure 2-60. The following figure is based on the HCVR2116HS-S3/HCVR4116HS-S3/5116HS-S3 /XVR2116HS/XVR4116HS/XVR5116HS series product.

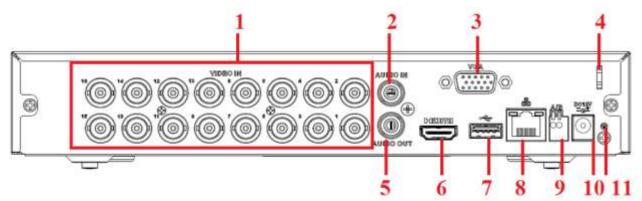


Figure 2-60

The HCVR7104HS-S3/XVR7104HS series rear panel is shown as below. See Figure 2-61.

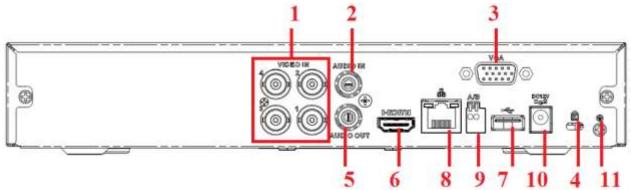


Figure 2-61

Please refer to the following sheet for detailed information.

SN	lcon	Name	Note
1	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.
2	AUDIO IN	Audio input port	Connect to audio input device
			such as speaker.
3	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect
			to the monitor to view analog
			video output.
4		Power cable	Use clamp to secure the power
		fastener	cable on the device in case there
			is any loss.
5	AUDIO OUT	Audio output port	Connect to video output device
			such as sound box.
6	HDMI	High definition	High definition audio and video
		media interface	signal output port. It transmits

			uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
7	•	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
8	- - -	Network port	100M Ethernet port
9	A	RS485 (RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
10	DC 12V =G=	Power input port	Input 12V DC.
11	Ŧ	GND	Ground end

### 2.2.25 HCVR52XXA-V2/ HCVR72XXA-V2 Series

This series products' rear panel is shown as below. See Figure 2-62. The following figure is based on HCVR7204A-V2 series product.

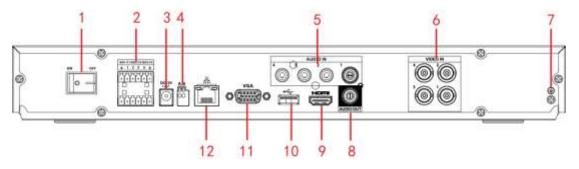


Figure 2-62

SN	lcon	Name	Note	
1		Power switch	Power on/off button.	
2	1~4	Alarm input port 1~4	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>	

SN	lcon	Name	Note
	NO1~NO3 C1~C3	Alarm output port 1~3	<ul> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> <li>C:Alarm output public end.</li> </ul>
3	DC12V -œ⁺	Power input port	Input DC 12V/5A.
4	AB	RS-485 communicati on port	<ul> <li>RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.</li> <li>RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.</li> </ul>
5	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as mike phone, pickup.
6	VIDEO IN	Video input port	Connect to analog camera to input video signal.
7	Ŧ	GND	Alarm input ground port.
8	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
9	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
10	•	USB2.0 port	USB2.0 port. Connect to mouse, USB storage device, USB burner and etc.
11	VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
12	<del>6</del> 6	Network port	1000M Ethernet port

#### 2.2.26 HCVR42XXA-S2/ HCVR4216AN-S2 Series

This HCVR4204A-S2 rear panel is shown as below. See Figure 2-63.

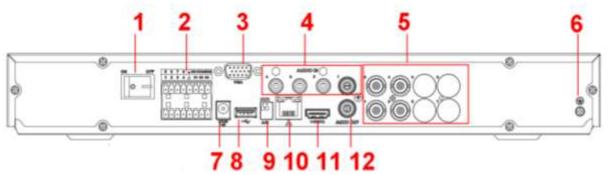


Figure 2-63

This HCVR4208A-S2 rear panel is shown as below. See Figure 2-64.

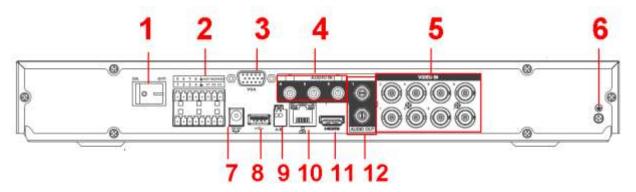


Figure 2-64

This HCVR4216A-S2 rear panel is shown as below. See Figure 2-65.

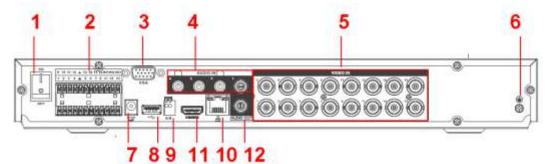
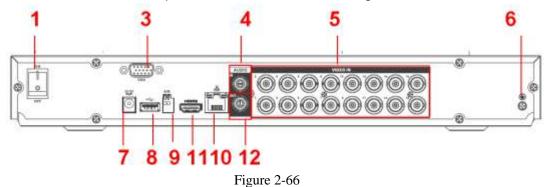


Figure 2-65

This HCVR4216AN-S2 rear panel is shown as below. See Figure 2-66.

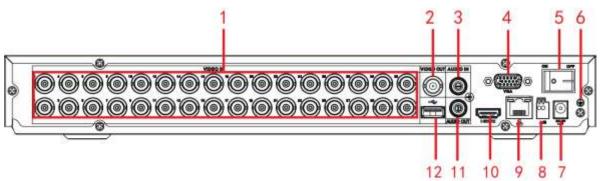


Please refer to the following sheet for detailed information.

SN	lcon	Name	Note	
1		Power switch	Power on/off button.	
2	1~8(16)	Alarm input port 1~8(16)	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>	
	NO1~NO3	Alarm output port 1~3	<ul> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> <li>C:Alarm output public end.</li> </ul>	
	C1~C3			
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.	
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.	
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.	
6	Ŧ	GND	Alarm input ground port.	
7	DC 12V G-	Power input port	Input 12V DC.	
8	•€	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.	
9	A	RS485 (RS-485)	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.	
	В	communicati on port	RS485_B.It is the cable B. You can connect to the	
10	<del></del>	Network port	control devices such as speed dome PTZ. 1000M Ethernet port	
11	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.	
12	AUDIO OUT	Audio output port	Connect to video output device such as sound box.	

#### 2.2.27 HCVR4224/HCVR4232AN-S2 Series

The rear panel is shown as below. See Figure 2-67. The following figure is based on the HCVR4232AN-V2 series product.



## Figure 2-67

SN	lcon	Name	Note
1	VIDEO IN	Video input port	Connect to analog camera, video input signal.
2	VIDEO OUT	Video output port	Connect to output devices such as TV.
3	AUDIO IN	Audio input port	Connect to audio input device such as speaker.
4	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
5		Power switch	Power on/off button.
6	Ŧ	GND	Alarm input ground port.
7	DC12V ∸⊖±	Power input port	Input 12V/5A DC.
0	A	RS485 ( RS-485 )	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
8	В	communicatio n port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
9	<del></del>	Network port	1000M Ethernet port
10	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
11	AUDIO OUT	Audio output port	Connect to video output device such as sound box.

SN	lcon	Name	Note
12	•4	USB2.0 port	USB2.0 port. Connect to mouse, USB storage device, USB burner and etc.

#### 2.2.28 HCVR52XXA-S2/ HCVR5216AN-S2 Series

This HCVR5204A-S2 products' rear panel is shown as below. See Figure 2-68.

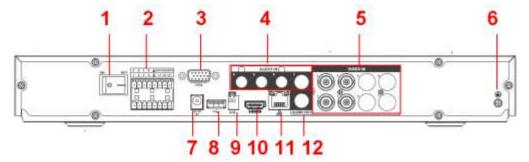


Figure 2-68

This HCVR5208A-S2 products' rear panel is shown as below. See Figure 2-69.

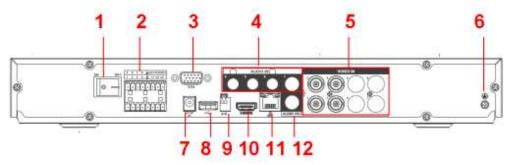


Figure 2-69

This HCVR5216A-S2 products' rear panel is shown as below. See Figure 2-70.

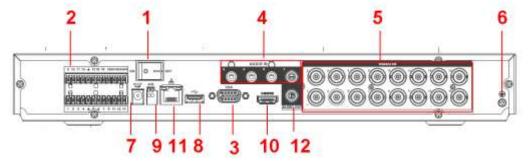


Figure 2-70

This HCVR5216AN-S2 products' rear panel is shown as below. See Figure 2-71.

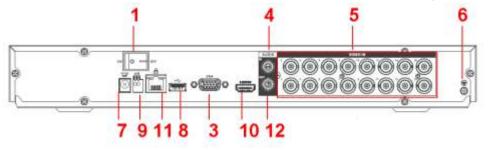


Figure 2-71

SN	lcon	Name	Note	
1		Power switch	Power on/off button.	
2	1~8(16)	Alarm input port 1~8(16)	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>	
	NO1~NO3	Alarm output port 1~3	<ul> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> <li>C:Alarm output public end.</li> </ul>	
3	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.	
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.	
5	VIDEO IN	Video input port	Connect to analog camera, video input signal.	
6	Ŧ	GND	Alarm input ground port.	
7	DC 12V G-	Power input port	Input 12V DC.	
8	• <del>C</del>	USB2.0 port	Connect to USB storage device, mouse, burning DVD-ROM and etc.	
9	A	RS485 (RS-485)	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.	
	В	communicati on port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.	
10	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.	
11	<u>р</u> 6 б	Network port	100M Ethernet port	

SN	lcon	Name	Note
12	AUDIO	Audio output	Connect to video output device such as sound box.
	OUT	port	

### 2.2.29 HCVR720XA-S2 Series

The HCVR7204A-S2 products' rear panel is shown as below. See Figure 2-72.

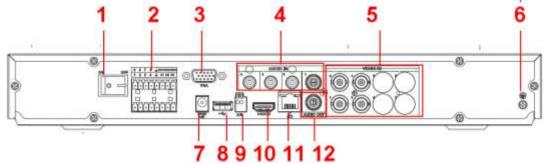


Figure 2-72

The HCVR7208A-S2 products' rear panel is shown as below. See Figure 2-73.

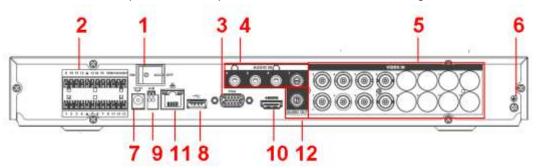


Figure 2-73

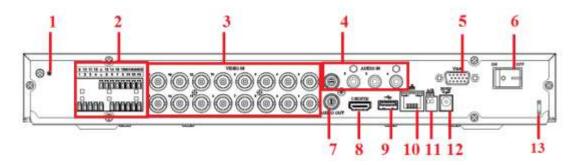
SN	lcon	Name	Note	
1		Power switch	Power on/off button.	
2	1~8(16)	Alarm input port 1~8(16)	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>	
	NO1~NO3	Alarm output port 1~3	<ul> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> <li>C:Alarm output public end.</li> </ul>	
	C1~C3			

SN	lcon	Name	Note
3	VGA	VGA video	VGA video output port. Output analog video signal.
		output	Can connect to the monitor to view ananlog video
		port	output.
4	AUDIO IN	Audio input	Connect to audio input device such as speaker.
		port	
5	VIDEO IN	Video input	Connect to analog camera, video input signal.
		port	
6	_	GND	Alarm input ground port.
	-		
7	DC 12V	Power input	Input 12V DC.
		port	
8	•	USB2.0 port	Connect to USB storage device, mouse, burning
			DVD-ROM and etc.
9	А	RS485	RS485_A port. It is the cable A. You can connect to
		(RS-485)	the control devices such as speed dome PTZ.
	В	communicati	RS485_B.It is the cable B. You can connect to the
		on port	control devices such as speed dome PTZ.
10	HDMI	High	High definition audio and video signal output port. It
		Definition	transmits uncompressed high definition video and
		Media	multiple-channel data to the HDMI port of the display
		Interface	device.
11	<u> </u>	Network port	100M Ethernet port
12	AUDIO	Audio output Connect to video output device such as sound b	
	OUT	port	

### 2.2.30 HCVR42XXA-S3/HCVR42XXAN-S3/HCVR52XXA-S3/HCVR52XXAN-S3/HCVR72XXA-S3/HCVR7216AN-S3/XVR42XXA/XVR42XXAN/XVR 52XXA/XVR52XXAN/XVR72XXA/XVR7216AN/ XVR52XXAN-4M/XVR52XXAN-4K/XVR72XXA-4K/XVR72XXA-4K Series

The

HCVR42XXA-S3/HCVR52XXA-S3/HCVR72XXA-S3/XVR42XXA/XVR52XXA/XVR72XXA/XVR52XXAN-4M/XVR52XXAN-4KL/XVR72XXA-4K/XVR72XXA-4K/XVR72XXA-4KL/XVR72XXA-4K products' rear panel is shown as below. See Figure 2-74.ThefollowingfigureisbasedontheHCVR4216A-S3/5216A-S3/7216A-S3/XVR4216A/XVR5216A/XVR7216A series product.





The HCVR42XXAN-S3/52XXAN-S3/7216AN-S3/XVR4216AN/5216AN/7216AN/ XVR5204AN-4M/XVR52XXAN-4M/XVR52XXAN-4KL rear panel is shown as below. See Figure 2-75.

ThefollowingfigureisbasedontheHCVR4216AN-S3/5216AN-S3/XVR4216AN/XVR5216AN series product.

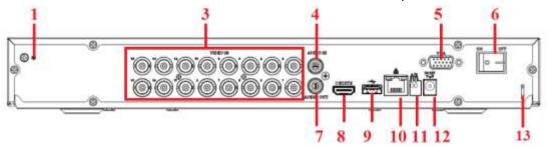


Figure 2-75

The XVR4232AN/5232AN rear panel is shown as below. See Figure 2-76.

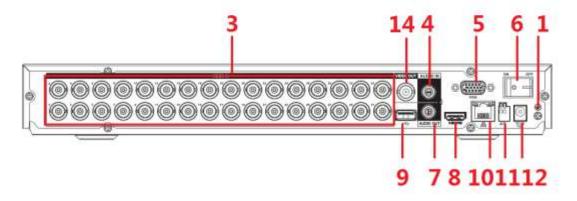


Figure 2-76 Please refer to the following sheet for detailed information.

SN	lcon	Name	Note
1	4	GND	Alarm input ground port.

SN	lcon	Name	Note	
2	1~8(16) NO1~NO3	Alarm input port 1~8(16) Alarm output port 1~3	<ul> <li>There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> </ul>	
			• C:Alarm output public end.	
	C1~C3			
3	VIDEO IN	Video input port	Connect to analog camera, video input signal.	
4	AUDIO IN	Audio input port	Connect to audio input device such as speaker.	
5	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.	
6		Power switch	Power on/off button.	
7	AUDIO OUT	Audio output port	Connect to video output device such as sound box.	
8	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.	
9	•4	USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.	
10	<del>6</del> 6	Network port	100 or 1000M Ethernet port	
11	A B	RS485 (RS-485) communicati on port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.	
12	DC 12V 	Power input port	Input 12V DC.	
13		Power cable fastener	Use clamp to secure the power cable on the device in case there is any loss.	

SN	lcon	Name	Note	
14	VIDEO	Video output	ut	
	OUT	port	Connect to output devices such as TV.	

### 2.2.31 HCVR52XXL-V2/ HCVR54XXL-V2/HCVR44L-S2 Series

This series products' rear panel is shown as below. See Figure 2-77. The following figure is based on the HCVR5416L-V2 series product.

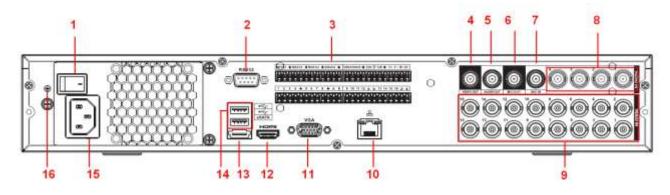


Figure 2-77

The HCVR4432L-S2 rear panel is shown as below. See Figure 2-78.

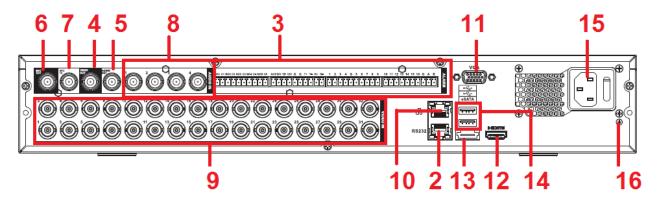


Figure 2-78

SN	lcon	Name	Note
1		Power switch	Power on/off button.
2	RS-232	RS-232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.

SN	Icon	Name	Note
3	1~16	Alarm input port 1~16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>
	NO1~NO5	Alarm output port 1~5	• 5 groups of alarm output
	C1~C5		ports. (Group 1:port NO1 $\sim$ C1,Group 2:port
	NC5		<ul> <li>NO2 ~ C2,Group 3:port NO3~C3, Group 4:port NO4~C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	A	RS-485 communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485	Four-wire full-duplex 485 port.
		port	T+, T- is the output wire. R+, R- is the input wire.

SN	Icon	Name	Note
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
4	VIDEO OUT	Video output port	Connect to video output devices such as TV.
5	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
6	MIC OUT	Audio output port	<ul> <li>Audio output port. It is to output the analog audio signal to the devices such as the sound box.</li> <li>Bidirectional talk output.</li> <li>Audio output on 1-window video monitor.</li> <li>Audio output on 1-window video playback.</li> </ul>
7	MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as mike phone, pickup.
8	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as mike phone, pickup.
9	VIDEO IN	Video input port	Connect to analog camera to input video signal.
10		Network port	1000M Ethernet port
11	VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
12	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.

SN	lcon	Name	Note
13	eSATA	eSATA port	External SATA port. It can
			connect to the device of the
			SATA port. Please jump the
			HDD when there is peripheral
			connected HDD.
14	÷	USB2.0 port	USB2.0 port. Connect to
			mouse, USB storage device,
			USB burner and etc.
15		Power socket	Power socket
	Ľ		
16	1	GND	GND
	=		

#### 2.2.32 HCVR42XXL-S2 Series

The rear panel is shown as in Figure 2-79

The following figure is based on the HCVR4232L-V2 series product.

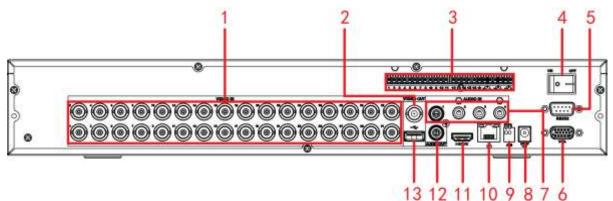


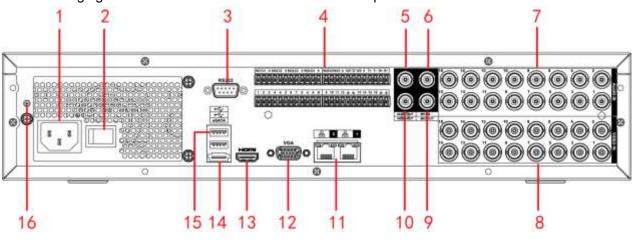
Figure 2-79

SN	lcon	Name	Note
1	VIDEO IN	Video input port	Connect to analog camera, video input signal.
2	VIDEO OUT	Video output port	Connect to output devices such as TV.
3	1~16	Alarm input port 1∼16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the</li> </ul>

SN	lcon	Name	Note	
			DVR have the same ground.	
	NO1~NO3	Alarm output port 1~3	<ul> <li>3 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3) ).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO:Normal open alarm output port.</li> <li>C:Alarm output public end.</li> </ul>	
	Ŧ	GND	Alarm input ground port.	
4		Power switch	Power on/off button.	
5	RS-232	RS-232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.	
6	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.	
7	AUDIO IN	Audio input port	Connect to audio input device such as speaker.	
8	DC12V -⊖+	Power input port	Input 12V/5A DC.	
9	А	RS-485 communicatio	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.	
9	в	n port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.	
10	<del></del> -	Network port	1000M Ethernet port	
11	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.	
12	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.	
13	•€	USB2.0 port	USB2.0 port. Connect to mouse, USB storage device, USB burner and etc.	

### 2.2.33 HCVR58XXS-V2/HCVR48XXS-S2 Series

The rear panel is shown as in Figure 2-80.



The following figure is based on the HCVR5816S-V2 series product.

Figure 2-80

The HCVR4832S-S2 rear panel is shown as in Figure 2-81.

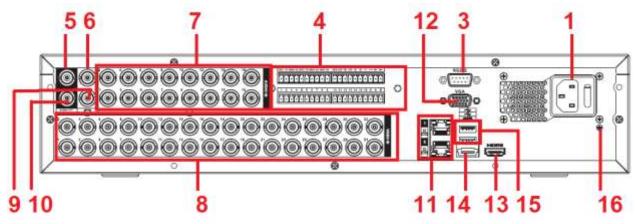


Figure 2-81

SN	Icon	Name	Note	
1		Power socket	Power socket	
2		Power switch	Power on/off button.	
3	RS-232	RS-232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.	

SN	lcon	Name	Note
4	1~16	Alarm input port 1~16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the DVR have the same ground.</li> </ul>
	NO1~NO5 C1~C5 NC5	Alarm output port 1~5	<ul> <li>5 groups of alarm output ports. (Group 1:port NO1 ~ C1,Group 2:port NO2 ~ C2,Group 3:port NO3 ~ C3, Group 4:port NO4 ~ C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	A	RS-485 communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.

SN	Icon	Name	Note
5	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
6	MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as mike phone, pickup.
7	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as mike phone, pickup.
8	VIDEO IN	Video input port	Connect to analog camera to input video signal.
9	MIC OUT	Audio output port	<ul> <li>Audio output port. It is to output the analog audio signal to the devices such as the sound box.</li> <li>Bidirectional talk output.</li> <li>Audio output on 1-window video monitor.</li> <li>Audio output on 1-window video playback.</li> </ul>
10	VIDEO OUT	Video output port	Connect to video output devices such as TV.
11		Network port	1000M Ethernet port
12	VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
13	HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.
14	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please jump the HDD when there is peripheral

SN	lcon	Name	Note
			connected HDD.
15	÷	USB2.0 port	USB2.0 port. Connect to mouse, USB storage device, USB burner and etc.
16	Ť	GND	GND

#### 2.2.34 HCVR71XXH-4M Series

The rear panel is shown as in Figure 2-82.

The following figure is based on the HCVR7116H-4M series product.

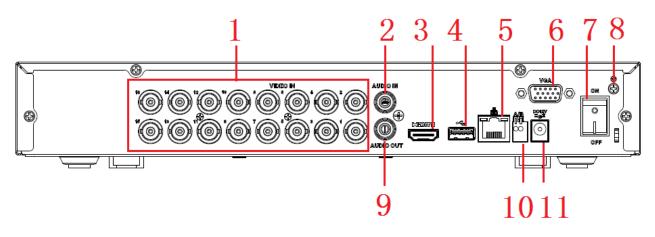


Figure 2-82 Please refer to the following sheet for detailed information.

SN	lcon	Name	Function
1	VIDEO IN	Video input port	Connect to analog camera, video input signal.
2	AUDIO IN	Audio input port	Connect to microphone and etc to input signal.
3	HDMI	High definition media interface	High definition audio and video signal output port. It transmits the same video signal as that of the VGA/TV or different video signal from that of the VGA/TV (support customized setup). Support mouse operation.
4		USB3.0 port	Connect to mouse, USB storage media, USB-burner and etc.
5	<u> </u>	Network port	1000M Ethernet port

SN	lcon	Name	Function
6	VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
7		Power switch	Power on/off button.
8	Ŧ	GND	Ground port
9	AUDIO OUT	Audio output port	Connect to sound box and etc to output audio signal.
10	А	RS485	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
10	В	communicatio n port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
11		Power socket	Power input port

### 2.2.35 HCVR72XXAN-4M Series

The rear panel is shown as in Figure 2-83.

The following figure is based on the HCVR7208SAN-4M series product.

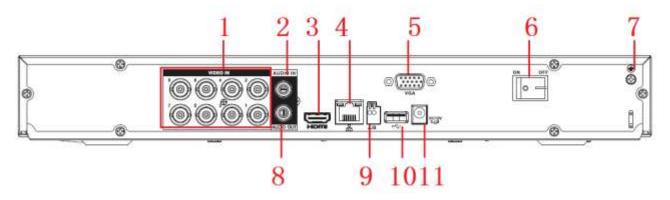


Figure 2-83

SN	lcon	Name		Function
1	VIDEO IN	Video i port	input	Connect to analog camera, video input signal.
2	AUDIO IN	Audio i port	input	Connect to microphone and etc to input signal.

SN	lcon	Name	Function
3	HDMI	High definition	High definition audio and video signal output port. It
		media	transmits the same video signal as that of the VGA/TV or
		interface	different video signal from that of the VGA/TV $(\mbox{support}$
			customized setup).
			Support mouse operation.
4	<del>6</del> 6	Network port	1000M Ethernet port
5	VGA	VGA	VGA video output port
6	0	Power switch	Power on/off button.
7	GND	Power switch	Power on/off button.
8	AUDIO OUT	Audio output port	Connect to sound box and etc to output audio signal.
9	A	RS485 communicatio	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В	n port	RS485_B.It is the cable B. You can connect to the control
			devices such as speed dome PTZ.
10	•====	USB3.0 port	Connect to mouse, USB storage media, USB-burner and
			etc.
11	$\odot$	Power socket	Power input port

### 2.2.36 XVR54XXL/ XVR74XXL Series

The XVR5408L rear panel is shown as below. See Figure 2-84.

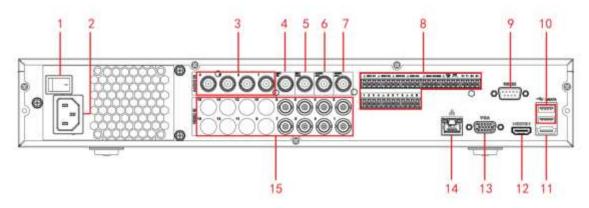


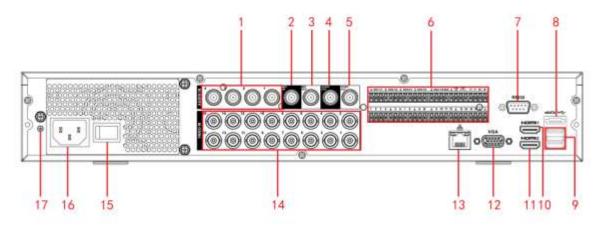
Figure 2-84

SN	lcon	Name	Note
1		Power switch	Power on/off button.
2		Power socket	Power socket
3	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
4	MIC OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
5	MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
6	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
7	VIDEO OUT	Video output port	Connect to video output devices such as TV.
8	1~8	Alarm input port 1~ 8	<ul> <li>There are two groups. The first group is from port 1 to port 4; the second group is from port 5 to port 8. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
	NO1~NO5 C1~C5	Alarm output port 1~5	<ul> <li>5 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3, Group 4:port NO4~</li> </ul>

SN	lcon	Name	Note
	NC5		<ul> <li>C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	A	RS-485 communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
	12V	+12V power output port	+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.
	G	Ground	Ground
9	RS-232	RS232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
10	•	USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
11	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please make sure there is power supplying when there is peripheral connected HDD.
12	HDMI 1	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device.

SN	lcon	Name	Note
13	VGA	VGA video output	VGA video output port. Output
		port	analog video signal. Can connect to
			the monitor to view ananlog video
			output.
14	р. С. С.	Network port	1000Mbps Ethernet port
15	VIDEO IN	Video input port	Connect to analog camera, video
			input signal.

The XVR5416L/XVR7408L/XVR7416L rear panel is shown as below. See Figure 2-85.



#### Figure 2-85

SN	Icon	Name	Note
1	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
2	MIC OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
3	MIC IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
4	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
5	VIDEO OUT	Video output port	Connect to video output devices such as TV.

SN	lcon	Name	Note
	1~16	Alarm input port 1~ 16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
	NO1~NO5		<ul> <li>5 groups of alarm output ports. (Group 1:port NO1~C1,Group)</li> </ul>
	C1~C5	Alarm output port 1~5	2:port NO2~C2,Group 3:port NO3~C3, Group 4:port NO4~ C4, Group 5: port NO5, C5,
	NC5		NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.
6			<ul> <li>NO: Normal open alarm output port.</li> </ul>
Ŭ			• C: Alarm output public end.
			<ul> <li>NC: Normal close alarm output port.</li> </ul>
	А	RS-485	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В	communication port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
	12V	+12V power output port	+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.

SN	Icon	Name	Note
	Ŧ	Ground	Ground
7	RS-232	RS232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
8	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please make sure there is power supplying when there is peripheral connected HDD.
9	•	USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
10	HDMI1	High Definition Media Interface 1	High definition audio and video signal output port. It outputs the same video source as VGA/TV. Support mouse operation and control.
11	HDMI2	High Definition Media Interface 2	High definition audio and video signal output port. Support multiple-window video matrix output. Support tour function.
12	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
13		Network port	1000Mbps Ethernet port
14	VIDEO IN	Video input port	Connect to analog camera, video input signal.
15	-	Power switch	Power on/off button.
16		Power socket	Power socket
17	<b>\</b>	Ground terminal	Ground

The XVR5432L rear panel is shown as below. See Figure 2-86.

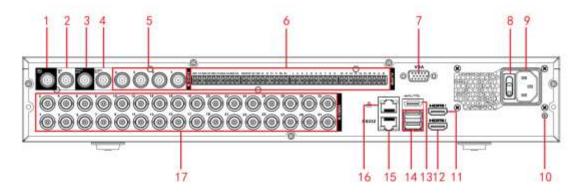


Figure 2-86

SN	Icon	Name	Note
1	MIC OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
2	MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
3	VIDEO OUT	Video output port	Connect to video output devices such as TV.
4	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
5	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
6	1~16	Alarm input port 1~ 16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> </ul>
			<ul> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
	NO1~NO5	Alarm output port	• 5 groups of alarm output ports.
	C1~C5	1~5	(Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port

SN	Icon	Name	Note
	NC5		<ul> <li>NO3~C3, Group 4:port NO4~ C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	А	RS-485	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В	communication port	RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
	12V	+12V power output port	+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.
	Ŧ	Ground	Ground
7	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
8		Power switch	Power on/off button.
9		Power socket	Power socket
10	÷	Ground terminal	Ground

SN	lcon	Name	Note
11	HDMI1	High Definition Media Interface 1	High definition audio and video signal output port. It outputs the same video source as VGA/TV. Support mouse operation and control.
12	HDMI2	High Definition Media Interface 2	High definition audio and video signal output port. Support multiple-window video matrix output. Support tour function.
13	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please make sure there is power supplying when there is peripheral connected HDD.
14		USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
15	RS-232	RS232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
16		Network port	1000Mbps Ethernet port
17	VIDEO IN	Video input port	Connect to analog camera, video input signal.

# 2.2.37 XVR58XXS/ XVR78XXS Series

The XVR5808S rear panel is shown as below. See Figure 2-87.

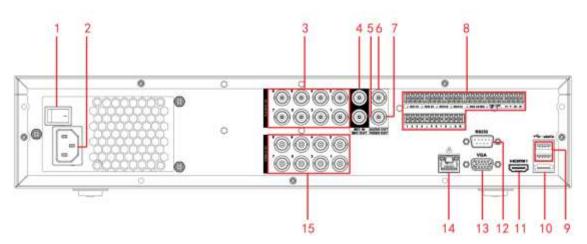


Figure 2-87

The XVR7808S/XVR7816S rear panel is shown as below. See Figure 2-88.

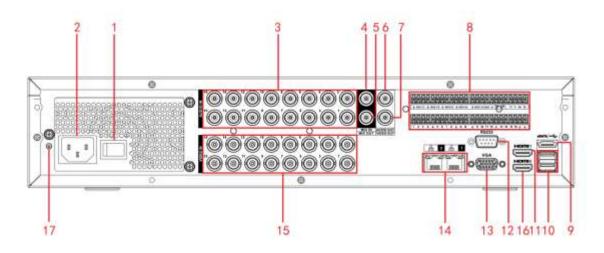


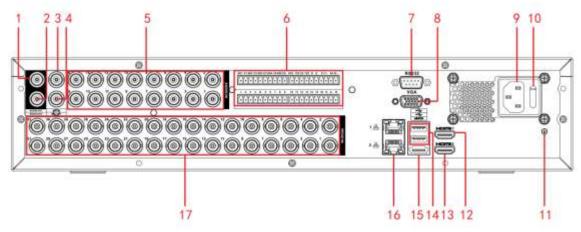
Figure 2-88

SN	Icon	Name	Note
1		Power switch	Power on/off button.
2		Power socket	Power socket
3	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
4	MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
5	MIC OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
6	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
7	VIDEO OUT	Video output port	Connect to video output devices such as TV.
8	1~8	Alarm input port 1~ 8	• There are two groups. The first group is from port 1 to port 4; the second group is from port 5 to port 8. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC

SN	Icon	Name	Note
			<ul> <li>(normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
	NO1~NO5 C1~C5 NC5	Alarm output port 1∼5	<ul> <li>5 groups of alarm output ports. (Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3, Group 4:port NO4~ C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	A	RS-485 communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
	12V	+12V power output port	+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.
	G	Ground terminal	Ground
9	•	USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.
10	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please make sure there is power

SN	Icon	Name	Note
			supplying when there is peripheral connected HDD.
11	HDMI 1	High Definition Media Interface 1	High definition audio and video signal output port. It outputs the same video source as VGA/TV. Support mouse operation and control.
12	RS-232	RS232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
13	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
14	<del>- 0</del> -	Network port	1000Mbps Ethernet port
15	VIDEO IN	Video input port	Connect to analog camera, video input signal.
16	HDMI2	High Definition Media Interface 2	High definition audio and video signal output port. Support multiple-window video matrix output. Support tour function.
17	ŧ	Ground terminal	Ground

The XVR5832S rear panel is shown as below. See Figure 2-89.





SN	Icon	Name	Note
1	AUDIO OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
2	VIDEO OUT	Video output port         Connect to video output de such as TV.	
3	MIC IN	Audio input port Bidirectional talk input port. It receive the analog audio soutput from the devices such microphone, pickup.	
4	MIC OUT	Audio output port	Audio output port. It is to output the analog audio signal to the devices such as the sound box.
5	AUDIO IN	Audio input port	It is to receive the analog audio signal output from the devices such as microphone.
	1~16	Alarm input port 1~ 16	<ul> <li>There are four groups. The first group is from port 1 to port 4, the second group is from port 5 to port 8, the third group is from 9 to 12, and the fourth group is from 13 to 16. They are to receive the signal from the external alarm source. There are two types; NO (normal open)/NC (normal close).</li> <li>When your alarm input device is using external power, please make sure the device and the NVR have the same ground.</li> </ul>
	NO1~NO5	Alarm output port	• 5 groups of alarm output ports.
6	C1~C5	1~5	<ul> <li>(Group 1:port NO1~C1,Group 2:port NO2~C2,Group 3:port NO3~C3, Group 4:port NO4~C4, Group 5: port NO5, C5, NC5).Output alarm signal to the alarm device. Please make sure there is power to the external alarm device.</li> <li>NO: Normal open alarm output point</li> </ul>
			<ul> <li>port.</li> <li>C: Alarm output public end.</li> <li>NC: Normal close alarm output port.</li> </ul>
	А	RS-485 communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ.

SN	lcon	Name	Note
	В		RS485_B.It is the cable B. You can connect to the control devices such as speed dome PTZ.
	T+、T-、R+、R-	Four-wire full-duplex 485 port	Four-wire full-duplex 485 port. T+, T- is the output wire. R+, R- is the input wire.
	CTRL 12V	Control power output	Controller 12V power output. It is to control the on-off alarm relay output.
	12V	+12V power output port	+12V power output port. It can provide the power to some peripheral devices such as the camera or the alarm device. Please note the supplying power shall be below 1A.
	G	Ground	Ground
7	RS-232	RS232 debug COM.	It is for general COM debug to configure IP address or transfer transparent COM data.
8	VGA	VGA video output port	VGA video output port. Output analog video signal. Can connect to the monitor to view ananlog video output.
9		Power socket	Power socket
10		Power switch	Power on/off button.
11	ŧ	Ground terminal	Ground
12	HDMI 1	High Definition Media Interface 1	High definition audio and video signal output port. It outputs the same video source as VGA/TV. Support mouse operation and control.
13	HDMI2	High Definition Media Interface 2	High definition audio and video signal output port. Support multiple-window video matrix output. Support tour function.
14	•€•	USB port	Connect to USB storage device, mouse, burning DVD-ROM and etc.

SN	lcon	Name	Note
15	eSATA	eSATA port	External SATA port. It can connect to the device of the SATA port. Please make sure there is power supplying when there is peripheral connected HDD.
16		Network port	1000Mbps Ethernet port
17	VIDEO IN	Video input port	Connect to analog camera, video input signal.

# 2.2.38 HCR710XH-4K Series

This series product rear panel is shown as in Figure 2-90. Here we use HCVR7108H-4K for an example.

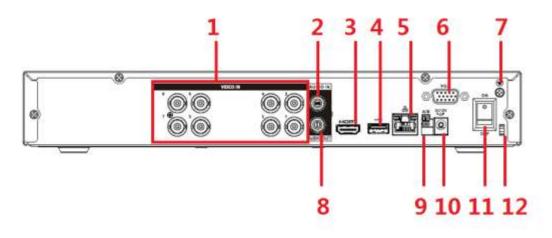


Figure	2-90

SN	lcon	Name	Note
1	VIDEO IN	Video input	Connect to analog camera, video input signal.
		port	
2	AUDIO IN	Audio input	Connect to audio input device such as speaker.
		port	
3	HDMI	High	High definition audio and video signal output port. It
		Definition	transmits uncompressed high definition video and
		Media	multiple-channel data to the HDMI port of the display
		Interface	device.
4	•	USB port	Connect to USB storage device, mouse, burning
			DVD-ROM and etc.
5		Network port	1000M Ethernet port

SN	lcon	Name	Note
6	VGA	VGA video	VGA video output port. Output analog video signal.
		output	Can connect to the monitor to view ananlog video
		port	output.
7	÷	GND	Ground end
8	AUDIO	Audio output	Connect to video output device such as sound box.
	OUT	port	
9	А	RS485	RS485_A port. It is the cable A. You can connect to
		(RS-485)	the control devices such as speed dome PTZ.
	В	communicati	RS485_B.It is the cable B. You can connect to the
		on port	control devices such as speed dome PTZ.
10	DC 12V 	Power input	Input 12V DC.
		port	
11		Power switch	Power on/off button.
	Ľ		
12		Power cable	Use clamp to secure the power cable on the device in
		fastener	case there is any loss.

# 2.2.39 HCVR720XAN-4K Series

This series product rear panel is shown as in Figure 2-91. Here we use HCVR7108AN-4K for an example.

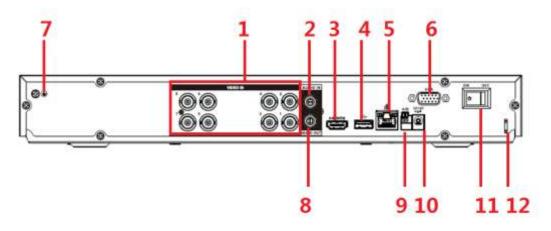


Figure 2-91

SN	lcon	Name		Note
1	VIDEO IN	Video	input	Connect to analog camera, video input signal.
		port		
2	AUDIO IN	Audio port	input	Connect to audio input device such as speaker.
3	HDMI	High		High definition audio and video signal output port. It

SN	lcon	Name	Note			
		Definition	transmits uncompressed high definition video and			
		Media	multiple-channel data to the HDMI port of the display			
		Interface	device.			
4	•	USB port	Connect to USB storage device, mouse, burning			
			DVD-ROM and etc.			
5	<del>_</del>	Network port	1000M Ethernet port			
6	VGA	VGA video	VGA video output port. Output analog video signal.			
		output	Can connect to the monitor to view ananlog video			
		port	output.			
7	Ŧ	GND	Ground end			
8	AUDIO	Audio output	Connect to video output device such as sound box.			
	OUT	port				
9	А	RS485	RS485_A port. It is the cable A. You can connect to			
		(RS-485)	the control devices such as speed dome PTZ.			
	В	communicati	RS485_B.It is the cable B. You can connect to the			
		on port	control devices such as speed dome PTZ.			
10	DC 12V -C-	Power input	Input 12V DC.			
		port				
11	•	Power switch	Power on/off button.			
12	F	Power cable	Use clamp to secure the power cable on the device in			
		fastener	case there is any loss.			

When connect the Ethernet port, please use crossover cable to connect the PC and use the straight cable to connect to the switch or router.

# 2.3 Connection Sample

# 2.3.1 Smart Box Series

Please refer to Figure 2-79 for connection sample.

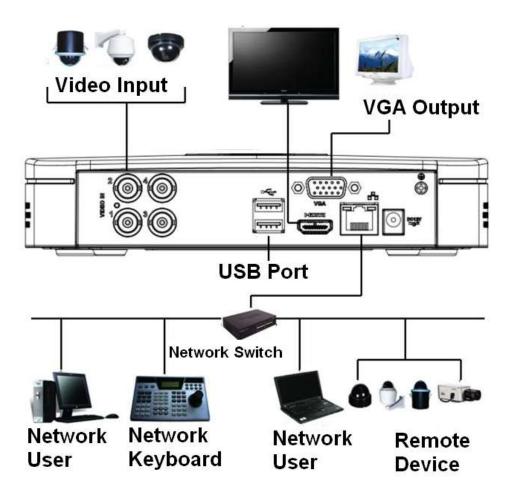


Figure 2-92

## 2.3.2 Smart 1U Series

Please refer to Figure 2-93 for connection sample.

The following figure is based on the HCVR4108C-S3/5108C-S3/XVR4108C/5108C series.

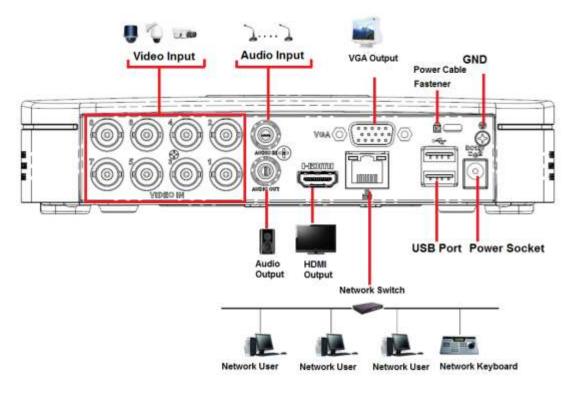


Figure 2-93

## 2.3.3 Compact 1U Series

Please refer to Figure 2-79 for connection sample.

The following figure is based on the HCVR2116HS-S3/HCVR4116HS-S3/5116HS-S3 /XVR2116HS/XVR4116HS/5116HS series product.

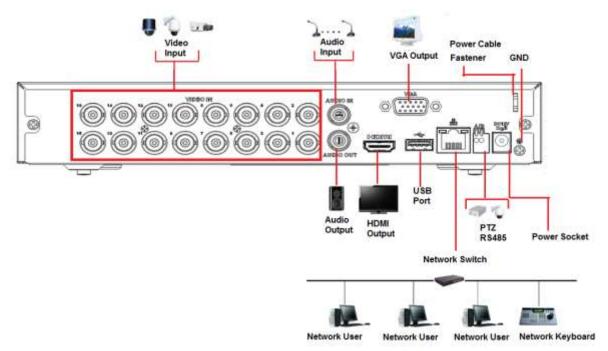


Figure 2-94

# 2.3.4 Mini 1U Series

Please refer to Figure 2-95 for connection sample.

The following figure is based on HCVR4116HE-S3/HCVR5116HE-S3/HCVR7116HE-S3/XVR4116HE/XVR5116HE/XVR7116HE series.

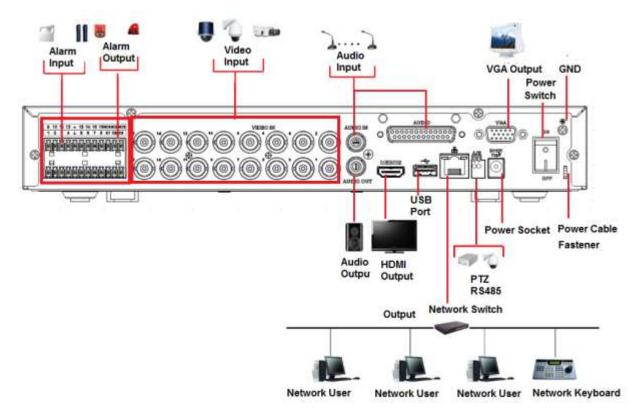


Figure 2-95

## 2.3.5 1U Series

Please refer to the following figure for detailed information. See Figure 2-96. The following interface is based on the HCVR4216A-S3/HCVR5216A-S3/ HCVR7216A-S3/XVR4216A/XVR5216A/XVR7216A series product.

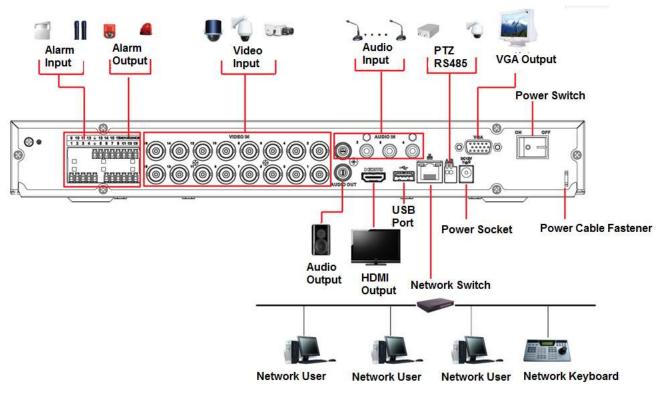


Figure 2-96

# 2.3.6 1.5U Series

The connection sample is shown as below. See Figure 2-97.

The following interface is based on the HCVR4232L-S2 series product.

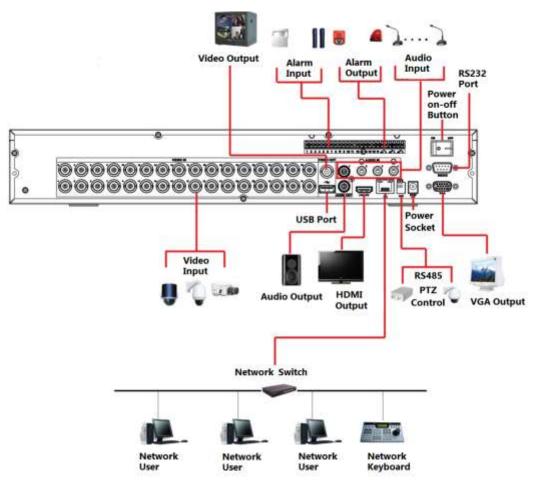


Figure 2-97

## 2.3.7 2U Series

Please refer to the following figure for detailed information. See Figure 2-98. The following interface is based on the HCVR5816S-V2 series product.

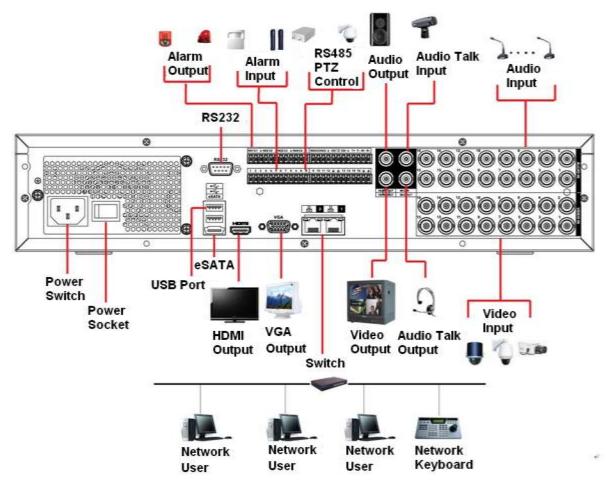


Figure 2-98

# 2.4 Remote Control

The remote control interface is shown as in Figure 2-99.

Please note remote control is not our standard accessory and it is not included in the accessory bag.

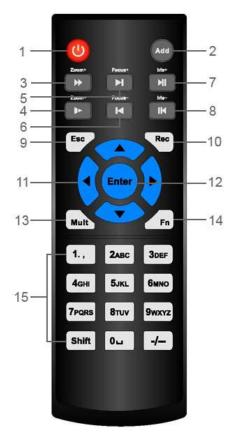


Figure 2-99

SN	Name	Function
1	Power button	Click it to boot up or shut down the device.
2	Address	Click it to input device number, so that you can control it.
3	Forward	Various forward speeds and normal speed playback.
4	Slow play	Multiple slow play speeds or normal playback.
5	Next record	In playback mode, playback the next video.
6	Previous record	In playback mode, playback the previous video.
7	Play/Pause	In pause mode, click this button to realize normal playback.
		In normal playback click this button to pause playback.
		In real-time monitor mode, click this button to enter video
		search menu.
8	Reverse/pause	Reverse playback pause mode, click this button to realize
		normal playback.
		In reverse playback click this button to pause playback.
9	Esc.	Go back to previous menu or cancel current operation (close
		upper interface or control)
10	Record	Start or stop record manually
		In record interface, working with the direction buttons to
		select the record channel.
		Click this button for at least 1.5 seconds, system can go to
		the Manual Record interface.

SN	Name	Function
11	Direction keys	Switch current activated control, go to left or right.
		In playback mode, it is to control the playback process bar.
		Aux function(such as switch the PTZ menu)
12	Enter /menu key	go to OK button
		go to the menu
13	Multiple-window	Switch between multiple-window and one-window.
	switch	
14	Fn	In 1-ch monitor mode: pop up assistant function:PTZ control
		and Video color.
		Switch the PTZ control menu in PTZ control interface.
		In motion detection interface, working with direction keys to
		complete setup.
		In text mode, click it to delete character.
15	0-9 number key	Input password, channel or switch channel.
		Shift is the button to switch the input method.

# 2.5 Mouse Control

Left click	System pops up password input dialogue box if you have not logged in.		
mouse	In real-time monitor mode, you can go to the main menu.		
	When you have selected one menu item, left click mouse to view menu		
	content.		
	Implement the control operation.		
	Modify checkbox or motion detection status.		
	Click combo box to pop up drop down list		

<u>г</u>					
	In input box, you can select input methods. Left click the corresponding button on the panel you can input numeral/English character				
	(small/capitalized). Here $\leftarrow$ stands for backspace button stands for				
	space button.				
	In English input moder, stands for input a backapasa ison and				
	In English input mode: _stands for input a backspace icon and $\leftarrow$ stands for deleting the previous character.				
	ABCDEFG HIJKLMN OPQRST⊔ UVWXYZ← uvwxyz←				
	In numeral input mode: _ stands for clear and $\leftarrow$ stands for deleting the previous numeral.				
	When input special sign, you can click corresponding numeral in the front papel to input. For example, click numeral 1 you can input."				
	front panel to input. For example, click numeral 1 you can input"/", or you can click the numeral in the on-screen keyboard directly.				
	1 / 2 : 3 . 4 ? 5 - 6 _ 7 @ 8 # 9 % 0 & _ ←				
Double left	Implement special control operation such as double click one item in				
click mouse	the file list to playback the video.				
I T	In multiple-window mode, double left click one channel to view in				
	full-window.				
	Double left click current video again to go back to previous				
	multiple-window mode.				

Right click mouse	In real-time monitor mode, pops up shortcut menu: one-window, four-window, nine-window and sixteen-window, Pan/Tilt/Zoom, color setting, search, record, alarm input, alarm output, main menu. Among which, Pan/Tilt/Zoom and color setting applies for current selected channel. If you are in multiple-window mode, system automatically switches to the corresponding channel.			
	■ View 1 View 4			
	<ul> <li>■ PTZ</li> <li>[+] Auto Focus</li> <li>④ Color Setting</li> </ul>			
	<ul> <li>Q Search</li> <li>● Manual</li> <li>● Remote Device</li> <li>☆ Main Menu</li> </ul>			
	Exit current menu without saving the modification.			
Press	In numeral input box: Increase or decrease numeral value.			
middle	Switch the items in the check box.			
button	Page up or page down			
Move mouse	Select current control or move control			
Drag	Select motion detection zone			
mouse	Select privacy mask zone.			

# 2.6 Virtual Keyboard & Front Panel

# 2.6.1 Virtual Keyboard

The system supports two input methods: numeral input and English character (small and capitalized) input.

Move the cursor to the text column, the text is shown as blue, input button pops up on the right. Click that button to switch between numeral input and English input (capitalized and small), Use > or < to shift between small character and capitalized character.

# 2.6.2 Front Panel

Move the cursor to the text column. Click Fn key and use direction keys to select number you wanted. Please click enter button to input.

# 3 Installation and Connections

Note: All the installation and operations here should conform to your local electric safety rules.

# 3.1 Check Unpacked DVR

When you receive the DVR from the forwarding agent, please check whether there is any visible damage. The protective materials used for the package of the DVR can protect most accidental clashes during transportation. Then you can open the box to check the accessories.

Please check the items in accordance with the list. Finally you can remove the protective film of the DVR.

### Note

Remote control is not a standard accessory and it is not included in the accessory bag.

# 3.2 About Front Panel and Rear Panel

The model in the front panel is very important; please check according to your purchase order.

The label in the rear panel is very important too. Usually we need you to represent the serial number when we provide the service after sales.

# 3.3 HDD Installation



# Shut down the device and then unplug the power cable before you open the case to replace the HDD!

## All figures listed below for reference only!

This series DVR has 1 to 8 HDDs (no limitation for capacity). Please use HDD of 7200rpm or higher. Usually we do not recommend the HDD for the PC. You can refer to the Appendix for recommended HDD brand.

Please follow the instructions listed below to install hard disk.

## 3.3.1 Smart Box Series

Please make sure the metal surface of the HDD is facing up when you are installing! This series product has only one 2.5-inch SATA HDD.

Please follow the instructions below to install HDD.

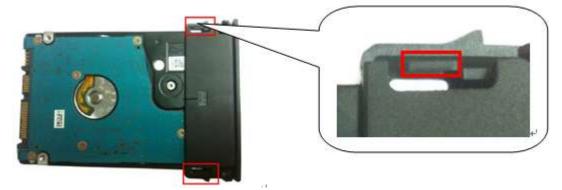






(1) Draw out the HDD bracket
(2) Make sure the HDD metal surface is facing up and then put the HDD into the bracket horizontally. After the HDD is in the proper position, the columns on the two sides can lock the screw holes of the HDD to secure it.

When you remove the HDD, please refer to the following figure to pull the spring up and then remove the HDD.



### 3.3.2 Smart 1U Series

The smart 1U series includes HCVR5104C/HCVR51XXC-V2/HCVR71XXC-V2/ HCVR4104/4108C-S2/ HCVR5104 5108C-S2/ HCVR7104C-S2/ HCVR2108C-S2/ XVR410XC/XVR510XC/7104C series. The series DVR has one SATA HDD.



①. Loosen the screws of the upper cover and side panel.



O Fix four screws in the HDD

(Turn just three rounds).



③ Place the HDD in

accordance with the four holes in the bottom.



④ Turn the device upside down and

⑦ Put the cover in accordance with

the clip and then place the upper cover back.

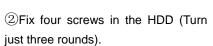
# 3.3.3 Compact 1U and Mini 1U Series

- The mini 1U series includes HCVR51XXH/51XXHC/51XXHE/51XXH-V2/HC-V2/HE-V2/71XXH-V2/71XXHC-V2/7 1XXHE-V2/ HCVR41XXHE-S2/ HCVR51XXH-S2/ HCVR51XXHE-S2/ HCVR710XH-S2/HCVR710XHE-S2/ XVR41XXHE/XVR51XXHE/XVR71XXH/XVR71XXHE/HCVR710XH-4K and etc.
- The compact 1U series includes HCVR41XXHS-S2/HCVR2108HS-S2/ HCVR2116HS-S2/HCVR21XXHS-S2/XVR21XXHS/XVR41XXHS/51XXHS/7104HS and etc.

The series DVR has one SATA HDD.



①Loosen the screws of the upper cover and side panel.





③Place the HDD in accordance with the four holes in the bottom.

259

(6) Connect the HDD cable and power cable.







8 Secure the screws in the rear panel and the side panel.



5 Fix the HDD firmly.

⑤Fix the HDD firmly.

④Turn the device upside down and then turn the screws in firmly.

⑦Put the cover in accordance with the clip and then place the upper cover back.

and the side panel.

#### Important:

- You can connect the HDD data cable and the power cable first and then fix the HDD • in the device.
- Please pay attention to the front cover. It adopts the vertical sliding design. You need to push the clip first and then put down.

#### 3.3.4 The 1U Series

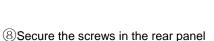
The 1U series includes

HCVR52XXA-V2/HCVR72XXA-V2/HCVR42XXA-S2/HCVR4216AN-S2/HCVR52XXA-S2/ HCVR5216AN-S2/HCVR720XA-S2/XVR42XXA/XVR4216AN/XVR52XXA/XVR5216AN/X VR72XXA/XVR7216AN/HCVR720XAN-4K and etc.

This series DVR has two SATA HDDs.

① Loosen the screws of the upper cover and side panel. Remove

③ Place the HDD in accordance ② Fix four screws in the HDD with the four holes in the bottom. (Turn just three rounds).





6 Connect the HDD cable and power cable.



260







#### the cover.



(4) Turn the device upside down and then turn the screws in firmly.



**(5)**Connect the HDD cable and power cable.



(6) Put the cover in accordance with the clip and then place the upper cover back. Secure the screws in the rear panel and the side panel.

## 3.3.5 The 1.5U Series

The1.5UseriesincludesHCVR52XXL-V2/HCVR54XXL-V2/HCVR44L-S2/XVR54XX-L/XVR74XX-Land etc.This series DVR max has four SATA HDDs. Please use HDD of 7200rpm or higher.



(1) Loosen the screws of the

upper cover. Remove the cover.



② Line up the HDD to the

four holes of the HDD bracket. Use four screws to fix HDD.



(4) Connect the other end of



**(5)** Connect the power cable



6 Put the cover back and fix the screws to secure firmly.

mainboard.

the HDD cable to the to the HDD.

## 3.3.6 The 2U Series

The 2U series includes HCVR58XXS-V2/HCVR48XXS-V2/XVR54XX-S/XVR74XX-S and etc.



③ Connect the one end of the HDD cable to the HDD.

This series DVR max supports 8 SATA HDDs. Please use HDD of 7200rpm or higher.



 Loosen the screws of the upper cover and side panel. Remove the cover.



② Fix the HDD(s) on the bracket. Remove the top bracket if you want to install HDD to the bottom bracket.



③Connect the one end of the HDD cable to the HDD.



(4) Connect the other end of the HDD cable to the mainboard.



**5**Connect the power cable to the HDD.



**(6)**Put the cover back and fix the screws to secure firmly.

#### Important:

If the HDD amount is less than four, you do not need to install the HDD bracket. When there is a bracket, please make sure the installation direction of HDDs is the same.

#### 3.3.7 Rack Installation

The DVR occupies 1.5U/2U rack units of vertical rack space.

- Use twelve screws to fix the unit
- Please make sure the indoor temperature is below 35 °C (95°f).
- Please make sure there is 15cm (6 inches) space around the device to guarantee sound ventilation.
- Please install from the bottom to the top.
- If there are more accessories connected in the rack, please take precaution measures in case the rack power is overload.

# 3.4 Connecting Power Supply

Please check input voltage and device power button match or not.

We recommend you use UPS to guarantee steady operation, DVR life span, and other peripheral equipments operation such as cameras.

# 3.5 Connecting Video Input and Output Devices

# 3.5.1 Connecting Video Input

The video input interface is BNC. The input video format includes: PAL/NTSC BNC  $(1.0V_{P-P}\,,~75\Omega.)$  .

The input video format: BNC  $\,(0.8\text{VP-P},~75\Omega)$  ,

The video signal should comply with your national standards.

The input video signal shall have high SNR, low distortion; low interference, natural color and suitable lightness.

#### Guarantee the stability and reliability of the camera signal:

The camera shall be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

The camera and the DVR should have the same grounding to ensure the normal operation of the camera.

#### Guarantee stability and reliability of the transmission line

Please use high quality, sound shielded BNC. Please select suitable BNC model according to the transmission distance.

If the distance is too long, you should use twisted pair cable, and you can add video compensation devices or use optical fiber to ensure video quality.

You should keep the video signal away from the strong electromagnetic interference, especially the high tension current.

#### Keep connection lugs in well contact

The signal line and shielded wire should be fixed firmly and in well connection. Avoid dry joint, lap welding and oxidation.

## 3.5.2 Connecting Video Output

Video output includes a BNC(PAL/NTSC, 1.0VP- P,  $75\Omega$ ) output, a VGA output and a HDMI output.

System supports BNC, VGA and HDMI output at the same time.

When you are using pc-type monitor to replace the monitor, please pay attention to the following points:

- To defer aging, do not allow the pc monitor to run for a long time.
- Regular demagnetization will keep device maintain proper status.
- Keep it away from strong electromagnetic interference devices.

Using TV as video output device is not a reliable substitution method. You also need to reduce the working hour and control the interference from power supply and other devices. The low quality TV may result in device damage.

# 3.6 Connecting Audio Input & Output, Bidirectional Audio

## 3.6.1 Audio Input

BNC port is adopted for audio input port.

Due to high impedance of audio input, please use active sound pick-up.

Audio transmission is similar to video transmission. Try to avoid interference, dry joint, loose contact and it shall be away from high tension current.

## 3.6.2 Audio Output

The audio output signal parameter is usually over 200mv 1K $\Omega$  (BNC). It can directly connect to low impedance earphone, active sound box or amplifier-drive audio output device.

If the sound box and the pick-up cannot be separated spatially, it is easy to arouse squeaking. In this case you can adopt the following measures:

- Use better sound pick-up with better directing property.
- Reduce the volume of the sound box.
- Using more sound-absorbing materials in decoration can reduce voice echo and improve acoustics environment.
- Adjust the layout to reduce happening of the squeaking.

# 3.7 Alarm Input and Output Connection

Please read the followings before connecting.

#### 1. Alarm input

a. Please make sure alarm input mode is grounding alarm input.

- b. Grounding signal is needed for alarm input.
- c. Alarm input needs the low level voltage signal.
- d. Alarm input mode can be either NC (normal Open) or NO (Normal Close)

e. When you are connecting two DVRs or you are connecting one DVR and one other device, please use a relay to separate them,

#### 2. Alarm output

The alarm output port should not be connected to high power load directly (It shall be less than 1A) to avoid high current which may result in relay damage. Please use the co contactor to realize the connection between the alarm output port and the load.

#### 3. How to connect PTZ decoder

a. Ensure the decoder has the same grounding with DVR, otherwise you may not control the PTZ. Shielded twisted wire is recommended and the shielded layer is used to connect to the grounding.

b. Avoid high voltage. Ensure proper wiring and some thunder protection measures.

c. For too long signal wires,  $120\Omega$  should be parallel connected between A, B lines on the far end to reduce reflection and guarantee the signal quality.

d. "485 A, B" of DVR cannot parallel connect with "485 port" of other device.

e. The voltage between of A,B lines of the decoder should be less than 5v.

#### 4. Please make sure the front-end device has soundly earthed.

Improper grounding may result in chip damage.

## 3.7.1 Alarm Input and Output Details

#### Important

Please refer to the specifications for the alarm input and output channel amount.

Do not merely count the alarm input and out channel amount according to the ports on the rear panel.

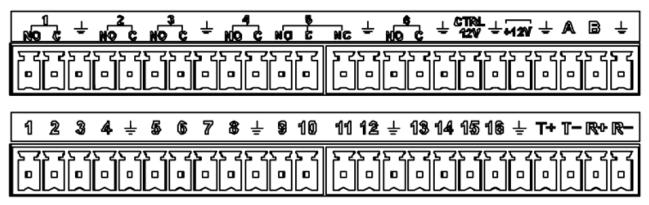


Figure 3-1

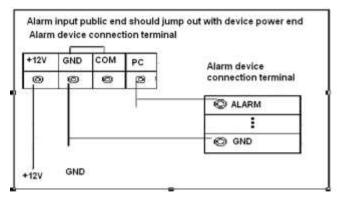
1, 2, 3, 4, 5, 6,	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.				
7, 8, 9, 10, 11,					
12, 13, 14, 15, 16					
In the second line,	There are six groups of normal open activation output (on/off button)				
from the left to the					
right:					
NO1 C1,					
NO2 C2,					
NO3 C3,					
NO4 C4,					
NO5 C5,					
NO6 C6.					
CTRL 12V	Control power output. For external alarm, you need to close the				
	device power to cancel the alarm.				
	Voltage current; 500mA.				
+12V	Rated current.				
	Voltage current; 500mA.				
	Earth cable.				
485 A/B	485 communication port. They are used to control devices such as				
	decoder. 120 $\Omega$ should be parallel connected between A, B lines if				
	there are too many PTZ decoders.				
T+,T-,R+,R-	They are four-wire full-duplex RS485 port				
	T+ T-: output wire				
	R+ R-: input wire				

## 3.7.2 Alarm Input Port

Please refer to the following sheet for more information.

• Grounding alarm inputs. Normal open or Normal close type)

- Please parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).
- Please parallel connect the Ground of the DVR and the ground of the alarm detector.
- Please connect the NC port of the alarm sensor to the DVR alarm input(ALARM)
- Use the same ground with that of DVR if you use external power to the alarm device.





## 3.7.3 Alarm Output Port

- Provide external power to external alarm device.
- To avoid overloading, please read the following relay parameters sheet carefully.
- RS485 A/B cable is for the A/B cable of the PTZ decoder.
- T+,T-,R+,R- are four-wire double duplex RS485 port.
  - T+ T-: output wire

R+ R-: input wire

Model		HFD23/005-1ZS	HRB1-S-DC5V				
Material of the	touch	AgNi+ gold-plating	AuAg10/AgNi10/CuNi30				
	Rated switch	30V DC 1A/125V AC 0.5A	24V DC 1A/125V AC 2A				
	capacity	300 DC TA/1250 AC 0.5A	24V DU TA/123V AU ZA				
	Maximum	62.5VA/30W	250\//\/49\//				
Rating	switch power	62.5VA/30VV	250VA/48W				
(Resistance	Maximum	125V AC/60V DC	125V AC/60V DC				
Load)	switch voltage	123V AC/00V DC	123V AC/00V DC				
	Maximum						
	switch	2A	2A				
	currency						
	Between	400VAC 1 minute	500VAC 1 minute				
Insulation	touches						
Insulation	Between touch	1000VAC 1 minute	1000VAC 1 minute				
	and winding						
Turn-on Time		5ms max	5ms max				
Turn-off Time		5ms max	5ms max				
Longevity Mechanical		1×10 <sup>7</sup> times ( 300	5×10 <sup>6</sup> times ( 300				

#### **Relay Specification**

Model		HFD23/005-1ZS			HRB1-S-DC5V				
		times/M	IN)			times/MIN	1)		
		1×10 <sup>5</sup>	times	(	30	2.5×10 <sup>4</sup>	times	(	30
Electrical		times/MIN)			times/MIN)				
Working Temperature		-30℃~-	<b>+70</b> ℃			-40°C~+7	70℃		

# 3.8 RS485

When the DVR receives a camera control command, it transmits that command up the coaxial cable to the PTZ device. RS485 is a single-direction protocol; the PTZ device can't return any data to the unit. To enable the operation, connect the PTZ device to the RS485 (A,B) input on the DVR.

Since RS485 is disabled by default for each camera, you must enable the PTZ settings first. This series DVRs support multiple protocols such as Pelco-D, Pelco-P.

To connect PTZ devices to the DVR:

1. Connect RS485 A,B on the DVR rear panel.

2. Connect the other end of the cable to the proper pins in the connector on the camera.

3. Please follow the instructions to configure a camera to enable each PTZ device on the DVR.

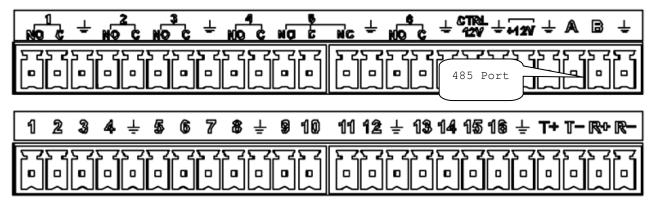


Figure 3-3

# 3.9 Other Interfaces

There are still other interfaces on the DVR, such as USB port.

# 4 Overview of Navigation and Controls

# Note

- The figures listed in the following chapters for reference only. Refer to the actual product for detailed information. The operations are the same.
- For some functions, please left click mouse to enter the menu contents and right click menu to go back to the previous menu. Refer to chapter 2.5 Mouse control for detailed information.

# 4.1 Initial Settings

# 4.1.1 Boot up



- The rated input voltage matches the device power on-off button. Please make sure the power wire connection is OK. Then click the power on-off button.
- To protect device, please connect device to the power adapter first and then connect the power cable.
- Always use the stable current, if necessary UPS is a best alternative measure. Please follow the steps listed below to boot up the device.
- Step 1 Connect the device to the monitor and then connect a mouse.
- Step 2 Connect power cable.
- Step 3 Click the power button at the front or rear panel and then boot up the device. After device booted up, the device is in multiple-channel display mode by default. If the boot up time is in the record period, the device automatically goes to auto record mode, the corresponding channel indicator light is on, and device is working properly.

## 4.1.2 Device Initialization

If it is your first time to use the device, please set a login password of **admin** (system default user).

# Note

For your device safety, please keep your login password of **admin** well after the initialization steps, and change the password regularly.

## Steps:

Step 1 Boot up device.

Device displays device initialization interface. See Figure 4-1.

	Device Initialization	
Enter Password	Unlock Pattern	Password Protection
User	admin	
Password		
	combination of letter(s),	s 6 to 32 characters, it can be a number(s) and symbol(s) with m (please do not use special
Confirm Password		
Prompt Question		
		Next

Figure 4-1

- Step 2 Set login password of admin.
  - User name: The default user name is **admin**.
  - Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "!", "!", "&"). The password shall contain at least two categories. Usually we recommend the strong password.
  - Prompt question: If you set the prompt question here. On the login interface,

click a device can display the corresponding prompt question for you to remind the password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 3 Click Next.

Device goes to unlock pattern interface. See Figure 4-2.

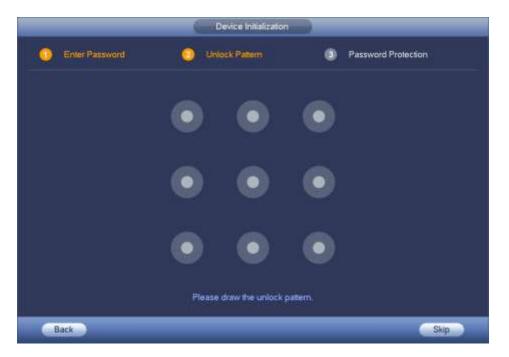


Figure 4-2

#### Step 4 Set unlock pattern.

After set unlock pattern, device goes to password protection interface. See Figure 4-3.



- The unlock pattern shall at least contain 4 grids.
- Device adopts unlock pattern to login by default if you have set pattern here.
   If there is no unlock pattern, please input the password to login.
- Click Skip if there is no need to set unlock pattern.



#### Step 5 Set security questions.

D Note

- After setting the security questions here, you can use the email you input here or answer the security questions to reset admin password. Refer to chapter 4.1.3 Reset password for detailed information.
- Cancel the email or security questions box and then click Next button to skip this step.
- Email: Input an email address for reset password purpose. In case you forgot password in the future, input the security code you got on the assigned email to reset the password of admin. If you have not input email here or you need to update the email information, please go to the main menu->Setting->System->Account to set.
- Security question: Set security questions and corresponding answers. Properly answer the questions to reset admin password. In case you have not input security question here or you need to update the security question information, please go to the main menu->Setting->System->Account to set.
- Step 6 Click OK to complete the device initialization setup.
   Device goes to startup wizard interface. Refer to chapter 0 Quick Settings for detailed information.

#### 4.1.3 Reset Password

If you forgot **admin** password, you can reset the password by email or by answering the security questions.

#### Steps:

Step 1 Go to the device login interface. See Figure 4-4 or Figure 4-5. .

- If you have set unlock pattern, device displays unlock pattern login interface.
   See Figure 4-4. Click "Forgot unlock pattern", device goes to Figure 4-5.
- If you have not set unlock pattern, device displays password interface. See Figure 4-5.

# Note

Click Switch user button in Figure 4-4 or click the user name in Figure 4-5 and then select a user from the dropdown list, you can login via other account.

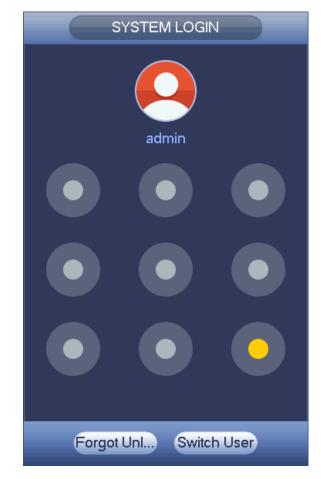


Figure 4-4

SYSTEM LOGIN
User Name (admin  Password Forgot Password
OK Cancel

Figure 4-5



• If you have not input email address information when you are initializing the device, the interface is shown as in Figure 4-6. Please input an email address and then click Next button, devices goes to Figure 4-7.

• If you have input email when you are initializing the device, device goes to Figure 4-7.



Figure 4-6



Figure 4-7

- Step 3 Reset login password. There are two ways to reset the password: Scan QR code and reset by email/security questions (local menu only)
  - Email

In Figure 4-7, follow the prompts on the interface to scan the QR code, and then input the security code you get via the assigned email.



- ♦ For the same QR code, max scan twice to get two security codes. Refresh the QR code if you want to get security code again.
- The security code on your email is only valid for 24 hours.
- Security questions

In Figure 4-6, select security question from the drop down list. Device displays security question interface. See Figure 4-8. Please input the correct answers here.

## Note

There is no security question item from the dropdown list if you have not set the security question and corresponding answers when initializing the device.

	Reset the password
Reset Type	(Security Questions -)
Question 1 Answer	What is your favorite children's book?
Question 2 Answer	What was the first name of your first boss?
Question 3 Answer	What is the name of your favorite Iruit?
	Cancel Next

Figure 4-8

Step 4 Click Next button.

Device displays reset password interface. See Figure 4-9.

	Reset the password
Reset password of	(admin)
New Password	
	Use a password that has 8 to 32 characters, it can be a combination of letter(s), number(s) and symbol(s) with at least two kinds of them (please do not use special symbols like ' '' : . &)
Confirm Password	
	Cancel Save

Figure 4-9

Step 5 Input new password and then confirm.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. The password shall be at least 8-digit containing at least two types of the following categories: letters, numbers and symbols. We also recommend you change your password periodically especially in the high security system.

Step 6 Click Save button to complete the reset setup.

Device pops up dialogue box asking you to sync the password to the camera connecting by the default protocol. See Figure 2-31. Click OK to change the camera password. See Figure 2-32.



The following dialogue pops up if there is a digital channel.

	Reset the password	
Reset password of (	(admin)	
New Password		
	Use a password that has 8 to 32 characters, it can be a combination of letter(s), number(s) and symbol(s) with at least two kinds of them. (please do not use special symbols (http://www.s)	
Conlim Password	Message	
	Do you want to sync Password with the remote device connecting via the default protocol?	
	Cancel	

Figure 4-10

			S	rnc Info	
_	inisheo	4			
	II IISHEC	-			
-					
6	3	Channel	IP Address	Results	
	1	9	172.8.1.18	Password:Succeed	
	2 3	17	172.8.4.143	Password:Succeed	
	3	19	172.8.13.133	Password:Succeed	
L	_				
L	•				•
				inished	

Figure 4-11

## 4.1.4 Quick Settings

The startup wizard and the configuration wizard can guide you to complete the basic settings so that the device can work properly.

• Startup wizard: After initialize the device, system goes to the End-User License Agreement (EULA) interface. See Figure 4-12.Check the box to agree the EULA. Click Next button to enter startup wizard if it is your first time to login. See Figure 4-13.

Zhejiang	Dahua Technologies Co.,Ltd. Software End User License Agreement
Technolo terms and installing, means, y it in who you shou any other	NT NOTICE, PLEASE READ CAREFULLY: This Zhejiang Dahua gy Co. LTD (Dahua) License Agreement ('Agreement') sets forth the conditions under which You are licensed to use the Software. By copying, downloading the Software or using the same by any other bu are deemed to have accepted this Agreement. If you do not agree wit e or in part, you do not have the right to use this Software, in which case d immediately stop installing, copying the Software or using the same by means.
consistin	TIONS means information management program(s) or supporting document(s) of several modules or functions. Supporting document(s) includes all or source codes and object codes of the Software, as well as the images.

Figure 4-12

• Configuration wizard: On the preview interface, right click mouse and then click configuration wizard. The setting items are the same as the startup wizard.



Figure 4-13

### 4.1.4.1 General

Besides startup wizard and configuration wizard, from main

menu->Setting->System->General, you can also go to the General interface too.

4.1.4.1.1 General

Step 1 Click General tab.

Enter General interface. See Figure 4-14.

Step 2 Set parameters.

- Device ID: Please input a corresponding device name here.
- Device No: Here you can set device number.
- Language: System supports various languages: Chinese (simplified), Chinese (Traditional), English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)
- Video standard: There are two formats: NTSC and PAL.
- Instant playback: It is to set playback time you can view in the preview interface. The value ranges from 5 to 60 minutes.
- Auto logout: Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
- Monitor channels when logout: Here you can set channels you want to view when your account has logged out. Click the button and then cancel the channel name box,

you need to login to view the corresponding video. The channel window displays

- IPC Time Sync: You can input an interval here to synchronize the DVR time and IPC time.
- Navigation bar: Check the box here, system displays the navigation bar on the interface.
- Mouse sensitivity: You can set double click speed via dragging the slide bard. You can Click Default button to restore default setup.

		GENERAL	
General	Date&Time	Holiday	
Device Name		1	
Device No.	8		
Language	ENGLISH		
Video Standard	(NTSC )		
Instant Play	(5 )mir	1	
Auto Logout	(10 )mir	Monitor Channel(s) when logout	)
IPC Time Sync	(24 )h		
Navigation Bar			
Mouse Sensitivity	Slow F	ast	
Default			Apply

Figure 4-14

Step 3 Click Apply or Save to complete setup.

4.1.4.1.2 Date and Time

- Step 1 Click Date and Time tab.
  - Enter date and time interface. See Figure 4-15.
- Step 2 Set parameters.
- Date format: There are three types: YYYY-MM-DD: MM-DD-YYYYY or DD-MM-YYYY.
- Date separator: There are three denotations to separate date: dot, beeline and solidus.
- DST: Here you can set DST time and date. Here you can set start time and end time by setting corresponding week setup or by setting corresponding date setup.
- NTP: It is to set NTP server information. Check the NTP box to enable this function.
- ♦ Host IP: Input the server IP that installed the NTP server.
- ♦ Manual update: Click it, you can sync DVR time with the NTP server manually.

- ♦ Port: System supports TCP transmission only. The port value is 123.
- ♦ Interval: It is to set the sync time interval between the DVR and the NTP server. The value ranges from 0 to 65535 minutes.

GENERAL
General Date&Time Holiday
Date Format YYYY M   Time Format 24-HOUR  Date Separator -  System Time 2016 - 11 - 08 16 : 24 : 36 GMT+08:00  Save
DST DST Type ○ Week ● Date Start Time ③ 2000 -01 -01 00 :00 End Time ③ 2000 -01 -01 00 :00
NTP         Host IP       (time.windows.com         Port       123         Interval       60
Default Apply Back Next Cancel

Figure 4-15

Step 3 Click Apply or Save to complete setup.

- 4.1.4.1.3 Holiday
- Step 1 Click Holiday tab. Enter holiday interface. See Figure 4-16.

		GENERAL	
Gene	ral Date&Tim	Holiday	
	Status	Name	
0			(Add a Holiday)
			(Add a Honday)
		Back G	Next Cancel
		Contract.	AND

Figure 4-16

Step 2 Click Add new holiday button.

Enter Add new holiday interface. See Figure 4-17.

Add New Holidays	
Holiday Name Repeat Mode O Once Orly • All-Year Holiday Range • Date O Week Start Time 2013 • 10 • 18 End Time 2013 • 10 • 18	
Add More	Add Cancel

Figure 4-17

Step 3 Input new holiday information. It is to set holiday name, repeat mode and start/end time.

# 0 Note

Click Add more to add more holidays if necessary.

Step 4 Click Add button.

Device goes back to Figure 4-16 to display the new holiday.

Note

- The new holiday state is on by default. Select from the dropdown list to disable.
- Drag the slide bar, click 🖊 to edit holiday, click 🔀 to delete holiday.

# Note

After successfully set holiday here, you can view holiday item in Schedule interface. It is for you to set holiday schedule record/snapshot settings.

### 4.1.4.2 Network

Before the operation, make sure the device has properly connected the network cable. Besides startup wizard and configuration wizard, from main

menu->Setting->Network->TCP/IP, you can also go to the network interface.

- Step 1 From main menu->Setting->Network->TCP/IP. Enter TCP/IP interface. See Figure 4-18.
- Step 2 Set parameters.

• Network Mode: Includes multiple access, fault tolerance, and load balancing. Please

note the network mode is not for product of single-Ethernet card.

- Multiple-address mode: eth0 and eth1 operate separately. You can use the services such as HTTP, RTP service via eth00 or the eth1. Usually you need to set one default card (default setup is etho) to request the auto network service form the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.
- Network fault-tolerance: In this mode, device uses bond0 to communicate with the external devices. You can focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card).System can enable alternate card when the master card is malfunction. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
- Load balance: In this mode, device uses bond0 to communicate with the external device. The eth0 and eth1 are both working now and bearing the network load. Their network load are general the same. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
- Default Network Card: Please select eth0/eth1/bond0(optional) after enable multiple-access function
- Main Network Card: Please select eth0/eth1 (optional).after enable multiple

#### access function.

# Note: Some series support the above three configurations and supports functions as multiple-access, fault-tolerance and load balancing.

- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and you can access via them.
- MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. It is read-only.
- IP address: Here you can use up/down button (▲▼) or input the corresponding number to input IP address. Then you can set the corresponding subnet mask the default gateway.
- Default gateway: Here you can input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- DHCP: It is to auto search IP. When enable DHCP function, you cannot modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, you cannot modify IP/Subnet mask /Gateway.
- MTU: It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. Before the modification, you can check the MTU of the gateway; the MTU of the DVR shall be the same as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only.

- ♦ 1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.
- ♦ 1492: Recommend value for PPPoE.
- ♦ 1468: Recommend value for DHCP.
- ♦ 1450: Recommend value for VPN.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.

Net Mode (Multi-address Ethernet Card (Ethernet1 MAC Address (20:16:02:22:1 Mode STATIC ( IP Address (10 , 15	IP Version     IPv4
MAC Address (20:16:02:22:1 Mode STATIC	14:58
IP Address         I0         15           Subnet Mask         255         255           Default Gateway         10         15           Preferred DNS         8         8           Alternate DNS         8         8	. 6 . 144 Test
MTU (1500	$\supset$

Figure 4-18

Step 3 Click Apply or Save to complete setup.

### 4.1.4.3 P2P

You can add a device via the client on the cellphone or the platform.

- You can use your cell phone to scan the QR code and add it to the cell phone client.
- Go to the P2P management platform, via the SN from scanning the QR code, you can access the device in the WAN. Please refer to the P2P operation manual.

Besides startup wizard and configuration wizard, from main menu->Setting->Network->P2P, you can also go to the P2P interface. See Figure 4-19. Check the box to enable P2P function, and status is online. Cell phone or the platform can add and access the device.



Figure 4-19

Here we use cell phone APP to continue.

1.

- Step 1 Use cell phone to scan the QR code and download the APP.
- Step 2 After installation, run the APP and Live Preview, enter the main interface. Now you can add device to the APP.



Open App; tap **Interview** to go to the Live preview.

- 2. Tap <sup>==</sup> at the top left corner, you can see the main menu.
- 3. Tap Device manager button, you can use several modes (P2P/DDNS/IP and

etc.) to add the device. Click to save current setup. Tap Start Live preview to view all-channel video from the connected device. See Figure 4-19.

P2P
M
admin
•••••
Extra >
Extra >
Check VTO
review

Figure 4-20

### 4.1.4.4 Registration

# D Note

You can only see the registration interface if you have set IP channel (Chapter 4.9.1.3.5 Channel type). The DVR supports ONVIF standard protocol.

It is to add/delete the camera to the corresponding channel and view the corresponding information.

Besides startup wizard and configuration wizard, from the main menu->Setting->Camera-> Registration or on the preview window and then right click mouse and then select Camera Registration, you can go to the Registration interface. See Figure 4-21.

Click IP search, and then select device in the searched results, click Add button.

- Uninitialized: Click Uninitialized, device display uninitialized remote device. Select a device from the list and then click Initialize, you can set remote device initial user name and password. Refer to chapter 4.1.4.4.1 Initialize camera for detailed information.
- Show filter: Select from the dropdown list to display the corresponding devices.
  - ♦ None: There is a filter. Device displays all remote devices.
  - ♦ IPC: Device displays network camera.
  - ♦ DVR: Device display storage device such as DVR, NVR and etc.
- IP search: Click it to search IP address. It includes device IP address, port, device name, manufacturer, type. Use your mouse to click the item name, you can refresh display order. Click IP address, system displays IP address from small to large. Click IP address again, you can see icon, system displays IP address from large to small. You can click other items to view information conveniently. For the network device

already added to the device, you can see there is a small icon "\*" after the SN in case there is repeatedly add operation.

- Add: Click it to connect to the selected device and add it to the Added device list. Support Batch add.
- Edit: Click button is or double click a device in the list, you can change channel setup.
- Delete: Please select one device in the Added device list and then click to remove.
- Export: Export the added device list to the USB device. Refer to chapter 4.1.4.4.6 Export for detailed information.
- Import: Click to add several devices at the same time. Refer to chapter 4.1.4.4.7 Import for detailed information.



Figure 4-21

4.1.4.4.1 Initialize Camera

The initialize function in registration interface is to change connected camera login password and IP address.

### Steps:

- Step 1 From main menu->Setting->Camera->Registration.Enter Registration interface. See Figure 2-34.Step 2 Click IP search and check the Uninitialized box.
  - Device displays uninitialized camera.

		SETTIN	G		
CAMERA		To EVENT	STORAGE	: 😽 SYSTEM	
REGISTRATION IMAGE ENCODE CAM NAME CHANNEL TYPE UPGRADE	Registration	Status Preview Status S EN S EN Add (Manus	Firmware P Address 172.8.1.18 172.8.1.55	Manufacturer Private Private Private	
	<u> </u>				

Figure 4-22

Step 3 Select a camera to be initialized and then click Initialize button. Device displays password setup interface. See Figure 4-23 and Figure 4-24.



Figure 4-23

Enter Password	
Using current device password and email info.	
Usemame admin	
Password	
It is 8 to 32-digit containing letter(s), number(s),symbol(s). It c ontains at least two types.	
Confirm Password	
Nex	đ



#### Step 4 Set camera password.

• Using current device password and email: Check the box to use DVR current admin account and email information. There is no need to set password and email. Please go to step 7.

• User name/password: The user name is **admin**. The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "", "", ":", ":", "&") . The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 5 Click Next button.

Enter input email interface. See Figure 4-25.

	Security Questions	
🗹 Email 🤇	)	(To reset password)
Back		Next Skip

Figure 4-25

Step 6 Set email information. Email: Input an email address for reset password purpose.

# Note

Cancel the box and then click Next or Skip if you do not want to input email information here.

Step 7 Click Next button. Enter Modify IP address interface. See Figure 4-26.

	Modity IP
Checked Device No.: 1 O DHCP STATIC IP Address (192 , 168 , 1	. 108 Incremental Value (1)
Subnet Mask 255 , 255 , 255 Default Gateway 192 , 168 , 1	
	2.168.1.108
Back	Next Skip

Figure 4-26

Step 8 Set camera IP address.

- Check DHCP, there is no need to input IP address, subnet mask, and default gateway. Device automatically allocates the IP address to the camera.
- Check Static, and then input IP address, subnet mask, default gateway and incremental value.

# D Note

- If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.
- If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value
- Step 9 Click Next button. Device begins initializing camera. See Figure 4-27.

1	IP Address  192.168.1.108	Serial No. 000000000000000000000000000000000000	Results Initialize:Succeed



Step 10 Click Finish to complete the initialization.

- 4.1.4.4.2 Auto Add
- Step 1 Click IP Search, device displays searched results.
- Step 2 Double click an IP address or select an IP address and then click Add button, it is to register the device to the DVR. Device supports batch add.

#### 4.1.4.4.3 Manual Add

- Step 1 Click Manual add to register the camera manually. There are three modes: TCP/UDP/Auto. The default setup is TCP. See Figure 4-28.
- Step 2 Input the corresponding value and then click OK button.

# D Note

- This series product supports the IPC from many popular manufactures such as Sony, Hitachi, Axis, Samsung, Dynacolor, Arecont, Onvif and Dahua.
- System default IP address is 192.168.0.0 if you do not input IP address.
   System will not add current IP address.
- You cannot add two or more devices in the Manual Add interface (Figure 4-28.). Click OK button, system connects to the corresponding front-end device of current channel on the interface.
- 🧧 means connection successful. 🔎 means connection failed.

Manual Add				
Channel Manufacturer IP Address TCP Port User Name Password Remote Channel	15 Private 192.168.0.0 37777 admin •••••			
Decoder Buffer	Default			
	OK Cancel			

Figure 4-28

- 4.1.4.4.4 Modify or Delete Device
- Click or double click a device in the added list. Device pops up the following dialogue box. See Figure 4-29.

	Edit	
Channel Manufacturer IP Address TCP Port User Name Password Remote Channel		)
Decoder Buffer	OK	Cancel

Figure 4-29

 $\diamond$  Select a channel from the dropdown list and change the parameters.

 Click Copy, device pops up the following dialogue box. It is to copy the user name and password to the selected channel(s). See Figure 4-30.



Figure 4-30

- Click K to disocnnected the camera and remove it from the added list.
- Select one or several device(s) in the added list, click Delete button to delete. Check the box before the channel number to select all channels at the same time.

#### 4.1.4.4.5 Change IP

It is to change camera IP address. Support change one by one or batch add.

• Change One by One

Click you can change the information such as IP address, subnet mask, and default gateway, user name, password of the checked device. See Figure 4-31. Click Add button and then click OK, you can add current device to the list,

Modify IP				
IP Address 10 . 15 . 5 . 187				
Subnet Mask 255 . 255 . 0 . 0				
Default Gateway 10 . 15 . 0 . 1				
User Name (admin				
Password				
Add				
OK Cancel				

Figure 4-31

Batch Add

Check several devices at the same time and then click the edit button e. See Figure 4-32. Please check Batch modify button and then input start IP, end IP and default gateway.

Modify IP	
<ul> <li>✓ Batch Modify</li> <li>Start Address</li> <li>10 . 15 . 5 . 190</li> <li>Subnet Mask</li> <li>255 . 255 . 0 . 0</li> <li>Default Gateway</li> <li>10 . 15 . 0 . 1</li> <li>User Name</li> <li>admin</li> <li>Password</li> <li>✓ Add</li> </ul>	
OK Cancel	

Figure 4-32

Click Add button and then click OK, it is to add devices to the list,

```
4.1.4.4.6 IP Export
```

System can export the Added device list to your local USB device.

Step 1 Insert the USB device and then click the Export button. Enter the following interface. See Figure 4-33.

Device Name	Contraction of the second	Retrest			
Total Space	(14.43 G8	Free Space	(11.72 GB		
Address	C				
Name English				Size Type Folder	Delete •
New Folder)	(Format)				

Figure 4-33

Step 2 Select the directory and then click the OK button.

System pops up a dialogue box to remind you successfully exported.

Step 3 Please click OK button to exit.



The exported file extension name is .CSV. The file information includes IP address, port, remote channel number, manufacturer, user name and password.

4.1.4.4.7 IP Import

Import IP address to add the camera.

Step 1 Click Import button.

Enter Browse interface. See Figure 4-34.

Address	(/Erglsh/			
Name			Туре	Delate -
men7.b		2.60 MB	File	*
re333.br	np		File	*
ne.bmp			File	×
free.bm			File	×
fre2.bmp			File	×
fr7.bmp			File	×
18.bmp		2.60 MB	File	×
col.bmp		2.60 MB	File	×
ex2.bm			File	
	Contig_20150202143711.csv		File	
Tim2.bm		2.50 MB	File	*
re222.br		2.50 MB	File	*
re3.bmp		Constraint of the second	File	×
fima1.bn			File	*
en1.bm	1 · · · · · · · · · · · · · · · · · · ·	2.50 MB	File	

Figure 4-34

Step 2 Select the import file and then click the OK button.

System pops up a dialogue box to remind you successfully exported.

# D Note

If the imported IP has conflicted with current added device, system pops up a dialogue box to remind you. You have two options:

- OK: Click OK button, system uses the imported setup to overlay current one.
- Cancel: Click Cancel button, system adds the new IP setup.
- Step 3 Please click OK button to exit.



WARNING

- You can edit the exported .CSV file. Do not change the file format; otherwise it may result in import failure.
- Does not support customized protocol import and export.
- The import and export device shall have the same language format.
- 4.1.4.5 Encode

It is to set video bit streams, image bit streams, and video overlay parameters.

Besides startup wizard and configuration wizard, from main

menu->Setting->Camera->Encode, you can also go to the following interface.

- 4.1.4.5.1 Encode
- Step 1 Click Encode tab.

Enter Encode interface. See Figure 4-35.

- Step 2 Set parameters.
- Channel: Select the channel you want.

- Smart codec: Check the box to enable smart codec function. It can lower bit streams, enhance compression rate, and reduce HDD storage space. Please note this function is for main stream only.
- Type: Please select from the dropdown list. There are three options: regular/motion detect/alarm. You can set the various encode parameters for different record types.
- Compression: System supports H.264H, H.264, H.264B, and MJPEG.
  - H.264H: It is the High Profile compression algorithm. It has the high encode compression rate. It can achieve high quality encode at low bit stream. Usually we recommend this type.
  - ♦ H.264 is the general compression algorithm.
  - H.264B is the Baseline algorithm. Its compression rate is low. For the same video quality, it has high bit stream requirements.
  - MJPEG: In this encode mode, the video needs general large bit stream to guarantee the video definition. You can use the max bit stream value in the recommend bit to get the better video output effect.
- Resolution: It is to set video resolution. The higher the resolution is, the better the video quality is.
- Frame rate: It ranges from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
- Bit rate type: System supports two types: CBR and VBR. In VBR mode, you can set video quality.
- Quality: There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Video/audio: You can enable or disable the video/audio.
- Audio format: Please select from the dropdown list. There are three options: G711a/G711u/PCM.
- Audio source: Please select from the dropdown list. There are two options: local/HDCVI. For local mode, the audio signal is from the Audio In port. For HDCVI mode, the audio signal is from the coaxial cable of the camera.

Step 3 Click Save button.

	6	SETTING		
CAMERA		W EVENT	STORAGE	SYSTEM
REGISTRATION	Encode	Snapshot	Overlay	
ENCODE	Channel	0	SVC	
CAM NAME CHANNEL TYPE UPGRADE	Type Compression Resolution Frame Rate(FPS) Bit Rate Type I Frame Interval Bit Rate(Kb/S) Reference Bit Rate Audio/Video Audio Format Audio Sampling	Regular • H.264H • 1920*108 • 26 • CBR • (1S •) 4096 • 1024-8192Kb/S (G711a • 8K •	Sub Stream1 • (H.264H •) (352*288(CIF) •) 6 • (CBR •) (1 S •)	LOCAL
	Default Cop	PY	Save (	Cancel Apply

Figure 4-35

#### 4.1.4.5.2 Snapshot

It is set snapshot mode for each channel, and picture size, quality and frequency. Step 1 Click Snapshot tab, enter the following interface. See Figure 4-36. Step 2 Set parameters.

- Manual snap: The manual snapshot amount. The value ranges from 1 to 5.
- Snapshot mode: There are two modes: timing and trigger. If you set timing mode, you need to set snapshot frequency. If you set trigger snapshot, you need to set snapshot activation operation.
- Image size: Here you can set snapshot picture size.
- Image quality: Here you can set snapshot quality. The value ranges from 1 to 6.
- Interval: It is for you to set timing (schedule) snapshot interval.

_		SETTING		
CAMERA				SYSTEM
REGISTRATION	Encode	Snapshot	Overlay	
ENCODE	Manual Snap	(1) /Tim	e	
CAM NAME CHANNEL TYPE UPGRADE	Channel Mode Image Size Image Quality Interval	(1 ) Timing ) (352*288(CIF) ) (4 ) (1 SPL ) Copy	Save	) Cancel Apply

Figure 4-36

Step 3 Click Apply or Save to complete setup.

#### 4.1.4.5.3 Overlay

It is to set preview or monitor cover-area, and time/channel title position.

Step 1 Click Overlay tab, interface is shown as in Figure 4-37.

- Step 2 Set parameters.
- Cover area: Here is for you to set cover area. You can drag you mouse to set proper section size. In one channel video, system max supports 4 zones in one channel.
- Preview/monitor: privacy mask has two types. Preview and Monitor. Preview means the privacy mask zone cannot be viewed by user when system is in preview status. Monitor means the privacy mask zone cannot be view by the user when system is in monitor status.
- Time display: You can select system displays time or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Channel display: You can select system displays channel number or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Copy:After you complete the setup, you can click Copy button to copy current setup to other channel(s). You can see an interface is shown as in Figure 4-38. You can see current channel number is grey. Please check the number to select the channel or you

can check the box ALL. Please click the OK button in Figure 4-38 and Figure 4-37 respectively to complete the setup.

SETTING					
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM	
REGISTRATION IMAGE	Encode	Snapshot	Overlay		
ENCODE CAM NAME	Channel Cover-Area	(1 ) Preview D Re	view 🖸 Record 🤇 Set		
CHANNEL TYPE UPGRADE	Time Display Channel Display	2 R			
	Default C	ору.	Save	Cancel Apply	
		_			

Figure 4-37



Figure 4-38

Step 3 Click Apply or Save to complete setup.

#### 4.1.4.6 Basic

It is to manage HDD storage space.

Besides startup wizard and configuration wizard, from main

menu->Setting->Storage->Basic, you can also go to the following interface.

- Step 1 From main menu->Setting->Storage->Basic.
  - Enter Basic interface, See Figure 4-39.
- Step 2 Set parameters.

- HDD full: It is to select working mode when hard disk is full. There are two options: stop recording or overwrite.
- Stop: If current HDD is full while there is no idle HDD, then system stops recording,
- Overwrite: If the current HDD is full while there is no idle HDD, then system overwrites the previous files.

# III Note

DVR does not overwrite the locked files.

- Pack duration: Here is for you to specify record duration. There are two ways for you to set.
- Time length: It is to pack according to time. The value ranges from 1 to 60 minutes.
   Default value is 60 minutes.
- ◇ File length: It is to pack according to file length. The default setup is 1024M. The value ranges from 128M to 2048M.
- Auto delete old files:
- Never: Do not auto delete old files.
- Customized: input customized period here, system can auto delete corresponding old files.

ł.	SETTING		4
CAMERA	T NETWORK	STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGER FTP RECORD ADVANCE QUOTA HDD DETECT	HDD Full Overwrite • Pack Mode Time Length • 60 Auto-Delete Old Files Never •	Min. Save	Cancel Apply

Figure 4-39

### 4.1.4.7 Schedule

Besides startup wizard and configuration wizard, from main menu->Setting->Storage->Schedule, you can also go to the following interface.

D Note

- You need to have proper rights to implement the following operations. Please make sure the HDDs have been properly installed.
- After the system booted up, it is in default 24-hour regular mode. You can set record type and time in schedule interface.
- Please note you need to go to main menu->Setting->System->General->Holiday to set holiday date first, otherwise, there is no holiday setup item.
  - 4.1.4.7.1 Record

Step 1 Click Next button, enter Schedule interface. See Figure 4-43.

- Step 2 Set parameters.
- Channel: Please select the channel number first. You can select "all" if you want to set for the whole channels.
- ♦ Sync connection icon. Select icon of several dates, all checked items

can be edited together. Now the icon is shown as

- Click it to delete a record type from one period.
- Record Type: Please check the box to select corresponding record type. There are five types: Regular/MD (motion detect)/Alarm/MD&Alarm/intelligent.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu->Setting->System->General) to add holiday first. Otherwise you cannot see this item.
- Pre-record: System can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.
- Redundancy: System supports redundancy backup function. You can highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. (Main menu->Setting->Storage->HDD Manager). Please note this function is null if there is only one HDD.
- Period setup: Click button after one date or a holiday, you can see an interface shown as in Figure 4-44. There are five record types: regular, motion detection (MD), Alarm, MD & alarm and intelligent.

Please following the steps listed below to draw the period manually.

♦ Select a channel you want to set. See Figure 4-40.



#### Figure 4-41

 Please draw manually to set record period. There are six periods in one day. See Figure 4-42.



Figure 4-42



Figure 4-43

	24:00	flegule	C MO	C Alarm	C MOAA
Ferred 2 (00:100	- 24 40	Cittegater	OWE	C Alem	DMD64m
Pened 3 (05:00)	- 24 - 80	Reputer	Стир	Alam	E MD&AM
Penad 4 (02:100)	- 24: 80	Regula	DMD:	Alam	C MESAN
Parent 5 (02:10)	- 24 - 60	Citiegater	OMP	C Alem	DMD&AN
Pend 6 (01100	- 24: 00	- Regular	C MO	C Alarm	MDAAN
	Sun 🗆 Men 🖾 T				

Figure 4-44

Step 3 Click Apply to exit.

# I Note

After setting in the Schedule interface, please refer to the following contents to enable schedule record function.

- From main menu->Setting->Event, select corresponding event and then enable record function. Refer to chapter 4.9.3 Alarm events for detailed information.
- From main menu->Setting->Storage->Record, set record mode as auto. Refer to chapter 4.9.4.5 Record for detailed information.
  - 4.1.4.7.2 Snapshot

Device snapshots images as you set here.

Refer to chapter 4.1.4.7.1 Record for detailed information.

# D Note

After setting in the Schedule interface, please refer to the following contents to enable schedule snapshot function.

- From main menu->Setting->Event, select corresponding event and then enable record function. Refer to chapter 4.9.3 Alarm events for detailed information.
- From main menu->Setting->Storage->Record, set record mode as auto. Refer to chapter 4.9.4.5 Record for detailed information.

#### **Quick Setup**

Copy function allows you to copy one channel setup to another. After setting in channel 1, click Copy button, you can go to interface Figure 4-45. You can see current channel name is grey such as channel 1. Now you can select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.



Figure 4-45

#### Redundancy

Redundancy function allows you to memorize record file in several disks. When there is file damage occurred in one disk, there is a spare one in the other disk. You can use this function to maintain data reliability and safety.

- In the main menu, from Setting->Storage-> Schedule, you can highlight redundancy button to enable this function.
- In the main menu, from Main menu->Setting->Storage->HDD Manager, you can set one or more disk(s) as redundant. You can select from the dropdown list. System auto overwrites old files once hard disk is full.

Please note only read/write disk or read-only disk can backup file and support file search function, so you need to set at least one read-write disk otherwise you cannot record video.

# D Note

#### About redundancy setup:

- If current channel is not recording, current setup gets activated when the channel begin recording the next time.
- If current channel is recording now, current setup will get activated right away, the current file will be packet and form a file, then system begins recording as you have just set.

After you completed all the setups, please click Save button.

### Playback or search in the redundant disk.

There are two ways for you to playback or search in the redundant disk.

- Set redundant disk(s) as read-only disk or read-write disk (Main menu->Setting->Storage->HDD Manager)). System needs to reboot to get setup activated. Now you can search or playback file in redundant disk.
- Dismantle the disk and play it in another PC.

## 4.2 Preview

### 4.2.1 Preview Window

After you logged in, the system is in live viewing mode. See Figure 4-46. It is to display

system date, time, channel name and window number. If you want to change system date and time, please refer to general settings (Main

Menu->Setting->System->General). If you want to modify the channel name, please refer to the display settings (Main Menu->Camera->CAM name)



Figure 4-46

SN	lcon	Function
1		When current channel is recording, system displays this icon.
2	*	When motion detection alarm occurs, system displays this icon.
3	?	When video loss alarm occurs, system displays this icon.
4	8	When current channel is in monitor lock status, system displays this icon.

### <sup>©</sup><sup>\_\_\_</sup>Tips

Preview drag: If you want to change position of channel 1 and channel 2 when you are previewing, you can left click mouse in the channel 1 and then drag to channel 2, release mouse you can switch channel 1 and channel 2 positions.

### 4.2.2 Preview Control

The preview control function has the following features.

• Support preview playback.

- In the preview desktop, system can playback previous 5-60 minutes record of current channel. Please go to the Main Menu->General to set real-time playback time.
- Support drag and play function. You can use your mouse to select any playback start time.
- ♦ Support playback, pause and exit function.
- Right now, system does not support slow playback and backward playback function.
- Support digital zoom function.
- Support real-time backup function.

You can follow the contents listed below for the operation instruction.

#### Preview control interface

Move you mouse to the top center of the video of current channel, you can see system pops up the preview control interface. See Figure 4-47 and Figure 4-48.



If your mouse stays in this area for more than 6 seconds and has no operation, the control bar automatically hides.

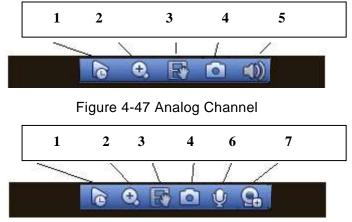


Figure 4-48 Digital Channel

1) Instant playback

It is to playback the previous 5-60 minutes record of current channel.

Please go to the Main menu->Setting->->System->General to set instant playback time. See Figure 4-49.

System may pop up a dialogue box if there is no such record in current channel.

t.		SETTING		
ST CAMERA	😿 NETWORK	EVENT		SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	General Device Name Device No. Language Video Standard Instant Play Auto Logout Navigation Ba Mouse Sensitivity		- n	<u>) when logout</u> )
	Default		Save	Cancel Apply
P				

Figure 4-49

#### 2) Digital zoom

It is to zoom in specified zone of current channel. It supports zoom in function of multiple-channel.

Click button  $\textcircled{\begin{times}l}$ , the button is shown as

There are two ways for you to zoom in.

Drag the mouse to select a zone, you can view an interface show as Figure 4-50.



Figure 4-50

• Put the middle button at the center of the zone you want to zoom in, and move the mouse, you can view an interface shown as in Figure 4-51.

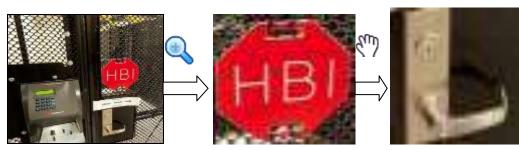


Figure 4-51

Right click mouse to cancel zoom and go back to the original interface.

3) Manual record function

It is to backup the video of current channel to the USB device. System cannot backup the video of multiple-channel at the same time.

system begins recording. Click it again, system stops recoridng. You Click button can find the record file on the flash disk.

4) Manual Snapshot

Click Click

You can go to the Search interface (chapter 4.7.1) to view.

5) Mute (For analog channel only)

Click to mute. Click again to enable audio function when preview.

Please note this function is for one-window mode only.

6) Bidirectional talk (For channel connected via private protocol only)

If the connected front-end device supports bidirectional talk function, you can click this

button. Click button 💟 to start bidirectional talk function the icon now is shown as

. Now the rest bidirectional talk buttons of digital channel becomes null too.

Click

again, you can cancel bidirectional talk and the bidirectional talk buttons of

other digital channels become as  $\Psi$ 

7) Remote device (For digital channel only)

Shortcut menu. Click it to go to the remote device interface to add/delete remote device or view its corresponding information. Please refer to chapter 4.9.1.1 for detailed information.

# 4.3 Right-Click Menu

On the preview interface, right click mouse, you can view menu interface shown as in Figure 4-52.

W Note

After you go to the corresponding interface, right click mouse to go back to the

upper-level.

- The following figure for reference only. Slight difference may be found on the user interface.
- Window split mode: You can select window amount and then select channels.
- Previous screen/next screen: Click it to go to the previous screen/next screen.
- PTZ: Click it to go to PTZ interface.
- Auto focus: Please make sure you connected network camera supports this function.
- Color setting: Set video corresponding information.
- Display: Set video output rate.
- Face search: It is to display human face list and view human face record.
- Search: Click it to go to Search interface to search and playback a record file.
- Record control: Enable/disable record channel.
- Alarm output: Enable/disable alarm output function.
- Remote device: Click it to add remote device.
- Video matrix: Set video matrix tour channel and interval.
- Main menu: Go to system main menu interface.



## 4.3.1 Window Switch

System supports 1/4/8/9-window (The options here depend on your product channel amount). You can select from the dropdown list. See Figure 4-53.





#### 4.3.2 Previous Screen/Next Screen

Click it to go to the previous screen/next screen. For example, if you are using 4-split mode, the first screen is displaying the channel 1-4, click Next screen, you can view channel 5-8.

#### 4.3.3 PTZ Control

The PTZ setup is shown as in See Figure 4-54.

Please note the commend name is grey once device does not support this function. The PTZ operation is only valid in one-window mode.

Here you can control PTZ direction, speed, zoom, focus, iris, preset, tour, scan, pattern aux function, light and wiper, rotation and etc.

Speed is to control PTZ movement speed. The value ranges from 1 to 8. The speed 8 is faster than speed 1. You can use the remote control to click the small keyboard to set.

You can click of the zoom, focus and iris to zoom in/out, definition and brightness.

The PTZ rotation supports 8 directions. If you are using direction buttons on the front panel, there are only four directions: up/down/left/right.



Figure 4-54

In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 4-55. Please make sure your protocol supports this function and you need to use mouse to control.

Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. The dragged zone supports 4X to 16X speeds. It can realize PTZ automatically. The smaller zone you dragged, the higher the speed.



Figure 4-55

Name	Function	function	Shortcut	Function	function	Shortcut
	key		key	key		key
Zoom	•	Near	ŀ	•	Far	••
Focus	0	Near	◀	•	Far	►
Iris	•	close	◀	•	Open	► II

In Figure 4-54, click to open the menu, you can set preset, tour, pattern, scan and etc. See Figure 4-56.



Figure 4-56

Please refer to the following sheet for detailed information.

Please note the above interface may vary due to different protocols. The button is grey and cannot be selected once the current function is null.

Right click mouse or click the ESC button at the front panel to go back to the Figure 4-54.

lcon	Function	lcon	Function
•	Preset	$\bigcirc$	Flip
	Tour	Ð	Reset
	Pattern		Aux
	Scan	0	Aux on-off button
Ð	Rotate	0	Go to menu

4.3.3.1 PTZ Function Setup

Click you can go to the following interface to set preset, tour, pattern, and scan. See Figure 4-57.



Figure 4-57

#### **Preset Setup**

In Figure 4-57, click preset button and use eight direction arrows to adjust camera to the proper position. The interface is shown as in Figure 4-58.

Click Set button and then input preset number.

Click Set button to save current preset.



Figure 4-58

#### Tour Setup

In Figure 4-57, click tour button.

Input tour value and preset No. Click Add preset button to add current preset to the tour. See Figure 4-59.

#### Tips

Repeat the above steps to add more presets to the tour. Click Del preset button to remove it from the tour. Please note some protocols do not support delete preset function.





#### Pattern Setup

In Figure 4-57, click Pattern button and input pattern number.

Click Begin button to start direction operation. Or you can go back to Figure 4-54 to operate zoom/focus/iris/direction operation.

In Figure 4-57, click End button.



Figure 4-60

#### Scan Setup

In Figure 4-57, click Scan button.

Use direction buttons to set camera left limit and then click Left button.

Use direction buttons to set camera right limit and then click Right button. Now the scan setup process is complete.



Figure 4-61

# 4.3.3.2 Call PTZ Function Call Preset

In Figure 4-56, input preset value and then click to call a preset. Click again to stop call.

#### **Call Pattern**

In Figure 4-56, input pattern value and then click to call a pattern. Click again to stop call.

#### Call Tour

In Figure 4-56, input tour value and then click to stop call.

#### Call Scan

In Figure 4-56, input Scan value and then click to call a tour. Click again to stop call.

#### Rotate

In Figure 4-56, click is to enable the camera to rotate.

System supports preset, tour, pattern, scan, rotate, light and etc function.



- Preset, tour and pattern all need the value to be the control parameters. You can define it as you require.
- You need to refer to your camera user's manual for Aux definition. In some cases, it can be used for special process.

#### Aux

Click , system goes to the following interface. The options here are defined by the protocol. The aux number is corresponding to the aux on-off button of the decoder. See Figure 4-62.

AUX

On

On

Off

Off

Figure 4-62

## 4.3.4 Auto Focus

Note

• This function is for the motorized-lens network camera.

Direct Aux

NONE

Aux Num

 For HD auto focus camera, you can go to the PTZ control interface to set. Please refer to Chapter 4.3.3 PTZ.

On the preview interface, right click mouse and then select Auto focus, you can go to the following interface. See Figure 4-63.





to call a tour. Click again



It is to set auto focus and zoom function. Click auto focus function, camera can realize auto focus function.



Figure 4-63

## 4.3.5 Color

Here you can set hue, brightness, contrast, saturation, gain, white level, color mode and etc. See Figure 4-64.

	COLOR
Time Period Effective Time Sharpness ▲ Chroma ♥ Brightness ☆ Contrast ① Saturation ≦	Time Period 1         00:00       - 24:00         1         50         50         50         50         50         50         50         50         50         50         50         50         50
Color mode EQ Position   ₾	Standard       ▼         ● <td< td=""></td<>
Customized	Default OK Cancel

Figure 4-64

Please refer to the following sheet for detailed information.

Item	Note
Period	There are two periods in one day. You can set different
	sharpness, brightness, and contrast setup for different
	periods.

period time.           The value here is to adjust the edge of the video. The value ranges from 0 to 100. The larger the value is, the clear the edge is and vice versa. Please note there is noise if the value here is too high. The default value is 50 and the recommended value ranges from 40 to 60.           Brightness         It is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number, the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 0 to 100. The default value is 50.           Contrast         It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.           Contrast         It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.           Contrast         It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.           Contrast         It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.           The larger the number, the higher the contrast is. You can use this function when the whole video bright is 0K but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 0 to 100. The default value is 50.           Saturation         It is to adjust monitor window saturation. The	Item	Note
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White level It is to enhance image effect.	Gain	value may vary due to different device models. The smaller the value, the low the noise. But the brightness is also too low in the dark environments. It can enhance the video brightness if the value is high. But the video
	White level	It is to enhance image effect.

Item	Note			
Color mode	It includes several modes such as standard, color, bright,			
	gentle. Select a color mode, the sharpness, brightness,			
	contrast and etc can automatically switch to			
	corresponding setup.			
EQ	Click Or To adjust image equalization value.			
	Click reset button , system can auto adjust the video			
	to the best effect.			
	O Note			
	This function is for HD analog channel only.			
Image position	It is to adjust the image position on the screen. The			
	value here refers to the pixel. The default pixel value is			
	16.			
	Note			
	This function is for analog channel only.			

## 4.3.6 Display

It is to set display output mode. There are two modes: full screen/image original rate. Icon

means current display output mode. See Figure 4-65.

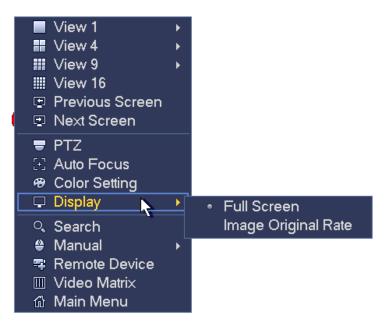


Figure 4-65

## 4.3.7 Face Search

It is to display human face record list, and view human face recognition record file.

## 4.3.8 Search

Please refer to chapter 4.7.1 for detailed information.

#### 4.3.9 Record Control

Please refer to chapter 4.9.4.5 for detailed information.

#### 4.3.10 Alarm Output

Please refer to chapter 4.9.3.10 for detailed information.

#### 4.3.11 Remote Device

Please refer to chapter 4.9.1.1 for detailed information.

#### 4.3.12 Video Matrix

Please refer to chapter 4.9.5.3 for detailed information.

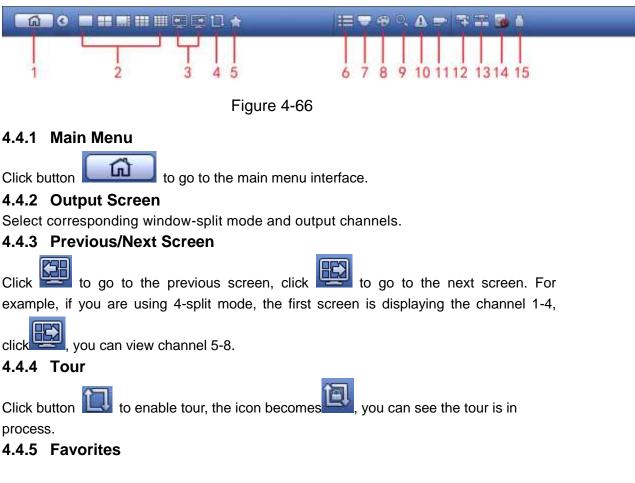
#### 4.3.13 Main menu

Please refer to chapter 4.6 for detailed information.

## 4.4 Navigation Bar

You need to go to the Main menu->Setting->System->General to enable navigation bar function; otherwise you cannot see the following interface.

The navigation bar is shown as below. See Figure 4-66.



Click system pops up add/edit favorites. See Figure 4-67.

Add to Favorites Edit Favorites



## 4.4.6 Channel

It is to pop up channel tree. You can left click to select a channel on the tree and then drag it to the preview window on the left pane.

## 4.4.7 PTZ

Click system goes to the PTZ control interface. Please refer to chapter 4.3.3.

## 4.4.8 Color

Click button (3), system goes to the color interface. Please refer to chapter 4.3.5.

## 4.4.9 Search

Click button system goes to search interface. Please refer to chapter 4.7.1

## 4.4.10 Alarm Status

Click button Click button Click button channel status. Please refer to chapter 4.9.3.

## 4.4.11 Channel Info

Click button , system goes to the channel information setup interface. It is to view information of the corresponding channel. See Figure 4-68.

Channel	Miction.	Video Loss	1 ampering	Record Status	s Record Mode	Resolution	Frame Rate	Bit R
		- 6	0	e (e)	Pre-record	1280/720	25	
2			ŏ	i i i i i i i i i i i i i i i i i i i	Pre-record	12801720	25	
3		R	0	10	Pre-record	1280*720	25	
4	0		<u> (</u>	i i i i i i i i i i i i i i i i i i i	Pre-record	1280+720	25	
5	0		<u> </u>	10 I I I I I I I I I I I I I I I I I I I	Pre-record	1280*720	25	
6	. 6		8	(Ö)	Pre-record	1280 720	25	
7	0		0	0	Pre-record	1280*720	25	
	1			ĕ	Pre-record	12801720	25	
2345678910					Pre-record	1280*720	25	
10	0		<u>(</u> )	<b>(</b>	Pre-record	1280*720	25	
11 12	6		- iš	ĕ	Pre-record	12801720	25	
12	0	X	8		Pre-record	12801720	25	
13 14	0	- A	0		Pre-record	12801720	25	
14 15	2		2	2	Pre-record	12801720	25	
16	0	1			Pre-record	960'480	25	
•								
1110								in a



## 4.4.12 Registration

Click system goes to an interface for you to view remote device information. Please refer to chapter 4.9.1.1.

## 4.4.13 Network

Click system goes to the network interface. It is to set network IP address, default gateway and etc. Please refer to chapter 4.9.2.

## 4.4.14 HDD Manager

Click , system goes to the HDD manager interface. It is to view and manage HDD information. Please refer to chapter 4.9.4.2.

## 4.4.15 USB Manager

Click , system goes to the USB Manager interface. It is to view USB information, backup and update. Please refer to chapter 4.7.3 Backup, chapter 4.8.4 Log, Chapter 4.9.5.12 Import/Export, and chapter 4.9.5.14 Upgrade for detailed information.

# 4.5 USB Device Auto Pop-up

After you inserted the USB device, system can auto detect it and pop up the following dialogue box. It allows you to conveniently backup file, log, configuration or update

system. See Figure 4-69. Please refer to chapter 4.7.3 Backup, chapter 4.8.4 Log, Chapter 4.9.5.12 Import/Export,, and chapter 4.9.5.14 Upgrade for detailed information.

		Find USB d	levice	
÷	Name: Capacity:	sdb1(USB 14.05 GB/*	DISK) 15.00 GB(Free/Total)	
	i <mark>le Backup</mark> nfig Backup		Log Backup System Upgrade	

Figure 4-69

# 4.6 Main Menu

The main menu interface is shown as below. See Figure 4-70.

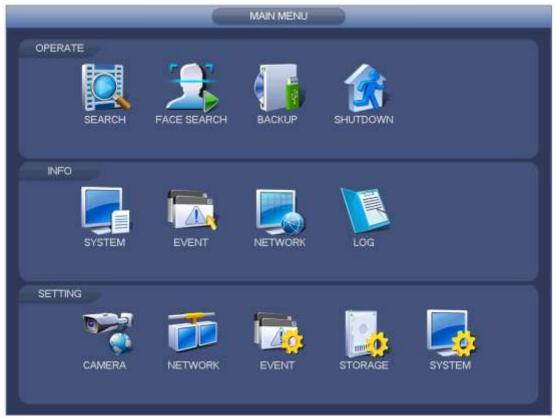


Figure 4-70

# 4.7 Operation

## 4.7.1 Search

Click search button in the main menu, search interface is shown as below. See Figure 4-71.

Usually there are four file types:

- R: Regular recording file.
- A: External alarm recording file.
- M: Motion detection recording file
- Orange: Intelligent recording file.



Figure 4-71

Please refer to the following sheet for more information.

SN	Name	Function	
1	Display	Here is to display the searched picture or file.	
I	window	<ul> <li>Support 1/4/9/16-window playback.</li> </ul>	

2	Search type	<ul> <li>Here you can select to search the picture or the recorded file.</li> <li>You can select to play from the read-write HDD, from peripheral device or from redundancy HDD.</li> <li>Before you select to play from the peripheral device, please connect the corresponding peripheral device. You can view all record files of the root directory of the peripheral device. Click the Browse button; you can select the file you want to play.</li> <li>Check the box here; you can enable splice playback function. Please refer to chapter 4.7.1.4 for detailed information.</li> <li>Important</li> <li>Redundancy HDD does not support picture backup function, but it supports picture playback function. You can select to play from redundancy HDD if there are pictures on the redundancy HDD.</li> </ul>
3	Calendar	<ul> <li>The blue highlighted date means there is picture or file. Otherwise, there is no picture or file.</li> <li>In any play mode, click the date you want to see, you can see the corresponding record file trace in the time bar.</li> </ul>
4	Playback mode and channel selection pane.	<ul> <li>Playback mode:1/4/9/16/customized. (It may vary due to different series.)</li> <li>In 1-window playback mode: you can select 1-16 channels.</li> <li>In 4-window playback mode: you can select 4 channels according to your requirement.</li> <li>In 9-window playback mode, you can switch between 1-8 and 9-16 channels.</li> <li>In 16-window playback mode, you can switch between1-16 and 17-32 channels.</li> <li>In customized mode, you can select one or more channel(s) you want to playback at the same time. See chapter 4.7.1.4.</li> <li>The time bar will change once you modify the playback mode or the channel option.</li> </ul>
5	Card number search	The card number search interface is shown as below. Here you can view card number/field setup bar. You can implement advanced search.
6	Mark file list button	Click it to go to mark file list interface. You can view all mark information of current channel by time. Please refer to chapter 4.7.1.3 for detailed information. Please note only the product of this icon supports mark function.

7	File list switch button	<ul> <li>Double click it, you can view the picture/record file list of current day.</li> <li>The file list is to display the first channel of the record file.</li> <li>The system can display max 128 files in one time. Use the ◀   and   ▶ or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback.</li> <li>You can input the period in the following interface to begin accurate search.</li> <li>File type:R—regular record; A—external alarm record; M—Motion detect record.</li> <li>Lock file. Click the file you want to lock and click the button to lock. The file you locked will not be overwritten.</li> </ul>
		• Search locked file: Click the button to view the locked file.
		<ul> <li>Play/Pause There are three ways for you to begin playback.</li> <li>The play button</li> <li>Double click the valid period of the time bar.</li> <li>Double click the item in the file list. In slow play mode, click it to switch between play/pause.</li> </ul>
		■ Stop
		<ul> <li>Backward play</li> <li>In normal play mode, left click the button, the file begins backward play.</li> <li>Click it again to pause current play.</li> <li>In backward play mode, click ►/II to restore normal play.</li> </ul>
8	Playback control pane.	<ul> <li>In playback mode, click it to play the next or the previous section. You can click continuously when you are watching the files from the same channel.</li> <li>In normal play mode, when you pause current play, you can click ◀ and ↓ to begin frame by frame playback.</li> <li>In frame by frame playback mode, click ►/II to restore normal playback.</li> </ul>
		<ul> <li>Slow play</li> <li>In playback mode, click it to realize various slow play modes such as slow</li> <li>play 1, slow play 2, and etc.</li> </ul>
		<ul> <li>Fast forward</li> <li>In playback mode, click to realize various fast play modes such as fast play 1,fast play 2 and etc.</li> </ul>
		Note: The actual play speed has relationship with the software version.
		Smart search
		The volume of the playback

		Click the snapshot button in the full-screen mode, the system can snapshot 1 picture.
		System supports custom snap picture saved path. Please connect the peripheral device first, click snap button on the full-screen mode, you can select or create path. Click Start button, the snapshot picture can be saved to the specified path.
		Mark button. Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane. You can refer to chapter 4.7.1.3 for detailed information.
9	Time bar	<ul> <li>It is to display the record type and its period in current search criteria.</li> <li>In 4-window playback mode, there are corresponding four time bars. In other playback mode, there is only one time bar.</li> <li>Use the mouse to click one point of the color zone in the time bar, system begins playback.</li> <li>The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file.</li> <li>The green color stands for the regular record file. The red color stands for the external alarm record file. The yellow stands for the motion detect record file.</li> </ul>
10	Time bar unit	<ul> <li>The option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can accurately set the time in the time bar to playback the record.</li> <li>The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file.</li> </ul>
11	Backup	<ul> <li>Select the file(s) you want to backup from the file list. You can check from the list. Then click the backup button, now you can see the backup menu. System supports customized path setup. After select or create new folder, click the Start button to begin the backup operation. The record file(s) will be saved in the specified folder.</li> <li>Check the file again you can cancel current selection. System max supports to display 32 files from one channel.</li> <li>After you clip on record file, click Backup button you can save it.</li> <li>For one device, if there is a backup in process, you cannot start a new backup operation.</li> </ul>

12	Clip	<ul> <li>It is to edit the file.</li> <li>Please play the file you want to edit and then click this button when you want to edit. You can see the corresponding slide bars in the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time.</li> <li>After you set, you can click Clip button again to edit the second period. You can see the slide bar restore its previous position.</li> <li>Click Backup button after clip, you can save current contents in a new file.</li> <li>You can clip for one channel or multiple-channel. The multiple-channel click operation is similar with the one-channel operation.</li> <li>Please note:</li> <li>System max supports 1024 files backup at the same time.</li> <li>You cannot operate clip operation if there is any file has been checked in the file list.</li> </ul>
13	Record type	In any play mode, the time bar will change once you modify the search type.
		Other Functions
14	Smart search	<ul> <li>When system is playing, you can select a zone in the window to begin smart search. Click the motion detect button to begin play.</li> <li>Once the motion detect play has begun, click button again will terminate current motion detect file play.</li> <li>There is no motion detect zone by default.</li> <li>If you select to play other file in the file list, system switches to motion detect play of other file.</li> <li>During the motion detect play process, you cannot implement operations such as change time bar, begin backward playback or frame by frame playback.</li> <li>Please refer to chapter 4.7.1.1 Smart Search for detailed operation.</li> </ul>
15	Other channel synchroni zation switch to play when playback	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.
16	Sync	In pane 13 of Figure 4-71, click Sync button, you can playback the files of different channels occurred at the same time.
17	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. You can right click mouse to exit.

	Manually	
	switch	During the file playback process, you can switch to other channel via the
18	channel	dropdown list or rolling the mouse.
	when	This function is null if there is no record file or system is in smart search process.
	playback	

## 4.7.1.1 Smart Search

During the multiple-channel playback mode, double click one channel and then click the

button, system begins smart search. System supports 396(22\*18 PAL) and 330(22\*15 NTSC) zones. Please left click mouse to select smart search zones. See Figure 4-72.

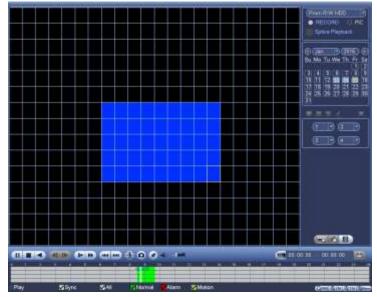


Figure 4-72

Click the , you can go to the smart search playback. Click it again, system stops smart search playback.

# D Note

- System does not support motion detect zone setup during the full-screen mode.
- During the multiple-channel playback, system stops playback of rest channels if you implement one-channel smart search.

## 4.7.1.2 Accurate playback by time

Select records from one day, click the list, you can go to the file list interface. You can input time at the top right corner to search records by time. See image on the left side of

the Figure 4-73 For example, input time 11:00.00 and then click Search button you can view all the record files after 11:00.00 (The records includes current time.). See image on the right side of the Figure 4-73 Double click a file name to playback.

# D Note

- After you searched files, system implement accurate playback once you click Play for the first time.
- System does not support accurate playback for picture.
- System supports synchronization playback and non-synchronous playback. The synchronization playback supports all channels and non-synchronous playback only supports accurately playback of current select channel.

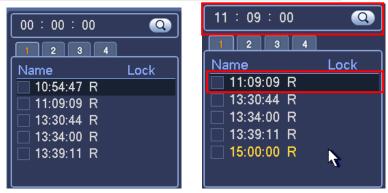


Figure 4-73

## 4.7.1.3 Mark Playback

Please make sure your purchased device support this function. You can use this function only if you can see the mark playback icon on the Search interface (Figure 4-71).

When you are playback record, you can mark the record when there is important information. After playback, you can use time or the mark key words to search corresponding record and then play. It is very easy for you to get the important video information.

Add Mark

When system is playback, click Mark button, you can go to the following interface. See Figure 4-74.

Add Mark
Mark Time (2013-09-27 10:01:08 Mark Name (
Default OK Cancel

Figure 4-74

## Playback Mark

During 1-window playback mode, click mark file list button in Figure 4-71, you can go to mark file list interface. Double click one mark file, you can begin playback from the mark time.

• Play before mark time

Here you can set to begin playback from previous N seconds of the mark time.

# I Note

Usually, system can playbacks previous N seconds record if there is such kind of record file. Otherwise, system playbacks from the previous X seconds when there is such as kind of record.

Mark Manager

Click the mark manager button on the Search interface (Figure 4-71); you can go to Mark Manager interface. See Figure 4-75. System can manage all the record mark information of current channel by default. You can view all mark information of current channel by time.

Channel Start Tim	Marks Manager (1) e (2013 - 09 - 27   00 : 00 : 00	
End Time	e (2013 - 09 - 28   00 : 00 : 00 CH Mark Time 1 2013-09-27 10:00:12	Search Mark Name report
Delete		

Figure 4-75

## Modify

Double click one mark information item, you can see system pops up a dialogue box for you to change mark information. You can only change mark name here.

Delete

Here you can check the mark information item you want to delete and then click Delete button, you can remove one mark item. .



- After you go to the mark management interface, system needs to pause current playback. System resume playback after you exit mark management interface.
- If the mark file you want to playback has been removed, system begins playback from the first file in the list.

## 4.7.1.4 Customized Playback

You can select one or more channel(s) to playback at the same time.

In pane 4, click vou can see the following interface. See Figure 4-76.

From main menu->Search or you can right click mouse on the preview interface and then select Search, you can go to Figure 4-71.

Figure 4-76

Now you can select one or more channel(s) and then click Q to search record(s).

System supports one or more channels. The window split mode can auto adjust according to the channel amount. System max supports 16-split.

Click button to select all channels at the same time.

Click **P**, system begins playback.

#### 4.7.1.5 Splice Playback

For the large record file, you can use splice playback function to play the same file in several sections at the same time. It is very convenient for you to find the video footages you desire.

On the main menu, click Search button, or right click mouse and then select Search. You can go to the Figure 4-71.

On the right pane, check the box to enable splice playback function, and then set channel, date, split mode. The splice playback interface is shown as below. Each section has a small triangle; you can adjust it to set time. See Figure 4-77.

Figure 4-77

# III Note

Select split mode, so that the record can be spliced in several sections.

Select splice file.

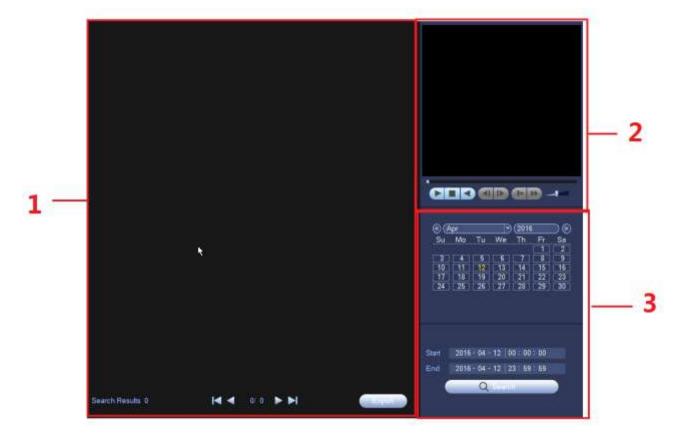
- Click Playback, system playbacks from the first of current date by default.
- Click time bar, system playbacks from the time you click.
- Click 📕, you can select on the file list.

# Note

- The splice playback is for 1-window playback mode.
- System supports 1/4/8/16-split mode. Slight different may be found here.
- The min period of each section is 5 minutes. For the record is less than 20 minutes, if you select 4-split mode (or more than 4-split mode), system can auto adjust so that the each section period is 5 minutes. In this situation, some channel may have no video.

#### 4.7.2 Human Face Search

On the preview window, right click mouse and then select face search, or from the main menu, click Face search, you can go to the following interface. See Figure 4-78.





Please refer to the following sheet for detailed information.

SN	Name	Function
1	Display	• It is to display human face detection file list. The latest file is at the
	pan	top. \
		• Click Export, you can export the selected file to the USB device.
		There are two types: image/record.
		$\diamond$ Image: Export the recognized human face image.
		$\diamond$ Record: Export the record file before and after 10 seconds
		when the DVR recognizes the human face.
2	Playback	Play the searched record file or image. Double click to playback in full
	pane	screen.
3	Search	Set date, start time and end time, click Search button, you can view the
	pane	corresponding file list.

## 4.7.3 Backup

DVR support CD-RW, DVD burner, USB device backup, network download and eSATA. Here we introduce USB, eSATA backup. You can refer to Chapter 7 Web Client Operation for network download backup operation.

Click backup button, you can see an interface is shown as in Figure 4-79. Here is for you to view devices information.

You can view backup device name and its total space and free space. The device includes CD-RW, DVD burner, USB device, flash disk, eSATA backup.

		6	BACKUP			
	n (sdc1(USB DISK bace Needed)		.00 GB(Free/Total)			Browse
Type Start Time	(All • ©(2013 - 10 • ©(2013 - 10 •	18 00 : 00 : 00	Record CH (1	P	Add	Remove
0 0	hannel Type	Start Time	End Time	Siz	e(KB)	
		ħ				
						(Start )

Figure 4-79

Select backup device and then set channel, file start time and end time.

Click add button, system begins search. All matched files are listed below. System automatically calculates the capacity needed and remained. See Figure 4-80.

Type Start Tir				00 00 00	Record CH	a 👘			
End Tir		-	2013 - 10 - 11		Contract Contracts	DAV	🛒 ( ))	Add	Remove
				Start Time	End Tim		Pierce With		Memove
43		1	annel Type R	13-10-14 22:00:00		23:00:00	Size(KB 48176	10	
	Ľ	1	R	13-10-14 23:00:00		00:00:00	48037		
2345			R	13-10-15 00:00:00		00:28:50	22528		
	Ľ		R	13-10-15 00:28:50		01:00:00	24668		
2	E		R	13-10-15 01:00:00		02:00:00	46815		
ě	E		R	13-10-15 02:00:00		03:00:00	47802		
6 7	E		R	13-10-15 03:00:00		04:00:00	47566		
	E		R	13-10-15 04:00:00		05:00:00	47468		
8	B		R	13-10-15 05:00:00		06:00:00	47358		
10	B	1	R	13-10-15 06:00:00		07:00:00	47773		
11	E		R	13-10-15 07:00:00		08:00:00	47229		
12	E	1	R	13-10-15 08:00:00	13-10-15	09:00:00	47865		
13	١Ŀ	1	R	13-10-15 09:00:00		09:03:02	2780		
<u> </u>	1.		Þ	10 10 10 00 00 00	12 10 15	00 67.99	40650		
									Start

Figure 4-80

System only backup files with a  $\neg$  before channel name. You can use Fn or cancel button to delete  $\sqrt{}$  after file serial number.

Click Start button, system begins copy. At the same time, the backup button becomes stop button. You can view the remaining time and process bar at the left bottom. See Figure 4-81.

Time			ce Needeo	na -				0 GB(Free/Tota	<b>W</b>				
Туре		All						1200000000					
Start Tin	ne	6(	2013 - 10		00	00	00	Recard CH	0	2			
End Tin	nie (	<b>B</b> (	2013 - 10	- 18	12	11	34	File Format	DAV	3	0	Add	Remove
43	Ð	Ċh	annel Type		Start	lime		End Tim	10	Sic	te(KB)		-
1		1	R	1	13-10	-14.2	12:00:00	13-10-14	23:00:00	48	176		1 10
2	2		R	1	3-10	-14.2	13:00:00	13-10-15	5 00:00:00	48	037		
3	1	1	R	1	3-10	-15 (	00:00:00	13-10-15	5 00:28:50	22	528		
4 5 6	1		R	1	13-10	-15 (	0:28:50	13-10-15	5 01:00:00	24	668		
5	2	1	R	1	3-10	-15 (	1:00:00	13-10-14	5 02:00:00	46	815		
6		1	R	1	3-10	-15 (	12:00:00	13-10-1	5 03:00:00	47	802		
7		1	R	1	3-10	-15 (	13:00:00	13-10-15	5 04:00:00	47	566		
8		1	R	1	3-10	-15 0	4:00:00	13-10-14	5 05:00:00	47	468		
9		1	R	1	3-10	-15 (	5:00:00	13-10-14	5 06:00:00	47	358		
10		1	R	1	3-10	-15 (	16:00:00	13-10-14	5 07:00:00	47	773		
11		1.	R	1	3-10	-15 0	17:00:00	13-10-19	5 08:00:00	47	229		
12		1	R	1	13-10	15 (	18:00:00	13-10-15	5 09:00:00	47	865		
13		Ť.	R	1	3-10	-15 (	00:00:0		5 09:03:02	27	80		
. <u></u>		•			2.10	16.0	10-05-55	12 10 10	04-67-91		060		
												וו	Stop
-	the state		0:2:59					×					

Figure 4-81

When the system completes backup, you can see a dialogue box prompting successful backup.

• File format: Click the file format; you can see there are two options: DAV/ASF. The file name format usually is: Channel number+Record type+Time. In the file name, the YDM format is Y+M+D+H+M+S. File extension name is .dav.

#### Tips:

During backup process, you can click ESC to exit current interface for other operation. The system will not terminate backup process.

Note

When you click stop button during the burning process, the stop function becomes activated immediately. For example, if there are ten files, when you click stop system just backup five files, system only save the previous 5 files in the device (But you can view ten file names).

#### 4.7.4 Shut Down

In Figure 4-70, select Shut Down, you can go to the following interface. See Figure 4-82. There are three options: Shutdown/logout/reboot.

For the user who does not have the shut down right, please input corresponding password to shut down.



Figure 4-82

## 4.8 Information

## 4.8.1 System Info

Here is for you to view system information. There are total four items: HDD (hard disk information), record, BPS (data stream statistics), version. See Figure 4-83.

		_	INFO			
SYSTEM	EVE!	NT 🛃	NETWORK	🚺 LOG		
HDD RECORD REC ESTIMATE BPS	SATA	12 - 0				
VERSION		Туре	Total Space	Free Space	Status	SMART ]
	All		1.81 TB	1.64 TB		and the second se
		Read/Write	1.81 TB	1.64 TB	Normal	
_	_					



## 4.8.1.1 HDD Information

Here is to list hard disk type, total space, free space, video start time and status. See Figure 4-84.

- SATA: 1-2 here means system max supports 2 HDDS. 

   means current HDD is normal. X means there is error. means there is no HDD. If disk is damaged, system shows as "?". Please remove the broken hard disk before you add a new one.
- SN: You can view the HDD amount the device connected to. \* means the second HDD is current working HDD.
- Type: The corresponding HDD properties.
- Total space: The HDD total capacity.
- Free space: The HDD free capacity.
- Status: HDD can work properly or not.
- SMART: Display HDD information. See Figure 4-85.

SYSTEM		л 属	NETWORK	🕵 LOG		
HDD RECORD REC ESTIMATE BPS	SATA	12 - 0				
VERSION	11	Туре	Total Space	Free Space	Status	SMART ]
	All		1.81 TB	1.64 TB	-	and all the second
		Read Write	1.81 TB	1.64 TB	Normal	2

Figure 4-84

Double click one HDD information; you can see the HDD SMART information. . See Figure 4-85.

	000V×000-1CU164					
No. Z1E4	4TXG4					
Status OK						
Describe:						
Smart ID	Attribute	Threshold	Value	Worst Value	Status	
1	Read Error Rate	6	116	91	OK	
3	Spin Up Time	õ	96	95	OK	
4	Start/Stop Count	20	100	100	OK	
5	Reallocated Sector Count	10	100	100	OK	
7	Seek Error Rate	30	72	60	OK .	
9	Power On Hours Count	0	93	93	OK	
10	Spin-up Retry Count	97	100	100	OK	
12	Power On/Off Count	20	100	100	OK	
184	End-to-End Error	99	100	100	OK	
187	Reported Uncorrect	0	86	86	OK	
188	Command Timeout	0	100	99	OK.	
189	High Fly Writes	0		1	OK	
191	G-Sense Error Rate		100	100	OK	
192	Power-Off Retract Cycle	0	100	100	OK	
193	Load/Unload Cycle Count	0	100	100	OK	-
104	Teedelerseliste	0			V	

Figure 4-85

## 4.8.1.2 Record Info

It is to view record start time and end time. See Figure 4-86.

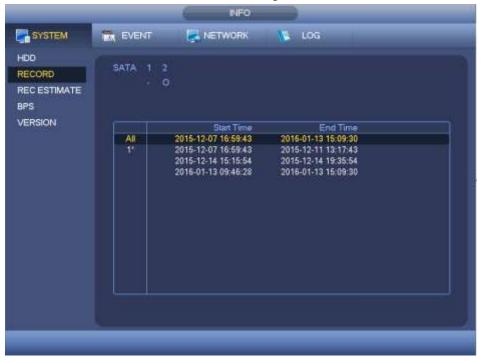


Figure 4-86

## 4.8.1.3 Record Estimate

System can calculate the record time based on the HDD space, or you can input the record time you want to calculate the HDD space you need. See Figure 4-87.

SYSTEM	EVENT		NETWORK	🚺 LOG	
DD	-				
ECORD	Channel	Edit	Bit Rate(Kb/S)	Record Time	Resolution +
Contract De la Contraction de la Contra	2 1	1	2048	24	1280"720(720P)
ECESTIMATE	✓ 2 ✓ 3	14	2048	24	1280*720(720P)
PS		1	2048	24	1280°720(720P)
CONTRACT OF A	2 4	1	2048	24	1280*720(720P)
ERSION	25	1	2048	24	1280°720(720P)
	2 6	1	2048	24	1280'720(720P)
	2 1	1	2048	24	1280*720(720P)
	4 5 6 7 8 9	1	2048	24	1280*720(720P)
		1	2048	24	1280'720(720P)
	× 10 × 11	11	2048	24	1280*720(720P)
		1	2048	24	1280°720(720P)
	2 12	1	2048	24	1280°720(720P)
		-			10001700(7000)
	Known Sp	ace	Known Time		
	Capacity (0		тв =	GB Sel	ect
	Time (0		Days		
			mation data here is sting record period.	for reference only. Pie	ease be cautious

Figure 4-87

Click Z after the channel name, system pops up Edit dialogue box. See Figure 4-88.

You can input resolution, frame rate, bit stream, record time of the corresponding channel, system can calculate the record time based on the channel setup and HDD space.

EVENT		NETWORK	LOG	
Channel	Edit	Bit Raie(Kb/S) 2048 Edit	Record Time 24	Resolution • 1280*720(720P) 1280*720(720P) 1280*720(720P)
Channel Resolution Frame Rate Bit Rate Record Time	(1 (1280-72 (25 (2048 (24	Ð	36 - 4096)Kb S	1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P) 1280*720(720P)
			OK Cancel for reference only. Ple	ase be cautious
	Channel Channel Resolution Frame Rate Bit Rate Record Time	Channel Edit Channel 1 Resolution 128077 Frame Rate 25 Bit Rate 2049 Record Time 24 Copy Note: The record estin	Channel Edit Bit Rate(Kb/S) 1 2048 Edit Channel 1 Resolution 1280*720(720P) Frame Rate 25 Bit Rate 2048 (15 Record Time 24 h	Channel Edit Bt Rate(KbrS) Record Time 2048 24 Edit Channel Edit Channel 1 Resolution 1280*720(720P) Frame Rate 25 Bit Rate 2048 (1536 - 4095)KbrS Record Time 24 Note: The record estimation data here is for reference only. Ple

Figure 4-88

#### • Calculate the record period based on the HDD space

Check the channel you want to record file.

Click Known Space and then click the Select button to set HDD. Click OK button. Now you can see the record period (such as 5 days). See Figure 4-89.

SYSTEM	EVENT	2	NETWORK	No Log						
HDD										
RECORD	Channel	Edit	Bit Rate(Kb/S)	Record Time	Resolution	•				
	$\times$ 1	1	2048	24	1280"720(720P)					
REC ESTIMATE	234567	1	2048	24	1280"720(720P)					
3PS	2 3	1	2048	24	1280*720(720P)					
TRANSING AND A	2 4	1	2048	24	1280"720(720P)					
VERSION	× 5	1	2048	24	1280°720(720P)					
	2 6	1	2048	24	1280"720(720P)					
	2 7	1	2048	24	1280"720(720P)					
	8 9 10	1	2048	24	1280"720(720P)					
	S . 2	1	2048	24	1280'720(720P)					
		1	2048	24	1280"720(720P)					
	N 11	1	2048	24	1280'720(720P)					
	12	1	2048	24	1280'720(720P)	-				
			2040		1000/700/7000	•				
	Known S	pace	Known Time							
	Capacity 🔞	000	TB = (4000	GB Sele	ect 🕖					
	Time (5	8	Days							
	Note: The record estimation data here is for reference only. Please be cautious									
	when you are calculating record period.									

Figure 4-89

#### • Calculate the HDD space based on the record period

Check the channel you want to record file.

Input days(s) you want to records, system can auto calculate the HDD space needed (such as 5.109TB). See Figure 4-90.

SYSTEM	EVENT		NETWORK	LOG						
HDD										
RECORD	Channel	Edit	Bit Rate(Kb/S)	Record Time	Resolution +					
and the second se	2 1	1	2048	24	1280'720(720P)					
RECESTIMATE	2 3 4 5 6 7 8 9   <u>3 3 3 3 3 3 </u> 3 3	1	2048	24	1280'720(720P)					
BRS	V 3	1	2048	24	1280"720(720P)					
	2 4	1	2048	-24	1280'720(720P)					
VERSION	2 5	1	2048	24	1280"720(720P)					
	6	1	2048	24	1280'720(720P)					
	2 7	1	2048	24	1280'720(720P)					
	8	1	2048	24	1280'720(720P)					
		1	2048	24	1280°720(720P)					
	2 10		2048	24	1280 720(720P)					
	× 11	1	2048	24	1280'720(720P)					
	2 12	1	2048	24	1280"720(720P)					
	Known Sp	ace	Known Time							
	Time (7		Days							
	Capacity (5)	109	)TB = (5109	GB						
	Note: The record estimation data here is for reference only. Please be cautious when you are calculating record period.									

Figure 4-90

#### 4.8.1.4 BPS

Here is for you to view current video data stream (KB/s) and occupied hard disk storage (MB/h). See Figure 4-91.

SYSTEM	EVE	NT	NE NE	TWORK	1	.0G		
-IDD	Chaone	i Ka/S	Resolution	Wave				
RECORD	A CONTRACTOR OF	91	1280*720	1		E.		
REC ESTIMATE	2		1280*720	1		Ť		
3PS		93	1280*720	1		Ě.		
ERSION	4	92	1280*720	1				
		90	1280°720	ī		l.		
	6	91	1280*720	1		ì		
		92	1280*720	1		Ĩ		
	8	92	12801720	1				
	9	93	1280'720	1		ì		
		93	1280*720	1				
	Ħ	91	1280*720	T		Ť		
	12	93	1280*720	1		Ĩ		
	13	93	1280*720	L		Ĩ.		
	14	92	1280*720	1				
	15	0		L		1		
	16	65	950*480	L				

Figure 4-91

#### 4.8.1.5 Device Status

It is to view device status information. See Figure 4-92. Please note this function is for some series only.

4		( INFO		
SYSTEM		NETWORK	📜 LOG	
HDD RECORD RECESTIMATE BPS CHANNEL INFO DEVICE STATUS VERSION	Fan State	CPU Temperature	Case Temper	Memory 43%
0				

Figure 4-92

### 4.8.1.6 Channel

It is to view the connected camera information. See Figure 4-93.



Slight difference may be found on the user interface. The format refers to the connected camera format.

SYSTEM	EVENT	NETWORK	LOG.
00			
ECORD	Channel	Formal	
EC ESTIMATE			
PS	2		
	3		
HANNELINFO			
ERSION	5		
	6		
	7		
	8		
	10		
	11		
	13		
	14		
	15		
	16		

Figure 4-93

4.8.1.7 Device Status

D Note

This function is for some series product only.

It is to view fan status, power status, CPU usage, temperature and etc.

From main menu->Info->System->Status, enter device status interface. See Figure 4-94.



Figure 4-94

### 4.8.1.8 Version

Here is for you to view some version information such as version number, built date, serial number and etc.

### 4.8.2 Event

It is to display device status and channel status. See Figure 4-95.

	INFO	
SYSTEM	EVENT RETWORK LOG	
EVENT	Alarm Type INFO Video Loss 1 2 3 4 5 6 7 8 9 10 11 12 13 14	
×		
	Refresh	

Figure 4-95

### 4.8.3 Network

### 4.8.3.1 Online Users

Here is for you to manage online users. See Figure 4-96.

You can disconnect one user or block one user if you have proper system right. Max disconnection setup is 65535 seconds.

System detects there is any newly added or deleted user in each five seconds and refresh the list automatically.

INFO NFO	
SYSTEM THE VENT SHETWORK LOG	
ONLINE USERS LOAD TEST	

Figure 4-96

### 4.8.3.2 Network Load

Network load is shown as in Figure 4-97. Here you can view the follow statistics of the device network adapter.

Here you can view information of all connected network adapters. The connection status is shown as offline if connection is disconnected. Click one network adapter, you can view the flow statistics such as send rate and receive rate at the top panel.



Figure 4-97

### 4.8.3.3 Network Test

Network test interface is shown as in Figure 4-98.

- Destination IP: Please input valid IPV4 address or domain name.
- Test: Click it to test the connection with the destination IP address. The test results can display average delay and packet loss rate and you can also view the network status as OK, bad, no connection and etc.
- Network Sniffer backup: Please insert USB2.0 device and click the Refresh button, you can view the device on the following column. You can use the dropdown list to select peripheral device. Click Browse button to select the snap path. The steps here are same as preview backup operation.

You can view all connected network adapter names (including Ethernet, PPPoE, WIFI,

and 3G), you can click the button  $\bigodot$  on the right panel to begin Sniffer. Click the grey stop button to stop. Please note system cannot Sniffer several network adapters at the same time.

After Sniffer began, you can exit to implement corresponding network operation such as

login WEB, monitor. Please go back to Sniffer interface to click stop Sniffer. System can save the packets to the specified path. The file is named after "Network adapter name+time". You can use software such as Wireshark to open the packets on the PC for the professional engineer to solve complicated problems.

		INFO		
SYSTEM		NETWORK	🚺 LOG	
ONLINE USERS LOAD TEST	Network Test Destination IP Test Result	r Packet Backup	>	Test
	Device Name Address	(sdb1(USB DISK)	🕒 🕜 🤇 Refresh	) Browse
	LAN1	IP 10.15.6.144	Sniffer Packet Size 0KB	Sniffer Packet Backup

Figure 4-98

### 4.8.4.1 Local Log

Here is for you to view system log file. System lists the following information. See Figure 4-99.

Log types include system operation, configuration operation, data management, alarm event, record operation, account manager, log clear, file operation and etc. It optimized reboot log. There are only three types: normal reboot, abnormal reboot and protection reboot. 0x02、0x03、0x04 is included in the protection reboot type.

- Start time/end time: Pleased select start time and end time, then click search button. You can view the log files in a list. System max displays 100 logs in one page. It can max save 1024 log files. Please use page up/down button on the interface or the front panel to view more.
- Backup: Please select a folder you want to save; you can click the backup button to save the log files. After the backup, you can see there is a folder named Log\_time on the backup path. Double click the folder, you can see the log file
- Details: Click the Details button or double click the log item, you can view the detailed information. See Figure 4-100. Here you can use rolling bar to view information, or you can use Page up/Page down to view other log information.

SYSTEM	
LOG	Type         All           Start Time         2014 + 06 + 21         00 : 00 : 00           End Time         2014 + 08 + 22         00 = 00         Details         Search           38         Log Time         Event         Image: Comparison of the compa
	Backup Clear 4 1/1 > Jump To (1) GO

Figure 4-99

Select an item on the list and then click the Details button or double click the log item, you can view the detailed information such as log time, log type, log user, IP address and etc. See Figure 4-100.

	Detailed Information	
Log Time	2014-08-21 13:47:25	
Log Туре	User Management>User logged in	
IP Address	10.15.6.140	
User	admin	
t		
Previous (INCO		OK

Figure 4-100

## III Note

- If there is no HDD, system max supports 1024 logs.
- If you have connected to the unformatted HDD, system max supports 5000 logs.
- If you have connected to the formatted HDD, system max supports 500,000 logs.
- System operation logs are saved in system memory. Other types of logs are saved in the HDD. If there is no HDD, other types of logs are saved in the system memory too.
- The logs are safe when you format the HDD. But the logs may become loss once you removed the HDD.

### 4.9 Setting

### 4.9.1 Camera

- 4.9.1.1 Remote Device (For digital channel only)
  - 4.9.1.1.1 Remote Device

In the main menu, from Camera ->Registration, you can go to Registration interface. Here you can add/delete remote device and view its corresponding information.

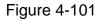
Refer to chapter 4.1.4.4 Registration for detailed information.

4.9.1.1.2 Channel Status

Here you can view the IPC status of the corresponding channel such as motion detect, video loss, tampering, alarm and etc. See Figure 4-101.

- IPC status: Front-end does not support. Front-end supports.
   There is alarm event from current front-end.
- Connection status: Connection succeeded.
- Refresh: Click it to get latest front-end channel status.

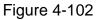




#### 4.9.1.1.3 Firmware

It is to view channel, IP address, manufacturer, type, system version, SN, video input, audio input, and etc. See Figure 4-102.

ኛ CAMERA		c 👘	EVENT	STORAGE	SYSTEM	- IV
REGISTRATION	Registrati	on	Status	imware		
IMAGE ENCODE CAM NAME CHANNEL TYPE UPGRADE	14 1	Address 115.37 115.588 115.5169	Mahufacturer Private Private	Type ITC237-PW1 SNC-211RSIA DH-SD50230.	System Version 2.000 2.210 2.400	2E00A 22111 2B01A



### 4.9.1.2 Image

For analog channel, the camera interface is shown as in Figure 4-103. For digital channel, the camera interface is shown as in Figure 4-104.

- Channel: Select a channel from the dropdown list.
- Cable type: It is to set the cable type of the corresponding analog channel. When the setup here matches the actual cable you are using, you can get the best image effect. The default setup is COAXIAL. Please note this function is for some series products only.
- COAXIAL: When the corresponding channel is using coaxial cable, please select COAXIAL.
- UTP: When the corresponding channel is using UTP cable, please select UTP.
   Usually we recommend 10Ohm UTP cable.
- Saturation: It is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
- Brightness: It is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number is, the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

- Contrast: It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
- Sharpness: The value here is to adjust the edge of the video. The value ranges from 0 to 100. The larger the value is, the clear the edge is and vice versa. Please note there is noise if the value here is too high. The default value is 50 and the recommended value ranges from 40 to 60.
- Mirror: It is to switch video up and bottom limit. This function is disabled by default.
- Flip: It is to switch video left and right limit. This function is disabled by default.
- BLC: It includes several options: BLC/WDR/HLC/OFF.
- BLC: The device auto exposures according to the environments situation so that the darkest area of the video is cleared
- WDR: For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that you can view these two sections clearly at the same time. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.
- ♦ HLC: After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.
- ♦ OFF: It is to disable the BLC function. Please note this function is disabled by default.
- Profile: It is to set the white balance mode. It has effect on the general hue of the video. This function is on by default. You can select the different scene mode such as auto, sunny, cloudy, home, office, night, disable and etc to adjust the video to the best quality.
- ♦ Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.
- Sunny: The threshold of the white balance is in the sunny mode.
- ♦ Night: The threshold of the white balance is in the night mode.
- Customized: You can set the gain of the red/blue channel. The value reneges from 0 to 100.
- Day/night. It is to set device color and the B/W mode switch. The default setup is auto.
- ♦ Color: Device outputs the color video.
- Auto: Device auto select to output the color or the B/W video according to the device feature (The general bright of the video or there is IR light or not.)
- ♦ B/W: The device outputs the black and white video.
- Sensor: It is to set when there is peripheral connected IR light.
- Image enhancement: It is to enhance video quality. The larger the value is, the clearer the video is. But the noise may become large too.
- 2D NR: It is to process the noise of the single image. The video may become soft after process. The larger the value is, the better the effect is.

• 3D NR: it is to process the multiple-frame (at least two frames). It is to use the frame information between the following two frames to reduce noise. The larger the value is, the better the effect is.

		SETTING		
CAMERA				SYSTEM
IMAGE ENCODE CAM NAME CHANNEL TYPE	Channel Period Effective Time Saturation Brightness Contrast Hue Sharpness Image Enhance NR	(1 ) Time Period 1 ) ♥ (00:00 24 50 50 50 50 1 50 50 50 50 50 50 50 50 50 50	Cable Type	COAXIAL
	Default		(Save)	Cancel Apply

Figure 4-103

		SETTING		_	
CAMERA		To EVENT	STORAGE	SYSTEM	
REMOTE IMAGE ENCODE	Channel	(4 )	Contig Files	(Day	9
CAM NAME CHANNEL TYPE	Auto Iris Mirror Filip	On O Off     Ori Off     Ori Off     Clockwise 90	Saturation Brightness Contrast Chroma	50 50 50 50 50 50 50	
	3D Denoise BLC Mode Profile Day & Night	On O Olt     Ot     Auto     Auto			
		Retresh	Save	Cancel Appl	

Figure 4-104

### 4.9.1.3 Encode

It is to set video bit stream, picture bit stream, video overlay parameter and etc.

### 4.9.1.3.1 Video

Video setting includes the following items. See Figure 4-105.

- Channel: Select the channel you want.
- SVC: SVC is so called scaled video coding. Check the box to enable this function. During the network transmission process, system discards unimportant frames when the bandwidth is not sufficient or the decode capability is low. It is to guarantee video quality and transmission fluency.
- Type: Please select from the dropdown list. There are three options: regular/motion detect/alarm. You can set the various encode parameters for different record types.
- Compression: System supports H.264H, H.264, H.264B, and MJPEG.
  - H.264H: It is the High Profile compression algorithm. It has the high encode compression rate. It can achieve high quality encode at low bit stream. Usually we recommend this type.
  - ♦ H.264 is the general compression algorithm.
  - ♦ H.264B is the Baseline algorithm. Its compression rate is low. For the same video quality, it has high bit stream requirements.
- Smart codec: Select Start from the dropdown list to enable smart codec function. The DVR can auto reduce the video bit stream of the non-important surveillance object to save the storage space.
- Resolution: For analog channel, system supports various resolutions, you can select from the dropdown list. Please note the option may vary due to different series. For digital channel, the resolution here refers to the capability of the network camera.
- Frame rate: It ranges from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
- Bit rate type: System supports two types: CBR and VBR. In VBR mode, you can set video quality.
- Quality: There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Video/audio: You can enable or disable the video/audio.
- Audio format: Please select from the dropdown list. There are three options: G711a/G711u/PCM.
- Audio source: Please select from the dropdown list. There are two options: local/HDCVI. For local mode, the audio signal is from the Audio In port. For HDCVI mode, the audio signal is from the coaxial cable of the camera.

-		SETTING			
CAMERA			STORAC	ie 🚺	SYSTEM
REMOTE IMAGE	Encode	Snapshot	Overlay		
ENCODE	Channel				
CAM NAME	Туре	Regular	D	Sub Stream	
CHANNEL TYPE	Compression	(H.264H	D (	H.264H	D
UPGRADE	Smart Codec	Stop	D		
	Resolution	(1920*1080(1080P)	D (	352*288(CIF	
	Frame Rate(FPS)	(15	D	15	D
	Bit Rate Type	(CBR	D (	CBR	Ð
	EFrame Interval	(15	D	I S	D
	Bit Rate(Kb/S)	2048 -	6	120 -	
	Reference Bit Rate	640-6144Kb/S	37	2-640Kb/S	
	AudioVideo	0			
	Audio Format	(G711a	D ^	udio Sourc	• (LOCAL •
	Default Co	РУ)	Sa	ive 🔿 📿	Cancel Apply
_					

Figure 4-105

4.9.1.3.2 Snapshot

Here you can set snapshot mode, picture size, quality and frequency. See Figure 4-106.

- Snapshot mode: There are two modes: regular and trigger. If you set timing mode, you need to set snapshot frequency. If you set trigger snapshot, you need to set snapshot activation operation.
- Image size: Here you can set snapshot picture size.
- Image quality: Here you can set snapshot quality. The value ranges from 1 to 6.
- Interval: It is for you to set timing (schedule) snapshot interval.

		SETTING		
CAMERA				SYSTEM
REMOTE	Encode	Snapshot	Overlay	
ENCODE	Manual Snap (	1 🕤 /Time		
CAM NAME CHANNEL TYPE UPGRADE	Mode ( Image Size ( Image Quality (	1 •) Timing •) 352*288(CIF) •) 4 •) 1 SPL •)		
	Default	Copy )	ОК	Cancel Apply

Figure 4-106

4.9.1.3.3 Overlay

Overlay interface is shown as in Figure 4-107.

- Cover area: Here is for you to set cover area. You can drag you mouse to set proper section size. In one channel video, system max supports 4 zones in one channel.
- Preview/monitor: privacy mask has two types. Preview and Monitor. Preview means the privacy mask zone cannot be viewed by user when system is in preview status. Monitor means the privacy mask zone cannot be view by the user when system is in monitor status.
- Time display: You can select system displays time or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Channel display: You can select system displays channel number or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Copy:After you complete the setup, you can click Copy button to copy current setup to other channel(s). You can see an interface is shown as in Figure 4-108. You can see current channel number is grey. Please check the number to select the channel or you can check the box ALL. Please click the OK button in Figure 4-108 and Figure 4-107 respectively to complete the setup.

Please highlight icon 🔳 to select the corresponding function.

2	-	SETTING		
CAMERA		EVENT		SYSTEM
REMOTE MAGE ENCODE CAM NAME	Channel ①	Snapshot 0	weday	30
CHANNEL TYPE UPGRADE	Time Display Channel Display	☑ Record ☑ Record		Cancel Apply
	(Default ) Copy	2	(Save)	Cancel Apply

Figure 4-107

Figure 4-108

4.9.1.3.4 Channel Name

It is to modify channel name. It max supports 31-character. See Figure 4-109.

Please note for digital channel, you can only modify the channel name of the connected network camera.

1		SETTING		
CAMERA		EVENT	STORAGE	SYSTEM
REMOTE MAGE ENCODE CAMINAME CHANNEL TYPE UPGRADE	CAM 1 CAM 3 CAM 5 CAM 7 CAM 9 CAM 11 CAM 13 CAM 15		CAM-2 CAM-4 CAM-6 CAM-8 CAM-10 CAM-12 CAM-14 CAM-16	2 4 6 8 10 12 14 16
	Delault		Save	Cancel Apply

Figure 4-109

4.9.1.3.5 Channel Type

It is to set channel type.

- For analog channel (CVBS signal or HDCVI HD signal), you can select coaxial cable or UTP cable. Please check first and then save setup. There is no need to reboot.
- You can switch analog channel type to digital channel type if you want to connect to network camera. The IP channel shall start from the last channel. System needs to reboot to activate current setup.

## Note

If there is no connected channel, the channel type here just displays previous connection record. System supports self-adaptive after camera connection.

The interface is shown as in Figure 4-110 (XVR series product) or Figure 4-111 (HCVR series product).

CAMERA	T NETWORK		EVENT	ST	ORAGE	SYSTE	Vi
MAGE ENCODE	Channel	Αυτο 🔽	си П	Analog AHD			P
CAM NAME	- 21						
and a state of the second second	2				6	Ö	
CHANNEL TYPE	3	NON Non					
	5						
	6						
	7						
	8						
	9	0					
	10						
	11	Ø					
	12	0					
	13	2					
	14						
	15						
	16				ne IP channe		

Figure 4-110



Figure 4-111

Important notice about XVR series product:

Nowadays, there are mainly two analog signal types on today market: analog

standard definition (CVBS) and analog HD (CVI, AHD or Other). For XVR series product, each channel supports all types of signal connection (analog signal/IP signal). For analog signal connection, the default setup is AUTO, that is to say, no matter what analog signal (CVBS, CVI, AHD or other analog HD signal) connected; the XVR can automatically recognize the signal and display the proper image. There is no need to set manually.

 If the auto recognition error occurred, XVR series product supports manual setup too. The manual setup featuring high recognition speed and usually there is no error. For example, in Figure 4-112, you can set channel 1 to connect to CVI camera, channel 2 to connect to AHD camera, channel 3 to connect to CVBS camera.



Figure 4-112

### Important

### Add/cancel IP CAM function is for some 4/8/16-channel series product only.

 Add IP CAM: Click it; you can add corresponding X IP channels. Here X refers to the product channel amount such as 4/8/16. System needs to restart to activate new setup. See Figure 4-113 (XVR series product) or Figure 4-114 (HCVR series product).



Figure 4-113



Figure 4-114

For example, there is a 4-channel analog device, after the A/D switch, it can max supports 4 analog channels and 4 IP channels. Once it has become the 3+1 mode (3 analog

Add IP CAM

button, system becomes 3+5 mode

(3 analog channels+5 IP channel).

channels+1 IP channel), you click

• Cancel IP CAM: Click it, you can cancel IP channel. System needs to restart to

#### restore original status.

CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM	
REGISTRATION IMAGE ENCODE CAM NAME CHANNEL TYPE UPGRADE	setup shall beg	me analog channel, yo	u can add one iP chanr d.		Apply

Figure 4-115



Figure 4-116

4.9.1.3.1 Upgrade Camera



XVR series product does not support upgrade function via coaxial cable. That is to say, you cannot use this interface to upgrade the connected CVI camera if you are using XVR.

It is to update the online camera.

From main menu->setting->camera->remote upgrade, the interface is shown as below. See Figure 4-117.

Click Browse button and then select the upgrade file. Then select a channel (or you can select device type filter to select several devices at the same time.)

Click Start upgrade button to update. You can see the corresponding dialogue once the upgrade is finish.



Figure 4-117

### 4.9.2 Network

### 4.9.2.1 TCP/IP

The single network adapter interface is shown as in Figure 4-118 and the dual network adapters interface is shown as in Figure 4-119

- Network Mode : Includes multiple access, fault tolerance, and load balancing
  - Multiple-address mode: eth0 and eth1 operate separately. You can use the services such as HTTP, RTP service via eth00 or the eth1. Usually you need to set one default card (default setup is etho) to request the auto network service form the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.

- Network fault-tolerance: In this mode, device uses bond0 to communicate with the external devices. You can focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card).System can enable alternate card when the master card is malfunction. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
- Load balance: In this mode, device uses bond0 to communicate with the external device. The eth0 and eth1 are both working now and bearing the network load. Their network load are general the same. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
- Default Network Card: Please select eth0/eth1/bond0(optional) after enable multiple-access function
- Main Network Card: Please select eth0/eth1 (optional).after enable multiple access function.

# Note: Some series support the above three configurations and supports functions as multiple-access, fault-tolerance and load balancing.

- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and you can access via them.
- MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. It is read-only.
- IP address: Here you can use up/down button (▲▼) or input the corresponding number to input IP address. Then you can set the corresponding subnet mask the default gateway.
- Default gateway: Here you can input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- DHCP: It is to auto search IP. When enable DHCP function, you cannot modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, you cannot modify IP/Subnet mask /Gateway.
- MTU: It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. Before the modification, you can check the MTU of the gateway; the MTU of the DVR shall be the same as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only.

- ♦ 1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.
- ♦ 1492: Recommend value for PPPoE.
- ♦ 1468: Recommend value for DHCP.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.
- Transfer mode: Here you can select the priority between fluency/video qualities.
- LAN download: System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

Click Apply or Save to complete setup.

		SETTING		
CAMERA	📻 NETWORK		STORAGE	SYSTEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	IP Version MAC Address Mode IP Address Subnet Mask Default Gateway Preferred DNS Alternate DNS	IPv4         •           (3C:EF:8C:05:B8:F9)         •           •         STATIC O DHC           172         8         4           255         255         0           172         8         0           8         8         8           8         8         4	p 139 Test 0 1 8 4	
	Detault	(1500	(Save)	Cancel Apply

Figure 4-118

		SETTING
CAMERA	T NETWORK	TT EVENT SYSTEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER	Net Mode Ethernet Card MAC Address Mode IP Address Subnet Mask Default Gateway	Multi-address • Default Ethernet Port Ethernet1 • Ethernet1 • IP Version IPv4 • (20:15:02:22:14:58 • STATIC • DIHCP 10 15 6 144 Test (255 255 0 0 10 15 0 1 8 8 8 8 8
P2P	Alternate DNS MTU Default	8         8         4         4           (1500

Figure 4-119

### 4.9.2.2 Connection

The connection setup interface is shown as in Figure 4-120.

- Max connection: The max login client amount (WEB, platform, cellphone and etc.). The value ranges from 1 to 128. The default setup is 128.
- TCP port: Default value is 37777.
- UDP port: Default value is 37778.
- HTTP port: Default value is 80.
- HTTPS port: Default value is 443.
- RTSP port: Default value is 554.

Important: System needs to reboot after you changed and saved any setup of the above five ports. Please make sure the port values here do not conflict.

		SETTING		
CAMERA		TO EVENT	STORAGE	SYSTEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	Max Connection TCP Port UDP Port HTTP Port HTTPS Port RTSP Port	(37777) (37778) (80) (443)	■ 128 ) 1025 - 65635 ) 1025 - 65635 ) 1 - 65535 ) 1 - 65535 ) 1 - 65535 ) Save	Cancel Apply
1	Deradut			Cancer Apply

Figure 4-120

4.9.2.3 WIFI

## Note

This function is for some series products only.

After setting WIFI, device can connect network camera via WIFI. There is no need to connect network cable. It can lower device installation difficulty and is convenient to use the device.

Step 1 From main menu->Setting->Network->WIFI.

Enter WIFI interface. See Figure 4-121.

Step 2 Set parameters.

- Auto connect WIFI: Check the box here, system automatically connects to the previous WIFI hotspot.
- Refresh: You can click it to search the hotspot list again. It can automatically add the information such as the password if you have set it before.
- Disconnect: Here you can click it to turn off the connection.
- Connect: Here you can click it to connect to the hotspot. System needs to turn off current connection and then connect to a new hotspot if there is connection of you selected one.
- WIFI working status: Here you can view current connection status.

CAMERA TCP/IP CONNECTION		SETTING	
CONNECTION WIFI Auto Connect	CAMERA	T NETWORK	STORAGE 🛃 SYSTEM
WIFI       0       SSID       Signal Intensity       WIFI Working Info         3G4G       PPPoE       Image: Current Hotspot No Connection       IP Address       Image: Current Hotspot No Connection         DDNS       SYNC TIME       Image: Current Hotspot No Connection       IP Address       Image: Current Hotspot No Connection         EMAIL       Image: Current Hotspot No Connection       IP Address       Image: Current Hotspot No Connection         UPnP       SNMP       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection         SNMP       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection         SNMP       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection         SNMP       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection         SNMP       MULTICAST       Image: Current Hotspot No Connection       Image: Current Hotspot No Connection         MULTICAST       Refresh Connect       Disconnection       Save Cancel Apply         P2P       Refresh Connect       Disconnection       Save Cancel Apply	CONNECTION WIFI 3G/4G PPPoE DDNS SYNC TIME EMAIL UPnP SNMP MULTICAST REGISTER ALARM CENTER	0 SSID Signal Intensity	Current Hotspot No Connection IP Address Subnet Mask Default Gateway

Figure 4-121

Step 3 Click Apply or Save to complete setup.

# Note

After successful connection, you can see WIFI connection icon at the top right corner of the preview interface.

After device successfully connected to the WIFI, you can view the hotspot name, IP address, subnet mask, default gateway and etc.

### 4.9.2.4 3G/4G

## Note

This function is for some series products only.

- Step 1 From main menu->Setting->Network->3G/4G. Enter 3G/4G setup interface. See Figure 4-122.
- Step 2 Set parameters.
- Pane 1: Display 3G/4G signal intensity after you enabled 3G/4G function.
- Pane 2: Display 3G/4G module configuration information after you enabled 3G/4G function.
- Pane 3: Display 3G/4G module status information after you enabled 3G/4G function.
- It is to display current wireless network signal intensity such as EVDO, CDMA1x, WCDMA, WCDMA, EDGE and etc.

- 3G/4G module: It is to display current wireless network adapter name.
- 3G/4G Enable/Disable: Check the box here to enable 3G/4G module.
- Network type: There are various network types for different 3G/4G network modules. You can select according to your requirements.
- APN: It is the wireless connection server. It is to set you access the wireless network via which method.
- AUTH: It is the authentication mode. It supports PAP/CHAP.
- Dial number: Please input 3G/4G network dialup number you got from your ISP.
- User name: It is the user name for you to login the 3G/4G network.
- Password: It is the password for you to login the 3G/4G network.
- Pulse interval: You can set dialup duration. Once you disable the extra stream, the connection time begins. For example, if you input 5 seconds here, then 3G/4G network connection period is 5 seconds. The device automatically disconnect when time is up. If there is no extra stream, 3G/4G network connection is valid all the time.
   If the alive time is 0, then the 3G/4G network connection is valid all the time.
- Dial: Here you can enable or disable 3G/4G network connection/disconnection manually.
- 3G/4G wireless network: Here is to display wireless network status, SIM card status, dial status. If the 3G/4G connection is OK, then you can see the device IP address the wireless network automatically allocates.

		SETTI	NG		
	T NETWORK	EVENT	STORAGE	SYSTEM	
TCP/IP CONNECTION	No signal				
WIFI Ethernet Card 3G/4G Network Type PPPoE APN DDNS ALTH SYNC TIME Dial No. EMAIL User Name UPnP Password SNMP Wireless Net	AUTH () Dial No. () User Name ()		Enable		2
	PPP State -	II S	P Address - Subnet Mask - Default Gateway • Save	Cancel (	Apply

Figure 4-122

Step 3 Click Apply or Save to complete setup.

### 4.9.2.5 PPPoE

# Note

### This function is for some series products only.

Use PPPoE(Point-to-Point Protocol over Ethernet) to establish network connection. Device can get a dynamic IP address in the WAN. Before the operation, please contact your ISP (Internet service provider) for PPPoE user name and password.

Step 1 From main menu->Setting->Network->PPPoE.

Enter PPPoE interface. See Figure 4-123.

11		SETTING		
CAMERA	NETWORK		STORAGE	SYSTEM
TCP/IP CONNECTION WIFI 3G/4G PPPOE DDNS SYNC TIME EMAIL UPnP SNMP MULTICAST REGISTER ALARM CENTER P2P	Enable User Name Password IP Address	110 110		
(	Default		Save	Cancel Apply

Figure 4-123

Step 2 Check the box to enable this function. Input PPPoE name and PPPoE password.

Step 3 Click Apply or Save to complete setup.

DVR needs to reboot to activate new setup. After rebooting, DVR will connect to internet automatically. The IP in the PPPoE is the DVR dynamic value. You can access this IP to visit the device.

### Note

After enable PPPoE function, the IP address in the main menu->Setting->Network->TCP/IP is read-only.

### 4.9.2.6 DDNS Setup

DDNS(Dynamic Domain Name Server) is to dynamically refresh the DNS domain name and IP address if the device IP address has changed frequently. The user can use the domain to access the device.

### Preparation

Before the operation, make sure the device supports DNS type and go to the DDNS service provider website to register the domain name via the PC.

# D Note

After you successfully registered and logged in the DDNS website, you can view all connected device information of current login user.

DDNS setup interface is shown as in Figure 4-124.

- Type/address:
- ♦ Dyndns DDNS is members.dyndns.org.
- ♦ NO-IP DDNS is dynupdate.no-ip.com.
- ♦ CN99 DDNS is members.3322.org.
- Domain: The domain name registered on the DDNS service provider website.
- User name/password: Input the user name and password got from the DDNS service provider. Make sure you have logged in the DDNS service provider website to register an account (user name and password).

• Interval: After DDNS boots up, it sends out refresh query regularly. The unit is minute. Click Apply or Save to complete setup. Open a browser and input domain name, click Enter button.

The setting is right if you can view device WEB interface. Otherwise, please check the parameters.

		SETTING
TE CAMERA	👼 NETWORK	📷 EVENT 🔂 STORAGE 🛃 SYSTEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	Enable DDNS Type Host IP Domain Name User Name Password Interval	Dyndns DDNS members dyndns.org 5 5 min.
	Default	OK Cancel Apply

Figure 4-124

### 4.9.2.7 Sync Time

This function allows specified IP host to change device time in case several hosts are syncing time with the device.

- Step 1 From main menu->Setting->Network->Sync time. Enter Sync time interface. See Figure 4-125.
- Step 2 Check the box to enable Sync time function.
- Step 3 Refer to chapter 4.9.5.10 Security for setup information.

		SETTI	NG		
CAMERA			STORAGE	📑 SY:	STEM
TCP/IP CONNECTION	Enable				
DDNS	Туре	Trusted Sites		2	-
SYNC TIME EMAIL	Start Address	<u></u>		Add IP Addres	92 <sup>1</sup>
UPnP	End Address	(	End Address	Add IP Segmer	nt) Delete
MULTICAST REGISTER ALARM CENTER P2P				E.48	
	Default		Save	Cancel	

Figure 4-125

Step 4 Click Apply or Save to complete setup.

## 0 Note

If the DVR has enabled NTP service, the device will sync time with the NTP server regularly. The sync or change time operation of the IP address in the whitelist will be invalid, unless the NTP server and the IP address in the whitelist is the same.

### 4.9.2.8 Email

The email interface is shown as below. See Figure 4-126.

- SMTP server: Please input your email SMTP server IP here.
- Port: Please input corresponding port value here.
- User name: Please input the user name to login the sender email box.
- Password: Please input the corresponding password here.
- Sender: Please input sender email box here.

- Title: Please input email subject here. System support English character and Arabic number. Max 32-digit.
- Receiver: Please input receiver email address here. System max supports 3 email boxes. System automatically filters same addresses if you input one receiver repeatedly.
- SSL enable: System supports SSL encryption box.
- Interval: The send interval ranges from 0 to 3600 seconds. 0 means there is no interval.
- Health email enable: Please check the box here to enable this function. This function allows the system to send out the test email to check the connection is OK or not.
- Interval: Please check the above box to enable this function and then set the corresponding interval. System can send out the email regularly as you set here. Click the Test button, you can see the corresponding dialogue box to see the email connection is OK or not.

Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.

TCP/IP		SETTING
E Enable	CAMERA	🦝 NETWORK 📷 EVENT 🕵 STORAGE 🛃 SYSTEM
CONNECTION   DDNS   SYNC TIME   Anonymous   EMAIL   User Name   Password     UPnP   MULTICAST   Receiver   ALARM CENTER   Subject   ALART   Attachment   P2P   Interval   120   sec.   Health Enable   Interval   60   min.	CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER	Anonymous User Name Password Receiver Sender Subject ALERT Attachment C Encrypt Type NONE Interval 120 Sec. Health Enable Interval 60 min.

Figure 4-126

### 4.9.2.9 UPnP

The UPnP protocol is to establish a mapping relationship between the LAN and the WAN. Please input the router IP address in the LAN in Figure 4-118. See Figure 4-127.

- UPnP on/off: Turn on or off the UPnP function of the device.
- Status: When the UPnP is offline, it shows as "Unknown". When the UPnP works it shows "Success"
- Router LAN IP: It is the router IP in the LAN.
- WAN IP: It is the router IP in the WAN.
- Port Mapping list: The port mapping list here is the one to one relationship with the router's port mapping setting.
- List:
  - ♦ Service name:Defined by user.
  - ♦ Protocol: Protocol type
  - ♦ Internal port:Port that has been mapped in the router.
  - ♦ External port:Port that has been mapped locally.
- Default: UPnP default port setting is the HTTP, TCP and UDP of the DVR.
- Add to the list: Click it to add the mapping relationship.
- Delete: Click it to remove one mapping item.

Double click one item; you can change the corresponding mapping information. See Figure 4-128.

Important:

When you are setting the router external port, please use 1024~5000 port. Do not use well-known port 1~255 and the system port 256~1023 to avoid conflict.

For the TCP and UDP, please make sure the internal port and external port are the same to guarantee the proper data transmission.

	-	SETTING			
CAMERA	7 NETWORK		STORAGE	🛃 sy	STEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP	Status LAN IP 0 WAN IP 0 PAT Table	able Oisable			
MULTICAST REGISTER ALARM CENTER P2P	6 Service 1 HTTP 2 TCP 3 UDP 4 RTSP 5 RTSP 6 HTTPS	TC TC UD UD TC	P 37777 P 37778 P 554 P 554	Ext Port 80 37777 37778 554 554 443	Edit
	Default		Save	Cancel	

Figure 4-127

	PORT INFO
Service Name Protocol Int.Port Ext.Port	TCP       TCP       37777       37777
	OK Cancel

Figure 4-128

### 4.9.2.10 SNMP

m	
	Note

This function is for some series products only.

SNMP is an abbreviation of Simple Network Management Protocol. It provides the basic network management frame of the network management system. The SNMP widely used in many environments. It is used in many network device, software and system.

### Preparation

- Install corresponding software tool such as MIB Builder and MG-SOFT MIB Browser.
- Contact technical engineer to get two MIB files of the current version.
- Step 1 From main menu->Setting->Network->SNMP.
  - Enter SNMP interface. See Figure 4-129.

SETTING					
CAMERA	T NETWORK			SYSTEM	
TCP/IP CONNECTION WIFI 3G/4G PPPoE DDNS SYNC TIME EMAIL UPnP SNMP MULTICAST REGISTER ALARM CENTER P2P	Enable Version SNMP Port Read Community Write Community Trap Address Trap Port	V1 V2	Save		
				Cancel Apply	

Figure 4-129

Step 2 Set parameters.

- Enable: Check the box to enable SNMP function.
- Version: Check the box and then select version. DVR can process the corresponding version information.
- SNMP port: The agent applications listening port on the DVR.
- Read/write community: The read/write community string the agent applications supports.
- Trap address: The Trap information destination address of the agent applications on the DVR.
- Trap port: The Trap information destination port of the agent applications on the DVR.
- Step 3 In Figure 5-99, check the box to enable the SNMP function. Input the IP address of the PC than is running the software in the Trap address. You can use default setup for the rest items.
- Step 4 Compile the above mentioned two MIB file via the software MIB Builder.
- Step 5 Run MG-SOFT MIB Browser to load the file from the previous step to the software.
- Step 6 Input the device IP you want to manage in the MG-SOFT MIB Browser. Please set the corresponding version for your future reference.
- Step 7 Open the tree list on the MG-SOFT MIB Browser; you can get the device configuration. Here you can see the device has how many video channels, audio channels, application version and etc.

### 4.9.2.11 Multicast

When you are accessing the device and view the video, the error occurs if the connected device amount has reached the threshold. In this situation, please set multicast IP to use multicast protocol to access.

Multicast setup interface is shown as in Figure 4-130.

,		SETTING		
CAMERA	T NETWORK		STORAGE	SYSTEM
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	Enable IP Address 23 Port 366	And and a supervised of the local division o	) (Save	Cancel Apply

Figure 4-130

Here you can set a multiple cast group. Please refer to the following sheet for detailed information.

• IP multiple cast group address

-224.0.0.0-239.255.255.255

-"D" address space

• The higher four-bit of the first byte="1110"

• Reserved local multiple cast group address

-224.0.0.0-224.0.0.255

-TTL=1 When sending out telegraph

-For example

- 224.0.0.1 All systems in the sub-net
- 224.0.0.2 All routers in the sub-net
- 224.0.0.4 DVMRP router
- 224.0.0.5 OSPF router

224.0.0.13 PIMv2 router

• Administrative scoped addressees

-239.0.0.0-239.255.255.255

-Private address space

- Like the single broadcast address of RFC1918
- Cannot be used in Internet transmission
- Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, you can use other addresses.

For example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

After you logged in the Web, the Web can automatically get multiple cast address and add it to the multiple cast groups. You can enable real-time monitor function to view the view. Please note multiple cast function applies to special series only.

### 4.9.2.12 Auto register

This function allows the device to auto register to the proxy you specified. In this way, you can use the client-end to access the DVR and etc via the proxy. Here the proxy has a switch function. In the network service, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto register function, the device can auto register to the proxy server.

1) The setup interface is shown as in Figure 4-131.

#### Important

Do not input network default port such as TCP port number.

SETTING					
CAMERA	T NETWORK	EVENT		SYSTEM	
CAMERA TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	Default	( <b></b> )	STORAGE	Cancel Apply	

Figure 4-131

2) The proxy server software developed from the SDK. Please open the software and input the global setup. Please make sure the auto connection port here is the same as the port you set in the previous step.

3) Now you can add device. Please do not input default port number such as the TCP port in the mapping port number. The device ID here shall be the same with the ID you input in Figure 4-131. Click Add button to complete the setup.

4) Now you can boot up the proxy server. When you see the network status is Y, it means your registration is OK. You can view the proxy server when the device is online.

#### Important

The server IP address can also be domain. But you need to register a domain name before you run proxy device server.

#### 4.9.2.13 Alarm Centre

This interface is reserved for you to develop. See Figure 4-132.

SETTING						
CAMERA	😿 NETWORK	EVENT	STORAGE	SYSTEM		
TCP/IP CONNECTION DDNS SYNC TIME EMAIL UPnP MULTICAST REGISTER ALARM CENTER P2P	Host IP (	ALARM CENTER 10 1 0 1	2			
	Delault		Save	Cancel Apply		

Figure 4-132

#### 4.9.2.14 P2P

You can use your cell phone to scan the QR code and add it to the cell phone client. Via the SN from scanning the QR code, you can access the device in the WAN. Please refer to the P2P operation manual included in the resources CD.

From main menu->Setting->Network->P2P, you can go to the following interface, the P2P interface is shown as in Figure 4-133.



Figure 4-133

Here we use cell phone APP to continue.

- Step 1 Use cell phone to scan the QR code and download the APP.
- Step 2 After installation, run the APP and Live Preview, enter the main interface. Now you can add device to the APP.



- 1. Open App; tap **I** to go to the Live preview.
- 2. Tap == at the top left corner, you can see the main menu.
- 3. Tap Device manager button, you can use several modes (P2P/DDNS/IP and

etc.) to add the device. Click to save current setup. Tap Start Live preview to view all-channel video from the connected device. See Figure 4-134.

P	2P 🔛
Register Mode:	P2P
Name:	
SN:	
Username:	admin
Password:	•••••
Live Preview:	Extra >
Playback:	Extra >
\$	Check VTO
Start Live	e Preview

Figure 4-134

#### 4.9.3 Event

#### 4.9.3.1 Detect

In the main menu, from Setting->Event->Detect, you can see motion detect interface. See Figure 4-135. There are four detection types: motion detection, video loss, tampering and diagnosis.

- The video loss has no detection region and sensitivity setup and tampering has no detection region setup.
- You can see motion detect icon if current channel has enabled motion detect alarm.
- You can drag you mouse to set motion detect region. Please click OK button to save current region setup. Right click mouse to exit current interface.
- For digital channel, the detect function refers to support detection function of the front-end and support local activation function. The front-end can get enable/disable status, sensitivity and region setup. You can get corresponding prompt if front-end cannot get the above information. You can change front-end setup if it can get.

#### 4.9.3.1.1 Motion Detect

After analysis video, system can generate a video loss alarm when the detected moving signal reached the sensitivity you set here.

Detection menu is shown as below. See Figure 4-135.

- Event type: From the dropdown list you can select motion detection type.
- Channel: Select a channel from the dropdown list to set motion detect function.
- Enable MD: Check the box here to enable motion detect function.

• Enable PIR: PIR function help enhance the motion detect accuracy and validity. It is to filter the false alarm triggered by leaves, small fly and insects. The PIR detection zone is smaller than the camera angle of view. The PIR function is enabled by default if the connected remote device supports the PIR function. When the PIR function is on, motion detection function is on by default. The motion detect event occurs when these two function are enabled at the same time. If the PIR function is disabled, check the enable box to enable the general motion detect function.

## Note

- ♦ The channel type shall be CVI if you want to enable PIR function.
- If the remote device does not support PIR function, the PIR item on the interface is grey or is hiding. That is to say, the PIR function is null.
- The interface does not display PIR enable state if current DVR does not support PIR function.
- Region: Click select button, the interface is shown as in Figure 4-136. Here you can set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. You can click Fn button to switch between the arm mode and disarm mode. In arm mode, you can click the direction buttons to move the green rectangle to set the motion detection zone. After you completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.
- Anti-dither: Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, you can see the each activation may last 10s if the local alarm is activated. During the process, if system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the screen prompt, alarm upload, email will not be activated again. After 10s, if system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Period: Click set button, you can see an interface is shown as in Figure 4-138. Here you can set motion detect period. System only enables motion detect operation in the specified periods. It is not for video loss or the tampering. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- ♦ In Figure 4-138, Select icon of several dates, all checked items can be edited

together. Now the icon is shown as . Click I to delete a record type from one

period.

- ♦ In Figure 4-138. Click button after one date or a holiday, you can see an interface shown as in Figure 4-139. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- Alarm output: when an alarm occurs, system enables peripheral alarm devices.
- Latch: when motion detection complete, system auto delays detecting for a specified time. The value ranges from 1-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Alarm upload: System can upload the alarm signal to the network (including alarm center) if you enabled current function.
- Send email: System can send out email to alert you when an alarm occurs.
- Record channel: System auto activates motion detection channel(s) to record once an alarm occurs. Please make sure you have set MD record in Schedule interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)
- PTZ activation: Here you can set PTZ movement when an alarm occurs. Such as go to preset, tour &pattern when there is an alarm. Click "select" button, you can see an interface is shown as in Figure 4-137.
- Record Delay: System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
- Tour: Here you can enable tour function when an alarm occurs. System one-window tour.
- Snapshot: You can enable this function to snapshot image when a motion detect alarm occurs.
- Video matrix Check the box here to enable this function. When an alarm occurs, SPOT OUT port displays device video output. It displays video (1-window tour) from alarm activation channel you select at the Record channel item.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Log: Check the box here, system can record motion detect log.
- Test: Click it to test current motion detect setup (do not need to save). Click Select button after Region, you can set motion detect area.
- Voice prompts: Check the box here to trigger audio broadcast function. You can select specified audio file here. System can play the audio file once the corresponding event occurs.

Please highlight icon is to select the corresponding function. After all the setups please click save button.

## D Note

In motion detection mode, you cannot use copy/paste to set channel setup since the video in each channel may not be the same.

In Figure 4-136, you can left click mouse and then drag it to set a region for motion detection. Click Fn to switch between arm/withdraw motion detection. After setting, click enter button to exit.

	SETTIN	G
	T NETWORK	STORAGE SYSTEM
VIDEO DETECT IVS FACE DETECT	Motion Detect Video Loss Channel 1	Tampering Diagnosis           Region         Set
ALARM ABNORMALITY	Enable MD	Enable PIR
ALARM OUTPUT	Period Set	Anti-dither 5 sec. Latch (10 sec.
	Show Message Alarm Uploa	
	PTZ Activation Set	Delay (10) sec.
	Tour 12345	67890123656
	Video Matrix Buzzer	CLog ne •
	(Default ) (Copy ) (Test	Save Cancel Apply

Figure 4-135

	2	3	4
Zon	e Name(Regio	on1	
Sen	sitivity	1	00
Thre	eshold		0

Figure 4-136

		PTZ A	ctivation	
CAM 1 CAM 3 CAM 5 CAM 7	None None None None		CAM 2 CAM 4 CAM 6 CAM 8	None•0None•0None•0None•0
		ОК	Cancel	

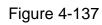




Figure 4-138

		Time Period	
Current Date: 5	un		
Period 1 (00 :	00 - 24 - 00		
Period 2 (00 1	00 - 24 00	0	
Period 3 00 1	00 - 24 00		
Period 4 (00 1)	00 - 24 00	0	
Period 5 (00:0	00 24 00		
Period 6 00 1	00 - 24 : 00		
Сору			
	Sun 📄 Mor	21 🕘 Tue 🕘 Wed 📄 Thu 📳 Fri 📄 Sat	
		Save	
		and the second s	

Figure 4-139

Motion detect here only has relationship with the sensitivity and region setup. It has no relationship with other setups.

#### 4.9.3.1.2 Video Loss

In Figure 4-135, select video loss from the type list. You can see the interface is shown as in Figure 4-140. This function allows you to be informed when video loss phenomenon occurred. You can enable alarm output channel and then enable show message function.

## Note

You can enable preset/tour/pattern activation operation when video loss occurs. Please refer to chapter 4.9.3.1.1 motion detection for detailed information.

	SETTING	
CAMERA	TE NETWORK THE EVENT	
VIDEO DETECT	Motion Detect Video Loss Tampering Diagnosis	
FACE DETECT	Channel (1 )	
ALARM ABNORMALITY	Enable 🕑	
ALARM OUTPUT	Period Set CAM AntDither (0 sec.	
	Alarm Out Set Latch 10 sec.	
	Show Message Alarm Upload Send Email	
	PTZ Activation Set Delay 10 sec.	
	()Tour 123466789191111114166	
	Snapshot 1234567891111111111	
	Buzzer CLog	
	Voice Prompts File Name None	
	Default Copy Save Cancel Apply	
1(		

Figure 4-140

#### 4.9.3.1.3 Tampering

When someone viciously masks the lens, or the output video is in one-color due to the environments light change, the system can alert you to guarantee video continuity. Tampering interface is shown as in Figure 4-141. You can enable "Alarm output "or "Show message" function when tampering alarm occurs.

• Sensitivity: The value ranges from 1 to 6. It mainly concerns the brightness. The level 6 has the higher sensitivity than level 1. The default setup is 3.

#### Tips:

You can enable preset/tour/pattern activation operation when video loss occurs. Please refer to chapter 4.9.3.1.1 motion detection for detailed information.



- In Detect interface, copy/paste function is only valid for the same type, which means you cannot copy a channel setup in video loss mode to tampering mode.
- About Default function. Since detection channel and detection type may not be the same, system can only restore default setup of current detect type. For example, if you click Default button at the tampering interface, you can only restore default tampering setup. It is null for other detect types.
- System only enables tampering function during the period you set here. It is null for motion detect or video loss type.

		SETTING		
CAMERA		EVENT	STORAGE	E 📑 SYSTEM
VIDEO DETECT	Motion Detect	Video Loss	Tampering	Diagnosis
FACE DETECT	Channel	0		
ALARM ABNORMALITY	Enable		Sensitivity	3
ALARM OUTPUT	Period	Set	CAM AntiDither	0 sec.
	Alarm Out	Set	Latch	10 sec.
	Show Message	Alarm Upload	Send Email	
	Record Channel	123466	0789000	313141518
	PTZ Activation	Set	Delay	(10 sec.
	Tour	123466	DECEDE	38468
	Snapshot	123456	0789000	313191519
	Buzzer	Log		
	Voice Prompts	File Name None	• •	
	Default Cop	y )	Sav	e Cancel Apply
		_	_	

Figure 4-141

4.9.3.1.4 Diagnosis

## D Note

This function is for some series only.

System can trigger an alarm when the stripe, noise, color cast, out of focus, over exposure event occurred. See Figure 4-142.

Please refer to chapter 4.9.3.1.1 motion detection for detailed information.

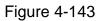
SETTING						
	T NETWORK	RVENT	STORAGE	SYSTEM		
VIDEO DETECT	Motion Detect	Video Loss	Tampering	Diagnosis		
FACE DETECT	Channel Enable	•	Rule			
ALARM ABNORMALITY ALARM OUTPUT	Enable Period Alarm Out Show Message Buzzer Voice Prompts	Set Set Alarm Upload Log File Name (None	Latch	Set	_	
	Delauit		Save	Cancel A	pply	

Figure 4-142

This function allows you to be informed when video is blurry, over exposure or color cast occurs. You can enable alarm output channel and then enable show message function. Click the Rule Set button, or move the cursor to Set button and then click the Enter button on the front panel, the interface is shown as below. See Figure 4-143. You can check corresponding type and then input alarm threshold.

- Stripe: The strip occurs when the device is old or there is electronic interference. There may be cross strip, vertical strip, slanting strip and etc.
- Noise: The video noise refers to the blurry video, poor video quality. It may result from the optical system distortion or the hardware problem during the video transmission when recording.
- Color cast: Usually the video is color containing RGB. When these three colors displayed in abnormal rate, we can say color cast occurred.
- Out of focus: The clear video presents abundant video details. The video definition decreases when the distortion event occurs. The out of focus event may result from many sources such as video transmission, processing and etc.
- Over exposure: The color brightness refers to the image pixel intensity. Black is the darkest and the white is the brightest. We use number 0 to stand for black and use number 255 to stand for white. Once the brightness threshold of the whole image has exceeded the threshold value, it means the image is over exposure.
- Threshold: The value ranges from 1 to 30. System can generate an alarm once the value is higher than the threshold you set here.





## D Note

Video analysis alarm can trigger PTZ preset, tour, and pattern. Please refer to chapter 4.9.3.1.1 motion detection for detailed information.

#### 4.9.3.2 IVS (Optional)



- The IVS function is optional.
- The different series products support different IVS functions. Please refer to your purchased product actual interface for detailed information.
- Disable Add IP channel function if you want to use IVS function.

Once any object violates the rule, the DVR can trigger an alarm and alert you as the specified alarm mode.

Step 1 From main menu->Setting->Event->IVS.

Enter IVS interface. See Figure 4-144.

	li di seconda di second	SETTING		
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM
VIDEO DETECT IVS FACE DETECT	Channel (1	Ð		
ALARM ABNORMALITY ALARM OUTPUT			Type Preset	Draw Tri. Delete
	Default		() (	Cancel Apply

Figure 4-144

- Step 2 Select a channel from the dropdown list.
- Step 3 Click Add button to add a rule and then select a rule type from the dropdown list.
- Step 4 Set corresponding parameters.
- Step 5 Check the box to enable current rule.
- Step 6 Click Apply or Save to complete setup.

#### 4.9.3.3 Tripwire (Optional)

System generates an alarm once there is any object crossing the tripwire in the specified direction.

- The tripwire supports customized setup. It can be a straight line or a curve.
- Support one-direction or dual-direction detection.
- Support several tripwires at the same scene suitable for complicated environment.
- Support object size filter.
- Step 1 From main menu->Setting->Event->IVS, click Add button to add a rule and select the rule type as tripwire.

The interface is shown as below. See Figure 4-145.

<u> </u>		SETTIN	G		
CAMERA	T NETWORK	EVENT	STORA	AGE 🛃	SYSTEM
VIDEO DETECT	Channel (1				
ALARM ABNORMALITY ALARM OUTPUT	1 Enab	le Name Rule1	Type Tripwire •	d Cance	<b>ö</b> ×

Figure 4-145



1. Click Draw button *local* to draw the tripwire. See Figure 4-146.



Figure 4-146

- 2. Select direction, and then input customized rule name.
  - Name: Input customized rule name.
  - Direction (L→R/R→L/Both): System can generate an alarm once there is any object crossing in the specified direction.
  - Target filter: Click, you can set filter object size. Each rule can set two sizes (min size/max size). Once the object is smaller than the min

size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

- 3. Left click mouse to draw a tripwire. The tripwire can be a direct line, curve or polygon. Right click mouse to complete.
- 4. Click OK. Complete drawing tripwire.

Step 3 Click to set parameters.

Enter triggered parameters interface. See Figure 4-147.

- Step 4 Set parameters.
- Period: Click set button, you can see an interface is shown as in Figure 4-138. Here you can set tripwire period. System only enables tripwire operation in the specified periods. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- $\diamond$  In Figure 4-138, Select icon  $\square$  of several dates, all checked items can be

edited together. Now the icon is shown as . Click to delete a record type from one period.

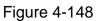
- ♦ In Figure 4-138. Click button after one date or a holiday, you can see an interface shown as in Figure 4-139.
- Alarm output: when an alarm occurs, system enables peripheral alarm devices.
- Latch: when tripwire complete, system auto delays detecting for a specified time. The value ranges from 1-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Send email: System can send out email to alert you when an alarm occurs.
- Record channel: System auto activates tripwire channel(s) to record once an alarm occurs. Please make sure you have set intelligent record in Schedule interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)
- PTZ activation: Here you can set PTZ movement when an alarm occurs. Such as go to preset, tour &pattern when there is an alarm. Click "set" button, you can see an interface is shown as in Figure 4-148.
- Record Delay: System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.

- Tour: Here you can enable tour function when an alarm occurs. Please go to main menu->Setting->System->Display->Tour to set tour type and interval (chapter 4.9.5.2.3 Tour)
- Snapshot: You can enable this function to snapshot image when a motion detect alarm occurs.
- Video matrix: Check the box here to enable this function. When an alarm occurs, VIDEO OUTPUT port displays device video output. It displays video (1-window tour) from alarm activation channel you select at the Record channel interface. It has high priority than the tour setup in Main menu->Setting->System->Video matrix. Please note this function is for some series product only.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Log: Check the box here, system can record corresponding alarm log.
- Voice prompts: Check the box here to trigger audio broadcast function. You can select specified audio file here. System can play the audio file once the corresponding event occurs.

		Trigg	er 💦		
Period	(Set )				
Alarm Out	023456	Latch	(10	sec.	
Show Message	Alarm Upload	Send Email			
Record Channe	123466	089096	000		
PTZ Activation	Set	Delay	(10	) sec.	
Tour	123456	DOGODO	000		
Snapshot	023456		GIGG		
Video Matrix	Buzzer	Log			
Voice Prompts	File Name None	9			
				Save	Cancel
				Save	Cancel

Figure 4-147

		PTZ Activation		
CAM 1	(None 💎 🛈	CAM 2	None	
CAM 3	(None 🕤 🛈	CAM 4	None	$\mathbb{D}$
CAM 5	None 0	CAM 6	None	$\mathbf{D}$
CAM 7	None 💽 🛈	CAM 8	None	$\mathbb{D}$
CAM 9	(None 🕞 (0	CAM 10	None	$\mathbf{D}$
CAM 11	(None 🕑 (0	CAM 12	None	$\mathbf{D}(0)$
CAM 13	None 🕤 🛈	CAM 14	None	$\mathbb{D}$
CAM 15	(None 🕤 (0	CAM 16	None	$\mathbf{P}(0)$
CAM 15			NURSELLUS:	
		OK Cancel		
_	-	ок (	Cancel	Cancel



- Step 5 Click OK button in Figure 4-147. Device goes back to Figure 4-145.
- Step 6 Check the Enable box to enable tripwire function. Click Apply or Save to complete setup.

Device begins tripwire detection.

#### 4.9.3.4 Intrusion (Cross warning zone) (Optional)

System generates an alarm once there is any object entering or exiting the zone in the specified direction.

- System supports customized area shape and amount.
- Support appear/cross detection.
- Can detect the moving object operation in the specified zone, customized trigger amount and staying time.
- Support objects filter function.
- Step 1 From main menu->Setting->Event->IVS, click Add button and then select type as intrusion, the interface is shown as below. See Figure 4-149.

			SETTI	NG						
CAMERA	🐲 NETWORK		EVENT		ORA	SE	s 🛃	YSTEN		
VIDEO DETECT	Channel (1		Ð							
ALARM ABNORMALITY ALARM OUTPUT	2 1 2 Detault	nable	Name Rule1 Rule2	Type Tripwire Intrusion	• •	Preset	Cancel		Apply	
	_	_	_							

Figure 4-149

- Step 2 Draw the zone.
  - 1. Click draw button *local* to draw the zone. See Figure 4-150.



Figure 4-150

- 2. Select direction, and then input customized rule name.
  - Name: Input customized rule name.
  - Action: You can set intrusion action: appear/cross.
  - Direction (Entry/Exit/Both): System can generate an alarm once there is any object crossing in the specified direction.
  - Target filter: Click, you can set filter object size. Each rule can set two sizes (min size/max size). Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.
- 3. Left click mouse to draw a warning zone. Right click mouse to complete the setup.
- 4. Click OK. Complete drawing intrusion rule.

Step 3 Click **C**, it is to set parameters.

Please refer to chapter 4.9.3.3 to set other parameters.

Step 4 Check the Enable box to enable intrusion function. Click Apply or Save to complete setup.

Device begins intrusion detection.

#### 4.9.3.5 Abandoned Object Detect (Optional)

System generates an alarm when there is abandoned object in the specified zone.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.
- Step 1 From main menu->Setting->Event->IVS, click Add button and then select the type as abandoned object. The object interface is shown as below. See Figure 4-151.

		SETTI	NG			
CAMERA		EVENT	STOR	AGE	ing Syst	
VIDEO DETECT NS FACE DETECT	Channel (1					
ALARM ABNORMALITY ALARM OUTPUT	3 Enal 2 3 3 Verset	ble Name Rule1 Rule2 Rule3	Type Tripwire • Intrusion • Abandoned •	Preset	Cancel	× *
						_

Figure 4-151

- Step 2 Draw the zone.
  - 1. Click draw button to draw the zone. See Figure 4-152.

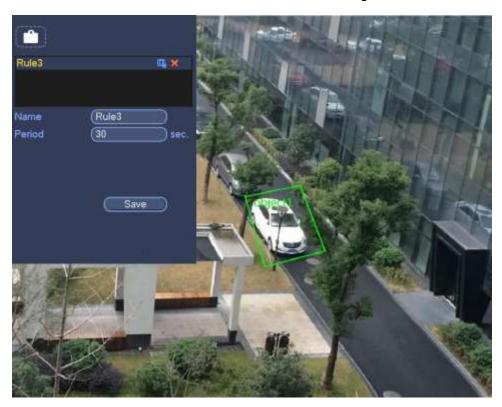


Figure 4-152

- 2. Set parameters.
  - Name: Input customized rule name.
  - Period: System can generate an alarm once the object is in the zone for the specified period.
  - Target filter: Click , you can set filter object size. Each rule can set

two sizes (min size/max size). Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

- 3. Left click mouse to draw a zone, until you draw a rectangle, you can right click mouse.
- Click OK.
   Complete drawing abandoned object detection rule.

Step 3 Click **O**, it is to set parameters.

Please refer to chapter 4.9.3.3 to set other parameters.

Step 4 Check the Enable box to enable abandoned object detection function. Click
 Apply or Save to complete setup.
 Device begins abandoned object detection.

#### 4.9.3.6 Missing Object Detection (Optional)

System generates an alarm when there is missing object in the specified zone.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.
- Step 1 From main menu->Setting->Event->IVS, select the type as abandoned object, the object interface is shown as below. See Figure 4-153.

_	_		SETTI	NG		_	_	_	_
CAMERA	TRETWO	RK F	EVENT	ST	ORA	\GE	s 🛃	YSTE	M
VIDEO DETECT VS FACE DETECT	Channel	(1	Ð						
	4	Enable	Name	Туре		Preset	Draw	Tri	Delete
	1		Rule1	Tripwire			1		
ABNORMALITY	1 2 3 4		Rule2	Intrusion	•		1	0000	* * *
ALARM OUTPUT	3		Rule3	Abandoned			4	•	×
And the second second	- 4 -		Rule4	Missing	*		1	۵	*
	Defau				Ad		Cancel		Apple
	(Detau	5			Ao		Cancel		Apply

Figure 4-153

- Step 2 Draw the zone.
  - 1. Click Draw button *local* to draw a zone. See Figure 4-154.

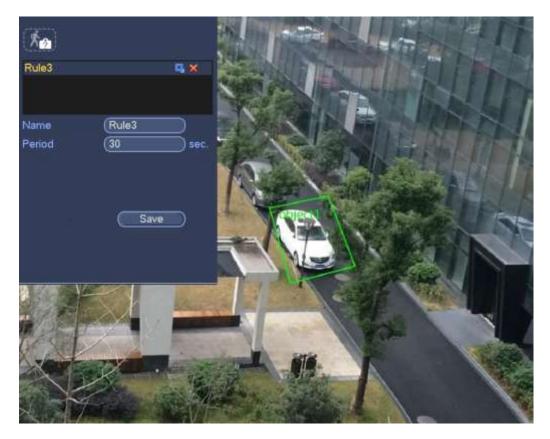


Figure 4-154

- 2. Set parameters.
  - Name: Input customized rule name.
  - Period: System can generate an alarm once the object in the zone is missing for the specified period.
  - Target filter: Click, you can set filter object size. Each rule can set two sizes (min size/max size). Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.
- 3. Left click mouse to draw a zone, until you draw a rectangle, you can right click mouse.
- 4. Click OK. Complete drawing missing object detection rule.
- Step 3 Click 2, it is to set parameters.

Please refer to chapter 4.9.3.3 motion detect to set other parameters.

- Step 4 Check the Enable box to enable missing object detection function. Click Apply or
   Save to complete setup.
   Device begins missing object detection.
- 4.9.3.7 Face Detect (Optional)

# The face detection function is optional. The intelligence function and the human face detection cannot be valid at the same time!

## Note

- The face detection function is valid once your network camera or your DVR supports this function.
- If your purchased DVR supports the face detection function, it supports one analog channel. It is not for the digital channel
- The intelligence function and the face detection function cannot be valid at the same time.

System can detect and filter the human face via analyzing the video. When it detects the human face in the specified zone, it can draw the rectangle around the human face and trigger record, snapshot, alarm operation and etc. See Figure 4-155.

- Channel: Select a channel you want to enable face detect function.
- Alarm face number: Once the detected human face number reaches the threshold you set here, system can generate an alarm.
- Human face RO (region of interest): Check the box, system can highlight the human face region.
- Enable: Check the box here to enable face detect function.

For detailed setup information, please refer to chapter Step 6.

S	1	SETTING
CAMERA	TWORK	📷 EVENT 🔀 STORAGE 📑 SYSTEM
VIDEO DETECT	Channel Enable	(1 Target Filter Set
ALARM ABNORMALITY ALARM OUTPUT	Period Alarm Out	Set Latch (10 sec.
	Record Channe PTZ Activation	el 12345678901121214130 Set Delay (10 sec.
	Snapshot	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	Default	Save Cancel Apply

Figure 4-155

#### 4.9.3.8 Alarm

## Note

XVR series product does not support HDCVI alarm function (Figure 4-158).

Before operation, please make sure you have properly connected alarm devices such as buzzer.

In the main menu, from Setting->Event->Alarm, you can see alarm setup interface. For analog channel, the interface is shown as in Figure 4-156 and Figure 4-157 For HDCVI channel, there are three alarm types. See Figure 4-156 to Figure 4-158. For digital channel, there are four alarm types. See Figure 4-156 to Figure 4-160.

- Local alarm: The alarm signal system detects from the alarm input port.
- HDCVI: System can get the camera temperature, smoke, external alarm and set corresponding alarm activation operation.
- IPC external alarm: It is the on-off alarm signal from the front-end device and can activate the local HDVR.
- IPC offline alarm: Once you select this item, system can generate an alarm when the front-end IPC disconnects with the local HDVR. The alarm can activate record, PTZ, snap and etc. The alarm can last until the IPC and the HDVR connection resumes.

• Alarm box: The alarm signal from the connected peripheral alarm box. **Important** 

- If it is your first time to boot up the device, the disconnection status of the front-end network camera will not be regarded as offline. After one successfully connection, all the disconnection events will be regarded as IPC offline event.
- When IPC offline alarm occurs, the record and snapshot function of digital channel is null.
- Alarm in: Here is for you to select channel number.
- Type: normal open or normal close.
- PTZ activation: Here you can set PTZ movement when an alarm occurs. Such as go to preset, tour& pattern when there is an alarm. Click "select" button, you can see an interface is shown as in Figure 4-161.
- Period: Click set button, you can see an interface is shown as in Figure 4-162. There are two ways for you to set periods. There are max 6 periods in one day. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
  - ♦ In Figure 4-162, Select icon of several dates, all checked items can be

edited together. Now the icon is shown as . Click to delete a record type from one period.

♦ In Figure 4-162. Click button after one date or a holiday, you can see an interface shown as in Figure 4-163. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.

- Anti-dither: Here you can set anti-dither time. Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, you can see the each activation may last 10s if the local alarm is activated. During the process, if system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the screen prompt, alarm upload, email will not be activated again. After 10s, if system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Alarm upload: System can upload the alarm signal to the network (including alarm center) if you enabled current function.
- Send email: System can send out email to alert you when an alarm occurs.
- Record channel: you can select proper channel to record alarm video (Multiple choices). At the same time you need to set alarm record in schedule interface (Main Menu->Setting->Schedule) and select schedule record in manual record interface (Main Menu->Advance->Manual Record).
- Latch: Here is for you to set proper delay duration. Value ranges from 10 to 300 seconds. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.
- Tour: Here you can enable tour function when an alarm occurs. System supports 1/8-window tour. Please note the tour setup here has higher priority than the tour setup you set in the Display interface. Once there two tours are both enabled, system can enable the alarm tour as you set here when an alarm occurred. If there is no alarm, system implements the tour setup in the Display interface.
- Snapshot: System can snapshot corresponding channel when an alarm occurs. Please note the activation snapshot has the higher priority than schedule snapshot. If you have enabled these two types at the same time, system can activate the activation snapshot when an alarm occurs, and otherwise system just operates the schedule snapshot.
- Video matrix Check the box here to enable this function. When an alarm occurs, SPOT OUT port displays device video output. It displays video (1-window tour) from alarm activation channel you select at the Record channel item.
- Log: Check the box here, system can record local alarm log.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Voice prompts: Check the box here to trigger audio broadcast function. You can select specified audio file here. System can play the audio file once the corresponding event occurs.

Please note, network alarm means the alarm signal from the TCP/IP. You can use NET SDK to activate network alarm. Comparing with the local alarm, there is no type, anti-dither, alarm upload function.

		SETTING			
CAMERA		m EVENT	STORAGE	SYS	TEM
VIDEO DETECT	Local	HDCVI	IPC Ext	IPC Offline	Alarm Box
FACE DETECT	Alarm in	0 0	Alarm Name	(Alarm In1)	
ALARM	Enable		Туре	(NO )	
ABNORMALITY ALARM OUTPUT	Period	Set	Anti-dither	6	sec.
	Alarm Out	Set	Latch	(10	sec.
	Show Message	Alarm Upload	Send Email	6	
	Record Channel				
	PTZ Activation	Set )	Delay 17890012	<u>, 181</u>	sec.
	Snapshot	023466	0000000		
	Video Matrix	Buzzer	Log		
	Voice Prompts	File Name None	9		
	Default Cop	y.	Save	Cancel	Apply

Please highlight icon **I** to select the corresponding function. After setting all the setups please click save button, system goes back to the previous menu.

Figure 4-156

Ŵ		SETTING			
CAMERA	😿 NETWORK	D EVENT	STORAGE	e 🛃 S1	STEM
VIDEO DETECT	Local	HDEVI	IPC Ext	IPC Offline	Alarm Box
FACE DETECT	Alarm In		Alarm Name		
ALARM	Enable				
ABNORMALITY ALARM OUTPUT	Period	Set	Anti-dither	(5	) sec.
	Alarm Out	Set	Latch	(10	) sec.
	Show Message	Alarm Upload			
	Record Channel	123456 Set	Delay	3	S
	Tour	nggaaga	ាកានាចាតាកាក		) sec.
	Snapshot	023466	00000000		
	Video Matrix	Buzzer	Log		
	Voice Prompts	File Name None	• 🕑		
	Detault Cop	y Test	) (Sav	e Cance	

Figure 4-157

		SETTING			
CAMERA	T NETWORK	EVENT	STORAG	e 🛃 s	YSTEM
VIDEO DETECT	Local	HDCVI	IPC Ext	IPC Offline	Alarm Box
FACE DETECT	Channel	$\bigcirc$	Alarm Name		
ALARM	Enable		Туре	(NC	9
ABNORMALITY ALARM OUTPUT	Period	Set	Anti-dither	(5	) sec.
	Alarm Out	Set	Latch	(10	) sec.
	Show Message	Alarm Upload	Send Email		
	Record Channel	123456	0789000	2	
	PTZ Activation	Set	Delay	(10	) sec.
	Tour	023466	0089000	3	
	Snapshot	023466	0789000	3	
	Video Matrix	Buzzer	Log		
	Voice Prompts	File Name (None	: )		
	(Detault ) Cop	v Test	) ( <u>Sa</u>	e Canc	el Apply
	Contrast Contrast				

Figure 4-158

Ŭ.		SETTING			
CAMERA		BVENT		: 🛛 🛃 SYA	TEM
VIDEO DETECT	Local	HDCVI	IPC Ext	IPC Offline	Alarm Box
FACE DETECT	Channel		Alarm Name	$\bigcirc$	
ALARM ABNORMALITY	Enable				
ALARM OUTPUT	Period	Set Set	Anti-dither	(10	) sec. ) sec.
	Show Message	Alarm Upload	Send Email		
	Record Channel	Set )	Delay	10	) sec.
	Tour	023466			
	Snapshot	Buzzer	)7090000 Ølog	3	
	Voice Prompts	File Name (None			
	Default Copy	Test	Save	a Cancel	
0	Copy			Cancer	

Figure 4-159

ų		SETTING			
CAMERA			STORAG	E 🛃 s	YSTEM
VIDEO DETECT	Local	HDCVI	(IPC Ext	IPC Offline	Alarm Box
FACE DETECT	Alarm Box	<u> </u>	Alarm In		🕑 🛃 Enable
ALARM	Alarm Name		Туре	(NO	)
ALARM OUTPUT	Period	Set	Anti-dither	(6	) soc.
	Alarm Out	Set	Latch	(10	Sec.
	Show Message	Alarm Upload			
	Record Channel	the fact that is		and the second sec	
	PTZ Activation	(Set	Delay	(10	) sec.
	Tour			1000	
	Snapshot			12	
	Voice Prompts	Buzzer File Name Non	e 🕞		
	Conservation and	The second second	45 (V)		
	100000 million				
	Default		(Sav	e Canc	el Apply

Figure 4-160

		PTZ /	Activation	
CAM 1 CAM 3 CAM 5 CAM 7	None None None None		CAM 2 CAM 4 CAM 6 CAM 8	None0None0None0None0
		ОК	Cancel	

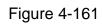




Figure 4-162



Figure 4-163

#### 4.9.3.9 Abnormality

There are four types: HDD/Network/User/Device. Please note device interface is for some series only.

- ♦ HDD: HDD error, no disk, no space. See Figure 4-164 and Figure 4-165.
- ♦ Network: Disconnection, IP conflict, MAC conflict. See Figure 4-166.
- ♦ User:Illegal login. See Figure 4-167.
- ♦ Device: High temperature, fan speed abnormal. See Figure 4-168.
- Alarm output: Please select alarm activation output port (multiple choices).
- Less than: System can alarm you when the HDD space is less than the threshold you set here (For HDD no space type only).
- Latch: Here you can set corresponding delaying time. The value ranges from 0s-300s. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled. When the value is 0, there is no latch time.
- High temperature: In Device interface (Figure 4-168), select High temperature from the dropdown list, and then input the max temperature. The value ranges from 30 °C ~ 90 °C. Device can trigger an alarm once the case temperature is higher than the value you set.
- Fan speed abnormal: In Device interface (Figure 4-168), select Fan speed abnormal from the dropdown list, and then click the OK button after the Fan calibration. It can correct fan manually. Please note we recommend this function after you replaced or maintained the fan.
- Show message: system can pop up the message in the local screen to alert you when an alarm occurs.
- Alarm upload: System can upload the alarm signal to the network (including alarm center) if you enabled current function. For disconnection event, IP conflict event and MAC conflict event, this function is null.

- Send email: System can send out email to alert you when an alarm occurs.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Log: Check the box here, system can record HDD event log.
- Voice prompts: Check the box here to trigger audio broadcast function. You can select specified audio file here. System can play the audio file once the corresponding event occurs.

		SETTING		
CAMERA	T NETWORK	THE EVENT	STORAGE	SYSTEM
VIDEO DETECT IVS FACE DETECT ALARM ABNORMALITY ALARM OUTPUT	HDD Event Type Enable Alarm Out Show Message Buzzer Voice Prompts	Network	Laich	10 sec.
	<u>`</u>			

Figure 4-164

SETTING				
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM
VIDEO DETECT	HDD	Network	User	
FACE DETECT ALARM ABNORMALITY	Event Type Enable	(HDD No )	Less Than	<i></i>
ALARM OUTPUT	Alarm Out	123466	Latch 🕕	)) sec.
	Show Message	Alarm Upload	Send Email	
	Vaice Prompts	File Name None		
			Save	Cased Apply
				Cancel Apply

Figure 4-165

li.		SETTING			
CAMERA	T NETWORK	EVENT	STORAG	e 🛃	SYSTEM
VIDEO DETECT	HDD	Network	User		
FACE DETECT	Event Type	Net Disco			
ALARM	Enable				
ABNORMALITY ALARM OUTPUT					
	Alarm Out	Set	Latch	(10	Sec.
	Show Message		Send Email		
	Record Channe				<u> </u>
	Buzzer		Delay	(10	ec.
	Voice Prompts	File Name None	• •		
			Sa	ve 🕖 🤇 Can	cel Apply
()					

Figure 4-166

SETTING				
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM
VIDEO DETECT	HDD	Network	User	
FACE DETECT	Event Type Enable	(Illegal Login 🔹		5 5min.
ABNORMALITY ALARM OUTPUT				
	Alarm Out	Set	Latch	(10) sec.
	Buzzer	CLog Fée Name (None	Ð	
			Saus	Cancel Apple
			( Save	Cancel Apply

Figure 4-167

		SETTING	L_	
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM
VIDEO DETECT	HDD	Network	User Dev	/ice
FACE DETECT ALARM ABNORMALITY	Event Type Enable	(Fan Spei	e 🕑 Alarm Name Fan Calibration	(Fan Alarm) OK
ALARM OUTPUT	Alarm Out	0230	956 Latch	(10) sec.
	Show Message	<b>O</b> Log	Send Email	
	Voice Prompts	File Name	(None )	
			Save	Cancel Apply

Figure 4-168

#### 4.9.3.10 Alarm Output

Here is for you to set proper alarm output such as auto, manual. See Figure 4-169.

Please highlight icon loss to select the corresponding alarm output. Click Apply or Save to complete setup.

		SETTING	
CAMERA		EVENT	STORAGE
VIDEO DETECT IVS FACE DETECT ALARM ABNORMALITY ALARM OUTPUT	General Alarm Alarm Type Auto Manual Stop Status Ext. Alarm Alarm Box Alarm Type Auto Manual Stop Status Alarm Release	Al 1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Save Cancel Apply

Figure 4-169

#### 4.9.4 Storage

4.9.4.1 Schedule 4.9.4.1.1 Record

## Note

You need to have proper rights to implement the following operations. Please make sure the HDDs have been properly installed.

After the system booted up, it is in default 24-hour regular mode. You can set record type and time in schedule interface.

In the main menu, from Setting->Storage->Schedule, you can go to schedule menu. See Figure 4-173.

Please note you need to go to main menu->Setting->System->General->Holiday to set holiday date first, otherwise, there is no holiday setup item.

- Channel: Please select the channel number first. You can select "all" if you want to set for the whole channels.
- ♦ Sync connection icon. Select icon of several dates, all checked items

can be edited together. Now the icon is shown as

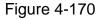


- Click it to delete a record type from one period.
- Record Type: Please check the box to select corresponding record type. There are four types: Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu->System->General) to add holiday first. Otherwise you cannot see this item.
- Pre-record: System can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.
- Redundancy: System supports redundancy backup function. You can highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. (Main menu->Setting->Storage->HDD Manager). Please note this function is null if there is only one HDD.
- after one date or a holiday, you can see an interface Period setup: Click button shown as in Figure 4-174. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.

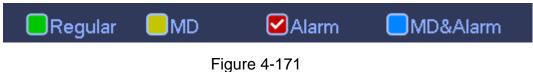
Please following the steps listed below to draw the period manually.

♦ Select a channel you want to set. See Figure 4-170.





Set record type. See Figure 4-171.



Please draw manually to set record period. There are six periods in one day. See Figure 4-172.



Figure 4-172

Please highlight icon <a>
 </a>
 to select the corresponding function. Click Apply or Save to complete setup.

There are color bars for your reference. Green color stands for regular recording, yellow color stands for motion detection and red color stands for alarm recording. The white means the MD and alarm record is valid. Once you have set to record when the MD and alarm occurs, system will not record neither motion detect occurs nor the alarm occurs.



Figure 4-173

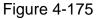
	01:00	1241.00	fleguler	C MO	C Alarra	C MD&AM
Penard 2	09 10	- 24 40	Cittegeter	OME	C Alim	C) MD&Aa
Period 3	03 00	241 00	Reput	СМО	D/Alarm	E] MD6Ala
Percet 4	02:100		Regula	C) MO	C Aliann	C MD&Ala
Period 5	(02.10	- 24 - 60	Citienter	OMP	C Alem	DMD64m
Ferred 6	01 00	- 24: 00	☐ Regular	C MC	Alam	MDAAb
0*	( contri		ue ()Wed ()Thu (		۲	

Figure 4-174

### 4.9.4.1.1.1 Quick Setup

Copy function allows you to copy one channel setup to another. After setting in channel 1, click Copy button, you can go to interface Figure 4-175. You can see current channel name is grey such as channel 1. Now you can select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.

	Сору						
1234							
ОК	Cancel						



### 4.9.4.1.1.2 Redundancy

Redundancy function allows you to memorize record file in several disks. When there is file damage occurred in one disk, there is a spare one in the other disk. You can use this function to maintain data reliability and safety.

- In the main menu, from Setting->Storage-> Schedule, you can highlight redundancy button to enable this function.
- In the main menu, from Main menu->Setting->Storage->HDD Manager, you can set one or more disk(s) as redundant. You can select from the dropdown list. System auto overwrites old files once hard disk is full.

Please note only read/write disk or read-only disk can backup file and support file search function, so you need to set at least one read-write disk otherwise you cannot

record video.

III Note

- If current channel is not recording, current setup gets activated when the channel begin recording the next time.
- If current channel is recording now, current setup will get activated right away, the current file will be packet and form a file, then system begins recording as you have just set.

After all the setups please click save button. .

## Playback or search in the redundant disk.

There are two ways for you to playback or search in the redundant disk.

- Set redundant disk(s) as read-only disk or read-write disk (Main menu->Setting->Storage->HDD Manager)). System needs to reboot to get setup activated. Now you can search or playback file in redundant disk.
- Dismantle the disk and play it in another PC.

4.9.4.1.2 Snapshot

4.9.4.1.2.1 Schedule Snapshot

- On the preview interface, right click mouse and then select Manual->Record, or in the main menu, from Setting->Storage->Record, check the box to enable snapshot function of corresponding channels. See Figure 4-176.
- In main menu, from Setting->Camera->Encode->Snapshot interface, here you can input snapshot mode as regular, size, quality and frequency. See Figure 4-177.
- In main menu, from Setting->Camera->Encode->Schedule interface, please enable snapshot function. See interface on the right of Figure 4-178.

Please refer to the following figure for detailed information.

		- 66	SETTING		14	
CAMERA	NETWORK			STORAGE	SYSTEM	
SCHEDULE HDD MANAGE RECORD HDD DETECT	Main Stream Schedule Manual Stop Sub Stream Schedule Manual Stop Shapshot Open Stop	<b>4</b> 000 000 00	1234 0000 0000 0000			
_		_	_	ОК	Cancel Appl	D

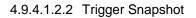
Figure 4-176

SETTING							
				STORAGE	SYSTEM		
REMOTE	Encode	Snapshot	Overlay				
ENCODE	Manual Snap	(1 )	/Time				
CAM NAME CHANNEL TYPE	Channel Mode Image Size Image Quality Interval	1   1     Regular   1     CIF   1					
	(Default) (	Сору	_	ОК	Cancel Apply		

Figure 4-177



Figure 4-178



Please follow the steps listed below to enable the activation snapshot function. After you enabled this function, system can snapshot when the corresponding alarm occurred.

- In main menu, from Setting->Camera->Encode->Snapshot interface, here you can input snapshot mode as trigger, size, quality and frequency. See Figure 4-179.
- In main menu, from Setting->Event->Detect, please enable snapshot function for specified channels (Figure 4-180). Or in main menu, from Setting->Event->Alarm (Figure 4-181) please enable snapshot function for specified channels.

		SET	TTING		
CAMERA	TWORK		e i	STORAGE	SYSTEM
REMOTE	Encode	Snapshot	Overlay		
ENCODE	Manual Snap	0	) /Time		
CAM NAME CHANNEL TYPE	Channel	1	)		
	Mode	Trigger			
	Image Size Image Quality Interval				
	(Default)	Сору			Cancel Apply

Figure 4-179

	1	SETTING		
CAMERA			STORAGE	SYSTEM
VIDEO DETECT	Motion Detect	Video Loss	Tampering Diag	nosis
ALARM ABNORMALITY ALARM OUTPUT	Channel Enable	(1); Ø	) Region Set	
	Period	(Set )	Anti-dither (5	)sec.
	Alarm Out	123	Latch (10	)sac.
	Show Message	Alarm Upload	Send Email	
	Record Channe	023866	DEEEEEE	199
	PTZ Activation	Set	Delay (10	Disec.
	Tour	023456	COOCCAC	00
	Snapshot	023456	DEEDEEEEE	166
	Video Matrix	Buzzer	Log	
	Vaice Prompts	File Name (None	• •	
	Default Co	py Test	Save	Cancel Apply
-				

Figure 4-180

		SETTING			
CAMERA	NETWORK	EVENT	STOR	AGE 😽 S	YSTEM
VIDEO DETECT	Local	Net	HDEVI	IPC Ext	IPC Offine
ABNORMALITY	Alarm In	(† P	Alarm Name	(Alarm In1	
ALARM OUTPUT	Enable	0	Туре	(NO T	)
	Period	Set	Anti-dither (	5)sec	
	Alarm Out	123	Latch (	10 sec	
	Show Message	Alarm Upload	Send Em	ail)	
	Record Channel	023456	078966	100606	
	PTZ Activation	Set	Delay (	10 )sec	
	Tour	020486	nasam	ាលាចារាចាតា	
	Snapshot	023455	078900	JOGGOG	
	Video Matrix	Buzzer	Clog		
	Voice Prompts	File Name None	Ð		
	(Default) Cop	y)	C	Save Cance	el Apply
	Comment of the second		_		0

Figure 4-181

Please note the activation snapshot has the higher priority than schedule snapshot. If you have enabled these two types at the same time, system can activate the activation snapshot when an alarm occurs, and otherwise system just operates the schedule snapshot.

#### 4.9.4.1.2.4 Image FTP

In the main menu, from Setting->Storage->FTP, you can set FTP server information. Please enable FTP function and then click save button. See Figure 4-182. Please boot up corresponding FTP server.

Please enable schedule snapshot (Chapter 4.9.4.1.2.1) or activation snapshot (Chapter 4.9.4.1.2.2) first, now system can upload the image file to the FTP server.

t.	SETTING
CAMERA	🚁 NETWORK 📷 EVENT STORAGE
BASIC SCHEDULE HDD MANAGE FTP RECORD ADVANCE QUOTA HDD DETECT	Enable      Host IP     0
	Channel (1 ) Week Day Tue Period 1 (00:00 · 24:00) Period 2 (00:00 · 24:00) Period 2 (00:00 · 24:00) Period 2 (00:00 · 24:00) Period 5 (00:00 · 24:00) Period 7 (00:00 · 20) Period 7 (00:00 · 20)
	Default Test Save Cancel Apply

Figure 4-182

### 4.9.4.2 HDD Manager

Here is for you to view and implement hard disk management. See Figure 4-183. You can see current HDD type, status, capacity and etc. The operation includes format HDD, and change HDD property (read and write/read-only/redundancy).

	SETTING
CAMERA	T NETWORK TO EVENT
BASIC SCHEDULE HDD MANAGE FTP RECORD ADVANCE QUOTA HDD DETECT	SATA 1 2 3 4 ESATA 5 6 7 8 9 10 11 12 ESATA All Device Name Type Status Free Space/Total Space All 0.00 MB/0.00 MB
	(Refresh Format Save Cancel Apply

Figure 4-183

## 4.9.4.3 FTP

It is to backup record file or image to the FTP to storage or view.

Before the operation, please download or purchase the FTP service tool and install on the PC.

# D Note

For the FTP user, please set FTP folder write right, otherwise system cannot upload the image.

Step 1 From main menu->Setting->Storage->FTP, enter FTP interface. See Figure 4-184.

Step 2 Set parameters.

Here you can input FTP server address, port and remote directory. When remote directory is null, system automatically create folders according to the IP, time and channel.

- Host IP: The host IP you have installed the FTP server.
- Host port: The default setup is 21.
- User name/Password: The account for you to access the FTP server.
- Remote directory: The folder you created under the root path of the FTP according to the corresponding rule.
  - If there is no remote directory, system can auto create different directories according to the IP, time and channel.
  - $\diamond$  If there is remote directory, system can create corresponding folder under the

FTP root path and then create different folders according to IP address, time and channel.

- File length: File length is upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.
- Image upload interval: It is the image upload interval. If the image upload interval is larger than the image snapshot frequency, system just uploads the lasted image.
  - ♦ If the image interval is 5 seconds and the snapshot frequency is 2 seconds, system will send out the latest image at the buffer at 5 seconds.
  - If the image upload interval is smaller than the snapshot frequency, system will upload at the snapshot frequency. For example, if the image interval is 5 seconds and the snapshot frequency is 10 seconds, system will send out the image at 10 seconds.
  - From main menu->Setting->Camera->Encode->Snapshot to set snapshot frequency.
- Channel: Select a channel from the dropdown list and then set week, period and record type.
- Week day/Period: Please select from the dropdown list and for each day, you can set two periods.
- Type: Please select uploaded record type (Alarm/intelligent/motion detect/regular). Please check the box to select upload type.
- Step 3 Click the Test button, you can see the corresponding dialogue box to see the FTP connection is OK or not.
- Step 4 Click Apply or Save to complete setup.

	SETTING
CAMERA	T NETWORK THE STORAGE SYSTEM
BASIC SCHEDULE HDD MANAGE FTP RECORD ADVANCE QUOTA HDD DETECT	
	Period 2 00:00 -24:00

Figure 4-184

## 4.9.4.4 Advanced

It is to set HDD group, and HDD group setup for main stream, sub stream and snapshot operation

4.9.4.4.1 HDD



HDD group and quota mode cannot be valid at the same time. System needs to restart once you change the mode here.

Step 1 From main menu->Setting->Storage->Advanced->HDD. Enter HDD interface. See Figure 4-185.

Step 2 Set parameters.

- HDD: Here you can view the HDD amount the device can support.
- Group: It lists the HDD Group number of current hard disk.

		SETTIN	G )	
CAMERA	👬 NETWORK		STORAGE	E SYSTEM
BASIC SCHEDULE HDD MANAGE	HDD Current HDD M	Main Stream ode is HDD Group.	Sub Stream	Snapshot
FTP RECORD ADVANCE QUOTA HDD DETECT		bup HDD 2 4 6 8 10 12	Group	
		_	Sav	e Cancel Apply

Figure 4-185

- Step 3 Select the correspond group from the dropdown list.
- Step 4 Click main stream/sub stream/snapshot button to set corresponding HDD group information. See Figure 4-186.

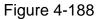
ų.		SETTIN	G		
CAMERA		To EVENT	STORA	se 🛃	SYSTEM
BASIC SCHEDULE HDD MANAGE	HDD Current HDD Mor	Main Stream	Sub Stream	Snapshot	
FTP RECORD ADVANCE QUOTA HDD DETECT	Set All Channels Channel Group 1 5 9 9 13	Channel Gro ) 2 • ) 6 • ) 10 •	3 7 9 11 15	ave) (Can	Channel Group 4 8 12 15 • • • • • • • • • • • • •
	_				

Figure 4-186

	1	SETTING		
CAMERA	T NETWORK		STORAGE	SYSTEM
BASIC	HDD	Main Stream Sub	Stream Snapshot	
HDD MANAGE	Current HDD Mor	de is HDD Group.		
RECORD	Set All Channels Channel Group	Channel Group	All Channel Group	Channel Group
ADVANCE QUOTA	1		3	4 💽 8 💽
HDD DETECT	9 💽 🕫 13 💽 🕈		11 · · · · · · · · · · · · · · · · · ·	12 💽 🏵 16 💽
	4		(Save) (Car	ncel Apply

Figure 4-187

	SETTING
CAMERA	TENETWORK TO EVENT
BASIC SCHEDULE HDD MANAGE FTP	HDD Main Stream Sub Stream Snapshot Current HDD Mode is HDD Group.
ADVANCE QUOTA HDD DETECT	Set All Channel Group       Channel Group       Channel Group       Channel Group         1       •       2       •       3       •       4       •       •         5       •       •       7       •       8       •       •         9       •       •       11       •       12       •       •         13       •       •       15       •       •       •       •       •
	Save Cancel Apply



Step 5 Click Apply or Save to complete setup.

### 4.9.4.5 Record

4.9.4.5.1 Record Control

# III Note

You need to have proper rights to implement the following operations. Please make sure the HDD has been properly installed.

There are three ways for you to go to manual record menu.

- Right click mouse and then select Manual->Record.
- In the main menu, from Setting->Storage->Record.
- In live viewing mode, click record button in the front panel or record button in the remote control.

System supports main stream and sub stream. There are three statuses: schedule/manual/stop. See Figure 4-189. Please highlight icon " $\bigcirc$ " to select corresponding channel.

- Manual: The highest priority. After manual setup, all selected channels will begin ordinary recording.
- Schedule: Channel records as you have set in recording setup (Main Menu->Setting->System->>Schedule)
- Stop: Current channel stops recording.

• All: Check All button after the corresponding status to enable/disable all-channel schedule/manual record or enable/disable all channels to stop record.

		SETTING		
CAMERA		To EVENT		SYSTEM
SCHEDULE HDD MANAGE RECORD HDD DETECT	Main Stream Schedule Manual Stop Sub Stream Schedule Manual Stop Snapshot Open Stop	All 1 2 3 4 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000		
			Сок	Cancel Apply

Figure 4-189

### 4.9.4.5.2 Snapshot Operation

Check the corresponding box to enable/disable schedule snapshot function. See Figure 4-190.

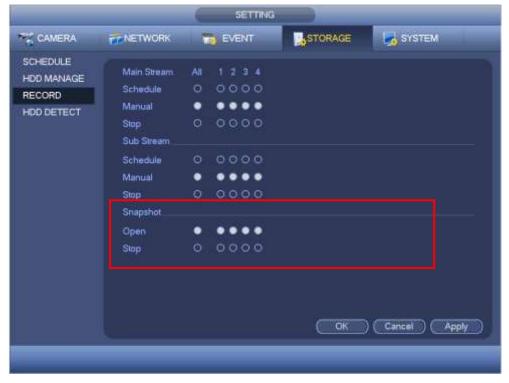


Figure 4-190

## Tips

You can check All button after the corresponding status to enable/disable all-channel snapshot function.

Click Apply or Save to complete setup.

### 4.9.4.6 Quota

It is to set channel storage capacity.



- This function is for some series only.
- HDD group and quota mode cannot be valid at the same time.
- System needs to restart once you change the mode here.
- Step 1 From main menu->Setting->Storage->Quota.

Enter quota interface. See Figure 4-191.

Ţ.	SETTIN	IG	
CAMERA		STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGE FTP RECORD ADVANCE QUOTA HDD DETECT	Current HDD Mode is HDD Group. Channel 1 HDD Quota Free Space SATA1 • • SATA3 • •	Change to Quota Mode HDD Quota Fri SATA2 • • SATA4 • • •	ee Space
	Statistics	Save	Cancel Apply

Figure 4-191

- Step 2 Select a channel from the dropdown list and then select corresponding HDD quota.
- Step 3 Click Apply or Save to complete setup.
- Step 4 Click Statistics to view HDD capacity you set for each channel. See Figure 4-192.

		Statistics	
2	Channel	Quota	
1	Channel 1	1.02 TB	
2	Other Channels	1.25 TB	

Figure 4-192

### 4.9.4.7 HDD Detect

The HDD detect function is to detect HDD current status so that you can clearly understand the HDD performance and replace the malfunction HDD.

There are two detect types:

- Quick detect is to detect via the universal system files. System can quickly complete the HDD scan. If you want to use this function, please make sure the HDD is in use now. If the HDD is removed from other device, please make sure the write-data once was full after it installed on current device.
- Global detect adopts Windows mode to scan. It may take a long time and may affect the HDD that is recording.

4.9.4.7.1 Manual Detect

The manual detect interface is shown as below. See Figure 4-193.

Please select detect type and HDD. Click start detect to begin. You can view the corresponding detect information. See Figure 4-194.

CAMERA	TWORK		STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGE	Detect Type (Quick Det	Report	(Star	1 Detect) (Stop Detect)
FTP RECORD ADVANCE			<b>=</b> 0	od <b>e</b> Bad <mark>e</mark> Block MB d HDD No. 0
QUOTA HDD DETECT			Total St Error	
			Current Detect 5	
			Process Detect	
				ing Time

Figure 4-193

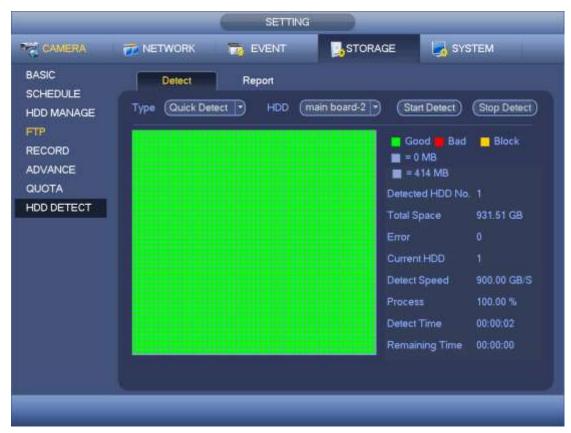


Figure 4-194

### 4.9.4.7.2 Detect Report

After the detect operation, you can go to the detect report to view corresponding information.

		SETTIN	G	_	
	WORK	EVENT	STORAGE	SYST	ТЕМ
	Detect	Report			
1	Physical	Detect Type	Start Time	Capacity	Error View
	main board-	2 Quick Detect	2016-06-23 14:25:45	931.51 GB	0
			1910		
					1.01.020
		Detect 1 Physical 1 main board-	Detect Report	Detect         Report           1         Physical         Detect Type         Start Time           1         main board-2         Quick Detect         2016-06-23         14:25:45	Detect         Report           1         Physical         Detect Type         Start Time         Capacity           1         main board-2         Quick Detect         2016-06-23         14:25:45         931.51         GB

The detect report interface is shown as below. See Figure 4-195.

Figure 4-195

Click the item you can see the detailed information such as detect result. See Figure 4-196.



Figure 4-196

## 4.9.5 System

## 4.9.5.1 General

4.9.5.1.1 Device

General setting includes the following items. See Figure 4-197.

- Device ID: Please input a corresponding device name here.
- Device No: Here you can set device number.
- Language: System supports various languages: Chinese (simplified), Chinese (Traditional), English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)
- Video standard: There are two formats: NTSC and PAL.
- Instant playback: It is to set playback time you can view in the preview interface. The value ranges from 5 to 60 minutes.
- Auto logout: Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
- Monitor channels when logout: Here you can set channels you want to view when your account has logged out. Click the button and then cancel the channel name box,

you need to login to view the corresponding video. The channel window displays

• IPC Time Sync: You can input an interval here to synchronize the DVR time and IPC time.

- Navigation bar: Check the box here, system displays the navigation bar on the interface.
- Mouse property: You can set double click speed via dragging the slide bard. You can Click Default button to restore default setup.

		SETTIN	G		
CAMERA	💏 NETWORK	EVENT		AGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	General Device Name Device No. Language Video Standard Instant Play Auto Logout Navigation Ba Mouse Sensitivity	8 ENGLISH NTSC 5 10 "	Holiday	annel(s) when i	
	Default			lave Car	ncel Apply

Click Apply or Save to complete setup.

Figure 4-197

4.9.5.1.2 Date and Time

The interface is shown as in Figure 4-198.

- Date format: There are three types: YYYY-MM-DD: MM-DD-YYYYY or DD-MM-YYYY.
- Date separator: There are three denotations to separate date: dot, beeline and solidus.
- DST: Here you can set DST time and date. Here you can set start time and end time by setting corresponding week setup or by setting corresponding date setup.
- NTP: It is to set NTP server information.

	_	SETTIN	G	
	T NETWORK	EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	General Date Format Date Separator System Time DST DST DST Type O W Start Time C End Time C End Time C Host IP Host IP	Date&Time	Holiday	+08:00 - Save

Figure 4-198

### 4.9.5.1.3 Holiday

Holiday setup interface is shown as in Figure 4-199. Click Add new holiday button, you can input new holiday information. See Figure 4-200. Here you can set holiday name, repeat mode and start/end time.

# Note

- When you enable Holiday settings and schedule setup at the same time, holiday setting has the priority. If the selected day is a holiday, then system records as you set in holiday setting. If it is not a holiday, system records as you set in Schedule interface.
- Please note, there is no year setup on the holiday setup. For example, if you set 30th Oct, 2012 as a holiday, then the date of 30th Oct in each year will be set as a holiday.

		SETTI	NG	
CAMERA		K Ta EVENT	STORAGE	SYSTEM
GENERAL DISPLAY	Gener	al Date&Time	Holiday	
VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE		Status	Name	Add a Holiday

Figure 4-199

		6	Add New Holidays	0		
	O Once Only ( • Date ( Start Time (2013 End Time (2013	All-Yeer O Week - 10 - - 10 -	18) 18			
Add More						
				()/A	dd Can	cel

Figure 4-200

4.9.5.2 Display4.9.5.2.1 DisplayDisplay setup interface is shown as below. See Figure 4-201.

- Time display: You can select to display time or not when system is playback.
- Channel display: You can select to channel name or not when system is playback.
- Image original rate: Check the box here, the video can be displayed at its actual size.
- Transparency: Here is for you to adjust menu transparency. The higher the value is, the more transparent the menu is.
- Resolution: There are four options: 1920×1080, 1280×1024(default),1280× 720,1024×768. Please note the system needs to reboot to activate current setup.
- Preview enhance: Check the box; it can optimize the video quality of the preview video.
- Video spot: Check the box to enable video matrix function.
- Check the box, select VGA or the HDMI as the video matrix output. The selected screen(s) only display(s) the channel video from the video matrix. Refer to chapter 4.9.5.3 Video matrix for detailed information.
- ♦ Cancel the box, the VGA and HDMI output the same video.
- Preview mode: Please select preview mode from the dropdown list. It includes two options. Please note this function is for some series product only.
- ♦ General: There is no information on the preview window.
- Human face: System displays human face information on the right pane of the preview window.

Please highlight icon 🔳 to select the corresponding function.

		SETTING	ie Xe		
CAMERA	TWORK	THE EVENT	STOP	RAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE		view 0%	Tour	Zero-	Channel
	Default		C	Save	Cancel Apply

Figure 4-201

### 4.9.5.2.2TV Adjust

# Note

This function is for some series only.

Here is for you to adjust TV output setup. See Figure 4-202.

Please drag slide bar to adjust each item.

Click Apply or Save to complete setup.

		SETTING		
			STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Display Top Margin Bottom Margin Lett Margin Right Margin Brightness =	TV Adjust 0 0 0 128	Tour Ze	ero-Channel
-	Default		Save	Cancel Apply

Figure 4-202

4.9.5.2.3 Tour

Here you can activate tour function. Click Setup button, you can see an interface shown as in Figure 4-203

- Enable tour: Highlight box here to enable this function.
- Interval: System supports 1/8/-window tour. Input proper interval value here. The value ranges from 5-120 seconds. It is for schedule tour/alarm/motion detect tour.
- Split: You can select window split mode from the dropdown list.
- Channel group: It is to display all channel groups on current split mode. You can edit and delete a channel group here. Double click an item in the list; you can edit its channel group setup. Right now system max supports 32.
- Add: Under specified window split mode, click it to add channel group.
- Delete: Click it to remove selected channel group.
- Move up: Click it to move current selected channel up.

- Move down: Click it to move current selected channel down.
- Default: Click it to restore default setup.

Tips:

Use mouse or Shift button to switch I and I button to enable /disable tour.

means the tour funciton is enabled and O meas tour funciton is disabled.

• On the navigation bar, click in or the nable/disable tour function.

t in the second s	SETTING
CAMERA	T NETWORK THE EVENT SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ	Display TV Adjust Tour Zero-Channel Enable Interval 5 sec. Video Detect View 1 • Alarm View 1 • Window Split View 1 •
ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	16       ✓       Channel Group         1       ✓       1         2       ✓       2         3       ✓       3         4       ✓       4         5       ✓       5         6       ✓       6         7       ✓       7         8       ✓       8         9       ✓       9         10       ✓       10         •       •       •         Add       Modify       Delete       Move up       Move down
	Conter (Appy)

Figure 4-203

#### 4.9.5.2.4 Zero-channel Encoding

Click zero-channel encoding button, you can go to the following interface. See Figure 4-204. Here you can enable and set zero-channel encoding function so that you can view several video sources at one channel.

- Enable: This function is disabled by default. Check the box here to enable this function so that you can control the zero-channel encoding function at the WEB.
- Compression: System default setup is H.264. You can set according to device capability.
- Resolution: The resolution value may vary due to different device capabilities. Please select from the dropdown list.
- Frame rate: The frame rate value may vary due to different device capabilities. Please select from the dropdown list.

- Bit Rate: The bit rate value may vary due to different device capabilities and frame rate setups. Please select from the dropdown list.
- Save: Click the Save button to save current setup. If this function is disabled, you cannot operate zero-channel encoding function at the WEB, the video is black or null even you operate when the function is disabled. After you enabled this function, login the Web and you can select zero-channel encoding mode at the right corner of the

interface		. Select a mo	de; you ca	an view t	he local previ	ew video
		SETTING			_	
CAMERA	😿 NETWORK	EVENT	STOR	RAGE	SYSTEM	
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Display Enable Compression Resolution Frame Rate(FPS) Bit Rate(Kb/S)	TV Adjust (H.264 •) (704*480(D1) •) (30 •) (1024 •)	Tour	Zero-Cl	hannel	
	Default		C	Save	Cancel A	pply_)

Figure 4-204

### 4.9.5.3 Video Matrix

Here you can set matrix output channel and its interval. You can set HDMI2 port tour and its interval See Figure 4-205.

- Enable tour: Check the box here to enable this function.
- Interval: Input proper interval value here.
- Resolution: The resolution of the tour window. Please note this function is for HDMI only.
- Split: You can select window split mode from the dropdown list. For BNC, it supports 1-split mode only. For HDMI, it supports 1/4/9/16-split mode. Some series product support 24/36-split. Please refer to the actual product.
- Add: Under specified window split mode, click it to add channel group. See Figure 4-206.

- Modify: Double click a channel or select a channel and then click Modify button, you can change current channel setup. See Figure 4-207.
- Delete: Click it to remove selected channel group.
- Move up: Click it to move current selected channel up.
- Move down: Click it to move current selected channel down.
- Default: Click it to restore default setup.

	SETTING	
CAMERA	🚁 NETWORK 🛛 📷 EVENT 🔤 STORAGE 🔤 SYSTEM	
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ	Enable Interval 5 sec. Resolution (1280x720 •) Window Split (View 1 •) 16 🗸 Channel Group •	
ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
UPGRADE	Add Modily Delete Move up Move down Default Save Cancel Apply	

Figure 4-205

Add Group
12345678910111213141516 Group Order:
OK Cancel

Figure 4-206



Figure 4-207

### 4.9.5.4 RS232

RS232 interface is shown as below. There are five items. See Figure 4-208.

- Function: There are various devices for you to select. Console is for you to use the COM or mini-end software to upgrade or debug the program. The control keyboard is for you to control the device via the special keyboard. Transparent COM (adapter) is to connect to the PC to transfer data directly. Protocol COM is for card overlay function. Network keyboard is for you to use the special keyboard to control the device. PTZ matrix is to connect to the peripheral matrix control.
- Baud rate: You can select proper baud rate.
- Data bit: You can select proper data bit. The value ranges from 5 to 8.
- Stop bit: There are two values: 1/2.
- Parity: There are five choices: none/odd/even/space mark.
- System default setup is:
- Function: Console
- Baud rate:115200
- Data bit:8
- Stop bit:1
- Parity: None

R.	SETTIN	ig )	
CAMERA	👼 NETWORK 🛛 📷 EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Function Console • Baudrate 115200 • Data Bits 8 • Stop Bits 1 • Parity None •		
	Default	Save (	Cancel Apply
F			

Figure 4-208

### 4.9.5.5 PTZ

The pan/tilt/zoom setup includes the following items. Please select channel first. See Figure 4-209.

- PTZ type: There are two options: local/remote. Please select remote if you are connecting to the network PTZ.
- Control mode: You can select control mode from the dropdown list. There are two
  options: Serial/HDCVI. For HDCVI series product, please select HDCVI. The control
  signal is sent to the PTZ via the coaxial cable. For the serial mode, the control signal
  is sent to the PTZ via the RS485 port.
- Protocol: If the control mode is HDCVI, please select HDCVI protocol. The default setup is HDCVI3.0
- Address: input corresponding PTZ address.
- Baud rate: Select baud rate.
- Data bit: Select data bit.
- Stop bit: Select stop bit.
- Parity: There are three choices: none/odd/even.

ý.		SETTING	a 🕖	
	T NETWORK	EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Channel Control Mode Protocol Address Baudrate Data Bits Stop Bits Parity	1 • Serial • NONE • 1 • 9600 • 8 • 1 • None •		
	Default	Сору	Save	Cancel Apply

Figure 4-209

For digital channel, the interface is shown as below. See Figure 4-210.

		SET	nng		
CAMERA			STORAGE	SYSTEM	
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Channel PTZ Type	16 Remote			
	Default	Сору	Save	Cancel Apply	

Figure 4-210

## 4.9.5.6 Alarm Box

V.		SETTI	NG	
			STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Device Status Alarm Box 1 2 3 4	Address 0 1 2 3	Status	

It is to view the peripheral connected alarm box state. See Figure 4-211.

Figure 4-211

### 4.9.5.7 ATM/POS

The ATM/POS function is for financial areas. It includes Sniffer, information analysis and title overlay function. The Sniffer mode includes COM and network.

4.9.5.7.1 COM Type

The COM interface is shown as below. See Figure 4-212.

- Protocol: Please select from the dropdown list.
- Setting: Click COM setting button, the interface is shown as in RS232 interface. Please refer to Chapter 5.3.4 RS232.
- Overlay channel: Please select the channel you want to overlay the card number.
- Overlay mode: There are two options: preview and encode. Preview means overlay the card number in the local monitor video. Encode means overlay the card number in the record file.
- Overlay Position: Here you can select the proper overlay position from the dropdown list.

		SETTIN	G	
CAMERA	T NETWORK	EVENT	STORAGE	SYSTEM
GENERAL DISPLAY	Com Current Sniffer M	Net		
VIDEO MATRIX RS232 PTZ	Protocol		789001264(	30
ALARM BOX ATM/POS VOICE	Overlay Mode Overlay Position	Preview Rec		
ACCOUNT				
AUTO MAINTAIN IMP/EXP				
DEFAULT				
			Save	Cancel Apply

Figure 4-212

### 4.9.5.7.2 Network Type

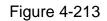
The network type interface is shown as below. See Figure 4-213.

Please use network type if you using network to connect to the device. The interface is generally the same as the COM mode. The protocol depends on your self-develop protocol. The setup may vary since connected device or the protocol is not the same. Here we take the ATM/POS protocol to continue.

- Protocol: It is to set COM sniffer protocol. You need to select protocol according to your own development situation.
- Overlay mode: There are two options: preview and encode. Preview means overlay the card number in the local monitor video. Encode means overlay the card number in the record file. You can view the corresponding information when playback.
- Overlay Position: Here you can select the proper overlay position from the dropdown list.
- Data group: There are total four groups IP.
- Source IP: Source IP refers to host IP address that sends out information (usually it is the device host.)
- Destination IP: Destination IP refers to other systems that receive information.
- Source port/destination port: Please input according to your own situation.
- Record channel: It is for you to check record channel. The record channel applies to one group (optional) only.
- Frame ID: Six frame ID groups verification can guarantee information validity and legal. You need to input start position, length, key and etc according to your

		SETT	ING			
CAMERA	T NETWORK	TH EVENT	S.	FORAGE	SYSTEM	
GENERAL	Com	Net	1			
DISPLAY VIDEO MATRIX	Protocol	ATMPOS	Ð	Current Sniffe	er Mode is COM	
RS232	Overlay Mode	Preview	Record	Overlay Posit	ion (Top Lett	
PTZ	Data Group	Data Group				
ALARM BOX	Source IP	0,0	0.0	Port ()		
ATMPOS	Destination IP	0.0	0 0	Port 0		
VOICE	Record Channel	023	06673	000023	191919	
ACCOUNT		StartPosition	Length	Key		
SECURITY	Frame ID1	<u>(1</u> )			ata	
AUTO MAINTAIN	Frame ID2				ata 🔵	
IMP/EXP	Frame ID3				ata 🔍	
DEFAULT	Frame ID4	(1)			ata 🔵	
	Frame ID5				ata 🔍	
UPGRADE	Frame ID6				ata 🔵	
				Save (	Cancel	Apply
(						

communication protocol and data packet contents.



In Figure 4-213, click data button after frame ID the interface is shown as in Figure 4-214. Here you can set field start position, length, and overlay title.

StartPosition Length         Title           Field1         0	
	Save Cancel

Figure 4-214

## 4.9.5.8 Voice

The audio function is to manage audio files and set schedule play function. It is to realize

audio broadcast activation function.

4.9.5.8.1 File Manager

It is to add audio file, listen to the audio file, or rename/delete audio file. Here you can also set audio volume.

Step 1 From main menu->Setting->System->Voice->File Manager.

Enter file manager interface. See Figure 4-215.

	SETTING		
SAMERA 👼 NETWORK		STORAGE	SYSTEM
GENERAL File Manag	e Schedule		
VIDEO MATRIX RS232 PTZ ALARM BOX ATMPOS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Name:	Size Play	Volume

Figure 4-215

Step 2 Click Add button, it is to add audio file and import the audio file via the USB device. See Figure 4-216.

The newly added audio file will be saved on the HDD of the device; you do not need to connect to USB device again.

		Add				
Device Name Total Space	(adc1(USB DISK))*	(Refresh)) Free Space	(12.07 GB			
Address	e					
Name SD English 5563277	7_20140225			Type Folder Folder Folder	Deleta *	Î
import_)						<u>19</u>
				0	ok 🔿 🕜	Sancel

Figure 4-216

Step 3 Click OK button.

4.9.5.8.2 Schedule

It is to set schedule broadcast function. You can play the different audio files in the specified periods.

Step 1 From main menu->Setting->System->Voice->Schedule.

Enter Schedule interface. See Figure 4-217.

Step 2 Set parameters.

- Period: There are six periods. Check the box to enable current setup.
- File name: Select audio file you want to play.
- Interval: It is the audio file repeated interval in the specified period.
- Repeat: It is to set audio file repeat times in the specified period.
- Output port: There are two options: MIC (default)/audio. When reuse the MIC port and bidirectional talk port, the bidirectional port has the higher priority. Please make sure your purchased product has audio port, otherwise, you cannot use this function.

Step 3 Click Apply or Save to complete setup.

# Note

- The audio file end time depends on the audio file size and the interval setup.
- Priority: Bidirectional talk>Event trigger alarm>Trial listening>Audio schedule broadcast.

CAMERA	T NETWORK	EVENT	STORAGE		SYSTEM	
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX	File Manage Period 00:00 00:00 00:00 00:00	Schedule - 24 : 00 - 24 :	(None	Interval 60 mir 60 mir		Output (Mic (Mic (Mic
ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	00:00	- 24 : 00 - 24 : 00 - 24 : 00	None	9 (60 mil 9 (60 mil 9 (60 mil		(Mic (Mic
				Save (	Cancel	Apply

Figure 4-217

## 4.9.5.9 Account

It is to manage users, user group and ONVIF user, set admin security questions.

# III Note

- For the user name, the string max length is 31-byte, and for the user group, the string max length is 15-byte. The user name can only contain English letters, numbers and ""、"@"、".".
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. The user authorities shall be smaller than group authorities (The **admin** user authorities are set by default).
- For group or user management, there are two levels: admin and user. The user name shall be unique and one user shall only belong to one group.

### 4.9.5.9.1 Add User

Step 1 From main menu->Setting->System->Account->User. Enter user interface. See Figure 4-218.

CAMERA 📅 NETWORK 📆 EVENT STORAGE SYSTEM
GENERAL User Group ONVIF User
VIDEO MATRIX         RS232         PTZ         ALARM BOX         ATMPOS         VOICE         ACCOUNT         SECURITY         AUTO MAINTAIN         IMP/EXP         DEFAULT         UPGRADE

Figure 4-218

Step 2Click Add user button in Figure 4-218.The interface is shown as in Figure 4-219.

	Add User	
User Name Password Memo Group Period Authority	Confirm Password	
System Playback	Live	
C All C ACCOUNT C S STORAGE C I	SYSTEM SYSTEM INFO EVENT SINETWORK BACKUP SIDEVICE MAINT	MANUAL CONT
		Save Cancel

Figure 4-219

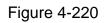
Step 3 Input the user name, password, select the group it belongs to from the dropdown list. Then you can check the corresponding rights for current user.

Note

For convenient user management, usually we recommend the general user right is lower than the admin account.

Step 4 Click the Set button after the period, you can set valid period to use current account. See Figure 4-220.





- Step 5 Click Set button, you can set six periods in one day. See Figure 4-221.
- Step 6 Check the box after the period, you can enable current setup.

# Note

Check the box before the week; it is to save period settings to selected week day.

		Period
Current	Date: Sunday	
Period 1	00:00 - 24:00	
Period 2	00 00 - 24 00	
Period 3	00:00 - 24:00	
Period 4	00:00 - 24:00	
Period 5	00:00 - 24:00	
Period 6	00 :00 - 24 : 00	
Сору		

Figure 4-221

Step 7 Click OK button.

4.9.5.9.2 Modify user
-----------------------

From	main	menu->Setting->System->Account->User,	click 🥖	<b>)</b> , y	/ou	can	go	to	the
followi	ing inte	erface to change user information. See Figu	ire 4-222						

		Modify-User
User Name		User MAC
Modify Password		Group (admin )
New Password		Group (admin ) Memo
Confirm Password		
Period C	Ser	
System Play	rback Live	
All ACCOUNT STORAGE SECURITY	SYSTEM EVENT BACKUP	SYSTEM INFO NETWORK DEVICE MAINT
. d		
		Save Cancel

Figure 4-222

For **admin** user, you can change the email, enable/disable unlock pattern, change password prompt question, set security questions. See Figure 4-223.

			Nodity User	
User Name Modify Password Old Password New Password	(admin			admin 🕞
Confirm Password Prompt Question Authority System	(asd Playback	Live	Unlock Pattern	
System All Accou STORA SECUR	INT GE	SYSTEM EVENT BACKUP	SYSTEM INF	CAMERA
_	_	_	_	Save Cancel

Figure 4-223

- Input email information and then click Save, it is to set/change email address.
- Check the box to enable unlock pattern and then click , click Save to change unlock pattern.
- Set security question

Step 1 Click Security question, enter the following interface. See Figure 4-224.

Question 1	(What is your favorite children's book?
Answer	(
Question 2	(What was the first name of your first boss?
Answer	
Question 3	(What is the name of your favorite fruit?
Answer	
	(Set ) (Delete

Figure 4-224

Step 2 Input answers and then click Save button.

After successfully set security questions, you can answer the security questions to reset admin password.

# Note

Select security questions from the dropdown list and then input the proper answers, click Delete button to reset security questions and answers again.

#### 4.9.5.9.3 Change Password

In Figure 4-222, check the Modify password box, you can change password. Please input old password, and then input new password twice to confirm.

Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "", "", ";", ";", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

- 4.9.5.9.4 Add/Modify Group
- Step 1 From main menu->Setting->System->Account->Group. Enter add group interface. See Figure 4-225.



Figure 4-225

Step 2 Click add group button in Figure 4-225.

Enter Add group the interface. See Figure 4-226.

Step 3 Input group name and then input some memo information if necessary. Check the box to select authorities.

_	_		Add Group	_
Group Name ( Memo				
Authority				
System	Playback	Live		
STO	OUNT RAGE JRITY	SYSTEM EVENT BACKUP	SYSTEM INFO	AANUAL CONT
				Save Cancel

Figure 4-226

#### 4.9.5.9.5 ONVIF User

When the camera from the third party is connected with the DVR via the ONVIF user, please use the verified ONVIF account to connect to the DVR. Here you can add/delete/modify user

# D Note

The default ONVIF user is **admin**. It is created after you initialize the DVR.

Step 1 From main menu->Setting->System->Account->ONVIF User. Enter ONVIF interface. See Figure 4-227.

<u> </u>		SETTI	NG )		-
CAMERA			STORAGE	SYSTEM	
GENERAL	User	Group	ONVIF User		
VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Add User	User Name admin	Group Name admin	Modify Delete	

Figure 4-227

Step 2 Click Add user button.

			~		1 000
Enter Add	user ir	nterface.	See	Figure	4-228.

	Add User
User Password	123
Confirm Password Group	(admin
	Save Cancel

Figure 4-228

Step 3Set user name, password and then select group from the dropdown list.Step 4Click Save to complete setup.





Click *C* to change user information, click *C* to delete current user.

#### 4.9.5.10 Security

To enhance device network security and protect device data, please set the access right of the IP host (IP host here refers to the IP PC or the server). After you enabled trusted sites function, only the IP listed below can access current DVR.

If you enable blocked sites function, the following listed IP addresses cannot access current DVR.

Step 1 From main menu->Setting->System->Security. Enter security interface. See Figure 4-229.

- Step 2 Check the Enable box. Select trusted sites/block sites.
  - Enable trusted site function and then add the whitelist.
  - Enable blocked site function and then add the blacklist.
- Step 3 Set parameters.
- Start address/end address: Select one type from the dropdown list, you can input IP address in the start address and end address. Now you can click Add IP address or Add IP section to add. System supports max 64 IP addresses.
  - a) For the newly added IP address, it is in enable status by default. Remove the  $\sqrt{1}$ before the item, and then current item is not in the list.
  - b) System max supports 64 items.
  - c) Address column supports IPv4 or IPv6 format. If it is IPv6 address, system can optimize it. For example, system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa: aa: aa: aa.
  - d) System automatically removes space if there is any space before or after the newly added IP address.
  - e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.
  - System may check newly added IP address exists or not. System does not add if f) input IP address does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 4-230. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null.
- Step 4 Click Apply or Save to complete setup.
  - If you enabled trusted sites, only the IP in the trusted sites list can access the device.

• If you enabled blocked sites, the IP in the blocked sites cannot access the device.

		SETTI	NG	
CAMERA	TETWORK	TO EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ	Enable Type Start Address	Trusted Sites •		dd IP Address)
ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	End Address Start	Address	End Address	dd IP Segment) Edit Delete
	Default		Save	Cancel Apply

Figure 4-229

Edit
Start Address 10.15.6.140 123 End Address 10.15.6.145
OK Cancel

Figure 4-230

#### 4.9.5.11 Auto Maintain

It is to set auto-reboot time during the spare period if the device is running for a long time. It is to enhance device operation speed. Or you can set fan running mode. It is to reduce the noise and enhance fan lifecycle. See Figure 4-231.

After all the setups please click save button. .

V		SETTING		
CAMERA	TWORK	EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Auto Reboot (Never ) Case Fan Mode Always run ) Always run Auto			
			Save	Cancel Apply

Figure 4-231

#### 4.9.5.12 Import/Export

The configuration file backup interface is shown as below. See Figure 4-232. This function allows you to import/export system configuration. You can use this function when there are several devices need the same setup.

- Export: Please connect the peripheral device first and then go to the following interface. Click Export button, you can see there is a corresponding "Config\_Time" folder. Double click the folder, you can view some backup files.
- Import: Here you can import the configuration files from the peripheral device to current device. You need to select a folder first. You can see a dialogue box asking you to select a folder if you are selecting a file. System pops up a dialogue box if there is no configuration file under current folder. After successfully import, system needs to reboot to activate new setup.
- Format: Click Format button, system pops up a dialogue box for you to confirm current operation. System begins format process after you click the OK button.

# Note:

- System cannot open config backup interface again if there is backup operation in the process.
- System refreshes device when you go to the config backup every time and set current directory as the root directory of the peripheral device.
- If you go to the configuration backup interface first and then insert the peripheral device, please click Refresh button to view the newly added device.

ý.		SETTING			
CAMERA	TWORK	TO EVENT	STORAGE	SYSTEM	
GENERAL DISPLAY VIDEO MATRIX RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Device Name Total Space Address Name		Refresh Free Space	Size Type Delete	
	(New Folder)	(Format) (Impo	rt Export		
	_				

Figure 4-232

#### 4.9.5.13 Default

Click default icon, system pops up a dialogue box. You can highlight III to restore default factory setup. See Figure 4-233.

- Camera
- Network
- Event
- Storage
- System

Please highlight icon is to select the corresponding function. Click Apply or Save to set. Click factory default button, you can restore factory default setup.



System menu color, language, time display mode, video format, IP address, user account will not maintain previous setup after default operation!

		SETTING		4) (A
		TO EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VIDEO MATRIX		tting entries that you v	want to default.	
RS232 PTZ ALARM BOX ATM/POS VOICE ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	CAMERA EVENT	NETWORK STORAGE		
	(Factory Default)		Save	Cancel Apply

Figure 4-233

4.9.5.14 System Upgrade

4.9.5.14.1 GUI Upgrade

Please insert the USB device (make sure it contains the update file) to the device. Select System upgrade button to browse the update file. Click Start, system begins the upgrade. See Figure 4-234.



Figure 4-234

4.9.5.14.2 Online Upgrade

When the DVR is online, you can use the online upgrade to update the firmware.



Make sure the DVR has properly connected to the network.

#### **Version Detection**

The version detection includes auto detection and manual detection. It displays current system version and application released date.

- Enable auto detection, DVR interactive with the cloud to detect there is new version available or not.
- Click manual detection, it is to view the latest new version on the cloud.
  - $\diamond$  If current version is the latest one, there is prompt "It is the latest version".
  - ♦ If DVR detects there is new version available, system displays new version information such as released date and corresponding release note.

#### **Upgrade System**



During the upgrade process, make sure the network connection and power supplying are

#### both OK.

Click Start to upgrade system.

#### 4.9.5.14.3 Uboot

When DVR boots up, during the uboot process, DVR automatically detects there is USB device and there is upgrade file on the USB device or not. If the detection result is OK, DVR automatically begins upgrade.



- The USB device shall contain two files: u-boot.bin.img and update.img.
- The USB device shall connected to the USB port at the front panel. Otherwise, DVR cannot properly detect the file or upgrade.

# **5 WEB OPERATION**

# Note

Slightly difference may be found in the interface due to different series.

## 5.1 Network Connection

Before web client operation, please check the following items:

Step 1 Network connection is right

- Step 2 DVR and PC network setup is right. Please refer to Chapter 5.10.2 Network (main menu->Setting->Network)
- Step 3 Use order ping \*\*\*.\*\*\*.\*\*\*(\* is DVR IP address) to check connection is OK or not. Usually the return TTL value should be less than 255.



- Device default IP address is 192.168.1.108.
- Current series product supports various browsers such as Safari, fire fox browser, Google browser. Device supports multiple-channel monitor, PTZ control, DVR parameter setup on the Apple PC.

## 5.2 Device Initialization

If it is your first time to use the device, please set a login password of **admin** (system default user).

# Note

For your device safety, please keep your login password of **admin** well after the initialization steps, and change the password regularly.

#### Steps:

Step 1 Open the browser and then input the device IP address in the address column.

Step 2 Click Enter button.

Device displays device initialization interface. See Figure 5-1.

Device Initialization	
1 Enter Password 2	Password Protection 3 Successful
Username New Password Confirm Password	admin Low Middle High It is 8 to 32-digit containing letter(s), number (s),symbol(s). It contains at least two types.
	Next

Figure 5-1

Step 3 Set login password of **admin**.

- User name: The default user name is **admin**.
- Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "'", """, ";", ";", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 4 Click Next, device goes to the following interface. See Figure 5-2.

Device Initializati	on
1 Enter Pas	sword 2 Password Protection 3 Successful
🔽 Email	(To reset password)
Security Question	
Question 1	What is your favorite children's book?
Answer	
Question 2	What was the first name of your first boss?
Answer	
Question 3	What is the name of your favorite fruit?
Answer	
	Next

Figure 5-2

Step 5 Set security questions.

# D Note

- After setting the security questions here, you can use the email you input here or answer the security questions to reset **admin** password Refer to chapter 5.4 Reset password for detailed information.
- Cancel the email or security questions box and then click Next button to skip this step.
- Email: Input an email address for reset password purpose. Scan the QR code to reset the password, you need to receive the security code by the email. Input the security code to reset the password of **admin**. In case you have not input email address here or you need to update the email information, please go to the main interface->System->Account to set. Refer to chapter 5.10.5.9 Account for detailed information.
- Security question: Set security questions and corresponding answers. Properly
  answer the questions to reset admin password. In case you have not input
  security question here or you need to update the security question information,
  please go to the local main interface->Setting->System->Account->Security
  question to set. Refer to chapter 5.10.5.9 Account for detailed information.

# Note

If you want to reset password by answering security questions, please go to the local menu interface.

Step 6 Click OK to complete the device initialization setup. See Figure 5-3.

Device Initialization	
1 Enter Password	2 Password Protection 3 Successful
*	Successfully initialized the device!
	Ok

Figure 5-3

### 5.3 Login

Step 1 Open IE and input DVR address in the address column.

System pops up warning information to ask you whether install control or not. See Figure 5-4.

	stall controls
Install	Cancel
<u>.</u>	

Figure 5-4

Step 2 Please click Install button, system can auto run the installation. Or follow the prompts to save the installation package and install. After installation, the interface is shown as below. See Figure 5-5.

alhua		
Username:	admin	
Password:		
Туре:	TCP •	Forgot password?
	• LAN • WAN	
	Login Cancel	)

Figure 5-5

Step 3 Please input user name and password.

# III Note

- Device factory default user name is **admin**. The password is that you set during initialization process. For your device safety, please change the admin password regularly and keep it well.
- Check the Plain text to view the input password.
- In case you forgot password, click Forgot password to reset. Refer to chapter
   5.4 Reset password for detailed information.
- There are two login types: LAN/WAN. For the difference of these two modes, please refer to chapter 5.9 WAN login.
- Step 4 Click Login.

Enter the preview interface.

# Note

Delete old plug-in when you want to upgrade new version. Go to C:\Program Files (x86)\webrec\WEB30\WebView\_H"and run uninstallation tool uninst.exe, device automatically deletes the old plug-in.

#### 5.4 Reset Password

If you forgot **admin** password, you can reset the password by email or by answering the security questions (local menu only).

#### Steps:

Step 1 Open browser and go to the device login interface. See Figure 5-3.

alhua		
Username:	admin	
Password:		
Туре:	TCP •	Forgot password?
	• LAN • WAN	
	Login Cancel	

Figure 5-6

Step 2 Click Forgot password, enter the following interface. See Figure 5-7.

	Scan the QR code on the actual interface	Please scan the QR code on the actual interface and follow the prompts on the actual interface to continue.
iput securit	The security code will be delivered to 1***@qq.com.	

Figure 5-7

Step 3 Follow the prompts on the interface and then scan the QR code to get the security code.



- ✤ For the same QR code, max scan twice to get two security codes. Refresh the QR code if you want to get security code again.
- ♦ The security code on you email is only valid for 24 hours.
- ♦ After five times security code failure, the admin account will be locked for 5

minutes.

- Step 4 Input the security code on the email and then click Next button.
- Step 5 Input new password and then confirm.

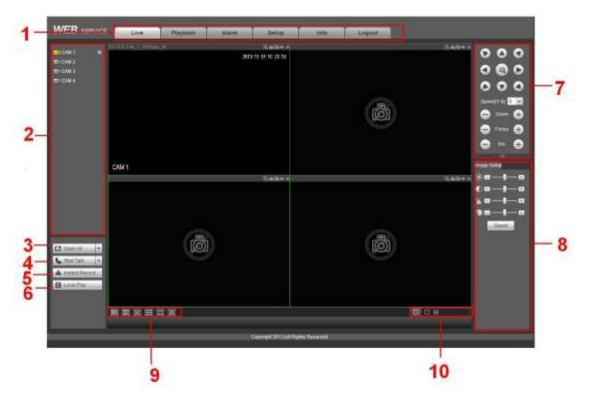


STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. The password shall be at least 8-digit containing at least two types of the following categories: letters, numbers and symbols. We also recommend you change your password periodically especially in the high security system.

Step 6 Click OK button to complete the setup.

## 5.5 LAN Mode

For the LAN mode, after you logged in, you can see the main window. See Figure 5-8.





This main window can be divided into the following sections.

- Section 1: there are five function buttons: Live (chapter 5.6), setup (chapter 5.10), search (chapter 5.12), alarm (chapter 5.13), face search (chapter 5.13)and logout (chapter 5.15).
- Section 2: There are channel number and one button: Start all. Start all button is to enable/disable all-channel real-time monitor. Click it the button becomes yellow. See Figure 5-9.

Ľ	Close All	-
---	-----------	---

Figure 5-9

Please refer to Figure 5-10 for main stream and extra stream switch information.

CAM 1	M
Main Stream	
Sub Stream	
CAM 2	

Figure 5-10

• Section 3: Start dialogue button.

You can click this button to enable audio talk. Click [ $\checkmark$ ] to select bidirectional talk mode. There are four options: DEFAULT, G711a, G711u and PCM. After you enable the bidirectional talk, the Start talk button becomes End Talk button and it becomes yellow. See Figure 5-11.

Please note, if audio input port from the device to the client-end is using the first channel audio input port. During the bidirectional talk process, system will not encode the audio data from the 1-channel.



Figure 5-11

 Section 4: Instant record button. Click it, the button becomes yellow and system begins manual record. See Figure 5-12. Click it again, system restores previous record mode..



Figure 5-12

• Section 5: Local play button.

The Web can playback the saved (Extension name is dav) files in the PC-end.

Click local play button, system pops up the following interface for you to select local play file. See Figure 5-13.



Figure 5-13

- Section 6: From the left to the right ,you can see video quality/fluency/ full screen/1-window/4-window/6-window/8-window/9-window/13-window/16-window/20window/25-window/36-window.. You can set video fluency and real-time feature priority.
- Section 7: PTZ operation panel. Please refer to chapter 5.7 for detailed information.
- Section 8: Image setup and alarm setup. Please refer to chapter 5.8 for detailed information.
- Section 9:From left to right, it is to set video quality, video latency, full screen, 1-window, 4-window.
- Section 10:Zero-channel encoding. This function allows you to view several-channel in one window. It supports 1/4-channel mode. Please go to chapter 4.9.5.2.4 to enable zero-channel encoding function first.

# 5.6 Real-time Monitor

In section 2, left click the channel name you want to view, you can see the corresponding video in current window.

On the top left corner, you can view device IP, channel number, network monitor bit stream. See Figure 5-14.

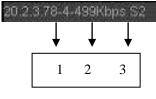


Figure 5-14

On the top right corner, there are six unction buttons. See Figure 5-15.

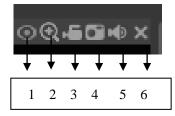


Figure 5-15

- 1: Fisheye: Click to adjust fisheye installation mode and display mode. See Figure 5-16. Please note this function is for some series only.
- 2: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. right click mouse system restores original status.
- 3: Local record. When you click local record button, the system begins recording and this button becomes highlighted. You can go to system folder RecordDownload to view the recorded file.
- 4: Snapshot picture. You can snapshot important video. All images are memorized in system client folder PictureDownload (default).
- 5: Audio :Turn on or off audio.(It has no relationship with system audio setup)
- 6: Close video.

#### 5.6.1 Fisheye de-warp

Fisheye de-warp interface is shown as in Figure 5-16.



Figure 5-16

There are three installation modes: ceiling mount/wall mount/ground mount. The different installations modes have different de-warp modes.

Please refer to the following sheet for detailed information.

Installation modes	lcon	Note
(Ceiling mount)	0	360°panorama original view
	$\longleftrightarrow$	1 de-warp window+1 panorama stretching
(Ground mount)	1	2 panorama stretching view
	Q	1 360° panorama view+3 de-warp
	+	windows
		1 360°panorama view+4 de-warp
	SK[0]0	windows

Installation modes	Icon	Note
		6 de-warp windows+1 panorama
	$ \rightarrow $	stretching
	0	1 360° panorama view+8 de-warp
		windows
	0	360°panorama original view
(Wall mount)	$\times$	Panorama stretching
	$\times$	1 panorama unfolding view+3 de-warp
		windows
		1 panorama unfolding view +4 de warp
	$\times +$	windows
	5.2	1 panorama unfolding view +8 de warp
	~	windows

In Figure 5-17, there are one ceiling mount  $360^{\circ}$  panorama view + four de-warp windows.

You can adjust the color pane on the left pane or use your mouse to change the position of the small images on the right pane to realize fish eye de-warp. Please use mouse to zoom in/out, move, rotate and etc to adjust.



Figure 5-17

# 5.7 PTZ

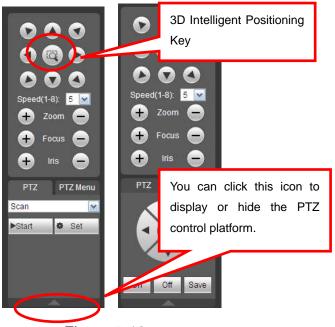
Before PTZ operation, please make sure you have properly set PTZ protocol. (Please refer to chapter 5.10.5.5).

There are eight direction keys. In the middle of the eight direction keys, there is a 3D intelligent positioning key.

Click 3D intelligent positioning key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. It can realize PTZ automatically.

Please refer to the following sheet for PTZ setup information.

Parameter	Function
Scan	Select Scan from the dropdown list.
	<ul> <li>Click Set button, you can set scan left and right limit.</li> </ul>
	• Use direction buttons to move the camera to you desired location
	and then click left limit button. Then move the camera again and
	then click right limit button to set a right limit.
Preset	Select Preset from the dropdown list.
	<ul> <li>Turn the camera to the corresponding position and Input the</li> </ul>
	preset value. Click Add button to add a preset.
Tour	Select Tour from the dropdown list.
	<ul> <li>Input preset value in the column. Click Add preset button, you</li> </ul>
	have added one preset in the tour.
	• Repeat the above procedures you can add more presets in one
	tour.
	• Or you can click delete preset button to remove one preset from
	the tour.
Pattern	<ul> <li>Select Pattern from the dropdown list.</li> </ul>
	• You can input pattern value and then click Start button to begin
	PTZ movement such as zoom, focus, iris, direction and etc. Then
	you can click Add button to set one pattern.
Aux	<ul> <li>Please input the corresponding aux value here.</li> </ul>
	• You can select one option and then click AUX on or AUX off
	button.
Light and wiper	You can turn on or turn off the light/wiper.



# 5.8 Image/Relay-out

Select one monitor channel video and then click Image button in section 8, the interface is shown as Figure 5-19.

#### 5.8.1 Image

Here you can adjust its brightness, contrast, hue and saturation. (Current channel border becomes green).

Or you can click Reset button to restore system default setup.



Figure 5-19

#### 5.8.2 Relay output

Here you can enable or disable the alarm signal of the corresponding port. See Figure 5-20.



Figure 5-20

## 5.9 WAN Login

In WAN mode, after you logged in, the interface is shown as below. See Figure 5-21.

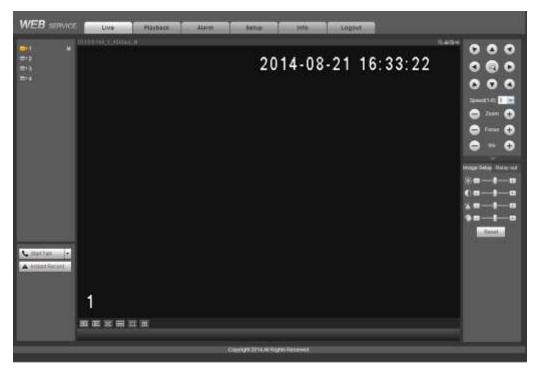


Figure 5-21

Please refer to the following contents for LAN and WAN login difference.

1) In the WAN mode, system opens the main stream of the first channel to monitor by default. The open/close button on the left pane is null.

2) You can select different channels and different monitor modes at the bottom of the interface.

#### Important

# The window display mode and the channel number are by default. For example, for the 16-channel, the max window split mode is 16.

3) Multiple-channel monitor, system adopts extra stream to monitor by default. Double click one channel, system switches to single channel and system uses main stream to monitor. You can view there are two icons at the left top corner of the channel number for you reference. M stands for main stream. S stands for sub stream (extra stream).

4) If you login via the WAN mode, system does not support alarm activation to open the video function in the Alarm setup interface.

# D Note

- For multiple-channel monitor mode, system adopts extra stream to monitor by default. You cannot modify manually. All channels are trying to synchronize. Please note the synchronization effect still depends on your network environments.
- For bandwidth consideration, system cannot support monitor and playback at the same time. System auto closes monitor or playback interface when you are searching setup in the configuration interface. It is to enhance search speed.

## 5.10 Setup

Here is to introduce DVR basic setups and system configurations.

#### 5.10.1 Camera

It is to add network camera, set camera properties and set encode parameters.

5.10.1.1 Remote Device (For digital channel only)

From main window->Setup->Camera->Registration, registration interface is shown as below. See Figure 5-22.

Channel Audit: DetAle Claime PrAtlance Run CourceMame Resulte Channel No. Manufacturet Cource Harne Trave     13 2 0 16 18 19 537 37777 ITC237 1 Provide     14 2 0 16 18 19 558 40057 2211125434660 1 Provide IP PTZ Dame BHC-211Ri     14 2 0 16 18 19 558 40057 2211125434660 1 Provide IP PTZ Dame BHC-211Ri     14 2 19 19 19 19 19 19 19 19 19 19 19 19 19	2         10.158.84         40002         10.036/DPAV/02224         Phome         IP Camera         40.11 bf 33/2 eff           3         10.155.917         37777         100288/PPAV/00016         Phome         IP C 885400         40.11 bf 33/2 eff           4         10.155.917         37777         100238/PPAV/00016         Phome         IP C 885400         40.11 bf 33/2 eff           4         10.155.817         37777         100238/PPAV/00016         Phome         IP C 885400         40.11 bf 33/2 eff           5         10.155.8108         37777         P2C3FV08800141         Phome         IP C 88840         90.02.81 k23 z to           6         10.155.8108         37777         1002049/420005         Phome         IP C 408W4120E         90.02.88 42.92 zo           7         10.155.8.127         37777         1F008011/420005         Phome         IP C 408W4120E         90.02.88 42.92 zo           8         10.155.8.127         37777         1F0080174200003         Phome         IP C 408W4120E         90.02.88 42.92 zo           7         15.155.8.1         8080         IP C 404W42000F.2         0.001         IP C 408W4120E         90.02.88 42.92 zo           8         10.155.8.12         Manual 468         Manual 568         IP C 40.92 zo <th></th> <th></th> <th>8</th> <th>Address</th> <th>Fait</th> <th><b>Elevice Name</b></th> <th>9</th> <th>Manufacherer</th> <th>Tida</th> <th></th> <th>MAC AUTO</th> <th>11</th> <th></th>			8	Address	Fait	<b>Elevice Name</b>	9	Manufacherer	Tida		MAC AUTO	11	
3     3     10.15.5.177     37777     1G0238194000018     Pinum     PC-855400     4.11110.0.11.al       4     10.15.5.81     40000     1234507890     Pinum     PO+FW2200R.2     0022.9309.9116       5     10.15.5.81     40000     1234507890     Pinum     PC-855400     4.11110.0.11.al       6     10.15.5.81     40000     1234507890     Pinum     PC-408W4120E     90.02.930.9116       6     10.15.5.81     37777     14020447420008     Pinum     PC-408W4120E     90.02.84.82.82.00       7     10.15.5.81     868     PC-HFW2200R.2     On/ft     PC-HFW2200R.2     80.02.84.82.82.00       7     10.15.5.81     868     PC-HFW2200R.2     On/ft     PC-HFW2200R.2     80.02.84.82.82.00       8     10.15.5.81     868     PC-HFW2200R.2     On/ft     PC-HFW2200R.2     80.02.84.21.82.8       9     10.15.5.81     868     PC-HFW2200R.2     On/ft     PC-HFW2	3     3     10.15.5.177     37777     10.023819FAW000158     Phome     PC-E5540     4.11.01.01.11.ad       4     10.15.5.81     40000     12.34567890     Phome     PC-E5540     4.11.01.01.11.ad       5     10.15.5.81     40000     12.34567890     Phome     PC-HFW2209R-2     0.032.281.02.01.01.01.11       6     10.15.5.8.108     37777     P2C.3FV08800141     Phome     PC-HFW2209R-2     0.032.281.02.01.01.11       6     10.15.117.42     37777     \$M02054FA2080056     Phome     PC-HFW1200E-2     81.02.281.82.20.11       7     10.15.8.127     37777     1F008001V4200053     Phome     PC-HFW1200E-2     81.02.281.82.20.11       8     10.15.8.127     37777     1F008001V200053     Phome     PC-HFW1200E-2     81.02.281.82.42.42.20       8     10.15.8.127     37777     1F008001V200053     Phome     PC-HFW1200E-2     81.02.281.82.42.42.20       9     10.15.8.13     8080     PC-HFW2200F-2     Onvel     PC-HFW2200F-2     Phome       0exce Search     Add     Manual Add     PC-MFW2200F-2     Onvel     PC-HFW2200F-2     Phome       13     2     1     PA15.02.37     37777     170237     1     Phome       14     2     1     15.15.88     400	4	123	1	0.15.8.214	37777	2D00228YA2900	111	Private	IPC-HFW543	31E-2	3cat8c8t60	a7	
4       16.15.5.81       4000       1234567880       Pinum       PCHFW3209R-2       0032.0139.4136         5       10.15.6.109       37777       P2C3FV08800141       Pinum       IPC amara       90.02.281.12.3171         6       10.15.6.109       37777       P2C3FV08800141       Pinum       IPC amara       90.02.281.42.3171         6       10.15.117.42       37777       1400001V4209003       Pinum       IPC HEW1200E-2       81.02.38.42.32.26         7       10.15.6.127       37777       1400001V4209003       Pinum       IPC HEW1200E-2       81.02.38.42.32.26         8       10.15.6.31       8080       IPC HEW2200E-2       Onvet       IPC HEW2200E-2       81.02.38.42.34.26         900000       4864       Mamuti Add       IPC HEW2200E-2       Onvet       IPC HEW2200E-2       81.02.38.42.46.29         900000       4864       Mamuti Add       IPC HEW2200E-2       Onvet       IPC HEW2200E-2       81.02.38.42.46.29         900000       4864       Mamuti Add       IPC HEW2200E-2       Onvet       IPC HEW2200E-2       81.02.38.42.46.29         900000       4864       Mamuti Add       IPC HEW2200E-2       Onvet       IPC HEW2200E-2       10.02.46.26         9000000       4864       Mamuti	4       10.155.81       40000       12.94567890       Phame       PC-HFW2209R-2       0.022.00.00.4136         5       10.155.8.109       37777       P2C3FV08000141       Phame       IF Camera       80.022.02.10.211.2111         6       10.155.117.42       37777       14020549/200095       Phame       IPC-HFW2209R-2       90.02.09.42.92.10.211         7       10.155.117.42       37777       14020549/200095       Phame       IPC-HFW1200E-2       90.02.09.42.92.10.215         7       10.155.8.127       377777       1F30801/14200095       Phame       IPC-HFW1200E-2       90.02.09.42.92.10.42.012.93         8       10.155.8.13       8080       IPC-HFW2200R-2       Drwf       IPC-HFW2200R-2       90.02.08.42.01.20         0evoe Search       Add       Namuel Add       IPC-HFW2200R-2       Drwf       IPC-HFW2200R-2       IPC-HFW2200R-2         0evoe Search       Add       Namuel Add       IPC-HFW2200R-2       Drwf       IPC-HFW2200R-2       IPC	2	19	3	0.15684	40802	1D038FDFWM08	224	Pinyate	IF Came	1	4c 11 0/9a 3	2:07	
5       10.15.5.100       37777       PZCJPV08000141       Private       IPC ameria       90.02.28 1z 3171         6       10.15.117.42       37777       1402C647A20009       Private       IPC-HEBW4120E       90.02.88 42 32 20         7       10.15.4.127       37777       1400801V+220003       Private       IPC-HEBW4120E       90.02.88 42 42 29         8       10.15.5.812       3869       IPC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         9       10.15.6.81       8689       IPC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         0       464       Manual Add       Image: PC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         1       Add       Manual Add       Image: PC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         1       Add       Manual Add       Image: PC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         1       Add       Manual Add       Image: PC-HEW2200H-Z       Drive       IPC-HEW2200H-Z       Drive         1       1       Private       IPC-HEW2200H-Z       1       Private       IPC-HEW2200H-Z         1       1       Private       1       Private       IPC-Drive       <	8       10,15.4.109       37777       P2C3FV98800141       Phode       IF Camera       90.02/28 1x 3171         6       10,15.117.42       37777       14020549A200096       Phode       IPC-HEW41200E-Z       91.02/38 42/32 zb         7       10,15.5.17.42       37777       1F3080114200093       Phode       IPC-HEW41200E-Z       91.02/38 42/32 zb         7       10,15.5.17       37777       1F3080114200093       Phode       IPC-HEW1200E-Z       B1.02/38 42/31 zb         8       10,15.5.81       8080       IPC-HEW2200H-Z       Drwf       IPC-HEW2200H-Z       Drwf         0       11,15.5.81       8080       IPC-HEW2200H-Z       Drwf       IPC-HEW2200H-Z       Drwf         0       14,15.5.81       8080       IPC-HEW2200H-Z       Drwf       IPC-HEW2200H-Z       Drwf         0       43       0       IPC-HEW2200H-Z       Drwf       IPC-HEW2200H-Z       Drwf       IPC-HEW2200H-Z       IPC       IPC         13       2       0       IPC       IPC-HEW22017       1       Provale       IPC-20118       IPC-2111214346500       IPC-20118       IPC-2111214346500       IPC-20118       IPC-21118514         14       2       0       13       13       IPC-15/346	3	12	1	0.155177	37777	1002881PAW00	918	Private	IPC EB54	0.0	4011106231	zá	
6         10.15.117.42         37777         1M02047A20009         Penels         PC-HOBW412NE         9102.38.42.32.00           7         10.15.15.127         37777         1F00001V4200003         Private         IPC-HOBW412NE         91.02.38.42.32.00           8         10.151.5.127         37777         1F00001V4200003         Private         IPC-HOBW412NE-Z         91.02.38.42.32.00           8         10.151.5.81         8680         IPC-HEW2200R-Z         Grivet         IPC-HEW2200R-Z         Device Search           Add         Mamual Add         Mamual Add         Device Search         Device Search         Device Search         Conversion Add         Device Search         Device Sea	6       10.15.117.42       37777       1V02C04FA200008       Phone       PC-HOBW4120E       90.02.88.42.82.20         7       10.15.4.127       37777       1F008001V4200003       Phone       PC-HOBW4120E-Z       Bi.02.88.42.82.20         8       10.15.5.4.127       37777       1F008001V4200003       Phone       PC-HOW1200E-Z       Bi.02.88.42.82.20         8       10.15.5.8.1       8080       PC-HFW2200F-Z       Drwf       PC-HFW2200F-Z       Drwf         0       443       Manual Add       Manual Add       Conctations       Rome Research to:       Manual Add       To:         13       2       0       B       10.15.5.37       377777       1T02377       1       Preade         14       2       0       B       13.15.5.88       40.007       2211121434650       1       Preade         14       2       0       B       13.15.5.88       40.007       2211121434650       1       Preade         15       4       0       13.15.5.84       40.007       22111214346500       1       Preade	4		3	0.15.5.81	40800	1234567890		Poyate	IPC/HFW220	10R-2	100.02.00.00.4	tiše	
7         10, 15.5, 127         37777         1F2080/VA20003         Private         IPC-HPW1200E-Z         B102, if 42, if 29           8         1         38, 15.5, 81         8080         IPC-HPW2200H/Z         Drive         IPC-HPW1200E-Z         B102, if 42, if 29           0evice Search         Add         Manual Add         Cenus //acre         B1001/R Cloudel //acres         Device Search         Cenus //acres         Device //acres <td>7         10         10         11<!--</td--><td>5</td><td>12</td><td>7</td><td>0.15.6.109</td><td>31111</td><td>P2C3FV988001</td><td>45</td><td>Private</td><td>IF Came</td><td>ra</td><td>90.02 a9 1e 3</td><td>10</td><td></td></td>	7         10         10         11 </td <td>5</td> <td>12</td> <td>7</td> <td>0.15.6.109</td> <td>31111</td> <td>P2C3FV988001</td> <td>45</td> <td>Private</td> <td>IF Came</td> <td>ra</td> <td>90.02 a9 1e 3</td> <td>10</td> <td></td>	5	12	7	0.15.6.109	31111	P2C3FV988001	45	Private	IF Came	ra	90.02 a9 1e 3	10	
Image: Constraint of the state of	Image: Constraint         No.01         Op/Ann         PPC+#FW2200R-2         Own/f         IPC+#FW2200R-2           Device Stands         Add         Manual Add         Manual Add         Device Stands	6		10	15 117.42	37777	1A02C04FAZ000	08	Privato	IPC/HOBW4	120E	99.02-49.42-8	d1 S	
Device Search Add Namuel Add PAddress Part Censor Marce Browne Discrete Discrete No. Manufacture PC Character Models Defete Defete Defete PAddress Part Censor Marce Browne Discrete Discrete No. Manufacture Constraintement D 13 2 0 16 18 19.537 37777 ITC237 1 Private 1 4 2 0 16 18 18.588 40067 2211125414680 1 Private IP PTZ Dame BRC-21180	Add         Namuel Add           Churces Search         Add         Namuel Add           Churces Search         Add         Provide         Provide         Research Search         Namuel Add         Top           Churces Marces         Marces Marces         Research Search         Namuel Add         Top         Top           Image: Search         Marces         Provide         Concerts Marces         Research Searches         Namuel Add         Top           Image: Search         Marces         Provide	7		1	9.16.6.127	31111	1F00806YA2000	03	Private	IPC-HFWII12	00E-Z	90:02:09:42:0	629	
Depute Search Add Namul Add Defate PLANA Add Defate Data Add Defate PLANA Add Defate Defate Add Defate Defate Add Defate Defate Defate Defate Add Defate Defa	Device Search         Add         Nanual Add         PAddance         Pands         Description         Nanual Add         PC         T           Charmel Model         Details         PAddance         Pand         Control Marce         Description         Nanual Add         Top           II         13         2         0         Table         Via 15.5.37         37777         ITC237         1         Provate         Top           Via         4         0         Table         Via 15.5.88         40067         221112/434650         1         Provate         IPPTZ Doma         SMC-211RSIA           Via         4         0         Table         Via 15.5.368         12727         28014615PA4900         1         Provate	1		3	0.15581	8060	IPC-HEW2200B	Z	Orvit	IPC-HFW220	10F6-Z			
1 14 2 0 18 18 18 18 40007 2211121404600 1 Private (PPTZ.Dome BNC-2118)	1     1		2022242111	_		ENALIS-SLDO		Post	Device Matter	Demote Channel Inc.	Vandacheet			
	P1 15 4 90 155 546 37777 280146 59490 1 Pixels		2022242111	_		ENALIS-SLDO		Port	Cevice Name	Remute Channel No.	Vandacturet			
10 15.5 10 10 10 10 10 10 10 10 10 10 10 10 10		5	Gtarmel 10	Nodite 2	Detete	Claime Ma	19 Addition No. 15 5 37	3000	ITC237	1	Prvate	Camera Hame	Tipe	

Figure 5-22

5.10.1.1.1 Initialize Camera

It is to initialize connected remote device and change its login password and IP address.

## Steps:

- Step 1 From main interface->Setting->Camera->Registration. Enter Registration interface. See Figure 5-23.
- Step 2 Click IP search and check the Uninitialized box.

Device displays uninitialized camera.

					PARAME -	and the second s		And the second sec	April March 1		10 F		A A	
1	0.00	141	- 21	_	10.10.10.10	21171	,7.35	sepretation	2644	PG-1	essurit.	7.48/11	24.44	-
2.	83	141	10		12.76.112.18	37175	3810	COPALIETAR.	21644	PC+	41101213	TOMPLIA	10W	
10			100		15.17.23.67	3010	1,0100	NETA-INTRODUC	<b>Ortes</b>	. PD+6	804403046	11.675.08	REN/	
4	12		10		物动物和	1990	3164	pearl agrouped to	Dates .	#0408	HYTELY ARC	surfaces	05.63	
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4	- 13			1.4	10.05346	30100	1.500	31-08803141	Dates		Clariners	0002-08-9	301	
					3110,114,350	3000	1054	EXMINANT	2494		Garren	101030-0	CIEAR	
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Step 3 Select a camera to be initialized and then click Initialize button. Device displays password setup interface. See Figure 5-24.

Enter Passwor	a		
	<ul> <li>Using current devic</li> </ul>	e password and email info	

Figure 5-24

#### Step 4 Set camera password.

• Using current device password and email: Check the box to use DVR current admin account and email information. There is no need to set password and email. Please go to step 7.

• User name/password: The user name is **admin**. The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "", "", ":", ":", "&") . The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system. Click Next button.

Step 5

Enter input email interface. See Figure 5-25. Email: Input an email address for reset password purpose.

# III Note

Cancel the box and then click Next or Skip if you do not want to input email information here.

Password Protection	
Email Address	To reset password, please input properly or update in time
Back	Next Skip

Figure 5-25

#### Step 6 Click Next button.

Enter Modify IP address interface. See Figure 5-26.

IP Address	192.168.1.108 In	cremental Value
Subnet Mask	255 255 255 0	
Default Gateway	192 . 168 . 1 . 1 IP Address	
1	172.8.7.110	

Figure 5-26

Step 7 Set camera IP address.

- Check DHCP, there is no need to input IP address, subnet mask, and default gateway. Device automatically allocates the IP address to the camera.
- Check Static, and then input IP address, subnet mask, default gateway and incremental value.

# Note

- If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.
- If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value
- Step 8 Click Next button.

Device begins initializing camera. See Figure 5-27.

Device	Initializ	ation			
	Finishe				
	No.	SN	IP Address	Results	
	1	000000000000000000000000000000000000000	172.8.7.110	Initialize:Success Modify IP:Succe SS	
				ОК	]



Step 9 Click OK to complete the initialization.

5.10.1.1.2 Auto Add

- Step 1 From main interface->Setting->Camera->Registration
- Step 2 Click IP Search, device displays searched results.
- Step 3 Double click an IP address or select an IP address and then click Add button, it is to register the device to the DVR. Device supports batch add.

5.10.1.1.3 Manual Add

Step 1 Click Manual add to register the camera manually. There are three modes: TCP/UDP/Auto. The default setup is TCP. See Figure 5-28.

Manual Add	i i	×
Channel	18	
Manufacturer	Private 💌	
IP Address	192.168.0.0	
TCP Port	37777 (1~65535)	
User Name	admin	
Password	•••••	
Remote Channel No.	1	
Decode Buffer	280 ms (80~480)	
	Save Cancel	

Figure 5-28

Step 2 Set parameters.			
Parameter	Function		
Manufacturer	Please select from the dropdown list. System supports manufactures such as Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, LG, Watchnet, PSIA, AirLive, Dahua and Onvif standard protocol.		
	Different series products may support different manufacturers, please refer to the actual product.		
IP address	Input remote device IP address.		
RTSP port	Input RTSP port of the remote device. The default setup is 554. Note Skip this item if the manufacture is private or customize.		
HTTP port	Input HTTP port of the remote device. The default setup is 80.  Note Skip this item if the manufacture is private or customize.		
TCP port	Input TCP port of the remote device. The default setup is 37777.		
User name/password	The user name and password to login the remote device.		
Channel No.	Input channel amount or click the Connect button to get the channel amount of the remote device. Note We recommend click Connect button to get remote device channel amount,		
	the manual add operation may result in failure if the input channel amount is not right.		

Parameter	Function
Remote channel No.	After getting the remote device channel amount, click Setup to select a channel.  Note Click to select one or more remote channel numbers here.
Channel	The local channel number you want to add. One channel name has corresponding one channel number.
Decode buffer	There are three item: realtime, local, fluent.
Service type Step 3 Click	<ul> <li>There are four items: auto/TCP/UDP/MULTICAST(ONVIF device only)</li> <li>Note</li> <li>The default connection mode is TCP if the connection protocol is private.</li> <li>There are three items:TCP/UDP/MULTICAST if the connection protocol is ONVIF.</li> </ul>
	<ul> <li>There are two items: TCP/UDP if the connection protocol is from the third-party.</li> <li>Save button.</li> </ul>

The newly added device is added to the list at the bottom of the interface.

# D Note

means connection successful.

5.10.1.1.4 Modify or Delete Device

Click or double click a device in the added list. Device pops up the following dialogue box. See Figure 5-29.

Modify	×
Channel	21 💌
Manufacturer	Dahua 💌
IP Address	10.15.23.211
TCP Port	37777 (1~65535)
User Name	admin
Password	••••
Remote Channel No.	1
Decode Buffer	Default
Save	Cancel Copy

Figure 5-29

- ♦ Select a channel from the dropdown list and change the parameters.
- Click Copy, device pops up the following dialogue box. It is to copy the user name and password to the selected channel(s). See Figure 4-30.

	×	J
All		
Channel 17	Channel 18	
Channel 19	Channel 20	
Channel 21		
Note: Copy user name	and password only.	
Save	Cancel	



- Click to disocnnected the camera and remove it from the added list.
- Select one or several device(s) in the added list, click Delete button to delete. Check the box before the channel number to select all channels at the same time.

5.10.1.1.5 IP Export

System can export the Added device list to your local USB device.

- Step 1 Insert the USB device and then click the Export button. Enter the following interface.
- Step 2 Select the directory and then click the OK button.

System pops up a dialogue box to remind you successfully exported.

Step 3 Please click OK button to exit.

# III Note

The exported file extension name is .CSV. The file information includes IP address, port, remote channel number, manufacturer, user name and password.

5.10.1.1.6 IP Import

Import IP address to add the camera.

Step 1 Click Import button.

Enter Browse interface.

Step 2 Select the import file and then click the OK button. System pops up a dialogue box to remind you successfully exported.

# D Note

If the imported IP has conflicted with current added device, system pops up a dialogue box to remind you. You have two options:

- OK: Click OK button, system uses the imported setup to overlay current one.
- Cancel: Click Cancel button, system adds the new IP setup.

Step 3 Please click OK button to exit.



# 

- You can edit the exported .CSV file. Do not change the file format; otherwise it may result in import failure.
- Does not support customized protocol import and export.
- The import and export device shall have the same language format.

#### 5.10.1.2 Conditions

Here you can view device property information. The setups become valid immediately after you set.

The analog channel is shown as in Figure 5-31.

		2016-08-24 00:51:25	Channel	1			Cable Type	COAXIAL	
			Period	W 00	00 - 24	00	00 : 00 - 24	00	
			Saturation	5-	-0	50	-0-	60	
			Brightness	*-	-0-	50	-0-	- 60	
			Contrast	0-	0		-0-	60	
			Hue	9-	-0-	- 50	-0-	- 50	
			Sharpness	M-0	111-5	- t	0		
			Color Mode	Sta	indard	•	Standard	-	
			Image Enhance		0	30	-0	- 30	
5338-65-5			NR	-	-0-	50	-0-	50	
CAM 1									
Customized	Defaut	Cancel							

Figure 5-31

The digital channel is shown as in Figure 5-32.

Conditions			
	Channel 4	*	
	Configuration Files Day		
			Extraction 🐐
	Minor O On Θ	Off	Brightness 🔆 —— ()—— 50
			Contrast 0 50
			Oteoma 🌘 50
	Fig Fip too	~	
	BLC Node Of	-	
	Profile Auto		
	Day & Night Auto	*	
Defeut Save Refresh			

#### Figure 5-32

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
Cable type	<ul> <li>It is to set the cable type of the corresponding analog channel. When the setup here matches the actual cable you are using, you can get the best image effect. The default setup is COAXIAL. Please note this function is for some series product only.</li> <li>COAXIAL: When the corresponding channel is using coaxial cable, please select COAXIAL.</li> <li>UTP: When the corresponding channel is using UTP cable, please select UTP. Usually we recommend 100hm UTP cable.</li> </ul>
Period	It divides one day (24 hours) to two periods. You can set different hue, brightness, and contrast for different periods.
Hue	It is to adjust monitor video brightness and darkness level. The default value is 50. The bigger the value is, the large the contrast between the bright and dark section is and vice versa.
Brightness	It is to adjust monitor window brightness. The default value is 50. The larger the number is , the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The value ranges from 0 to 100.The recommended value ranges from 40 to 60.

Parameter	Function
Contrast	It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.
	The larger the number is, the higher the contrast is. You can use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
Saturation	It is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50.
	The larger the number is, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
Color mode	It includes several modes such as standard, color. You can select corresponding color mode here, you can see hue, brightness, and contrast and etc will adjust accordingly.

#### 5.10.1.3 Encode

5.10.1.3.1 Encode

The encode interface is shown as below. See Figure 5-33.

Encode	Snapshot	Overlay	Path		
Channel	1	-			
Main Stream			Sub Stream		
Code-Stream Ty	rpe Regular	•	Video Enable		
Compression	H.264H	•	Compression	H.264H	•
Smart Codec	Stop	•			
Resolution	1920*1080(1080P)	•	Resolution	352*288(CIF)	•
Frame Rate(FPS	3) 15	•	Frame Rate(FPS)	15	•
Bit Rate Type	CBR	•	Bit Rate Type	CBR	•
Bit Rate	2048	▼ Kb/S	Bit Rate	320	✓ Kb/S
Reference Bit R	ate 640-6144Kb/S		Reference Bit Rate	32-640Kb/S	
I Frame Interval	1sec.	•	I Frame Interval	1sec.	•
Audio Enable			Audio Enable		
	0711			0744	_
Audio Format	G711a	<b>-</b>	Audio Format	G711a	<b>•</b>
Audio Source	LOCAL	-	Audio Source	LOCAL	•
Watermark Enal	ble		Watermark String		
	Сору	Save	Refresh	Default	

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
SVC	SVC is so called scaled video coding. Check the box to enable this function. During the network transmission process, system discards unimportant frames when the bandwidth is not sufficient or the decode capability is low. It is to guarantee video quality and transmission fluency.
Video enable	Check the box here to enable extra stream video. This item is enabled by default.
Code stream type	It includes main stream, motion stream and alarm stream. You can select different encode frame rates form different recorded events. System supports active control frame function (ACF). It allows you to record in different frame rates. For example, you can use high frame rate to record important events, record scheduled event in lower frame rate and it allows you to set different frame rates for motion detection record and alarm record.
Smart Codec	Select Start from the dropdown list to enable smart codec function. The DVR can auto reduce the video bit stream of the non-important surveillance object to save the storage space. Please note this function is for main stream only.
Compression	<ul> <li>Compression: System supports H.264H, H.264, H.264B, and MJPEG.</li> <li>H.264H: It is the High Profile compression algorithm. It has the high encode compression rate. It can achieve high quality encode at low bit stream. Usually we recommend this type.</li> <li>H.264 is the general compression algorithm.</li> <li>H.264B is the Baseline algorithm. Its compression rate is low. For the same video quality, it has high bit stream requirements.</li> </ul>
Resolution	It is to set video resolution. The higher the resolution is, the better the video quality is.
Frame Rate	PAL:1~25f/s; NTSC:1~30f/s.
Bit Rate	<ul> <li>Main stream: You can set bit rate here to change video quality. The large the bit rate is, the better the quality is. Please refer to recommend bit rate for the detailed information.</li> <li>Extra stream: In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value. The value is null in VBR mode.</li> </ul>
Reference bit rate	Recommended bit rate value according to the resolution and frame rate you have set.
I Frame	Here you can set the P frame amount between two I frames. The value ranges from 1 to 150. Default value is 50. Recommended value is frame rate *2.

Parameter	Function
Audio source	Please select from the dropdown list. There are two options: Normal/HDCVI.
	In the normal mode, the audio signal comes from the Audio In. In the HDCVI
	mode, the audio signal comes from the coaxial cable of the camera.
Watermark	This function allows you to verify the video is tampered or not.
enable	Here you can select watermark bit stream, watermark mode and watermark
	character. Default character is DigitalCCTV. The max length is 85-digit. The
	character can only include number, character and underline.

#### 5.10.1.3.2 Snapshot

The snapshot interface is shown as in Figure 5-34.

Encode	Snapshot	Overlay	Path	
Channel	1	•		
Mode	Timing	•		
Image Size	352*288(CIF)	•		
Quality	4	•		
Snapshot Frequenc	y 1 SPL	•		
	Сору	Save Ref	resh Default	

Figure 5-34

Please refer to the following sheet for detailed information.

Parameter	Function
Snapshot type	<ul> <li>There are two modes: Timing (schedule) and Trigger.</li> <li>Regular snapshot is valid during the specified period you set.</li> <li>Trigger snapshot only is valid when motion detect alarm, tampering alarm or local activation alarm occurs.</li> </ul>
Image size	It is the same with the resolution of the main stream.
Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s. Or you can set customized value. The max setup is 3600s/picture.
Сору	Click it; you can copy current channel setup to other channel(s).

5.10.1.3.3 Video Overlay

The video overlay interface is shown as in Figure 5-35.

	2013	10-24 17 00 05		1	•	
			Cover-Area	lor.		
			2) Channel Disates			
			🕑 Time Ditiplay	Setup		
AM 1						
Caes	Save A	etresh Default				

Figure 5-35

Please refer to the following sheet for detailed information.

Parameter	Function
Cover-area	Check Preview or Monitor first.
	Click Set button, you can privacy mask the specified video in the preview or monitor video.
	System max supports 4 privacy mask zones.
Time Title	You can enable this function so that system overlays time information in video window.
	You can use the mouse to drag the time title position.
	You can view time title on the live video of the WEB or the playback video.
Channel Title	You can enable this function so that system overlays channel information in video window.
	You can use the mouse to drag the channel title position.
	You can view channel title on the live video of the WEB or the playback video.

5.10.1.3.4 Path

The storage path interface is shown as in Figure 5-36.

Here you can set snap image saved path ( in the preview interface) and the record

storage path ( in the preview interface). The default setup is C:\PictureDownload

and C:\RecordDownload.

Please click the Save button to save current setup.

Encode	Snapshot	Overtary	Path
Snapshol Fath	C PictureDownload		Browse.
Record Path	C RecordDownload		Browse
		Default	Di Janara

Figure 5-36

#### 5.10.1.4 Channel Name

Here you can set channel name. See Figure 5-37.

Please note this function is for analog channel only. The digital channel name here is read-only.

amera Name			
Channel 1	CAM 1	Channel 2	CAM 2
Channel 3	CAM 3	Channel 4	CAM 4
Channel 5	CAM 5	Channel 6	CAM 6
Channel 7	CAM 7	Channel 8	CAM 8
Channel 9	CAM 9	Channel 10	CAM 10
Channel 11	CAM 11	Channel 12	CAM 12
Channel 13	CAM 13	Channel 14	CAM 14
Channel 15	CAM 15	Channel 16	CAM 1

Figure 5-37

#### 5.10.1.5 Channel Type

It is to set channel type.

- For analog channel (CVBS signal or HDCVI HD signal), you can select coaxial cable or UTP cable. Please check first and then save setup. There is no need to reboot.
- You can switch analog channel type to digital channel type if you want to connect to network camera. The IP channel shall start from the last channel. System needs to reboot to activate current setup.

# Note

If there is no connected channel, the channel type here just displays previous connection record. System supports self-adaptive after camera connection.

The interface is shown as in Figure 5-38 (XVR series product) and Figure 5-39 (HCVR series product).

# Important notice about XVR series product:

 Nowadays, there are mainly two analog signal types on today market: analog standard definition (CVBS) and analog HD (CVI, AHD or Other). For XVR series product, each channel supports all types of signal connection (analog signal/IP signal). For analog signal connection, the default setup is AUTO, that is to say, no matter what analog signal (CVBS, CVI, AHD or other analog HD signal) connected; the XVR can automatically recognize the signal and display the proper image. There is no need to set manually.

 If the auto recognition error occurred, XVR series product supports manual setup too. The manual setup featuring high recognition speed and usually there is no error. For example, you can set channel 1 to connect to CVI camera, channel 2 to connect to AHD camera, channel 3 to connect to CVBS camera.

Channel —	AUTO I	CVI -	Analog AND	CVBS 🕅	OTHER	P 🖬
1	12	10		8	10	D
2			(C)	0	10	
3	125	10	10	0	10	
- 14			<u>1</u>		17	
5	121	E	0	-83	0	
6						
7	65		0	61	0	
8		0		17	1	
9	125	20	121	8	83	
10			(C) .	13	(1)	
11	123	<b>E</b>	07	13	123	
12	[21]	<u></u>	産り	11	10	1
13		<u></u>	(E)	10	0	
14		123				
15	120	10	10	10	10	
16				121	11	[7]

Figure 5-38

Channel	COAXIAL 🔤	UTP 🗖	1P 🔛	
1	团	5		
2		-		
3	10	21	10	
4		T.		
5	125	2	11	
6		1		
7	12	8		
8		13		
9	10	21	13	
10		<b>73</b>		
11	121	12	10	
12				
13	(2)	23		
14		1	10	
15	15	23	121	
16				

Figure 5-39

#### Important

#### Add/cancel IP CAM function is for some series product only.

 Add IP CAM: Click it; you can add corresponding X IP channels. Here X refers to the product channel amount. Please refer to chapter 1.3 Specifications for IP channel amount information. System needs to restart to activate new setup.

For example, there is a 4-channel analog device, after the A/D switch, it can max supports 4 analog channels and 4 IP channels. Once it has become the 3+1 mode (3

analog channels+1 IP channel), you click button, system becomes 3+5 mode (3 analog channels+5 IP channel).

• Cancel IP CAM: Click it, you can cancel IP channel. System needs to restart to restore original status.

#### 5.10.2 Network

#### 5.10.2.1 TCP/IP

The single-Ethernet port interface is shown as in Figure 5-40.

TCP/IP		
Ethernet Port	Ethernet Port1	•
IP Version	IPv4	•
MAC Address	90 , 02 , a9 , da , 90	: . 77
Mode	STATIC O DHCF	)
IP Address	10 . 15 . 6 .	145
Subnet Mask	255 . 255 . 0 .	0
Default Gateway	10 . 15 . 0 .	1
Preferred DNS	10 . 1 . 2 .	80
Alternate DNS	10 . 1 . 2 .	81
MTU	1500	
	LAN Download	
	Save	Refre

Figure 5-40

The dual-Ethernet port interface is shown as in Figure 5-41.

TCP/IP									
ietwork Mode	Multi-a	address		<u>[]</u>					
Detault Card	Ether	et Card	11	(m)					
themet Cant		vet Cland		( <b>a</b> )					
Apde :	0 st	THE C	DHCP						
AC ADDRESS	122.24	0 10	13 : 2						
itu.	1550								
P Version	Pi4		-	-					
P Address	10	15	б	252					
Lubriet Mask:	255	255	0	0					
Setaut Galeway	10	15	0	1					
(bitC benefer	U	8	0	0					
Heiniste DRIS	8	8	4	4					
AN Dewoload									
		Bave		Retteuh	Detaut				
	Are and								

## Figure 5-41

Please refer to the following sheet for detailed information.

Parameter	Function
Network mode	It includes: single multiple-address, fault tolerance, load balance.
	<ul> <li>Multiple-address: eth1/eth2 operates separately. You can use the services such as HTTP, RTP service via eth1/eth2. Usually you need to set one default card (default setup is eth1) to request the auto network service from the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.</li> </ul>
	• Fault-tolerance: In this mode, device uses bond0 to communicate with the external devices. You can focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card).System can enable alternate card when the master card is malfunction. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
	• Load balance: In this mode, device uses bond0 to communicate with the external device. The all cards are working now and bearing the network load. Their network load are general the same. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
Mode	There are two modes: static mode and the DHCP mode.
	• The IP/submask/gateway are null when you select the DHCP mode to auto search the IP.
	• If you select the static mode, you need to set the IP/submask/gateway manually.
	• If you select the DHCP mode, you can view the IP/submask/gateway from the DHCP.
	• If you switch from the DHCP mode to the static mode, you need to reset the IP parameters.
	<ul> <li>Besides, IP/submask/gateway and DHCP are read-only when the PPPoE dial is OK.</li> </ul>
Mac Address	It is to display host Mac address.

Parameter	Function
IP Version	It is to select IP version. IPV4 or IPV6.
	You can access the IP address of these two versions.
IP Address	Please use the keyboard to input the corresponding number to modify the IP address and then set the corresponding subnet mask and the default gateway.
Preferred DNS	DNS IP address.
Alternate DNS	Alternate DNS IP address.
MTU	It is to set MTU value of the network adapter. The value ranges from
	1280-7200 bytes. The default setup is 1500 bytes.
	The following MTU value is for reference only.
	<ul> <li>1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.</li> </ul>
	• 1492: Recommend value for PPPoE.
	• 1468: Recommend value for DHCP.
	• 1450: Recommended value for VPN.
	ess of IPv6 version, default gateway, preferred DNS and alternate DNS, shall be 128-digit. It shall not be left in blank.
LAN load	System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

#### 5.10.2.2 Connection

The connection interface is shown as in Figure 5-42.

Connection		
Max Connection	128	(0~128)
TCP Port	37777	(200~65535)
UDP Port	37778	(200~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(128~65535)
RTSP Port	554	(128~65535)
RTSP Format	rtsp:// <user name="">:<passw< th=""><th>ord&gt;@<ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip></th></passw<></user>	ord>@ <ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip>
	channel: Channel, 1-32; sub	ype: Code-Stream Type, Main Stream 0, Sub Stream 1.
	Save	fresh Default

#### Figure 5-42

Please refer to the following sheet for detailed information.

Parameter	Function
Max connection	It is the max Web connection for the same device. The value ranges from 1 to 128. The default setup is 128.
TCP port	The default value is 37777. You can input the actual port number if necessary.
UDP port	The default value is 37778. You can input the actual port number if necessary.

Parameter	Function
HTTP port	The default value is 80. You can input the actual port number if necessary.
HTTPS	The default value is 443. You can input the actual port number if necessary.
RTSP port	• The default value is 554. Please leave it in blank if you are using default value. When you are using QuickTime or VLC, you can use the following format. BlackBerry cellphone support this function too.
	<ul> <li>Real-time monitoring URL format: please require real-time RTSP media server, require channel number, and bit stream type in URL. You may need username and password.</li> </ul>
	<ul> <li>When you are using BlackBerry, please set encode mode as H.264B, resolution to CIF and turn off audio.</li> </ul>
	URL format is:
	rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0
	username/password/IP and port.
	<ul> <li>Username: such as admin.</li> </ul>
	<ul> <li>Password: such as admin.</li> </ul>
	• IP: Device IP such as 10.7.8.122.
	• Port: Port value. The default setup is 554. You can leave in blank if you are using default value.
	<ul> <li>Channel: channel number. It starts with 1. If it is channel 2, then channel=2.</li> </ul>
	<ul> <li>Subtype: bit stream type. The main stream is 0(subtype-0),subtype is 1(subtype=1).</li> </ul>
	For example, if you want to get the sub stream of the channel 2, the URL is:
	rtsp://admin:admin@10.12.4.84:554/cam/realmonitor?channel=2&subtype=1.
	If there is no authentication, there is no need to specify user name and
	password, you can use the followinf format:
	rtsp://ip:port/cam/realmonitor?channel=1&subtype=0
POS port	The value ranges from 1 to 65535. The default setup is 38800.

#### 5.10.2.3 HTTPS

In this interface, you can set to make sure the PC can successfully login via the HTTPS. It is to guarantee communication data security. The reliable and stable technology can secure the user information security and device safety. See Figure 5-43.

# D Note

HTTPS

- You need to implement server certificate again if you have changed device IP.
- You need to download root certificate if it is your first time to use HTTPS on current PC.

Create Server Certificate Download Root Certificate

5.10.2.3.1 Create Server Certificate

If it is your first time to use this function, please follow the steps listed below.

In Figure 5-43, click Create Server Certificate button, input country name, state name and etc. Click Create button. See Figure 5-44.

III Note

Please make sure the IP or domain information is the same as your device IP or domain name.

Create Server Certifi	cate		×
Country	AU		
State			
Locatity			
Oragnization			
Oragnization Unit			
IP or Domain Name	10.10.6.238		
	Create	Cancel	



You can see the corresponding prompt. See Figure 5-45. Now the server certificate is successfully created.

HTTPS	
Course Street Courses Courses Road Courses	
Crease perfer Cedocase   [Cosmoad Root Centicate]	
Create Succeed	

Figure 5-45

5.10.2.3.2 Download root certificate

In Figure 5-43, click Download Root Certificate button, system pops up a dialogue box. See Figure 5-46.



Figure 5-46

Click Open button, you can go to the following interface. See Figure 5-47.

Certificate ? 🔀
General Details Certification Path
Certificate Information
This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.
Issued to: Product Root CA
Issued by: Product Root CA
Valid from 2013-6-18 to 2023-6-16
ОК

Figure 5-47

Click Install certificate button, you can go to certificate wizard. See Figure 5-48.



Figure 5-48

Click Next button to continue. Now you can select a location for the certificate. See Figure 5-49.

Certificate Import Wizard 🛛 🗙
Certificate Store Certificate stores are system areas where certificates are kept.
Windows can automatically select a certificate store, or you can specify a location for <u>Automatically select the certificate store based on the type of certificate</u>
Place all certificates in the following store     Certificate store:     Browse
< Back Next > Cancel

Figure 5-49

Click Next button, you can see the certificate import process is complete. See Figure 5-50.

Certificate Import Wizard		X
	Wizard	Certificate Import
	You have successfully compl wizard.	eted the Certificate Import
	You have specified the follow	ving settings:
	Certificate Store Selected Content	Automatically determined by t Certificate
	< <u>B</u> ack	Finish Cancel

Figure 5-50

Click Finish button, you can see system pops up a security warning dialogue box. See Figure 5-51.



Figure 5-51

Click Yes button, system pops up the following dialogue box, you can see the certificate download is complete. See Figure 5-52.

Certific	ate Import Wizard 🛛 🔀
(į)	The import was successful.
	ОК

Figure 5-52

5.10.2.3.3 View and set HTTPS port

From Setup->Network->Connection, you can see the following interface. See Figure 5-53.

You can see HTTPS default value is 443.

ction				
nnection 128	128 (0~129)			
art 37777	37777 (200-46636)			
ort 37778	37778 (200-65536)			
Port 80	80 (1~65535)			
Fod 443	443 (129-65535)			
Port 554	554 (128-08538)			
Format rtap //-User	rtsp://-User Name= <password>@-IP Address - <port-icam eaknonitor?channel="1&amp;subtype=0&lt;/td"></port-icam></password>			
channel: Ch	channel: Channel, 1-32, subtype: Code-Stream Type, Main Stream 0, Sub Stream 1,			
Bai	Sove Refeat Default			
	- Mere (Vereph)			
Format (tsp://-User channel: Ch	rtsp://-UserName=- <password+@-ip-address>Port-Icam/tealmonitor?channel=18outhpe=0</password+@-ip-address>			

Figure 5-53

5.10.2.3.4 Login

Open the browser and then input https://xx.xx.xx.port.

xx.xx.xx: is your device IP or domain mane.

Port is your HTTPS port. If you are using default HTTPS value 443, you do not need to add port information here. You can input <u>https://xx.xx.xx</u> to access.

Now you can see the login interface if your setup is right.

5.10.2.4 WIFI

# Note

This function is for some series products only.

This function allows you to connect the DVR to the network via the WIFI.

Step 1 From main window->Setup->Network->WIFI.

Enter WIFI interface. See Figure 5-54.

SSID List	550	Canned made	Auftranzie Wilde	Signal Interteth
WFI Working Into				
Current Histapot				
FADRER				
SubortHask				
Default Gateway				

Figure 5-54

- Step 2 Check the box to enable WIFI function and then click the Search SSID button. It is to view all the wireless network information in the following list.
- Step 3 Double click a name to connect to it.

Click Refresh button, you can view latest connection status.

5.10.2.5 3G/4G

It is to connect to the 3G/4G network to receive alarm information, view device state, audio/video and etc.

5.10.2.5.1 CDMA/GPRS

Step 1 From main window->Setup->Network->3G/4G.

Enter 3G/4G interface is shown as in Figure 5-55.

$\mathbf{m}$	
ш	Note

After you connected the 3G/4G module, you can view the module information and wireless signal. If there is no information, click Search button to search.

3G/4G	Mobile			
WLAN Type	No Service	- Boot	up	
APN		Dial/s	SMS Activate	
AUTH	PAP	-		
Dial No.				
User Name				
Password				
WLAN Status				
IP Address				
Wireless Signal	Search	]		
	Save	Refresh	Default	

Figure 5-55

Step 2 Check the Boot up box to enable this function and then set parameters.

Parameter	Function
WLAN type	Here you can select 3G/4G network type to distinguish the 3G/4G module from different ISP. The types include WCDMA, CDMA1x and etc.
APN/Dial No.	Here is the important parameter of PPP.
Authorization	It includes PAP,CHAP,NO_AUTH.
Pulse interval	It is to set time to end 3G/4G connection after you close extra stream monitor. For example, if you input 60 here, system ends 3G/4G connection after you close extra stream monitor 60 seconds.
Important	
	nterval is 0, then system does not end 3G/4G connection se the extra stream monitor.
<ul> <li>Pulse interva</li> </ul>	al here is for extra stream only. This item is null if you are

#### using main stream to monitor.

Step 3 Check Dial/SMS activate

- Step 4 Click Save button to connect device to 3G/4G network. View the IP address if the connection is OK.
  - 5.10.2.5.2 Mobile

Make sure the SIM card and the 3G/4G module supports SMS function.

Before you set cellphone, please go to the previous chapter to enable Dial/SMS activate function.

Step 1 From main window->Setup->Network->3G/4G->Mobile.

Enter mobile setup interface. See Figure 5-56.

Sent SMS		SMS Advate		🖾 Tel Activate		
SECHIVER.	+	Sender	+	Caber	+	
	-				1	
itis DVR Messa	sge :					
	Save	Refiesh	Detailt			



- Step 2 Activate or turn off the 3G/4G connected phone or mobile phone, or the phone you set to get alarm message.
- Step 3 Input sender/caller cellphone number and then click is to add the cellphone user to the list.



Select a number in the list and then click [1] to delete current number.

- Send SMS: Check the box to enable this function. Various kinds of alarm can trigger the DVR to send out alarm message to the receiver.
- SMS activate: Check the box to enable this function. The user can send out the message to the receiver to enable/disable 3G/4G module.
- Telephone activate: Check the box to enable this function. The user can call the 3G/4G user to enable/disable 3G/4G module.

Step 4 Click Save to complete the setup.

5.10.2.6	PPPoE
5.10.2.6	PPPoE



This function is for some series products only.

Use PPPoE(Point-to-Point Protocol over Ethernet) to establish network connection. Device can get a dynamic IP address in the WAN. Before the operation, please contact your ISP (Internet service provider) for PPPoE user name and password.

Step 1 From main window->Setup->Network->PPPoE.

Enter PPPoE interface. See Figure 5-57.

PPPoE	
Enable	
User Name	
Password	
IP Address	0 , 0 , 0 , 0
	0.0.0
	Save Refeat Default

Figure 5-57

- Step 2 Check the box to enable PPPoE function and input the PPPoE user name and password.
- Step 3 Click Save to complete the setup.
- Step 4 Device connects to the internet via PPPoE. You can get the IP address in the WAN from the IP address column.

## Note

After enable PPPoE function, the IP address on the TCP/IP (Setup->Network->TCP/IP) interface is read-only.

#### 5.10.2.7 DDNS

The DDNS interface is shown as in Figure 5-58.

The DDNS is to set to connect the various servers so that you can access the system via the server. Please go to the corresponding service website to apply a domain name and then access the system via the domain. It works even your IP address has changed.

Please select DDNS from the dropdown list (Multiple choices). Before you use this function, please make sure your purchased device support current function.

DDNS			
Enable			
DDNS Type	Dyndns DDNS	•	
HostIP	members dyndn	s.org	
Domain Name			
User Name			
Password		7	
Interval	5	min. (5~10	092)
	Save	Refresh	Default

#### Figure 5-58

Please refer to the following sheet for detailed information.

Parameter	Function
DDNS Type	Server name and address provided by the DDNS service
Server IP	<ul> <li>provider.</li> <li>Dyndns DDNS is members.dyndns.org.</li> <li>NO-IP DDNS is dynupdate.no-ip.com.</li> <li>CN99 DDNS is members.3322.org.</li> </ul>
Domain Name	The domain name registered on the DDNS service provider website.
User	Input the user name and password got from the DDNS service
Password	provider. Make sure you have logged in the DDNS service provider website to register an account (user name and password).
Update period	After DDNS boots up, it sends out refresh query regularly. The unit is minute.

After setting, click Save button.

Input full domain name on the browser and click Enter button. The setting is right if you can view device WEB interface. Otherwise, please check the parameters.

#### 5.10.2.8 Sync Time Right

It is to allow the specified IP host to sync time with the device or change device time.

#### **Background Information**

If the IP host and the device are not the same, it may result in file search failure; data backup is not the same and cannot record and operate the device. So, there is need to specify the device and IP host time synchronization mechanism and make sure the device and IP host time is the same.

#### Steps:

Step 1 From main window->Setup->Network->Sync time right. Enter sync time interface. See Figure 5-59.

		,	
Sync Time Right			
Crubbe			
Trusted 18H4			
	P Address	14	Debde
A44			
Zant Politish Default			

#### Figure 5-59

Step 2 Check the box to enable this function.

Step 3 Click Add button, and then set IP address in the pop-up interface click Save button.

Refer to the following table to set parameters.

Parameter	Function			
IP address	Input the device IP address you want to add.			
IP segment	Input the start address and end address of the IP segment you want to add.			
IPv4	The IP address adopts IPv4 mode such as 172.16.5.10.			
IPv6	The IP address adopts IPv6 mode such as aa:aa:aa:aa:aa:aa:aa.			
MAC address	Input the mac address you want to add.			

Step 4 Click Save to complete setup.

Step 5 Login the device WEB on the IP host.

From Setup->System->General->Date and time, change device time or click Sync time with PC. Device pops the corresponding dialogue box.

#### 5.10.2.9 Email

The email interface is shown as in Figure 5-60.

Email	
🕑 Enaltie	
SMTP Sanwo	123 58 178 201
F04	25
🔄 Ananomina	
UserHame	Amount 121
Password	******
Bande/	
Encript Tipe	NORE
Bubject	DVR ALERT Distantionant
Received	+
	dongqaeq9721@120.com
Interval	130 Becond (0-3650)
Heath Enable	60 Minuta (30-1440)
	Email Test.
	Save Rotesh Default

# Figure 5-60

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	Please check the box here to enable email function.
SMTP Server	Input server address and then enable this function.
Port	Default value is 25. You can modify it if necessary.
Anonymity	For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name, password and the sender information.
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	You can select SSL or none.
Subject	Input email subject here.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Receiver	Input receiver email address here. Max three addresses. It supports SSL, TLS email box.
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.

Parameter	Function
Health mail enable	Please check the box here to enable this function.
Update period (interval)	This function allows the system to send out the test email to check the connection is OK or not. Please check the box to enable this function and then set the corresponding interval. System can send out the email regularly as you set here.
Email test	The system will automatically sent out a email once to test the connection is OK or not .Before the email test, please save the email setup information.

#### 5.10.2.10 UPnP

It allows you to establish the mapping relationship between the LAN and the public network.

Here you can also add, modify or remove UPnP item. See Figure 5-61.

- In the Windows OS, From Start->Control Panel->Add or remove programs. Click the "Add/Remove Windows Components" and then select the "Network Services" from the Windows Components Wizard.
- Click the Details button and then check the "Internet Gateway Device Discovery and Control client" and "UPnP User Interface". Please click OK to begin installation.
- Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the DVR can auto detect it via the "My Network Places"

Parameter	Function		
Port	Check the box to enable/disable this function.		
enable/disable			
LAN IP	It is the router IP in the LAN.	Device can auto get the IP address	
WAN IP		if the UPnP function succeeded.	
	It is the router IP in the WAN.	Do not need to set.	
Chatura	When the UPNP is offline, it shows as "Searching". When the UPNP		
Status	works it shows "Success"		

Parameter	Function					
Port mapping list	<ul> <li>It is the same information on the UPnP list of the router.</li> <li>Service name:Defined by user.</li> <li>Protocol: Protocol type</li> <li>Internal port:Port that has been mapped in the router.</li> <li>External port:Port that has been mapped locally.</li> <li>Note</li> <li>When you are setting the router external port, please use 1024~5000 port. Do not use well-known port 1~255 and the system port 256~1023 to avoid conflict.</li> <li>When there are several devices in the same LAN, please arrange the port mapping properly in case several devices are mapping to the same external port.</li> <li>Please make sure the mapping port is available.</li> <li>For the TCP and UDP, please make sure the internal port and external port are the same to guarantee the proper data transmission.</li> </ul>					
Modify	Click 🛃, you	ı can chan	ge WAN po	ort value.		
UPNP PAT Enable Blobus (_ALLP 0 0 TOTAL P 0 0 POT Mupong List No P 1 P 2 P 4 P 5 P 6 P 7 P	O Disates 0 0 0 0 Service Mane ertTP TCP UDP RTSP StatP StatP HTTP8	Protector TOP TOP USP USP TOP USP TOP	1000m02 Post 100 37777 37778 554 554 554 554 554 443	Ertonis/ Pot 00 37777 37778 554 554 351 443	Waß 2 2 2 2 2	
Add Rabesh	Osfault					



#### 5.10.2.11 SNMP



This function is for some series products only.

SNMP is an abbreviation of Simple Network Management Protocol. It provides the basic network management frame of the network management system. The SNMP widely used in many environments. It is used in many network device, software and system.

#### Preparation

- Install corresponding software tool such as MIB Builder and MG-SOFT MIB Browser.
- Contact technical engineer to get two MIB files of the current version.

#### Steps

Step 1 From main window->Setup->Network->SNMP. Enter SNMP interface is shown as in Figure 5-62.

SNMP		
Enable		
Stater Fort	161	(0-60536)
Read Community	public	
Write Community	private	
Tria Address	1	
Trap Port SNMP Version	162	(0-65635)
SNMP Version	EVI EV	
	5am	Reflection Default

Figure 5-62

Step 2 Check the enable box to enable SNMP function. Trap address refers to the PC address that has installed MG-SOFT MIB Browser. The rest settings adopt default setup.

Parameter	Function
SNMP Port	The listening port of the proxy program of the device. It is a UDP port not a TCP port. The value ranges from 1 to 65535. The default value is 161
Read Community	It is a read/write community string the applications support.
Write Community	
Trap address	The destination address of the Trap information from the proxy program of the device.
Trap port	The destination port of the Trap information from the proxy program of the device. It is for the gateway device and the client-end PC in the LAN to exchange the information. It is a non-protocol connection port. It has no effect on the network applications. It is a UDP port not TCP port. The value ranges from 1 to 165535. The default value is 162.
SNMP version	<ul> <li>Check V1, system only processes the information of V1.</li> <li>Check V2, system only processes the information of V2.</li> </ul>

Step 3 Compile the above mentioned two MIB file via the software MIB Builder.

- Step 4 Run MG-SOFT MIB Browser to load the file from the previous step to the software.
- Step 5 Input the device IP you want to manage in the MG-SOFT MIB Browser. Please set the corresponding version for your future reference.
- Step 6 Open the tree list on the MG-SOFT MIB Browser; you can get the device configuration. It is to view the device has how many video channels, audio channels, application version and etc.

#### 5.10.2.12 Multicast

The multicast interface is shown as in Figure 5-63.

Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.

	Parameter	Function	
	IP address	The multicast IP address (0.0.0.0 $\sim$ 255.255.255.255).	
	Port	The multicast port value(1025 $\sim$ 65000).	
(r) Er		42 42 (224 0 0.0-239 255 255 255) (1-65500) Rafesh Defaut	

#### Figure 5-63

Click Save to complete the setup. Login and monitor.

Use WEB to login, you can see the following interface. See Figure 5-64. Select login type as the Multicast from the dropdown list. After you logged in the Web, the Web can automatically get multiple cast address and add it to the multiple cast groups. You can enable real-time monitor function to view the video.

(a)hua	7	
User Name:	admin	
Password:		
Туре:	TCP TCP UDP MULTICAST	
	Login Cancel	]

Figure 5-64

#### 5.10.2.13 Auto Register

The auto register interface is shown as below. See Figure 5-65.

This function allows the device to auto register to the proxy you specified. In this way, you can use the client-end to access the DVR and etc via the proxy. Here the proxy has a switch function. In the network service, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto register function, the device can auto register to the proxy server.

Auto Register	
Enable	
Server IP	0.0.0.0
Port	8000
Sub-device ID	0
	Save Refresh Default

Figure 5-65

Parameter	Function
Server IP	The server IP address or server domain name you want to
address	register.
Port	The auto registration port value of the server.
Sub-device ID	The device ID allocated by the server.

#### 5.10.2.14 Alarm Centre

The alarm center interface is shown as below. See Figure 5-66.

This interface is reserved for you to develop. System can upload alarm signal to the alarm center when local alarm occurs.

Before you use alarm center, please set server IP, port and etc. When an alarm occurs, system can send out data as the protocol defined, so the client-end can get the data.

Private		
10 1 0	2	
1		
Everyday	💓 # 00.00	( <b>m</b> )
Save	Rettesh	Default
	1 Exeryday	10 1 0 2

Figure 5-66

Parameter	Function
Enable	Check the box to enable alarm center function.
Server IP	The IP address and the communication port of the PC that has installed
Port	the alarm client.
Self-report time	Select alarm upload time from the dropdown list.

#### 5.10.2.15 P2P

You can use your cell phone to scan the QR code and add it to the cell phone client. Via the SN from scanning the QR code, you can access the device in the WAN. Please refer to the P2P operation manual included in the resources CD.

The P2P interface is shown as in Figure 5-67.

Check the Enable box to enable P2P function and then click the Save button. Now you can view the device status and SN.

P2P		
Enable Status Offine Cell Phone Client	Device SN	Please scan the QR code on the actual interface to continue.
Scan QR to Download	00000000 Save Ref	resh

Figure 5-67

Here we use cell phone APP to continue.

- Step 1 Use cell phone to scan the QR code and download the APP.
- Step 2 After installation, run the APP and Live Preview, enter the main interface. Now you can add device to the APP.



- 2. Tap  $\stackrel{i=}{=}$  at the top left corner, you can see the main menu.
- 3. Tap Device manager button, you can use several modes (P2P/DDNS/IP and

etc) to add the device. Click to save current setup. Tap Start Live preview to view all-channel video from the connected device. See Figure 5-68.

	P2P	@ 49% CC
Register Mode:		P2P
Name:		
SN:		M
Username:		admin
Password:		•••••
Live Preview:		Extra >
Playback:		Extra >
<i>®</i>		Check VTO
Star	t Live Pre	view

Figure 5-68

#### 5.10.3 Event

5.10.3.1 Video detect

The video detect includes motion detect, video loss, tampering, scene change and diagnosis.

5.10.3.1.1 Motion Detect

After analysis video, system can generate a motion detect alarm when the detected moving signal reached the sensitivity you set here.

The motion detect interface is shown as in Figure 5-69.

Motion Detect	Video Loss	Tampering	Diagnosis	
Finable MD	1	•		
Enable PIR				
Period	Set			
Anti-dither	5	(9-600)		
Region	Set			
2 Record Channel	1 2 3 4 5	6 7 8 9 10	11 12 13 14 15 16	
Delay		(10-380)		
Alarm Out	1 2 3			
Latch	10 sec.	(0-300)		
PTZ Activation	Set			
Tour	1 2 3 4 5	6 7 8 9 10	11 12 13 14 15 16	
🗇 Snapshot	1 2 3 4 5	0 7 8 9 10	11 12 13 14 15 16	
Video Matrix				
Voice Prompts	File Name No	one •		
5how Message	🖂 Sent Email 📋 I	Ruzzer 🖾 Message 🗄	Log	
Alarm Upload				

Figure 5-69

Setup				
	Thursday		Сору	
	✓ 00 :	00 -	24 : 00	
	00 :	- 00	24 : 00	
	00 :	- 00	24 : 00	
	00 :	- 00	24 : 00	
	00 :	- 00	24 : 00	
	00 :	- 00	24 : 00	
	Save		Cancel	]

Figure 5-70

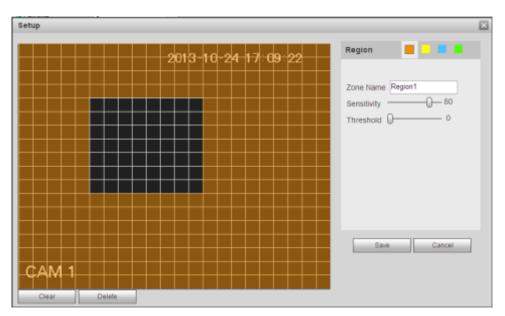


Figure 5-71

PTZ Activation				×
Channel 1	None	•	0	
Channel 2	None	•	0	
Channel 3	None	•	0	
Channel 4	None	•	0	
Channel 5	None	•	0	
Channel 6	None	•	0	
Channel 7	None	•	0	
Channel 8	None	•	0	
	Save	Cano	cel	

# Figure 5-72

Please refer to the following sheet for detailed information.

Parameter	Function
Enable MD	You need to check the box to enable motion detection function.
	Please select a channel from the dropdown list.
Enable PIR	PIR function help enhance the motion detect accuracy and validity.
	It is to filter the false alarm triggered by leaves, small fly and
	insects. The PIR detection zone is smaller than the camera angle
	of view.
	The PIR function is enabled by default if the connected remote
	device supports the PIR function. When the PIR function is on,
	motion detection function is on by default. The motion detect event

Parameter	Function
	occurs when these two function are enabled at the same time. If
	the PIR function is disabled, check the enable box to enable the
	general motion detect function.
	Q <sub>Note</sub>
	<ul> <li>The channel type shall be CVI if you want to enable PIR function.</li> </ul>
	<ul> <li>If the remote device does not support PIR function, the PIR</li> </ul>
	item on the interface is grey or is hiding. That is to say, the PIR function is null.
	<ul> <li>The interface does not display PIR enable state if current DV</li> </ul>
	does not support PIR function.
Period	Motion detection function becomes activated in the specified periods. See Figure 5-70.
	There are six periods in one day. Please draw a circle to enable
	corresponding period.
	Click OK button, system goes back to motion detection interface,
	please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period.
	The value ranges from 5s to 600s.
Sensitivity	There are six levels. The sixth level has the highest sensitivity.
Region	If you select motion detection type, you can click this button to set
	motion detection zone. The interface is shown as in Figure 5-71.
	Here you can set motion detection zone. There are four zones for
	you to set. Please select a zone first and then left drag the mouse
	to select a zone. The corresponding color zone displays different
	detection zone. You can click Fn button to switch between the arm
	mode and disarm mode. In arm mode, you can click the direction
	buttons to move the green rectangle to set the motion detection
	zone. After you completed the setup, please click ENTER button to
	exit current setup. Do remember click save button to save current
	setup. If you click ESC button to exit the region setup interface
	system will not save your zone setup.
Record	System auto activates motion detection channel(s) to record once
channel	an alarm occurs. Please note you need to set motion detect record
	period and go to Storage-> Schedule to set current channel as
Descrid Data:	schedule record.
Record Delay	System can delay the record for specified time after alarm ended.
Alarm out	The value ranges from 10s to 300s.
Alaim Out	Enable alarm activation function. You need to select alarm output
	port so that system can activate corresponding alarm device when an alarm occurs.
Latch	
Latur	System can delay the alarm output for specified time after an

Parameter	Function			
	alarm ended. The value ranges from 1s to 300s.			
Video Matrix	This function is for motion detect only. Check the box here to enable video matrix function. Right now system supports one-channel tour function. System takes "first come and first serve" principle to deal with the activated tour. System will process the new tour when a new alarm occurs after previous alarm ended. Otherwise it restores the previous output status before the alarm activation.			
Snapshot	You need to check the box here to enable this function. You can set corresponding channel to snapshot when motion detect alarm occurs.			
Show	System can pop up a message to alarm you in the local host			
message	screen if you enabled this function.			
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.			
Alarm upload	System can upload the alarm signal to the center (Including alarm center.			
Message	When 3G network connection is OK, system can send out a message when motion detect occurs.			
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.			
Tour	You need to check the box here to enable this function. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs.			
PTZ Activation	Here you can set PTZ movement when an alarm occurs. Such as go to preset X. See Figure 5-72.			
Log	Check the box here, system can record motion detect event log.			

#### 5.10.3.1.2 Video Loss

The video loss interface is shown as in Figure 5-73.

After analysis video, system can generate a video loss alarm when the detected moving signal reached the sensitivity you set here.

Please note video loss does not support anti-dither, sensitivity, region setup. For rest setups, please refer to chapter 5.10.3.1.1 motion detect for detailed information.

Motion Detect	Video Loss	Tampering	Diagnosis	
Enable	1	•		
Period CAM AntiDither	Setup 0 sec. (0-3)	00)		
Record Channel	Setup			
Delay	10 sec. (10-	-300)		
Alarm Out	1 2 3			
Latch	10 sec. (0~3	00)		
PTZ Activation	Setup			
Tour	Setup			
Snapshot	Setup			
Voice Prompts	File Name None	•		
Show Message	🔲 Send Email 🔲 Buz	zer 🔲 Message 📝	Log	
🗹 Alarm Upload				
	Сору	Save	efresh Default	

Figure 5-73

5.10.3.1.3 Tampering

The tampering interface is shown as in Figure 5-74.

After analysis video, system can generate a tampering alarm when the detected moving signal reached the sensitivity you set here.

For detailed setups, please refer to chapter 5.10.3.1.1 motion detect for detailed information.

Motion Detect	Video Loss Tampering Diagnosis
Enable	1
Period Sensitivity	Setup 3 💌
Record Channel	Setup
Delay	10 sec. (10-300)
🔽 Alarm Out	1 2 3
Latch	10 sec. (0~300)
PTZ Activation	Setup
Tour	Setup
Snapshot	Setup
Voice Prompts	File Name 🔹
Show Message	📄 Send Email 📄 Buzzer 📄 Message 🔽 Log
Alarm Upload	
	Copy Save Refresh Default

Figure 5-74

#### 5.10.3.1.4 Diagnosis

System can trigger an alarm when the stripe, noise, color cast, out of focus, over exposure event occurred. See Figure 5-75.

Motion Detect	Video Loss	Tampering	Diagnosis				
Channel	1	✓ Set					
Enable							
Period	Set						
Alarm Out	1 2 3						
Latch	10 sec. (0~	300)					
Voice Prompts	File Name None	•					
🗐 Send Email 🔽 Buzzer 📄 Message 🔽 Log							
	Save	Refresh D	efault				



Click Set button, you can check the corresponding box to select diagnosis type. See Figure 5-76.

Diagnosis		<	3
Stripe	<b>v</b> —0-	30	
Noise	<b>▽</b> — ()-	30	
Color Cast	<b>▽</b> —0-	30	
Out of Focus	<b>v</b> —0-	30	
Overexposure	<b>v</b> —0-	30	
	Save	Cancel	

Figure 5-76

## D Note

Video diagnosis alarm can trigger PTZ preset, tour, and pattern.

For detailed setups, please refer to chapter 5.10.3.1.1 motion detect for detailed information.

5.10.3.2 IVS (Optional)



Right now, the IVS function max supports 10 rules.

Once any object violate the rule, the DVR can trigger an alarm and alert you as the specified alarm mode.

From main menu->Setup->Event->IVS, enter IVS interface. See Figure 5-77.

Please follow the steps listed below.

- Step 1 Please select a channel from the dropdown list.
- Step 2 Click <sup>1</sup> and then select corresponding rule.
- Step 3 Set rule type and set corresponding parameters.
- Step 4 Check the box to enable the rule.
- Step 5 Click OK button to save current setup.

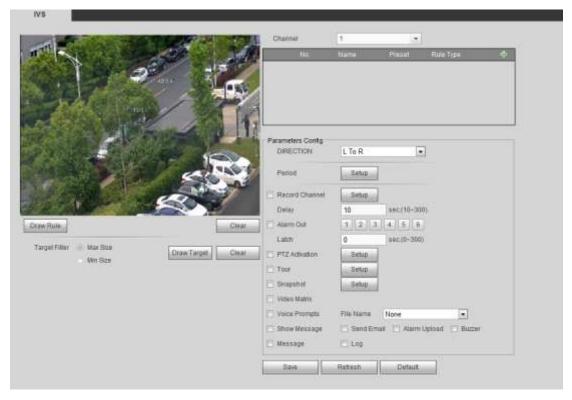


Figure 5-77

#### 5.10.3.2.1 Tripwire

System generates an alarm once there is any object crossing the tripwire in the specified direction. Please use according to your actual situation.

## D Note

- The tripwire function is valid once your connected network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.
- Step 1 From main menu->Setup->Event->IVS->Tripwire, click to add the rule and select the rule type as Tripwire.

#### I Note

Double click to change a rule name.

Step 2 Check the Tripwire box to enable tripwire function. See Figure 5-78.

	2016-07-06-09-05-04	Channel	1			
		10				
			Ruia3	-	Tripate	0
		- Parameters Cordi DIRECTION	L To R		1	
		Period	Getup	]		
AMI		🗹 Record Chann	Concerner of	lin usur		
Draw Fluie	Clear	Detay	10	sec.(10-300)	li -	
and a second sec	1	Latch	10	sec.(0~300)		
Target Filter 💌 Max Sce	Draw Target Clear	- Station - Station	Setup	Langen (South		
O Mm San	brankes to all framework	Tour	Setup			
		C Snapshot	Satup			
		Voice Prompts	File Name	None		
		🖾 Shiw Message	Send Er	nail 😟 Alami U	pload 🖓 Buzzer	
		🖾 Message	2 Log			
		Save	Retresh	Detault	1	

Figure 5-78

Step 3 Click Draw rule button and then left click mouse to draw a tripwire. Right click mouse to complete. See Figure 5-79.



The tripwire can be a direct line, curve or polygon. Click Clear to delete the tripwire.

	2016-07-06-09-05-56	Channel	1			
		140	Name	Preset	Rule Type	1
		9 1	Rule3		Trowire	•
like3	+	- Parameters Coofig - DRECTION	L To R		1	
		Penod	Setup	]		
AM1		Record Channel Detay	Setup 10	sec(10-300		
Draw Rule	Clear	Alarm Out	121		<i>"</i>	
		Lutch	10	sec(D-300)		
Target Filter 9 Max Size	Draw Target Clear	PTZ Activation	Setup	F		
C Internet		Tour 🗇	Selup			
		C Snapshot	Setup			
		C Voice Prompts	File Name	None	•	
		🗍 Show Message	E) Send Er	nat 🗹 Alami	Jpload 🗹 Butter	
		Massage	V Log			

Figure 5-79

- Step 4 Set filter object. Once the object is smaller than the min size or larger than the max size, there is no alarm.
  - 1. After draw the rule, set max size and min size.
  - 2. Click Draw target to draw the rectangle zone.

# III Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

#### Step 5 Set parameters.

Parameter	Function
Direction	Tripwire direction includes: $A \rightarrow B$ , $B \rightarrow A$ , $A \leftrightarrow B$ .
Period	Set tripwire valid period. System generates an alarm during the specified period. For detailed setups, please refer to chapter 5.10.3.1.1 motion detect

Step 6 Click Save to complete setup.

#### 5.10.3.2.2 Intrusion (Cross warning zone)

This function is to detect there is any object enter or exit the zone. Please use according to your actual situation.

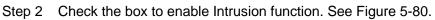
Note:

- The intrusion function is valid once your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.

Step 1 From main menu->Setup->Event->IVS, click <sup>th</sup> to add the rule. Select rule type as intrusion.

I Note

Double click to change a rule name.



	2016/07/06 09/06/54	Channel	3	1		
		No	Name	Preset	Run Type	-11 (
		2 *	Ruin3		Intrusion	•
		Parameters Config -	ПАррем	(?) Cross		
		DIRECTION	Both		3	
CAM1		Period	Setup			
		2 Record Channel	Setup			
Draw Rula	Claur	Detay	10	10C.(10-30	05	
Target Filter  Max Size  Min Size	Draw Target Clear	Latch	10	sec.(0+300	к.	
		Tour	Setup Setup			
		21 Snapshot	Setup			
		🔲 Voice Prompta	File Name	None	1	
		Show Message	📋 Send Em	math SC Alarm	Uproad (2) Buzzer	
		🖾 Massage	(♥) Lag			
		Save	Refresh	Default	1	

Figure 5-80

Step 3 Click Draw rule button and then left click mouse to draw an intrusion rule. Right click mouse to complete. See Figure 5-81.

	2016 C/-06 C9 07 25	Channel	1	2		
		He	Têame.	Ecolut.	Rule Type	- 6
Remo3	1	12. 1	Rule3		Industria	0
4		Parameters Config Action	(1) Appear	2 Cross		
		DIRECTION	Both			
CAM1		12 Record Channel	Setup			
Draw Rule	Clear	Delay	10	sec(10-300	E.	
Target Filter @ Max Size	Draw Target Clear	Latch	10	sec (0~380)		
		Tour	Setup Setup			
		- Snapshot	Setup	İ.		
		C Voice Prompts	File Name	None	•	
		Bhow Message	Send Em	nali 🗹 Alarm U	pload 📝 Butter	
		T Message	75 Log			
		Save	Ratesh	Default	- K	

#### Figure 5-81

- Step 4 Set filter object. Once the object is smaller than the min size or larger than the max size, there is no alarm.
  - 1. After draw the rule, set max size and min size.
  - 2. Click Draw target to draw the rectangle zone.

# 🛄 Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

#### Step 5 Set parameters.

Parameter	Function
Action	<ul> <li>It is to set intrusion mode.</li> <li>Cross: It includes enter the warning zone, leave the warning zone or cross the warning zone.</li> <li>Appear: An object falling from nowhere (such as from the sky). It may not fully enter the warning zone.</li> </ul>
Direction	When the action mode is cross, there are three options: A->B, B->A, both. System can generate an alarm once there is any object enter/exit (Or both) the zone.

Parameter	Function
Period	Set tripwire valid period. System generates an alarm during the specified
	period. For detailed setups, please refer to chapter 5.10.3.1.1 motion detect.
Ctar C Cliel	k Cava ta samalata astur

Step 6 Click Save to complete setup.

#### 5.10.3.2.3 Abandoned Object Detect

It is to detect there is any abandoned object in the surveillance area for the specified time.

Note:

11.0

- The abandoned object detection function is valid once your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.
- Step 1 From main menu->Setup->Event->IVS, click <sup>th</sup> to add the rule. Select rule type as abandoned object detection.

I Note

Double click to change a rule name.

Step 2 Check the box to enable abandoned object detection function. See Figure 5-82.

		2016-07-06-09-08-05	Channel	1		d	_
AVII CAVII Craw Rule Target Filter Min Sta Draw Target Clear Target Filter Min Sta Draw Target Clear Cl	•		740. 128 t	Rule3	Prosel	Run Trop Abandoned	•
CAM1 Draw Rule Target Filter ● Max Stop ○ Min Stop				30		944	
Draw Rule Draw Rule Draw Rule Draw Target Filter Max State Max State Draw Target Draw Targ			Period	Seto			
Draw Rule Target Filter  Max Size Oraw Target Clear C	CAM1						
Target Filter  Max St2e  Draw Target Clear  Later  10  Setup  Tour  Setup  Voice Prompts File Name None   Ann  Ann  Ann  Ann  Ann  Ann  Ann	And Add			and the second se		60)	
Target Filter  Min Size  Min Size  Min Size  Tour  Tour  Setup  Voice Prompts  File Name  None	And and a second s	Clear				0)	
Tour     Setup     Setup     Setup     Voice Prompts     File Name     None     ▼     Show Nessage     Send Empt     (2) Alarm Upload     (2) Buzzer		Draw Targat Clear	PTZ Activation				
Voice Prompts File Name None	C/ Mill Skill		E) Tour	Setup			
🙄 Show Message 👘 Send Email 🖓 Alarm Upload 💖 Buzzer				Setup			
					mail (R) Alaon	t Upload (V) Buszer	
			Save	Refresh	Defaul		

#### Figure 5-82

Step 3 Click Draw rule to draw the rule. See Figure 5-83. Left click mouse to draw a line, until you draw a rectangle, you can right click mouse.

	2016-07-06-09-09-24	Channel	1	15		
		N9	Stame /	Preset	Rule Type	+
		2 1	Rule3	1.7	Rhandoned	
Palities						
100						
		Parameters Config				
		Period	30		sec.	
the second second		Period	Setup			
		(1.0000	Lingerture			
CAM 1		(?) Record Channel	Setup			
		Detay	10	sec (10-300	29	
Draw Rula	Clear	Alarm Out	1 2 3			
		Latch	10	sec.(0-300)		
Target Filter 🐞 Max Size	Craw Target Clear	PTZ Activation	Setup			
O Min Size	······	Tour	Setup			
		- Snapshot	Setup			
		Voice Prompts	File Name	None		
		C Show Meesage			upload 17 Buzzer	
				AND CREMENTING	uprovad tik odžian	
		E Message	2 Log			
		Save	Retust	Detauft		

Figure 5-83

- Step 4 Set filter object. Once the object is smaller than the min size or larger than the max size, there is no alarm.
  - 1. After draw the rule, set max size and min size.
  - 2. Click Draw target to draw the rectangle zone.

# III Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

Step 5 Set parameters.

Parameter	Function
Lasting Period	It refers to the time that object is staying in the zone time.
Period	Set tripwire valid period. System generates an alarm during the
	specified period. For detailed setups, please refer to chapter
	5.10.3.1.1 motion detect

#### Step 6 Click Save to complete setup.

#### 5.10.3.2.4 Missing Object Detect

It is to detect there is any abandoned object in the surveillance area for the specified time.

- System supports customized area shape and amount.
- Support period setup.

• Support objects filter function.

Note:

- The missing object detection function is valid once your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.
- Step 1 From main menu->Setup->Event->IVS, click to add the rule and select the rule type as missing object detection.

III Note

Double click to change a rule name.

Step 2 Check the missing object detection to enable missing object detection function. See Figure 5-84.

	2016-07-06-09-10-05	No	Name	Preset	Rule Type	+
		12 1	Rule)	*	Wasang	0
		Parameters Contig Period	30		Dec	
		Period	Setup	]		
AM 1		Record Channel	Setup			
AT A MARKAN		Delay	10	sec.(10-30	20)	
Draw Rula	Clear	Alarm Dut	2 3			
Target Filter 📿 Max Size	[ Description of the second	Laich	10	sec.(0-300	10	
Men Size	Draw Target. Olean	PTZ Adivation	Sahip	l.		
		Tour	Selvp	6		
		Snapshot	Seta			
		Show Message	File Name	None		
		Message	(V) Log	an 🖂 Atarin	Upload 📝 Buzzer	
		Message	Con rug			

Figure 5-84

Step 3 Click Draw rule button and then left click mouse to draw a zone. Right click mouse to complete. See Figure 5-85.

	2016-07-06-09-10-53	Channel	1	:15		
		0,745	Name	Propel	Rule Type	ę
		1	Pose 1		Measing	•
File3						
10000						
		Parameters Config				
		Period	30		800.	
		( Descale	E	1.		
		Period	Setup			
CAM 1		(2) Record Channel	SHup			
		Delay	10	sec (10-38	4)	
Draw Rule	Clear	🔄 🖾 Alarm Out	1 2	3		
Target Filter 🖉 Max Size		Latch	10	sec (0-300	0	
C Min Size	Draw Target Clear	TTZ Activation	Setup			
		🛄 Tour	Satup			
		I Snapshot	Setup			
		Voice Prompts	File Name	None		
		🖾 Show Message		mail 2 Atarm	Uplead Z Buzzer	
		I Message	1.og			
		Save	Refresh	Default		

Figure 5-85

- Step 4 Set filter object. Once the object is smaller than the min size or larger than the max size, there is no alarm.
  - 1. After draw the rule, set max size and min size.
  - 2. Click Draw target to draw the rectangle zone.

## D Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

Step 5	Set parameters	
--------	----------------	--

Parameter	Function
Lasting Period	It refers to the time that object is staying in the zone time.
Period	Set tripwire valid period. System generates an alarm during the specified period. For detailed setups, please refer to chapter 5.10.3.1.1 motion detect

Step 6 Click Save to complete setup.

#### 5.10.3.3 Alarm

Before operation, please make sure you have properly connected alarm devices such as buzzer. The input mode includes local alarm and network alarm.

5.10.3.3.1 Local Alarm

The local alarm interface is shown as in Figure 5-86. It refers to alarm from the local

#### device.

ocal Alarm	IPC External Alarm	IPC Of	fline Alarm	Alarm	Box
Enable	1	•	Alarm Name	Alarm In1	
Period	Set				
Anti-dither	5 sec	(0-600)	Туре	[	NO
Record Channel	Set				
Delay	10 sec	(10-300)			
Alarm Out	Set				
Latch	10 sec	(0~300)			
PTZ Activation	Set				
Tour	Set				
Snapshot	Set				
Video Matrix					
Voice Prompts	File Name	Vone		]	
Show Message	🔲 Send Email 📃	Buzzer [	Log		
Alarm Upload					
	Сору	Save		Refresh	Default

Figure 5-86

Setup		×
	Thursday 💌 Copy	
	✓ 00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	Save Cancel	

Figure 5-87

PTZ Activation				X
Channel 1	None	•	0	
Channel 2	None	-	0	
Channel 3	None	-	0	
Channel 4	None	-	0	
Channel 5	None	•	0	
Channel 6	None	•	0	
Channel 7	None	•	0	
Channel 8	None	•	0	
	Save	Cance	I	

Figure 5-88

Parameter	Function
Enable	You need to check the box to enable this function. Please select a channel from the dropdown list.
Period	This function becomes activated in the specified periods. There are six periods in one day. Please draw a circle to
	enable corresponding period. Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week.
	Click OK button, system goes back to local alarm interface, please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.
Sensor type	There are two options: NO/NC.
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set alarm record period and go to Storage-> Schedule to set current channel as schedule record.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Alarm out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when an alarm occurs.
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.

Parameter	Function
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Alarm upload	System can upload the alarm signal to the center (Including alarm center).
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Tour	You need to check the box here to enable this function. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs.
PTZ Activation	Here you can set PTZ movement when an alarm occurs. Such as go to preset X.
Log	Check the box here, system can record local alarm event log.

#### 5.10.3.3.2 HDCVI Alarm

The HDCVI alarm interface is shown as in Figure 5-89.

HDCVI alarm refers to the camera receive the camera voltage, motion detect and external alarm. It can set alarm activation operations. This function is null if the camera does not support alarm function. For setup information, please refer to chapter 5.10.3.3.1.

Local Alarm	Net Alarm	HDCVI Alarm	PC Esternal Alarm PC Offine Alarm			
Channel	1					
	Channel	Edit Enable	Status	Alarm Name	Alarm Type	Alarti Channel
	Add	DEL	Save			

Figure 5-89

5.10.3.3.3 IPC External Alarm

IPC external alarm interface is shown as below. See Figure 5-90. For setup information, please refer to chapter 5.10.3.3.1.

Local Alarm	IPC External Alarm	IPC Off	line Alarm	Alarm Box	( )
Channel		•	Alarm Name A	larm In1	
Period	Set				
Anti-dither	5 sec.	(0-600)	Туре	NO	
Record Channel	Set				
Delay	10 sec.	(10-300)			
🔲 Alarm Out	Set				
Latch	10 sec.	(0~300)			
PTZ Activation	Set				
Tour	Set				
🔲 Snapshot	Set				
🔲 Video Matrix					
Voice Prompts	File Name No	one	•		
🔲 Show Message	🔲 Send Email 🔲 I	Buzzer 🔲	Log		
🔲 Alarm Upload					
	Сору	Save	R	efresh	Default

Figure 5-90

#### 5.10.3.3.4 IPC Offline Alarm

IPC offline alarm is shown as in Figure 5-91. For setup information, please refer to chapter 5.10.3.3.1.

Local Alarm	IPC External Alarm	IPC Offline Alar	m Alarm I	Box
Channel		×		
☑ Record Channel Delay	Set sec	(10-300)		
Alarm Out	Set			
PTZ Activation	Set	(0~300)		
<ul> <li>Tour</li> <li>Snapshot</li> </ul>	Set Set			
Video Matrix				
Voice Prompts	File Name	Vone		
Show Message	🔲 Send Email 🔲	Buzzer 🗌 Log		
🔲 Alarm Upload				
	Сору	Save	Refresh	Default

Figure 5-91

#### 5.10.3.3.5 Alarm Box

It refers to alarm signal from the connected peripheral alarm box. See Figure 5-92. For setup information, please refer to chapter 5.10.3.3.1.

Local Alarm	IPC External Alarm	IPC Offline Alarm	Alarm Box	
Alarm Box		•		
Channel		✓ Alarm Name	Alarm In1	
Period	Set			
Anti-dither	5 sec.	(0-600) Type	NO	
Record Channel	Set			
Delay	10 sec.	(10-300)		
🔲 Alarm Out	Set			
Latch	10 sec.	(0~300)		
PTZ Activation	Set			
🔲 Tour	Set			
🔲 Snapshot	Set			
Video Matrix				
Voice Prompts	File Name	None 💽	•	
🔲 Show Message	🗌 Send Email 🔲	Buzzer 🔽 Log		
	Save	Refresh	Default	

Figure 5-92

#### 5.10.3.4 Face Detect (Optional)

# The face detection function is optional. The intelligence function and the human face detection can not be valid at the same time!

When camera detects human face, system can draw a rectangle around the human face and generate an alarm.

From main menu->Setup->Event->Face detect, the interface is shown as in Figure 5-93.

- Enable face boost: Check the box here, system can enhance the human face display pane.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity. For detailed setups, please refer to chapter 5.10.3.1.1.

FACE DETECT	
Enable	22 💌
Human Face ROI	
Alarm Face No.	1 (1~35)
Period	Setup
Record Channel	Setup
Delay	sec. (10~300)
Alarm Out	1 2 3 4 5 6
Latch	sec. (0~300)
PTZ Activation	Setup
Tour	Setup
Snapshot	Setup
Voice Prompts	File Name
📃 Send Email 🔲 B	uzzer 🗌 Message 📄 Log
	Save Refresh

Figure 5-93

#### 5.10.3.5 Abnormality

It includes four types: HDD/Network/User/Device. See Figure 5-94 through Figure 5-97.

- HDD includes: No disk, disk error, disk no space.
- Network includes net disconnection, IP conflict, and MAC conflict.
- User: It includes illegal login.
- Device: It includes device temperature alarm, fan alarm and etc.

HDD	Network User	
Event Type	No HDD	
Enable		
📝 Alarm Out	1 2 3	
Latch	10 sec. (0~300)	
Voice Prompts	File Name None 💌	
✓ Show Message	🔲 Send Email 🔽 Buzzer 📄 Message 🔽 Log	
🔽 Alarm Upload		
	Save Refresh	

Figure 5-94

HDD	Network User
Event Type	Disconnect
Enable	
✓ Alarm Out	1 2 3
Latch	10 sec. (0~300)
Voice Prompts	File Name None 💌
Show Message	📄 Send Email 📄 Buzzer 📄 Message 🔽 Log
Record Channel	Setup
Delay	10 sec. (10-300)
	Save Refresh

Figure 5-95

HDD	Network	User	Device
Event Type	Illegal Login	¥	
Enable			
Attempt(s)	5		
Lock Time	5	Min.	
🕑 Alarm Out	123	4 5 6	
Latch	10	Sec.(0~300)	
Voice Prompts	File Name	None	T
🗌 Send Email 🗌	Buzzer		
🗌 Message	🕑 Log		
	Save	Refresh	

Figure 5-96

HDD	Network	User	Device	
			-	
Event Type	High Temperature	•		
Alarm Name	Case Temperature			
Max Temperature	60	°C		
Enable				
Alarm Out	1234	56		
Latch	10 s	Sec.(0~300)		
Voice Prompts	File Name N	one	•	
Show Message	Send Email	Buzzer		
🗌 Message	🕑 Log			
	Save	Refresh		

Figure 5-97

Parameter	Function
Event Type	The abnormal events include: No disk, disk error, disk no space, net disconnection, IP conflict and MAC conflict.
	You can set one or more items here.
	Less than: You can set the minimum percentage value here (For disk not space only). The device can alarm when capacity is not sufficient.
	You need to draw a circle to enable this function.
Enable	Check the box here to enable selected function.
Alarm Out	Please select corresponding alarm output channel when an alarm occurs. You need to check the box to enable this function.
Latch	The alarm output can delay for the specified time after an alarm stops. T
	value ranges from 0s to 300s. The default setup is 10 seconds. The o
	second means there is no delaying time.
Attempt(s)	It is to set login attempt times. Once the login attempt exceeds the
	threshold you set here, current account will be locked. This function is
	for illegal login only.
Lock time	It is to set account lock time once its login attempt has exceeded the
	threshold you set. This function is for illegal login only.
High	In Device interface (Figure 5-97), select High temperature from the
temperature	dropdown list, and then input the max temperature. The value ranges
	from 30 $^\circ\!\mathrm{C}\sim$ 90 $^\circ\!\mathrm{C}$ . Device can trigger an alarm once the case
	temperature is higher than the value you set.
Fan speed	In Device interface (Figure 5-97), select Fan speed abnormal from the
abnormal	dropdown list, and then click the OK button after the Fan calibration. It
	can correct fan manually. Please note we recommend this function after
	you replaced or maintained the fan.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Alarm upload	System can upload the alarm signal to the center (Including alarm center.
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Log	Check the box here, system can record the network event alarm log.

## 5.10.3.6 Alarm Output

5.10.3.6.1 General Alarm

It is to set alarm output mode. See Figure 5-98.

General Alarm		Ext.	Alam	n			
Alarm Type	All	1	2	3	4	5	6
Auto	۲	۲	۲	۲	۲	۲	۲
Manual	$\odot$						
Stop	O	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Status							
	Alarr	n Rel	ease				
					1.20		
	1	Save	i:		R	lefres	h

Figure 5-98

5.10.3.6.2 Extension alarm

It is to reset alarm. See Figure 5-99.

General Alarm	Ext. Alarm	
ALARM BOX		•
	Alarm Release	
	Save	Refresh



## 5.10.4 Storage

5.10.4.1 Basic

It is to manage HDD storage space.

Step 1 From main menu->Setup->Storage->Basic.

Enter Basic interface. See Figure 5-100.

CD Full	Overwrite			
sol Mode	Time Length	• 60	Min	
uti Delete Old Files	Navar	•		
	flam.	Reteat. Date		

Step 2 Set parameters.

Parameter	Function
HDD full	<ul> <li>It is to select working mode when hard disk is full. There are two option stop recording or rewrite.</li> <li>Stop: If current HDD is full while there is no idle HDD, then system stops recording,</li> <li>Overwrite: If the current HDD is full while there is no idle HDD, then system overwrites the previous files.</li> </ul>
	DVR does not overwrite the locked files.
Pack duration	<ul> <li>It is to specify record duration. There are two ways for you to set.</li> <li>Time length: It is to pack according to time. The value ranges from 1 to 60 minutes. Default value is 60 minutes.</li> <li>File length: It is to pack according to file length. The default setup is 1024M. The value ranges from 128M to 2048M.</li> </ul>
Auto	Never: Do not auto delete old files.
delete old files	<ul> <li>Customized: input customized period here, system can auto delete corresponding old files</li> </ul>

#### 5.10.4.2 Schedule

5.10.4.2.1 Schedule Record

In this interfaces, you can add or remove the schedule record setup. See Figure 5-101. There are three record modes: general (auto), motion detect and alarm. There are six periods in one day.

You can view the current time period setup from the color bar.

- Green color stands for the general record/snapshot.
- Yellow color stands for the motion detect record/snapshot..
- Red color stands for the alarm record/snapshot.
- Blue color stands for MD&alarm record/snapshot.

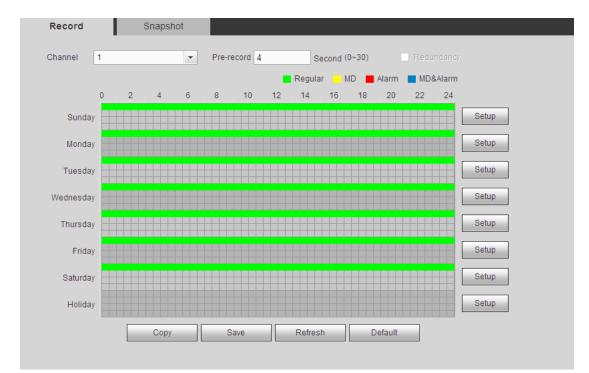
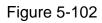


Figure 5-101

Time Fendd 1 0	0:00	24 00	Regular	П мр	Alam	
Time Period 2	0.00.0	24 00	Regular	D MD	🔲 Alarm	D MD&Atarm
Time Period 3	0:00	- 24 00	Regular	D MD	🔲 Alann	MD&Atarm
Time Period 4	0:00	24 00	🔲 Regular	D MD	🔲 Alann	D MD&Alarm
Time Feriod 5	0.00	24 00	Regular	D MD	🔲 Alarm	II MO&Alarm
Time Period 5	0:00	_ 24 00	Regutar	D MD	🔲 Alarm	D MD&Alarm
🗆 Ali 🔲 Suni	day 🔲 Mono	tay 🗋 Tuesday 🗋	Wednesday E	] Thursda	🗌 Friday	G Saturday
		Save	Cancel			



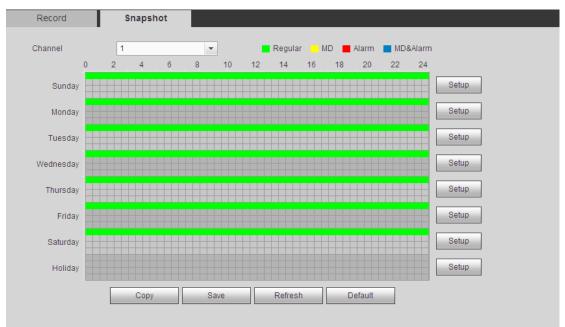
	×
All	
Channel 1	Channel 2
Channel 3	Channel 4
Save	Cancel

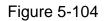
Figure 5-103

Parameter	Function
Channel	Please select a channel from the dropdown list.
Pre-record	Please input pre-record time here. The value ranges from 0 to 30.
Redundancy	Check the box here to enable redundancy function. Please note this function is null if there is only one HDD.
Snapshot	Check the box here to enable snapshot function.
Holiday	Check the box here to enable holiday function.
Setup (Sunday to Saturday)	Click the Setup button, you can set record period. See Figure 5-102. There are six periods in one day. If you do not check the date at the bottom of the interface, current setup is for today only. Please click Save button and then exit.
Setup (Holiday)	Click the Setup button, you can set record period. See Figure 5-102. There are six periods in one day. If you check Holiday box, current channel shall record as your holiday setup here.
Сору	Copy function allows you to copy one channel setup to another. After setting in channel, click Copy button, you can go to interface Figure 5-103. You can see current channel name is grey such as channel 1. Now you can select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.

5.10.4.2.2 Schedule snapshot

The schedule snapshot interface is shown as below. See Figure 5-104.





For detailed operation information, please refer to chapter 5.10.4.2.1. 5.10.4.3 HDD Manage

The interface is shown as in Figure 5-105. Here you can see HDD information. You can also operate the read-only, read-write, redundancy (if there are more than on HDD) and format operation.

Device Name	HCC Operators	Type	Status	Free Space/Tetal Space	Start TurkeEnd Time
SATA-1	Set as mod-write HDC	Read-Write	Normal	200.13GB/232.79GB	2014-07-25 15:24:47 / 2014-08-21 18:38:41

Figure 5-105

#### 5.10.4.4 FTP

It is to backup record file or image to the FTP to storage or view.

Before the operation, please download or purchase the FTP service tool and install on the PC.

D Note

For the FTP user, please set FTP folder write right, otherwise system cannot upload the image.

Step 1 From main window->Setup->Storage->FTP. Enter FTP interface. See Figure 5-106.

FTP	
Enable	
Berver IF	10 18 116 89 -
For	21
UsarName	dq .
Password	
Remate Directory	
File Longth	65536 M
Image Opticed Interv	2 Becont
Channal	1
Weinstater	Thursday
Time Period 1	00 00 - 24 00 Aam 2 MO Regum
Time Period 2	00 00 - 24 00 🔲 Nami 🔲 100 💭 Regian
	FTF Teal
	Save Refeat Datast

Figure 5-106

Step 2 Check the box to enable FTP function.

Step 3 Set parameters.

Parameter	Function
Host IP	The host IP you have installed the FTP server.
Port	The default setup is 21.

Parameter	Function
User name/Password	The account for you to access the FTP server.
Remote directory	<ul> <li>The folder you created under the root path of the FTP according to the corresponding rule.</li> <li>If there is no remote directory, system can auto create different directories according to the IP, time and channel.</li> <li>If there is remote directory, system can create corresponding folder under the FTP root path and then create different folders according to IP address, time and channel.</li> </ul>
File length	File length is upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.
Image upload interval	<ul> <li>It is the image upload interval. If the image upload interval is larger than the image snapshot frequency, system just uploads the lasted image.</li> <li>If the image interval is 5 seconds and the snapshot frequency is 2 seconds, system will send out the latest image at the buffer at 5 seconds.</li> <li>If the image upload interval is smaller than the snapshot frequency, system will upload at the snapshot frequency. For example, if the image interval is 5 seconds and the snapshot frequency is 10 seconds, system will send out the image at 10 seconds.</li> <li>From main menu-&gt;Setting-&gt;Camera-&gt;Encode-&gt;Snapshot to set snapshot frequency.</li> </ul>
Channel	Select a channel from the dropdown list and then set week, period and record type.
Week day/Period	Please select from the dropdown list and for each day, you can set two periods.
Туре	Please select uploaded record type (Alarm/intelligent/motion detect/regular). Please check the box to select upload type.

Step 4 Click Test.

- If the operation successful, device says FTP test successful.
- If the operation failed, device says FTP test failed. Please check network connection and settings.

Step 5 Click Save to complete the setup.

#### 5.10.4.5 Manual Record

The interface is shown as in Figure 5-107.

Record																	
Main Stream	All	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Auto	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
Manual	$\odot$	$\odot$	$^{\odot}$	$\odot$	$^{\odot}$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$	$^{\odot}$	$\odot$	$^{\odot}$	$^{\odot}$	$\odot$
Stop	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$
Sub Stream																	
Auto	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$						
Manual	$\odot$	$\odot$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	$\odot$	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Stop	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
Snapshot																	
Open	$\odot$	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$	$\odot$	$\odot$	$\bigcirc$	$\odot$	$\odot$	$\bigcirc$	$\odot$	$\odot$	$\bigcirc$	$\odot$
Stop	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
		_	Sav	е			Ret	fresh									

Figure	5-107
	0.01

Parameter	Function
Channel	Here you can view channel number. The number displayed here is the max channel amount of your device.
Status	There are three statuses: schedule, manual and stop.
Schedule	System enables auto record function as you set in record schedule setup (general, motion detect and alarm).
Manual	It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup.
Stop	Stop current channel record no matter what period applied in the record setup.
Start all/ stop all	Check the corresponding All button, you can enable or disable all channels record.

#### 5.10.4.6 Advanced

5.10.4.6.1 HDD

It is to set HDD group, and HDD group setup for main stream, sub stream and snapshot operation



HDD group and quota mode cannot be valid at the same time. System needs to restart once you change the mode here.

#### Step 1 From main menu->Setup->Storage->Advanced->HDD.

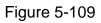
Enter HDD interface. See Figure 5-108.

	HDD	Main Stream	Sub Stream	Snapshot			
ľ	-	HDD sda	_	_	HDD Gro	up	-
							×
	ок	Refresh					

Figure 5-108

- Step 2 Set a HDD group for current HDD. Click OK. Device begins reboot.
- Step 3 After set HDD group, click main stream/sub stream/snapshot tab to save main stream, sub stream, snapshot image to different HDD group. See Figure 5-109, Figure 5-110, Figure 5-111

Channel HOD Gro	Group	Channel	HDD	Group	Channel	HDD	Group	Channel	HDD	Group		
Channel 1	1	×	Channel 2	1		Channel 3	1	~	Channel 4	1	~	1
Channel 5	1	~	Channel 6	1	×	Channel 7	1	~	Channel 8	1	~	
Channel 0	1	~	Channel 10	1	*	Channel 11	1	*	Channel 12	1	~	-
Channel 13	1	~	Channel 14	1	~	Channel 15	1	<u>M</u>	Channel 16	1	×	
Channel 17	1	×	Channel 18	1	*	Channel 19	1	~	Channel 20	1	~	
Channel 21	1	×	Channel 22	1	~	Channel 23	1	8	Channel 24	1	~	
Channel 25	1	*	Channel 26	1	8	Channel 27	1	*	Channel 28	1	~	
Channel 29	1	~	Channel 30	1	~	Channel 31	1	~	Channel 32	1	~	
	1-	101	143 443	- 70	1.1.1		34			10	- 1	



HDD	M	ain Stream	Sub S	tream	Sn	apshot						
Channel	HDD	Graup	Channel	HDD	Group	Channel	HDD	Group	Channel	HDD	Group	
Channel 1	1	×	Channel 2	1	~	Channel 3	1	~	Channel 4	1	*	
Channel 5	1	*	Channel 6	1	~	Channel 7	1	~	Channel 8	1	¥	
Channel 9	1	8	Channel 10	1	×	Channel 11	1	×	Channel 12	1	~	
Channel 13	1	Υ.	Channel 14	1	×	Channel 15	1		Channel 16	1	*	
Channel 17	1	×	Channel 18	1	~	Channel 19	1	~	Channel 20	1	~	
Channel 21	1	×	Channel 22	1	×	Channel 23	1		Channel 24	1	~	
Channel 25	1	*	Channel 26	1	*	Channel 27	1	~	Channel 26	1		
Channel 29	1	1	Channel 30	1	~	Channel 31	1	~	Channel 32	1	~	
	14		-	- 14	1.1		19			1		1

Channel	HDD	Group	Channel	HDD	Group	Channel	+00	Group	Channel	HDD	Group	
Channel 1	1	×	Channel 2	1	~	Channel 3	1	× .	Channel 4	1		
Channel 5	1	*	Channel 6	1	*	Channel 7	1	*	Channel B	1	×	
Channel 9	1	*	Channel 10	1	1	Channel 11	1	~	Channel 12	1	1	
Channel 13	1	¥	Channel 14	1	~	Channel 15	1	~	Channel 16	1	~	
Channel 17	1	M	Channel 18	1	M	Channel 19	1	×.	Channel 20	1	-	
Channel 21	1	*	Channel 22	1	1	Channel 23	1	*	Channel 24	1	~	
Channel 25	1	~	Channel 26	1	~	Channel 27	1	~	Channel 28	1	~	
Channel 29	1	8	Channel 30	1	~	Channel 31	1	*	Channel 32	1	~	
	1.	1		200			12			- He	L	1

Figure 5-111

Step 4 Click Save to complete the setup.

#### 5.10.4.7 Quota

It is to set channel storage capacity.



HDD group and quota mode cannot be valid at the same time. System needs to restart once you change the mode here.

Step 1 From main menu->Setup->Storage->Quota. Enter quota interface. See Figure 5-112.

wet1400 Mode is 1400 Group. Change is Guota Mode		
end t		
HSG	Conte	Pres Space
1		
2		
â.		
4		
1		
4	V% ×	100%
Capy		

Figure 5-112

- Step 2 Select a channel from the dropdown list and then select corresponding HDD quota.
- Step 3 Click Apply or Save to complete setup.
- Step 4 Click Statistics to view HDD capacity you set for each channel.

#### 5.10.5 Setting

5.10.5.1 General

The general interface includes general, date/time and holiday setup.

5.10.5.1.1 General

The general interface is shown as in Figure 5-113.

General	Date&Time	Holiday	
Device Name	XVR		
Device No.	8		
Language	ENGLISH	•	
Video Standard	NTSC	•	
Auto Logout	10	min. (0-60	)
Navigation Bar			
IPC Time Sync	24	h	
	Save	Refresh	Default

Figure 5-113

Parameter	Function
Device ID	It is to set device name.
Device No.	It is device channel number.
Language	You can select the language from the dropdown list.
	Please note the device needs to reboot to get the modification activated.
Video Standard	This is to display video standard such as PAL.
Auto logout	Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
IPC Time Sync	You can input an interval here to synchronize the DVR time and IPC time.
Navigation bar	Check the box here, system displays the navigation bar on the interface.
Auto logout IPC Time Sync Navigation bar	Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes. You can input an interval here to synchronize the DVR time and IPC time

5.10.5.1.2 Date and time

The date and time interface is shown as in Figure 5-114.

General	Date&Time Holiday	
Date Format	YYYY MM DD 💌	
Time Format	24-HOUR 🔻	
Date Separator	-	
Time Zone	GMT+08:00 💌	
System Time	2016 - 01 - 12 17 : 13 : 50 Sync P	°C
DST		
DST Type	O Date O Week	
Begin Time	2000 - 01 - 01 00 : 00	
End Time	2000 - 01 - 01 00 : 00	
NTP		
Server	time.windows.com Manual Update	
Port	123 (1~65535)	
Interval	60 min. (0~65535)	
	Save Refresh Default	

Figure 5-114

Parameter	Function			
Date format	Here you can select date format from the dropdown list.			
Time Format	There are two options: 24-H and 12-H.			
Time zone	The time zone of the device.			
System time	It is to set system time. It becomes valid after you set.			
Sync PC	You can click this button to save the system time as your PC current time			
DST	Here you can set day night save time begin time and end time. You can set according to the date format or according to the week format.			
NTP	Check the box to enable NTP function.			
NTP server	<ul> <li>Set the time server address.</li> <li>Check the NTP box to enable this function.</li> <li>Host IP: Input the server IP that installed the NTP server.</li> <li>Manual update: Click it, you can sync DVR time with the NTP server manually.</li> <li>Port: System supports TCP transmission only. The port value is 123.</li> <li>Interval: It is to set the sync time interval between the DVR and the NTP server. The value ranges from 0 to 65535 minutes.</li> </ul>			

Parameter	Function
Port	It is to set the time server port.
Interval	It is to set the sync periods between the device and the time server.

5.10.5.1.3 Holiday Setup

Holiday setup interface is shown as in Figure 5-115.

Here you can click Add box to add a new holiday and then click Save button to save.

# Note

Once the holiday settings is different the general date, the holiday settings has priority. After successfully set holiday here, you can view holiday item in Schedule interface. It is for you to set holiday schedule record/snapshot settings.

General	Dates	Time	Holiday	1				
								Add
No.	Status	Holiday (	Name:		Dute	Fanod	Edf	Detelle
- t.	Open 🔛	national	_day		8.21	1 da/(s)	Z	0

Figure 5-115

#### 5.10.5.2 Display

Display interface includes GUI, TV adjust, Tour and zero-channel encoding.

5.10.5.2.1 Display

Here you can set background color and transparency level. See Figure 5-116.

Display	Tour	Zero-Char	nnel	
Resolution	1280*1024	•	0%	
Transparency Image Original Rate		(+)	0.76	
Time Display	V			
Channel Display				
Preview Enhancement				
Video Matrix				
	Save	Refresh	Default	

Figure 5-116

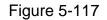
Parameter	Function
Resolution	There are four options: $1920 \times 1080, 1280 \times 1024$ (default), $1280 \times 720, 1024 \times 768$ . Please note the system needs to reboot to activate current setup.
Transparency	Here is for you to adjust transparency. The value ranges from 128 to 255.
Time title/channel title	Check the box here, you can view system time and channel number on the monitor video.
Image enhance	Check the box; you can optimize the margin of the preview video.
IVS rule preview	Check the box here, you can view IVS rule name on the preview window.
Video matrix	<ul> <li>Check the box, select VGA or the HDMI as the video matrix output. The selected screen(s) only display(s) the channel video from the video matrix. Refer to chapter 5.10.5.3 Video matrix for detailed information.</li> <li>Cancel the box, the VGA and HDMI output the same video.</li> </ul>

5.10.5.2.2 TV Adjust

# III Note

This function is for some series product only. It is to set TV output region. See Figure 5-117.

GUI	TV Adjust	Tour	Zero Channe
Top Margin	00		
Sottom Margin	G0		
Left Margin	©0		
Right Margin	©0	(±) 0	
Brightness	0	-()	
	Save	Refresh	Default



#### 5.10.5.2.3 Tour

The tour interface is shown as in Figure 5-118. Here you can set tour interval, split mode, motion detect tour and alarm tour mode.

Display	Tour	Zero Channel
Enable Tour		
Interval	5	Second (5-120)
Split	View 1	▼
	4 🔽 Channel G	Froup _ +
	1 1	
	2 🗹 2	*
	3 🗹 <b>3</b>	*
	4 🗹 4	
		<u>∼</u>
Mation Town Town		
Motion Tour Type	View 1	<u>×</u>
Alarm Tour Type	View 1	<b>M</b>
	Save	Refresh Default

Figure 5-118

Parameter	Function
Enable tour	Check the box here to enable tour function.
Interval	Here is for you to adjust transparency. The value ranges from 5 to 120s. The default setup is 5s.
Split	Here you can set window mode and channel group. System can support 1/4/8/9/16/25/36-window according to device channel amount.
Motion tour/Alarm tour	Here you can set motion detect tour/alarm tour window mode. System supports 1/8-window now.

5.10.5.2.4 Zero-channel Encoding

It is to enable and set zero-channel encoding function so that you can view several video sources at one channel from WEB.

The interface is shown as in Figure 5-119.

Display	Tour	Zero Channel	
Enable			
Compression	H.264	<b>×</b>	
Resolution	D1	×	
Frame Rate	25	×	
Bit Rate	1024	Kb/S	
	Save	Refresh Default	

Figure 5-119

Parameter	Function	
Enable	This function is disabled by default. Check the box here to enable	
	this function so that you can control the zero-channel encoding	
	function at the WEB.	
Compression	System default setup is H.264. You can set according to device	
	capability.	
Resolution	The resolution value may vary due to different device capabilities.	
	Please select from the dropdown list.	
Frame rate	The frame rate value may vary due to different device capabilities.	
	Please select from the dropdown list.	
Bit Rate	The default setup is 1024Kb/S. The bit rate value may vary due to	
	different device capabilities and frame rate setups. Please select	
	from the dropdown list.	

5.10.5.3 Video Matrix

The interface is shown as in Figure 5-120.

Here you can set video output channel and interval.

BNC	
_	
Enable	
Interval	5 sec.(5-120)
Resolution	1280*720 💌
Window Split	View 1
	14 🔽 Channel Group 📥 🛨
	1 <b>☑</b> 1 =
	2 🛛 2
	3 🗹 3
	4 🗹 4
	5 📝 5
	6 🗹 <b>6</b> 👻
	Save Refresh Default

Figure 5-120

Parameter	Function	
Enable	Check the box here to enable this function.	
Interval	It is to set the interval from current channel group to the next channel group.	
Window split	Support 1-window split only.	
Delete	Select a channel group and then click 🔲 to delete it.	
Up/Down	Click or to adjust channel tour sequence.	

#### Add channel group

Click ,you can see system pops up the following dialogue box. See Figure 5-121. Please select the channels and then click OK button.

Add Channel Group		
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16	
Save	Cancel	

Figure 5-121

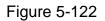
#### Delete channel group

Select a channel group and then click ,you can delete it.

#### Modify channel group

Select a channel group and then double click, you can see the following interface. See Figure 5-122. You can change the setup and then click OK button.

Modify Channel Group			×
1 2 3 4 5 6	7 8 9 10	11 12 13 14	15 16
	Save	Cancel	



Adjust channel group sequence.



Click or to change channel sequence.

5.10.5.4 RS232

## I Note

This function is for some series product only. The RS232 interface is shown as in Figure 5-123.

R\$232			
Function	Console	<b>M</b>	
Baud Rate	115200	<b>~</b>	
Data Bit	8	▼	
Stop Bit	1	▼	
Parity	None	▼	
	Save	Refresh Default	

Figure 5-123

Please refer to the following sheet for detailed information.

Parameter	Function	
Protocol	Select the corresponding dome protocol. Default setup is console.	
Baud Rate	Select the baud rate. Default setup is 115200.	
Data Bit	The value ranges from 5 to 8. Default setup is 8.	

Parameter	Function
Stop bit	There are two options: 1/2. Default setup is 1.
Parity	There are five options: none/odd/even/space/mark. Default setup is none.

## 5.10.5.5 PTZ

The PTZ interface is shown as in Figure 5-124 and Figure 5-125.

Before setup, please check the following connections are right:

- PTZ and decoder connection is right. Decoder address setup is right.
- Decoder A (B) line connects with DVR A (B) line.

Click Save button after you complete setup, you can go back to the monitor interface to control speed dome.

Channel	1	*	
PTZ Type	Local	×	
Control Mode	Serial	•	
Protocol	HDCVI3.0	-	
Address	1		
Baud Rate	9600	•	
Data Bit	8	•	
Stop Bit	1		
Parity	None	•	

Figure 5-124

PTZ				
Channel	4	-		
PTZ Type	Remote	~		
	Сору	Save	Refresh	Default

Figure 5-125

Please refer to the following sheet for detailed information.

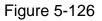
Parameter	Function
Channel	Select speed dome connected channel.

Parameter	Function
PTZ type	There are two types: local/remote. Please select local mode if you are
	connect RS485 cable to connect to the Speed dome (PTZ). Please
	select remote mode if you are connecting to the network PTZ camera.
Control	You can select control mode from the dropdown list. There are two
mode	options: Serial/HDCVI. For HDCVI series product, please select
	HDCVI. The control signal is sent to the PTZ via the coaxial cable. For
	the serial mode, the control signal is sent to the PTZ via the RS485
	port.
Protocol	Please select protocol from the dropdown list.
	If the control mode is HDCVI, please select HDCVI protocol. The
	default setup is HDCVI3.0.
Address	Set corresponding dome address. Default value is 1. Please note
	your setup here shall comply with your dome address; otherwise
	you cannot control the speed dome.
Baud Rate	Select the dome baud rate. Default setup is 9600.
Data Bit	Default setup is 8. Please set according to the speed dome dial switch setup.
Stop bit	Default setup is 1. Please set according to the speed dome dial switch
	setup.
Parity	Default setup is none. Please set according to the speed dome dial switch setup.

## 5.10.5.6 Alarm box

It is to view the connected alarm box state. See Figure 5-126.

Device Status		
Alarm Box	Address	Status
1	0	
2	1	
3	2	
4	3	
Refresh		



## 5.10.5.7 ATM/POS

The ATM/POS function is for financial areas. It includes Sniffer, information analysis and title overlay function. The Sniffer mode includes COM and network.

5.10.5.7.1 COM Type

The COM interface is shown as below. See Figure 5-127.

- Protocol: Please select from the dropdown list according to your actual situation.
- Overlay channel: Please select the channel you want to overlay the card number.

- Overlay mode: There are two options: preview and encode. Preview means overlay the card number in the local monitor video. Encode means overlay the card number in the record file.
- Overlay Position: Here you can select the proper overlay position from the dropdown list.

сом	Net	
Current Sniffer Mod	e is COM	
Protocol	POS	<b>~</b>
Overlay Channel	1 2 3	
Overlay Mode	Preview V Encode	
Overlay Position	Top Left	<b>~</b>
Save	Refresh	

Figure 5-127

## 5.10.5.7.2 Network Type

The network type interface is shown as below. See Figure 5-128.

Here we take the ATM/POS protocol to continue.

There are two types: with or without the protocol according to client's requirements.

## With the protocol

For ATM/POS with the protocol, you just need to set the source IP, destination IP (sometimes you need to input corresponding port number).

Current Sniffer Mode is	COM				
Protocol	ATM/POS				
Overlay Mode	Preview V Encode				
Overlay Position	Top Left 💌				
Sniffer Group	Sniffer Group1				
Source IP Address	0.0.0.0	Source Port	0		
Destination IP Address	0.0.0.0	Destination Port	0		
Overlay Channel	1 2 3				
	Start Position	Length	Value		
Key Words1	1	0		÷	2
Key Words2	1	0		÷	
Key Words3	1	0			
Key Words4	1	0		63	
Key Words5	1	0		<b>@</b>	
Key Words6	1	0		÷	
1009 1101030					

Figure 5-128

## Without the protocol

For the ATM/POS without the protocol, the interface is shown as in Figure 5-129. Source IP refers to host IP address that sends out information (usually it is the device host.)

Destination IP refers to other systems that receive information.

Usually you do not need to set source port and target port.

There are total four groups IP. The record channel applies to one group (optional) only. Six frame ID groups verification can guarantee information validity and legal.

COM	Net			
Current Sniffer Mod	le is COM			
Protocol	POS	<b>~</b>		
Overlay Channel	1 2 3			
Overlay Mode	Preview 🗹 Enco	de		
Overlay Position	Top Left	¥		
Source IP Address	0.0.0	0 Source Port	0	
Destination IP Addr	ress 0 . 0 . 0	0 Destination Port	0	
Save	Refresh			

Figure 5-129

## 5.10.5.8 Voice

The audio function is to manage audio files and set schedule play function. It is to realize audio broadcast activation function.

5.10.5.8.1 File List

Here you can add audio file, or delete audio file. See Figure 5-130.

ile List	Schedule				
File List					
No	File	Name	File Stre(Bite)	Deiste	
- H.	Witten You	r Noow mp0	3063681	0	- 21
					1
	Set	ctaudio OK			

Figure 5-130

Click Add button, you can add audio file and import the audio file via the local computer. See Figure 5-131.

Choose File to	Upload					? 🔀
Look jn:	🞯 Desktop		~	GØ	<del>ب</del> 🔁	
My Recent Documents	My Computer My Documents My Network Pla Adobe Acrobat Microsoft Office	7.0 Professional e Access 2003 e PowerPoint 2003				
My Computer	<					>
	File <u>n</u> ame:				~	<u>O</u> pen
My Network	Files of type:	All Files (*.*)			~	Cancel

Figure 5-131

5.10.5.8.2 Schedule

It is to set schedule broadcast function. You can play the different audio files in the specified periods.

From main menu->Setup->System->Voice->.Schedule, you can see the following interface. See Figure 5-132.

Enable	00	00	Pen	24	00	Scher	4	interval 60	mn	Ropeat Playback	Output	·
Enable	00	00		24	00	None	*	60	mn	0	Mic	
Enable	00	00	-	24	00	None	~	60	mn	0	Mic	(w)
Enable	.00	00	-	24	00	None	*	60	min	0	Mic	·
Enable	00	00	P	24	00	None	4	68	mm.	0	Mic	<b>1</b>
Enable	00	00	-	24	00	None	~	60	min.	0	Mic	<b>2</b>

Figure 5-132

## Please refer to the following sheet for detailed information.

Parameter	Function
Period	There are six periods. Check the box to enable current setup.
Repeat	It is to set audio file repeat times in the specified period.
Interval	It is the audio file repeated interval in the specified period.
Output port	There are two options: MIC (default)/audio. When reuse the MIC port and bidirectional talk port, the bidirectional port has the higher priority. Please note some series product does not support audio function.

# D Note

- The audio file end time depends on the audio file size and the interval setup.
- Priority: Bidirectional talk>Event trigger alarm>Trial listening>Audio schedule broadcast.

## 5.10.5.9 Account

# III Note

- For the user name, the string max length is 31-byte, and for the user group, the string max length is 15-byte. The user name can only contain English letters, numbers and "\_", "@", ".".
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. The user authorities shall be smaller than group authorities (The **admin** user authorities are set by default).
- For group or user management, there are two levels: admin and user. The user name shall be unique and one user shall only belong to one group.
  - 5.10.5.9.1 User name

From main menu->Setup->System->Account->Account, enter account interface. See Figure 5-133.

_							
	ACCOUNT OWNPUSE						
	User	Drive					
	51	User	Group Hame	User NAC	Martia	Medity	Delete
	1	admin	admin		admin is account	2	0
	Add Uter						
	400104						

Figure 5-133

### Add user

It is to add a name to group and set the user rights.

- Step 1 Click Add user button. Enter add user interface. See Figure 5-134.
- Step 2 Here you can input the user name and password and then select one group for current user.

id User					
User					
Password					
		Middle Hig	2		
Confirm Passwo					
Group	admin		•		
User MAC	1.1	12 12			
Nemo	-				
Penod	Set	ing			
Authority					
System	Pta	yback	Monitor		
ZAII FACCOUNT	SYSTEM	<b>WEYSTEM</b>	eren	MANUAL CONTROL	
STORAGE	ZEVENT	NETWOR		CAMERA	
SECURITY .	BACKUP	DEVICE	MAINTENANCE		
		Save	Gancel		

Figure 5-134

Step 3 Click the Set button after the period. It is to set valid period to use current account. See Figure 4-114.

	0 2	8 94	£()	6	0	10 12	34	16	18	-20	22	.24	
Sunday													Setting
Monday													Setting
Tuesda)													Setting
Wednesday													Setting
Thursday													Setting
Finday													Setting
Saturday													Setting
⊡.4i	100	Randay	ED)	Monday	Tues	day 🖂 W	ednesda	E Th	urėday	in Fi	day 🗌	Satu	irday
2) Period 1	0			24	00								
E Period 2	0	0 00	3 -	24	DD								
E Period 3	0	0 00	3 -	24	DD								
E Period 4	0	0 00	3 -	24	DD								
Period 5	0	0 00	3 -	24	00								
	0	0 00		24	DD								
E Period 6				Defa		Sav	. 11	-	ncel	1			

Figure 5-135

- Click Setting to set the periods. Or you can draw on the interface directly. There are six periods in one day. Or you can input start time and end time directly.
- Check the box before the date, the settings are for the selected date(s).
- Check the box before the period1-6, it is to enable the period function.

Step 4 Click Save to complete the setup.

# Note

Please note the user rights shall not exceed the group right setup. For convenient setup, please make sure the general user has the lower rights setup than the admin.

## Modify user

It is to modify the user property, belonging group, password and rights. See Figure 5-136.

Modify User			Ε
User	test	•	
Group	admin	▼.	
Memo			
User MAC			
Period	Setting		
Modify Password			
Authority			
System	Playback	Monitor	
All	_		
	SYSTEM SYSTE		
	EVENT NETW		CAMERA
	BACKUP DEVIC	E MAINTENANCE	
	Sa	ve Cancel	
	08	Galicer	

Figure 5-136

# III Note

For admin, you can change the email information. See Figure 5-137.

Modify User			
User	admin	•	
Group	admin		
Memo	admin 's account		
User MAC			
Modify Password			
Email Address	z***@tech.com		
Authority			
System	Playback	Monitor	
	YSTEM I VENT ☑NETWORI ACKUP ☑DEVICE M		MANUAL CONTROL
	Save	Cancel	

Figure 5-137

## Modify password

It is to modify the user password.

Step 1 In Modify user interface, click Modify password box. See Figure 5-138.

Modify User								X
User		admin		•				
Group		admin		-				
Memo		admin 's a	ccount					
User MAC								
Modify Passwo	rd							
Old Password								
New Password								
		Low N	liddle Hig	gh				
Confirm Passw	ord							
Email Address		z***@tech	n.com					
Authority								
System		Playt	back		Monitor			_
I AII ■ACCOUNT	<b>V</b> S)	(STEM	SYSTEM				MANUAL CONTROL	
STORAGE		/ENT	✓NETWO					
SECURITY	✓B/	ACKUP		MAINTE	ENANCE			
			Save		Cance	el		

Figure 5-138

Step 2 Input old password, and then input new password and confirm.

Step 3 Click Save button.

# Note

The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "1", """, ";", ":", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

5.10.5.9.2 Group

It is to add/remove group, modify group password and etc. From main menu->Setup->System->Account->Account. Click Group tab, the interface is shown as in Figure 5-139.

ACCOUNT OWNF USER				
Uter Grand	1			
51				
1	admin	administrator group	2	0
2	8347	Low prop	1	•
Add Deve				

Figure 5-139

## Add group

It is to add group and set its corresponding rights.

Step 1 Click Add group button. Enter add group interface. See Figure 5-140.

Add Group	_	_	_		×
Group Name Memo Authority					
System	Play	/back	Monitor		
	SYSTEM EVENT BACKUP	SYSTEM		MANUAL CONT	ROL
		Save	e Can	cel	

Figure 5-140

- Step 2 Input the group name and then check the box to select the corresponding rights. It includes: system, playback, and monitor.
- Step 3 Click Save button.

## Modify group

Step 1 Select a group and then click See Figure 5-141.

Modify Group					X
Group Name Group Name Memo Authority	user user user grou	p			
System	Play	/back	Monitor		
AII	SYSTEM EVENT BACKUP			I MANUAL CONTROL	
		Save	Cancel		

Figure 5-141

Step 2 Change corresponding information and then click Save button.

5.10.5.9.3 ONVIF User

When the camera from the third party is connected with the DVR via the ONVIF user, please use the verified ONVIF account to connect to the DVR.

Step 1 From main menu->Setting->System->Account->ONVIF User.

Enter ONVIF user interface. See Figure 5-142.

ACCOUNT	ONVIF User			
No.	User	Group Name	Modify	Delete
1	admin	admin	1	•
Add User				

Figure 5-142

Step 2 Click Add user button. Enter add user interface. See Figure 5-143.

Add User		×
User		
User		
Password		
	Low Middle High	
Confirm Password		
Group	admin 💌	
	Save Cancel	

Figure 5-143

Step 3 Set user name, password and then select group from the dropdown list.

Step 4 Click Save to complete setup.

Note
Click lochange user information, click local to delete current user.

## 5.10.5.10 Auto maintain

The auto maintain interface is shown as in Figure 5-144.

It is to set auto-reboot time during the spare period if the device is running for a long time. It is to enhance device operation speed.

Auto Maintain	
Auto Reboot	Sunday 💽 02 : 00
Auto Delete Old Files	Customized 🕑 21 Days ago
[	Manual Reboot
	Save Refresh

Figure 5-144

# 5.10.5.11 Import/Export

The interface is shown as in Figure 5-145.

Import&Export	
Config Import	Config Export

Please refer to the following sheet for detailed information.

Parameter	Function
Import	It is to import the local setup files to the system.
Export	It is to export the corresponding WEB setup to your local PC.

## 5.10.5.12 Default

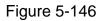


This function is for admin user only.

The default setup interface is shown as in Figure 5-146.

Here you can select Channel/Network/Event/Storage/System. Or you can check the All box to select all items.

Default		
Select All		
CAMERA	✓ NETWORK	VEVENT
STORAGE	SYSTEM	
Default	Factory Default	



5.10.5.13 Upgrade



- During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.
- Improper upgrade program may result in device malfunction!

There are two upgrade modes: file upgrade and online upgrade.

5.10.5.13.1.1 File Upgrade

The upgrade interface is shown as in Figure 5-147.

Please select the upgrade file and then click the update button to begin update. Please note the file name shall be as \*.bin.

Upgrade					
Select Firmware File		Browse	Upgrade		

Figure 5-147

## 5.10.5.13.1.2 Online Upgrade

When the DVR is online, you can use the online upgrade to update the firmware.

# Note

Make sure the DVR has properly connected to the network.

# **Version Detection**

The version detection includes auto detection and manual detection. It displays current system version and application released date.

- Enable auto detection, DVR interactive with the cloud to detect there is new version available or not.
- Click manual detection, it is to view the latest new version on the cloud.
- If current version is the latest one, there is prompt "It is the latest version".
- If DVR detects there is new version available, system displays new version information such as released date and corresponding release note.

# **Upgrade System**

Click Start to upgrade system.

## 5.10.5.14 Security

To enhance device network security and protect device data, please set the access right of the IP host (IP host here refers to the IP PC or the server). After you enabled trusted sites function, only the IP listed below can access current DVR.

If you enable blocked sites function, the following listed IP addresses cannot access current DVR.

Step 1 From main menu->Setting->System->Security. Enter security interface. See Figure 2-85.

Step 2 Check the Enable box.

Select trusted sites/block sites.

- Enable trusted site function and then add the whitelist.
- Enable blocked site function and then add the blacklist.

Step 3 Set parameters.

- Start address/end address: Select one type from the dropdown list, you can input IP address in the start address and end address. Now you can click Add IP address or Add IP section to add. System supports max 64 IP addresses.
  - a) For the newly added IP address, it is in enable status by default. Remove the  $\sqrt{}$  before the item, and then current item is not in the list.
  - b) System max supports 64 items.

  - d) System automatically removes space if there is any space before or after the newly added IP address.

- e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.
- System may check newly added IP address exists or not. System does not add if input IP address does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 5-149. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null.

Step 4 Click Save to complete setup.

- If you enabled trusted sites, only the IP in the trusted sites list can access the device.
- If you enabled blocked sites, the IP in the blocked sites cannot access the device.

Aoseas Right			
Traine Traine Stars Record Stars			
Treated Sales Record Sales		DR	Sette
-			
las Ama litat	3		



Add		×
IP Segment 💌 IPv4 💌	1.0.0.1	
[	1.0.0.1	
Save	Cancel	

Figure 5-149

# 5.11 Information

## 5.11.1 Version

Here you can view record channel, alarm input/output information, software version, release date and etc.

# 5.11.2 Log

Here you can view system log. See Figure 5-150.

No.	Time	Event	
1	2014-08-21 11:38:38 2014-08-21 11:38:38	Shut down Boot up	
3	2014-09-21 11:38:30	Video Loss	
1	2014-00-21 11 36 36	Video Lons.	
5	2014-08-21 11:38:36	Video Loss	
Ð	2014-08-21 11 38 36	Video Loos	
7	2014-08-21 11 36 36	HOD	
B	2014-08-21 11 38:56	User logged in	
	#1(1) AX (#) 10 # 1 #0		
B •	2014-08-21 11:38:58	Uber logged in	

# Figure 5-150

Please refer to the following sheet for log parameter information.

Parameter	Function			
Туре	Log types include: system operation, configuration operation, data			
	operation, event operation, record operation, user management, log			
	clear.			
Start time	Set the start time of the requested log.			
End time	Set the end time of the requested log.			
Search	You can select log type from the drop down list and then click search			
	button to view the list.			
	You can click the stop button to terminate current search operation.			
Detailed information	You can select one item to view the detailed information.			
Clear	You can click this button to delete all displayed log files. Please note system does not support clear by type.			
Backup	You can click this button to backup log files to current PC.			

## 5.11.3 Online User

It is to display current online user, user group, IP address and login time. The online user interface is shown as in Figure 5-151.

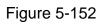
No.	User Name	Group Name	IF Address	User Login Time
1	admin	admin	10.15.9.152	2013-10-24 04 31 33 PM
.2	admin	admin	10.15.9.152	2013-10-24 04 21 12 PM
3	admin	admin	10.155.145	2013-10-24 04 50 01 PM

Figure 5-151

## 5.11.4 HDD

The HDD interface is shown as in Figure 5-152. Here you can view HDD information.

	HDD					
	No.	Device Name	Status	Free Space/Total Space	S.M.A.R.T	
	1	SATA-1	Normal	1.64TB/1.81TB	Normal	~
						-
	Refresh					
_						



# 5.12 Playback

Click Playback button, you can see an interface is shown as in Figure 5-153.

WEB service Debuger	PLAYBACK ALARM SETLP MITC LOODUT	
Ø		
Ö		
00000 		<b>GLULUUD</b>

Figure 5-153

## 5.12.1 Search Record

Please set record type, record date, window display mode and channel name.

Select Date

You can click the date on the right pane to select the date. The green highlighted date is system current date and the blue highlighted date means it has record files.

• Window Split

Select window split mode. Click ESI to display in full screen. Click ESC button to exit.

See Figure 5-154.



Figure 5-154

• Customized playback

Click , you can see the following interface. See Figure 5-155.



Figure 5-155

Now you can select one or more channel(s) and then click Search to search record(s).

System supports one or more channels. The window split mode can auto adjust according to the channel amount. System max supports 16-split.

Click button to select all channels at the same time.

Click

, system begins playback.

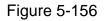
Select Channel

 $1 \sim n(n \text{ depends on your product channel amount})$  means main stream and A1 $\sim$ An ((n depends on your product channel amount)) means sub stream.

Select Record Type

Check the corresponding box to select record type. See Figure 5-156.





## 5.12.2 Fisheye Playback De-Warp

I Note

Some series product supports de-warp function.

When playing fisheye channel record file, it can de-warp.

In 1-window playback mode, click the at the top right corner, system pops up installation mode and display mode interface. Select the corresponding mode, it can display the dewarp video. Please refer to Fisheye de-warp in chapter 5.6.1 for detailed information.

## 5.12.3 File List

Click File list button, you can see the corresponding file(s) in the list. See Figure 5-157.



Figure 5-157

## 5.12.4 Playback

Select a file you want to play and then click Play button, system can begin playback. You can select to playback in full-screen. Please note for one channel, system cannot playback and download at the same time. You can use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play and etc.

## 5.12.5 Download

Select the file(s) you want to download and then click download button, you can see an interface shown as in Figure 5-158. The Download button becomes Stop button and there is a process bar for your reference. Please go to you default file saved path to view the files.

Ē		00	:	00	:	00		C	٤.
	1		2	I		3		4	
	Sta	rt Ti	me	3		Туре			
<b>~</b>	08	:34:	59			R			
<b>×</b>	08	:40:	03			R			
M	<b>∢</b> 1/	1 🕨	Þ	Ju	mp	То	1	Þ.	
En	art Ti Id Tir e Siz	ne:							
	<u>v</u>	Mor	e			<b>⊻</b> 8 ←	itop(2 Ba		)

Figure 5-158

## 5.12.6 Load more

It is for you to search record or picture. You can select record channel, record type and record time to download. Or you can use watermark function to verify file.

## 5.12.6.1 Download By File

Select channel, record type, bit stream type and then input start time and end time. Click Search button, the download by file interface is shown as in Figure 5-159.

1
3
2
1
1
3
4
4

Check the file(s) you want to download and there are two options for you to save the file(s).

• Download to local

Click Download to local, system pops up the following interface for you to set record format and saved path. See Figure 5-160.

Record Format	DAV	<u>m</u>	
SeePvm	C RecontDownload		(inpess)

Figure 5-160

You can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

## • Download to USB

Connect the corresponding p peripheral device, and then click Download to USB button, you can see the following interface. See Figure 5-161.

Diaminini Verit	Ad Interests in	Stat Tree Bird Tree	2014 - 22 - 14 2014 - 22 - 15	00 88 00 23 19 29	- Petto		
A Sheart Type	May Sub						
	1985	in the years.	Ball Ince	End Trees	Post System	Replected from	Durvit:
0	- 11	204668	2014年10月1日時1月1日	2014年6月7月8月1日	frepalar	Miles (This are	1.1
	1.4.1	21110A	2014/02/17 58-4101	2714-12-17 24-58-88	hepdat	Han Datas:	
0	- 3	10149-00	2014-02-01 08:34:78	1014-0017-003016	Reposi	Hor Theat	1. C
Ö	0.41	adapted.	2014-02-1718-0222	anterest and the second	fepes:	Ban ibeam .	
0	8	204648	2014-02-0108/3478	2014/02/17 10:38 10:	Repte	MAX 29 asm	3.
		atting.	2016-02-17-08-00302	32114-02-17 02:10:08	Repair	Hard Sheare	Τ.
0	1.0	101110	2014-30-17 08:34 19	2019/02/17 08:30:10	Repair	Nav Thearr	×.
0		advalued.	2014 02 17 10 48 02	2014/02/12/02/02/04	Happen	Non Divert	
	Carl District b						P. p. pe long to 1
interna interna	ero de Deso er (	Jaco	Berna toe (CAV	R.	Stad January		
lana para a				Even Spanneds Cleanson	Total Takentoto 1513/0716		

Figure 5-161

Select Backup device and backup type first and then click Start backup button.

After the download operation, you can see corresponding dialogue box.

5.12.6.2 Download by Time

Select channel, bit stream type, start time and end time.

Click Download to Local button, you can see download by time interface is shown as in Figure 5-162.

Deemicod by File Download by Time Deemicod by File Deemicod by Time Deemicod by File Deemicod by Time Deemicod by Lase	2014 02 14 00 00 00	
	Rectod Format DAV   Rectod Format DAV  C GenerolDeveload.  On  Caster	
fast.		

Figure 5-162

Set record format and saved path, you can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

## 5.12.6.3 Watermark

Watermark interface is shown as In Figure 5-163. Please select a file and then click Verify button to see the file has been tampered with or not

Download by Pile	Downand by Tone	Watermark		
LocalFin				
C vecontroit/Centre (	platform			
Visiblement toto				
Volumentarit flevio ed brie				
	Hatoyours Normal		Waterman Time	
Beb.				
li mer j				

Figure 5-163

# 5.13 Face Search

On the main interface, click Face search button, you can see an interface shown as below. See Figure 5-164.



Figure 5-164

Please refer to the following sheet for detailed information.

SN	Name	Function				
1	Display	• It is to display human face detection file list. The latest file is at the				
	pan	top. \				
		Click Export, you can export the selected file to the USB device.				
		There are two types: image/record.				
		$\diamond$ Image: Export the recognized human face image.				
		$\diamond$ Record: Export the record file before and after 10 seconds				
		when the DVR recognizes the human face.				
2	Playback	Play the searched record file or image. Double click to playback in full				
	pane	screen.				
3	Search	Set date, start time and end time, click Search button, you can view the				
	pane	corresponding file list.				

# 5.14 Alarm

Click alarm function, you can see an interface is shown as Figure 5-165.

Here you can set device alarm type and alarm sound setup (Please make sure you have enabled audio function of corresponding alarm events.).

	REVIEW PLAYBACK	ALARM SETUP	INFO: LODGUT		
🖾 Taripetrig	External Alarin		Time	-Alatite Syste	

## Figure 5-165

Please refer to the following sheet for detailed information.

Туре	Parameter	Function					
Alarm	Video loss	System alarms when video loss occurs.					
Туре	Motion detection	System alarms when motion detection alarm					
		occurs.					
	Tampering	System alarms when camera is viciously maskir					
	Disk full	System alarms when disk is full.					
	Disk error	System alarms when disk error occurs.					
	External alarm	Alarm input device sends out alarm.					
Operation	Prompt	Check the box here, system can automatically pops					
		up an alarm icon on the Alarm button in the main					
		interface when there is an alarm.					
Alarm	Play alarm	System sends out alarm sound when an alarm					
Sound	sound	occurs. You can specify as you wish.					
	Sound path	Here you can specify alarm sound file.					

# 5.15 Log out

Click log out button, system goes back to log in interface. See Figure 5-166. Input user name and password to login again.

alhua		
Username: Password:	admin	
Type:		Forgot password?
	LAN O WAN     Login Cancel	]

Figure 5-166

# 5.16 Un-install Web Control

You can use web un-install tool "uninstall web.bat" to un-install web control.

Please note, before you un-installation, please close all web pages, otherwise the un-installation might result in error.

# 6 SmartPSS

Besides Web, you can use our Smart PSS to login the device. For detailed information, please refer to *Smart PSS user's manual*.

# 7 FAQ

## 1. DVR cannot boot up properly.

There are following possibilities:

- Input power is not correct.
- Power connection is not correct.
- Power switch button is damaged.
- Program upgrade is wrong.
- HDD malfunction or something wrong with HDD ribbon.
- Seagate DB35.1, DB35.2, SV35 or Maxtor 17-g has compatibility problem. Please upgrade to the latest version to solve this problem.
- Front panel error.
- Main board is damaged.

## 2. How to restore factory default setup even I cannot login the user interface.

There are following possibilities:

Please use the reset button to restore factory default setup. Please shut down the device, remove the top cover and front panel. Go to the mainboard and find the *i* button. Press *i* to boot up and then remain pressing for 5 to 10 seconds. Device automatically restoring factory default setup and then reboot.

D Note

Please make sure you purchased device has the reset button on the mainboard.

### 3. DVR often automatically shuts down or stops running.

There are following possibilities:

- Input voltage is not stable or it is too low.
- HDD malfunction or something wrong with the ribbon.
- Button power is not enough.
- Front video signal is not stable.
- Working environment is too harsh, too much dust.
- Hardware malfunction.

### 4. System cannot detect hard disk.

There are following possibilities:

- HDD is broken.
- HDD ribbon is damaged.
- HDD cable connection is loose.
- Main board SATA port is broken.
- 5. There is no video output whether it is one-channel, multiple-channel or all-channel output.

- Program is not compatible. Please upgrade to the latest version.
- Brightness is 0. Please restore factory default setup.
- There is no video input signal or it is too weak.
- Check privacy mask setup or your screen saver.
- DVR hardware malfunctions.

## 6. Real-time video color is distorted.

There are following possibilities:

- When using BNC output, NTSC and PAL setup is not correct. The real-time video becomes black and white.
- DVR and monitor resistance is not compatible.
- Video transmission is too long or degrading is too huge.
- DVR color or brightness setup is not correct.

## 7. Cannot search local records.

There are following possibilities:

- HDD ribbon is damaged.
- HDD is broken.
- Upgraded program is not compatible.
- The recorded file has been overwritten.
- Record function has been disabled.

### 8. Video is distorted when searching local records.

There are following possibilities:

- Video quality setup is too low.
- Program read error, bit data is too small. There is mosaic in the full screen.
   Please restart the DVR to solve this problem.
- HDD data ribbon error.
- HDD malfunction.
- DVR hardware malfunctions.

### 9. There is no audio when monitor.

There are following possibilities:

- It is not a power picker.
- It is not a power acoustics.
- Audio cable is damaged.
- DVR hardware malfunctions.

### 10. There is audio when monitor but there is no audio when system playback.

- Setup is not correct. Please enable audio function
- Corresponding channel has no video input. Playback is not continuous when the screen is blue.

## 11. Time display is not correct.

There are following possibilities:

- Setup is not correct
- Battery contact is not correct or voltage is too low.
- Crystal is broken.

## 12. DVR cannot control PTZ.

There are following possibilities:

- Front panel PTZ error
- PTZ decoder setup, connection or installation is not correct.
- Cable connection is not correct.
- PTZ setup is not correct.
- PTZ decoder and DVR protocol is not compatible.
- PTZ decoder and DVR address is not compatible.
- When there are several decoders, please add 120 Ohm between the PTZ decoder A/B cables furthest end to delete the reverberation or impedance matching. Otherwise the PTZ control is not stable.
- The distance is too far.

### 13. Motion detection function does not work.

There are following possibilities:

- Period setup is not correct.
- Motion detection zone setup is not correct.
- Sensitivity is too low.
- For some versions, there is hardware limit.

### 14. Cannot log in client-end or web.

There are following possibilities:

- For Windows 98 or Windows ME user, please update your system to Windows 2000 sp4. Or you can install client-end software of lower version. Please note right now, our DVR is not compatible with Windows VISTA control.
- ActiveX control has been disabled.
- No dx8.1 or higher. Please upgrade display card driver.
- Network connection error.
- Network setup error.
- Password or user name is invalid.
- Client-end is not compatible with DVR program.

# 15. There is only mosaic no video when preview or playback video file remotely.

- Network fluency is not good.
- Client-end resources are limit.

- There is multiple-cast group setup in DVR. This mode can result in mosaic. Usually we do not recommend this mode.
- There is privacy mask or channel protection setup.
- Current user has no right to monitor.
- DVR local video output quality is not good.

### 16. Network connection is not stable.

There are following possibilities:

- Network is not stable.
- IP address conflict.
- MAC address conflict.
- PC or DVR network card is not good.

### 17. Burn error /USB back error.

There are following possibilities:

- Burner and DVR are in the same data cable.
- System uses too much CPU resources. Please stop record first and then begin backup.
- Data amount exceeds backup device capacity. It may result in burner error.
- Backup device is not compatible.
- Backup device is damaged.

### 18. Keyboard cannot control DVR.

There are following possibilities:

- DVR serial port setup is not correct
- Address is not correct
- When there are several switchers, power supply is not enough.
- Transmission distance is too far.

### 19. Alarm signal cannot been disarmed.

There are following possibilities:

- Alarm setup is not correct.
- Alarm output has been open manually.
- Input device error or connection is not correct.
- Some program versions may have this problem. Please upgrade your system.

### 20. Alarm function is null.

- Alarm setup is not correct.
- Alarm cable connection is not correct.
- Alarm input signal is not correct.
- There are two loops connect to one alarm device.

## 21. Remote control does not work.

There are following possibilities:

- Remote control address is not correct.
- Distance is too far or control angle is too small.
- Remote control battery power is low.
- Remote control is damaged or DVR front panel is damaged.

## 22. Record storage period is not enough.

There are following possibilities:

- Camera quality is too low. Lens is dirty. Camera is installed against the light. Camera aperture setup is not correct.
- HDD capacity is not enough.
- HDD is damaged.

## 23. Cannot playback the downloaded file.

There are following possibilities:

- There is no media player.
- No DXB8.1 or higher graphic acceleration software.
- There is no DivX503Bundle.exe control when you play the file transformed to AVI via media player.
- No DivX503Bundle.exe or ffdshow-2004 1012 .exe in Windows XP OS.

## 24. Forget local menu operation password or network password

Please contact your local service engineer or our sales person for help. We can guide you to solve this problem.

# 25. When I login via HTTPS, a dialogue says the certificate for this website is for other address.

Please follow chapter 5.10.2.3.1 to create server certificate.

## 26. When I login via HTTPS, a dialogue says the certificate is not trusted.

Please follow chapter 5.10.2.3.2 to download root certificate.

# 27. When I login via HTTPS, a dialogue says the certificate has expired or is not valid yet.

Please make sure your PC time is the same as the device time.

## 28. I connect the general analog camera to the device, there is no video output.

- Check camera power supplying, data cable connection and etc.
- This series device does not support the analog camera of all brands. Please make sure the device supports general standard definition analog camera.

# 29. I connect the standard definition analog camera or the HDCVI camera to the device, there is no video output.

There are following possibilities:

- Check camera power supplying, or camera data cable connection.
- For the product supports analog standard definition camera/HD camera, you need to go to the main menu->Setting->Camera->Channel type to select corresponding channel type and then restart the DVR.

### **30. I** cannot connect to the IP channel.

There are following possibilities:

- Check the camera is online or not.
- Check IP channel setup is right or not (such as IP address, user name, password, connection protocol, port number.).
- The camera has set the whitelist (Only the specified devices can connect to the camera).

# 31. After I connected to the IP channel, there one-window output is OK, but there is no multiple-window output.

There are following possibilities:

- Check the sub stream of the camera has been enabled or not.
- Check the sub stream type of the camera is H.264 or not.
- Check the device supports camera sub stream resolution or not (such as 960H, D1, HD1 and etc.).

# 32. After I connected to the IP channel, there multiple-window output is OK, but there is no one-window output.

There are following possibilities:

- Check there is video from the IP channel or not. Please go to the main menu->info->System->BPS to view bit stream real-time information.
- Check the main stream of the camera has been enabled or not.
- Check the main stream type of the camera is H.264 or not.
- Check the device supports camera main stream resolution or not (such as 960H, D1, HD1 and etc.).
- Check camera network transmission has reached the threshold or not. Please check the online user of the camera.

# 33. After I connected to the IP channel, there is no video output in the one-window or the multiple-window mode. But I can see there is bit stream.

- Check the main stream/sub stream type of the camera is H.264 or not.
- Check the device supports camera main stream/sub stream resolution or not (such as 1080P, 720P, 960H, D1, HD1 and etc.).

• Check the camera setup. Please make sure It supports the products of other manufacturers.

## 34. DDNS registration failed or cannot access the device domain name.

There are following possibilities:

- Check the device is connected to the WAN. Please check the device has got the IP address if the PPPoE can dial. If there is a router, please check the router to make sure the device IP is online.
- Check the corresponding protocol of the DDNS is enabled. Check the DDNS function is OK or not.
- Check DNS setup is right or not. Default Google DNS server is 8.8.8.8, 8.8.5.5. You can use different DNS provided by your ISP.

## 35. I cannot use the P2P function on my cell phone or the WEB.

There are following possibilities:

- Check the device P2P function is enabled or not. (Main menu->Setting->Network->P2P)
- Check the device is in the WAN or not.
- Check cell phone P2P login mode is right or not.
- It is the specified device P2P login port or not when you are using P2P client.
- Check user name or password is right or not.
- Check P2P SN is right or not. You can use the cell phone to scan the QR code on the device P2P interface (Main menu->Setting->Network->P2P), or you can use the version information of the WEB to confirm. (For some previous series products, the device SN is the main board SN, it may result in error.)

## 36. I connect the standard definition camera to the device, there is no video output.

There are following possibilities:

- Check the DVR supports standard definition signal or not. Only some series product supports analog standard definition signal, HDCVI signal input.
- Check channel type is right or not. For the product supports analog standard definition camera/HD camera, you need to go to the main menu->Setting->Camera->Channel type to select corresponding channel type (such as analog) and then restart the DVR. In this way, the DVR can recognize the analog standard definition.
- Check camera power supplying, or camera data cable connection.

## 37. I cannot connect to the IP camera.

There are following possibilities:

 Check DVR supports IP channel or not. Only some series products support A/D switch function, it can switch analog channel to the IP channel to connect to the IP camera. From Setting->Camera->Channel Type, select the last channel to switch to the IP channel. Some series product products support IP channel extension, it supports N+N mode.

- Check the IPC and the DVR is connected or not. Please go to the main menu->Setting->Camera->Remote to search to view the IP camera is online or not. Or you can go to the main menu->Info->Network->Test, you can input IP camera IP address and then click the Test button to check you can connect to the IP camera or not.
- Check IP channel setup is right or not (such as IP address, manufacturer, port, user name, password, remote channel number and etc.).

### **Daily Maintenance**

- Please use the brush to clean the board, socket connector and the chassis regularly.
- The device shall be soundly earthed in case there is audio/video disturbance. Keep the device away from the static voltage or induced voltage.
- Please unplug the power cable before you remove the audio/video signal cable, RS232 or RS485 cable.
- Do not connect the TV to the local video output port (VOUT). It may result in video output circuit.
- Always shut down the device properly. Please use the shutdown function in the menu, or you can press the power button in the front panel for at least three seconds to shut down the device. Otherwise it may result in HDD malfunction.
- Please make sure the device is away from the direct sunlight or other heating sources. Please keep the sound ventilation.
- Please check and maintain the device regularly.

### Appendix A HDD Capacity Calculation

Calculate total capacity needed by each DVR according to video recording (video recording type and video file storage time).

Step 1: According to Formula (1) to calculate storage capacity  $q_i$  that is the capacity of each channel needed for each hour, unit Mbyte.

$$q_i = d_i \div 8 \times 3600 \div 1024 \tag{1}$$

In the formula:  $d_i$  means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage capacity  $m_i$ , which is storage of each channel needed unit Mbyte.

$$m_i = q_i \times h_i \times D_i \tag{2}$$

In the formula:

 $h_i$  means the recording time for each day (hour)

 $D_i$  means number of days for which the video shall be

kept

Step 3: According to Formula (3) to calculate total capacity (accumulation)  $q_T$  that is needed for all channels in the DVR during **scheduled video recording**.

$$q_T = \sum_{i=1}^{c} m_i \tag{3}$$

In the formula: c means total number of channels in one DVR

Step 4: According to Formula (4) to calculate total capacity (accumulation)  $q_T$  that is needed for all channels in DVR during **alarm video recording (including motion detection)**.

$$q_T = \sum_{i=1}^{c} m_i \, \star a\% \tag{4}$$

In the formula: a% means alarm occurrence rate

You can refer to the following sheet for the file size in one hour per channel. (All the data listed below are for reference only.)

Bit stream size (max)	File size	Bit stream size (max)	File size
96K	42M	128K	56M
160K	70M	192K	84M
224K	98M	256K	112M
320K	140M	384K	168M

448K	196M	512K	225M
640K	281M	768K	337M
896K	393M	1024K	450M
1280K	562M	1536K	675M
1792K	787M	2048K	900M

# Appendix B Compatible backup devices

Manu factor	Model	Capacity
Sandisk	lisk Cruzer Micro	
Sandisk	Cruzer Micro	1G
Sandisk	Cruzer Micro	2G
Sandisk	Cruzer Freedom	256M
Sandisk	Cruzer Freedom	512M
Sandisk	Cruzer Freedom	1G
Sandisk	Cruzer Freedom	2G
Kingston	DataTraveler II	1G
Kingston	DataTraveler II	2G
Kingston	DataTraveler	1G
Kingston	DataTraveler	2G
Maxell	USB Flash Stick	128M
Maxell	USB Flash Stick	256M
Maxell	USB Flash Stick	512M
Maxell	USB Flash Stick	1G
Maxell	USB Flash Stick	2G
Kingax	Super Stick	128M
Kingax	Super Stick	256M
Kingax	Super Stick	512M
Kingax	Super Stick	1G
Kingax	Super Stick	2G
Netac	U210	128M
Netac	U210	256M
Netac	U210	512M
Netac	U210	1G
Netac	U210	2G
Netac	U208	4G
Teclast	Ti Cool	128M
Teclast	Ti Cool	256M
Teclast	Ti Cool	512M
Teclast	Ti Cool	1G
SanDisk	cruzer mirco	2G
SanDisk	cruzer mirco	8G
SanDisk	Ti Cool	2G
SanDisk	Hongjiao	4G
Lexar	Lexar 256MB	
Kingston	Data Traveler 1G	
Kingston Data Traveler 16GB		16GB

## Appendix B-1 Compatible USB list

Kingston	Data Traveler	32GB
Aigo	L8315	16GB
Sandisk	250	16GB
Kingston	Data Traveler Locker+	32GB
Netac	U228	8GB

## Appendix B-2 Compatible SD Card list

Brand	Standard	Capacity	Card type
Transcend	SDHC6	16GB	Big
Kingston	SDHC4	4GB	Big
Kingston	SD	2GB	Big
Kingston	SD	1GB	Big
Sandisk	SDHC2	8GB	Small
Sandisk	SD	1GB	Small

### Appendix B-3 Compatible Portable HDD list

Brand	Model	Capacity
YDStar	YDstar HDD box	40G
Netac	Netac	80G
lomega	lomega RPHD-CG" RNAJ50U287	250GB
WD Elements	WCAVY1205901	1.5TB
Newsmy	Liangjian	320GB
WD Elements	WDBAAR5000ABK-00	500GB
WD Elements	WDBAAU0015HBK-00	1.5TB
Seagate	FreeAgent Go(ST905003F)	500GB
Aigo	H8169	500GB

### Appendix B-4 Compatible USB DVD List

Brand	Model
Samsung	SE-S084
BenQ	LD2000-2K4

## Appendix B-5 Compatible SATA DVD List

Brand	Model
LG	GH22NS30
Samsung	TS-H653 Ver.A

Samsung	TS-H653 Ver.F
Samsung	SH-224BB/CHXH
SONY	DRU-V200S
SONY	DRU-845S
SONY	AW-G170S
Pioneer	DVR-217CH

### Appendix B-6 Compatible SATA HDD List

**NOTE:** Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below. Here we recommend HDD of 500G to 4T capacity.

Manufacturer	Series	Model	Capacity	Port Mode
Seagate	Seagate SV35.1	ST3250824SV	250G	SATA
Seagate	Seagate SV35.1	ST3500641SV	500G	SATA
Seagate	Seagate SV35.2	ST3250820SV	250G	SATA
Seagate	Seagate SV35.2	ST3320620SV	320G	SATA
Seagate	Seagate SV35.2	ST3500630SV	500G	SATA
Seagate	Seagate SV35.2	ST3750640SV	750G	SATA
Seagate	Seagate SV35.3	ST3250310SV	250G	SATA
Seagate	Seagate SV35.3	ST3500320SV	500G	SATA
Seagate	Seagate SV35.3	ST3750330SV	750G	SATA
Seagate	Seagate SV35.3	ST31000340SV	1T	SATA
Seagate	Seagate SV35.4	ST3320410SV	320G	SATA
Seagate	Seagate SV35.4	ST3250311SV	250G	SATA
Seagate	Seagate SV35.5	ST3500410SV	500G	SATA
Seagate	Seagate SV35.5	ST3500411SV	500G	SATA
Seagate	Seagate SV35.5	ST31000525SV	1T	SATA
Seagate	Seagate SV35.5	ST31000526SV	1T	SATA
Seagate	Seagate SV35.5	ST1000VX000	1T	SATA
Seagate	Seagate SV35.5	ST2000VX003	2T	SATA
Seagate	Seagate SV35.5	ST2000VX002	2T	SATA
Seagate	Seagate SV35.5	ST2000VX000	2T	SATA
Seagate	Seagate SV35.5	ST3000VX000	3T	SATA
Seagate	Seagate Pipeline HD	ST3320410CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3320310CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3500422CS	500G	SATA
Seagate	Seagate Pipeline HD	ST3500321CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST3250412CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3320311CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3500414CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST3500312CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST31000424CS	1T	SATA

	1	1		
Seagate	Seagate Pipeline HD2	ST31000322CS	1T	SATA
Seagate	Seagate Pipeline HD2	ST1000VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST1500VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM002	2T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM003	2T	SATA
Seagate	Seagate Constellation ES	ST3500514NS	500G	SATA
Seagate	Seagate Constellation ES	ST31000524NS	1T	SATA
Seagate	Seagate Constellation ES	ST32000644NS	2T	SATA
Seagate	Seagate Constellation ES	ST2000NM0011	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0011	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0011	500G	SATA
Seagate	Seagate Constellation ES	ST2000NM0031	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0031	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0031	500G	SATA
Seagate	Seagate Constellation ES	ST2000NM0051	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0051	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0051	500G	SATA
Seagate	Seagate Constellation ES.2	ST33000650NS	3Т	SATA
Seagate	Seagate Constellation ES.2	ST32000645NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000651NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000646NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000652NS	3Т	SATA
Seagate	Seagate Constellation ES.2	ST32000647NS	2T	SATA
Westem Digital	Cariar SE	WD3200JD	320G	SATA
Westem Digital	Cariar SE	WD3000JD	300G	SATA

Westem Digital	Cariar SE	WD2500JS	250G	SATA
Westem Digital	Cariar SE16	WD7500KS	750G	SATA
Westem Digital	Cariar SE16	WD5000KS	500G	SATA
Westem Digital	Cariar SE16	WD4000KD	400G	SATA
Westem Digital	Cariar SE16	WD3200KS	320G	SATA
Westem Digital	Cariar SE16	WD2500KS	250G	SATA
Westem Digital	WD Caviar SE16	WD2500YS-01SHB0	250G	SATA
Westem Digital	WD Caviar RE16	WD3200YS-01PGB0	320G	SATA
Westem Digital	WD Caviar RE2	WD5000YS-01MPB0	500G	SATA
Westem Digital	WD AV—AVJS	WD2500AVJS-63WDA0	500G	SATA
Westem Digital	WD AV—AVJS	WD3200AVJS-63WDA0	320G	SATA
Westem Digital	WD AV—AVJS	WD5000AVJS-63YJA0	500G	SATA
Westem Digital	WDAV-GP—AVCS	WD5000AVCS-63H1B1	500G	SATA
Westem Digital	WDAV-GP—AVCS	WD7500AVCS-63ZLB0	750G	SATA
Westem Digital	WDAV-GP—AVCS	WD3200AVCS	320G	SATA
Westem Digital	WDAV-GP—AVCS	WD2500AVCS	250G	SATA
Westem Digital	WDAV-GP-EVCS	WD10EVCS-63ZLB0	1T	SATA
Westem Digital	WDAV-GP-EVCS	WD20EVCS-63ZLB0	2T	SATA
Westem Digital	WDAV-GP—AVVS	WD3200AVVS-63L2B0	320G	SATA
Westem Digital	WDAV-GP—AVVS	WD5000AVVS-63ZWB0	500G	SATA
Westem Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Westem Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Westem Digital	WDAV-GP-EVVS	WD10EVVS-63E1B1	1T	SATA
Westem Digital	WDAV-GP-EVDS	WD10EVDS-63N5B1	1T	SATA
Westem Digital	WDAV-GP-EVDS	WD15EVDS-63V9B0	1.5T	SATA
Westem Digital	WDAV-GP-EVDS	WD20EVDS-63T3B0	2T	SATA
Westem Digital	WDAV-GP—AVDS	WD5000AVDS-63U7B0	500G	SATA
Westem Digital	WD AV-GP	WD30EURS	3T	SATA
Westem Digital	WD AV-GP	WD25EURS	2.5T	SATA
Westem Digital	WD AV-GP	WD20EURS	2T	SATA
Westem Digital	WD AV-GP	WD15EURS	1.5T	SATA
Westem Digital	WD AV-GP	WD10EURS	1T	SATA
Westem Digital	WD AV-GP	WD10EURX	1T	SATA
Westem Digital	WD AV-GP	WD7500AURS	750G	SATA
Westem Digital	WD AV-GP	WD7500AVDS	500G	SATA
Westem Digital	WD AV-GP	WD500AVDS	500G	SATA
Westem Digital	WD AV-GP	WD10EUCX	1T	SATA
Samsung	Samsung—HA	HA500LJ/CE	500G	SATA
Samsung	Samsung—HA	HA751LJ	750G	SATA
Samsung	Samsung—HA	HA101UJ/CE	1T	SATA
Samsung	Samsung—HD	HD502HI/CEC	500G	SATA
Samsung	Samsung—HD	HD103SI/CEC	1T	SATA
Samsung	Samsung—HD	HD154UI/CE	1.5T	SATA

Hitachi	HitachiCinemaStar™	HCP725050GLA380	500G	SATA
	5K500			
Hitachi	HitachiCinemaStar™	HCT721050SLA360	500G	SATA
	7K1000.B			
Hitachi	HitachiCinemaStar™	HCT721075SLA360	750G	SATA
	7K1000.B			
Hitachi	HitachiCinemaStar™	HCT721010SLA360	1T	SATA
	7K1000.B			
Maxtor	DiamondMax 20	STM3320820AS	320G	SATA
Maxtor	DiamondMax 20	STM3250820AS	250G	SATA

# Appendix C Compatible CD/DVD Burner List

**NOTE:** Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below. And you can use the USB cable with the model recommended to set USB burner.

Manufacturer	Model	Port Type	Туре
Sony	DRX-S50U	USB	DVD-RW
Sony	DRX-S70U	USB	DVD-RW
Sony	AW-G170S	SATA	DVD-RW
Samsung	TS-H653A	SATA	DVD-RW
Panasonic	SW-9588-C	SATA	DVD-RW
Sony	DRX-S50U	USB	DVD-RW
BenQ	5232WI	USB	DVD-RW

# Appendix D Compatible Displayer List

Brand	Model	Dimension (Unit: inch)
BENQ (LCD)	ET-0007-TA	19-inch (wide screen)
DELL (LCD)	E178FPc	17-inch
BENQ (LCD)	Q7T4	17-inch
BENQ (LCD)	Q7T3	17-inch
HFNOVO (LCD)	LXB-L17C	17-inch
SANGSUNG (LCD)	225BW	22 寸(wide screen)
HFNOVO(CRT)	LXB-FD17069HB	17 -inch
HFNOVO(CRT)	LXB-HF769A	17-inch
HFNOVO(CRT)	LX-GJ556D	17-inch
Samsung (LCD)	2494HS	24-inch
Samsung (LCD)	P2350	23-inch
Samsung (LCD)	P2250	22-inch
Samsung (LCD)	P2370G	23-inch
Samsung (LCD)	2043	20-inch
Samsung (LCD)	2243EW	22-inch
Samsung (LCD)	SMT-1922P	19-inch
Samsung (LCD)	T190	19-inch
Samsung (LCD)	T240	24-inch
LG (LCD)	W1942SP	19-inch
LG (LCD)	W2243S	22-inch
LG (LCD)	W2343T	23-inch
BENQ (LCD)	G900HD	18.5-inch
BENQ(LCD)	G2220HD	22-inch
PHILIPS (LCD)	230E	23-inch
PHILIPS (LCD)	220CW9	23-inch
PHILIPS (LCD)	220BW9	24-inch
PHILIPS (LCD)	220EW9	25-inch

Please refer to the following sheet form compatible displayer list.

Appendix E	Compatible	Switcher
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Brand	Model	network working mode
D-LinK	DES-1016D	10/100M self-adaptive
D-LinK	DES-1008D	10/100M self-adaptive
		Five network modes
		1. AUTO
Ruijie	RG-S1926S	2. HALF-10M
Kujie	KU-519205	3. FULL-10M
		4 .HALF-100M
		5. FULL-100M
НЗС	H3C-S1024	10/100M self-adaptive
TP-LINK	TL-SF1016	10/100M self-adaptive
TP-LINK	TL-SF1008+	10/100M self-adaptive

# Appendix F Compatible Wireless Mouse List

Thease relef to the following sheet for compatible OD card brand.		
Brand	Model	
<b>SUNT</b> i形括	V80	
Rapoo	3500	
Logitech	M215	
Shuangfeiyan	Tianyao G7-630	

Please refer to the following sheet for compatible SD card brand.

## Appendix G Earthing

#### 1. What is the surge?

Surge is a short current or voltage change during a very short time. In the circuit, it lasts for microsecond. In a 220V circuit, the 5KV or 10KV voltage change during a very short time (about microseconds) can be called a surge. The surge comes from two ways: external surge and internal surge.

- The external surge: The external surge mainly comes from the thunder lightning. Or it comes from the voltage change during the on/off operation in the electric power cable.
- The internal surge: The research finds 88% of the surge from the low voltage comes from the internal of the building such as the air conditioning, elevator, electric welding, air compressor, water pump, power button, duplicating machine and other device of inductive load.

The lightning surge is far above the load level the PC or the micro devices can support. In most cases, the surge can result in electric device chip damage, PC error code, accelerating the part aging, data loss and etc. Even when a small 20 horsepower inductive engine boots up or stops, the surge can reach 3000V to 50000V, which can adversely affect the electronic devices that use the same distribution box.

To protect the device, you need to evaluate its environment, the lighting affection degree objectively. Because surge has close relationship with the voltage amplitude, frequency, network structure, device voltage-resistance, protection level, ground and etc. The thunder proof work shall be a systematic project, emphasizing the all-round protection (including building, transmission cable, device, ground and etc.). There shall be comprehensive management and the measures shall be scientific, reliable, practical and economic. Considering the high voltage during the inductive thundering, the International Electrotechnical Committee (IEC) standard on the energy absorbing step by step theory and magnitude classification in the protection zone, you need to prepare multiple precaution levels.

You can use the lightning rod, lightning strap or the lightning net to reduce the damage to the building, personal injury or the property,

- The lightning protection device can be divided into three types:
  - Power lightning arrester: There are 220V single-phrase lightning arrester and 380V three-phrase lightening arrester (mainly in parallel connection, sometimes use series connection) You can parallel connect the power lightning arrester in the electric cable to reduce the short-time voltage change and release the surge current. From the BUS to the device, there are usually three levels so that system can reduce the voltage and release the current step by step to remove the thunderstorm energy and guarantee the device safety. You can select the replaceable module type, the terminal connection type and portable socket according to your requirement.

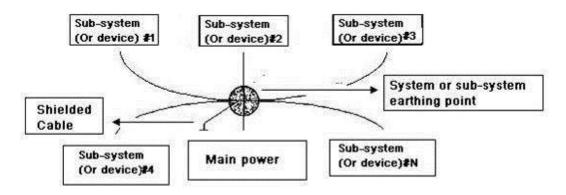
- Signal lightning arrester: This device is mainly used in the PC network, communication system. The connection type is serial connection. Once you connected the signal lightning arrestor with the signal port, it can cut the channel of the thunderstorm to the device, and on the other hand, it can discharge the current to the ground to guarantee the device proper work. The signal lightning arrester has many specifications, and widely used in many devices such as telephone, network, analog communication, digital communication, cable TV and satellite antenna. For all the input port, especially those from the outdoor, you need to install the signal lightning arrester.
- Antenna feed cable lightning arrester: It is suitable for antenna system of the transmitter or the device system to receive the wireless signal. It uses the serial connection too.

Please note, when you select the lighting arrester, please pay attention to the port type and the earthing reliability. In some important environment, you need to use special shielded cable. Do not parallel connect the thunder proof ground cable with the ground cable of the lightning rod. Please make sure they are far enough and grounded respectively.

#### 2. The earthing modes

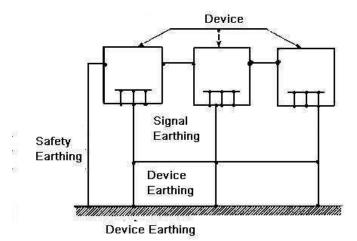
We all know the earthing is the most complicated technology in the electromagnetism compatibility design since there is no systematic theory or module. The earthing has many modes, but the selection depends on the system structure and performance. The following are some successfully experience from our past work.

**One-point ground:** In the following figure you can see there is a one-point ground. This connection provides common port to allow signal to be transmitted in many circuits. If there is no common port, the error signal transmission occurred. In the one-point ground mode, each circuit is just grounded only and they are connected at the same port. Since there is only one common port, there is no circuit and so, there is no interference.

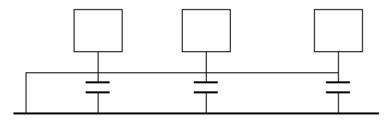


**Multiple-point ground:** In the following figure, you can see the internal circuit uses the chassis as the common point. While at the same time, all devices chassis use the earthing as the common port. In this connection, the ground structure can provide the lower ground resistance because when there are multiple-point grounds; each ground cable is as short as possible. And the parallel cable connection can reduce the total

conductance of the ground conductor. In the high-frequency circuit, you need to use the multiple-point ground mode and each cable needs to connect to the ground. The length shall be less than the 1/20 of the signal wavelength.



**Mixed ground:** The mix ground consists of the feature of the one-point ground and multiple-point ground. For example, the power in the system needs to use the one-point ground mode while the radio frequency signal requires the multiple-point ground. So, you can use the following figure to earth. For the direct current (DC), the capacitance is open circuit and the circuit is one-point ground. For the radio frequency signal, the capacitance is conducive and the circuit adopts multiple-point ground.



When connecting devices of huge size (the device physical dimension and connection cable is big comparing with the wave path of existed interference), then there are possibility of interference when the current goes through the chassis and cable. In this situation, the interference circuit path usually lies in the system ground circuit.

When considering the earthing, you need to think about two aspects: The first is the system compatibility, and the other is the external interference coupling into the earth circuit, which results in system error. For the external interference is not regular, it is not easy to resolve.

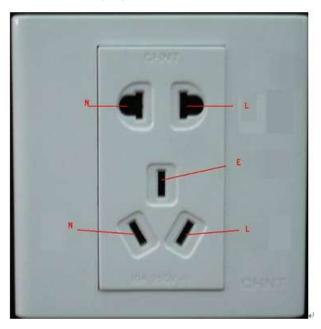
#### 3. Thunder proof ground method in the monitor system

- The monitor system shall have sound thunder proof earthing to guarantee personnel safety and device safety.
- The monitor system working ground resistance shall be less than  $1\Omega$ .

- The thunder proof ground shall adopt the special ground cable from the monitor control room to the ground object. The ground cable adopts copper insulation cable or wire and its ground section shall be more than 20mm2.
- The ground cable of the monitor system can not short circuit or mixed connected with the strong alternative current cable.
- For all the ground cables from the control room to the monitor system or ground cable of other monitor devices, please use the copper resistance soft cable and its section shall be more than 4mm2.
- The monitor system usually can adopt the one-point ground.
- Please connect the ground end of 3-pin socket in the monitor system to the ground port of the system (protection ground cable)

### 4. The shortcut way to check the electric system using the digital multimeter

For 220V AC socket, from the top to the bottom, E (ground cable), N (neutral cable), L(live cable). Please refer to the following figure.



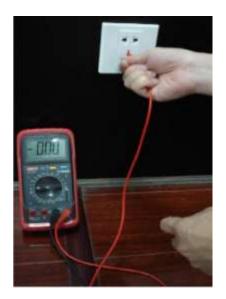
There is a shortcut way to check these thee cables connection are standard or not (not the accurate check).

### Importance

In the following operations, the multimeter range shall be at 750V!

#### For E (earth cable)

Turn the digital multimeter to 750V AC, use your one hand to hold the metal end, and then the other hand insert the pen to the E port of the socket. See the following figure. If the multimeter shows 0, then you can see current earth cable connection is standard. If the value is more than 10, then you can see there is inductive current and the earth cable connection is not proper.



#### For L (live cable)

Turn the digital multimeter to 750V AC, use your one hand to hold the metal end, and then the other hand insert the pen to the L port of the socket. See the following figure. If the multimeter shows 120, then you can see current live cable connection is standard. If the value is less than 60, then you can see current live cable connection is not proper or it is not the live cable at all.



#### For N (Neutral cable)

Turn the digital multimeter to 750V AC, use your one hand to hold the metal end, and then the other hand insert the pen to the N port of the socket. See the following figure. If the multimeter shows 0, then you can see current N cable connection is standard. If the value is more than 10, then you can see there is inductive current and the neutral cable connection is not proper. If the value is 120, then you can know misconnected the neutral cable to the live cable.



### Note

- This manual for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website or contact your local retailer for more information.

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