



ARD-1610

A series DVR



Key Features

- AHD/TVI/CVI 16ch, Up to 5MP Camera Input
- IP up to 5MP Input
- H.265, H.264, MJPEG
- 100Mbps IP camera recording
- 1RJ-45(WAN, 1Gbps)
- 2 SATA HDD(1 SATA up to 6TB)
- 4K HDMI Monitor output
- P2P service(QR code connect) support

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Specifications

Display

Analog camera	Inputs	16CH(1Vp-p 75ohm, BNC)
	Signal Type	AHD(5MP Half, 4MP Half, 1080p) HD TVI(5MP Half, 4MP Half, 1080p) HD CVI(5MP Half, 4MP Half, 1080p) CVBS(NTSC/PAL)
Network camera	Inputs	Additional 2CH (Up to 18CH)
	Resolution	5MP ~ CIF
	Protocols	SUNAPI(Wisenet), ONVIF
Live	Local Display	1x HDMI, 1x VGA [Single Mode] - HDMI: 3840 x 2160, 2560x1440, 1920x1080, 1280x1024, 1280x720 [Dual Mode] Clone - HDMI: 1920x1080, 1280x1024, 1280x720 - VGA: 1920x1080, 1280x1024, 1280x720
	Multi Screen Display	[Local monitor] - Dynamic layout, Virtual channel view - up to 20 division [Web] 1 / 2 / 3 / 4 / 6 / 1+5 / 1+7 / 9
	Resolution	[Analog Camera(NTSC/PAL)] 5MP(Half), 4MP(Half), 2MP [Network Camera] - Typ. 2MP(240fps)

Performance

Operating System	Embedded	Linux
Record	Compression	H.265, H.264, MJPEG
	Record Rate(Analog)	[Analog Camera(NTSC/PAL)] 5MP(5M Half 12fps/12fps) 4MP(4M Half 15fps/12fps) 2MP(2M 15fps/12fps) * Half : Horizontal resolution 1/2 * Resolution higher than 2MP will only record half of the resolution, 4MP will only record 2MP, and 5MP will only record 2.5M
	Recording Bandwidth	Max. 100Mbps
	Resolution	5MP ~ CIF
	Mode	Manual, Schedule (Continuous/Event), Event(Pre/Post), Dual Track
	Event Trigger	Alarm Input Analog Camera : Video Loss, Motion Detection, Tampering, Network Camera : Camera Event (Sensor, MD, Video analytics), VA event (Tampering, Enter / Exit, Passing, Virtual- line, (Dis)Appear, Face Detection, Audio detection), Defocus camera event, Dynamic camera event
	Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown

Performance

Search & Play	User	Max. 4 Users (Local 1, Remote 3)
	Simultaneous playback	18CH(Local Monitor),18Ch (CMS), 4Ch (Wisenet Mobile), 1Ch(Web)
	Fisheye Dewarping	WEB/CMS
	Mode	Date & Time (Calendar) / Event log list / Text search (POS), Back up, Motion, Smart search (Virtual Line w/ direction, Enter / Exit) * All Search Included Preview Function ARB search
	Resolution	5MP ~ CIF
	Playback Control	Fast Forward/Backward (x2,x4,x8,x16,x32,x64, x128, x256) Slow Forward/Backward (x1/2,x1/4,x1/8) * Move one step up/down
Storage	Supported HDD	Up to 6TB
	HDD Slot	SATA 2ea(Max 12TB)
Backup	File backup	BU, EXE(Include Player), AVI
	Function	Max. 18 CH play, Date-time/title display

Function

Camera Setup	Register	Auto, Manual
PTZ	Control	Via GUI, Webviewer, SSM, Wisenet Viewer, Wisenet Mobile Viewer, System Controller
	Preset	300 presets
Smart phone	Support Model	iOS, Android
	Protocol Support	RTP, RTSP, HTTP, CGI(SUNAPI)
	Control	Live(16ch): Multi-Profile Support Playback(4Ch Multi Playback, Max 2MP) Event push
	Max, Remote Users	Search(3), Live Unicast(10)
Redundancy	ARB	Support
Easy configuration		Install wizard support
Coaxial Control		CVBS(Pelco-C)/AHD/CVI/TVI

Interface

Front	Indicator	LED(Status indicator) : Power(1), Record(1), Network(1), HDD(1), Backup(1), Alarm(1)
Reset		Switch(1EA)
HDMI		1 EA
VGA		1 EA
BNC		16CH In / 1CH Out(Spot Output)
Audio		Out(1EA, RCA, Line)
Ethernet		RJ-45(10/100/1000BASE-T)
Alarm		In 4EA, Out 1EA - Relay Out1(NO/NC/COM)
USB		3EA(Front/Rear USB2.0)
Serial(Protocols)		RS-485 (Samsung-T/Pelco-D/Pelco-p) * for PTZ
Power inlet		1EA DC Input Jack

System

Log	Log List	Max. 100,000 (System Log, Event Log each)
System Control		Mouse, Webviewer, System Controller(SPC-7000, SPC-6000, SPC-2000)
Language		English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai, Vietnamese

Environmental

Operating Temperature	0°C to +40°C(+32°F to +104°F)
Operating Humidity	20% ~ 85% RH
Certification	UL, CE, FCC, KC

Electrical

Power Input	DC12V
Power Consumption	Max. 40.8W (6TB HDD 2ea)

Mechanical

Color / Material	Black / Metal
Dimension	370.0 x 44.0 x 320.0 mm (14.57 x 1.73 x 12.6 inch)
Weight	Approx. 2.4Kg (5.3 lb, without HDD)

Network

Protocol		TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, Client)
DDNS		Hanwha DDNS
Transmission Bandwidth		Max. 100Mbps
Audio	Input/Output	4 Lline in / 1 Line out
	Compression	G.711 (N/W Camera G.711, 726)
	Audio Communication	2-Way
Max Remote Users		Search(3), Live Unicast(10), Multicast(20)
Security		IP address filtering, User access log, 802.1x Authentication, Encryption (ID/PW, Recording, Transmission, Backup) Device Certificate(Hanwha Vision Root CA)
Web viewer	Supported OS	Windows 10, Mac OS 11 Big Sur and later
	Supported browser	Chrome, Edge , Safari
Viewer Software		SSM, Webviewer, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS