

XVI ENHANCED CVI

MegaPixel over UTP/Coax



Kit Contains:
1 – PNT-1680AILR3
8 – XVI-50IRBTR3
1 – USB Mouse



- 16 Ch Penta-Brid DVR with 2TB HDD plus X8 5MP IR Turret Camera
- HD Quality with Easy BNC Analog style Plug and Play
- Transmission over Twisted Pair (with Balun) or Coaxial Cable
- Free DDNS, VMS Software, User-Friendly GUI and Web Server
- 8 x 5MP 2.8mm Cameras with BNC Connector, Smart IR, OSD, IP67 & DC12V

4K

DVR Features:

- 16 CH Mini 1U Embedded LINUX processor
- H.265+/H.265 dual-stream video compression
- Supports Full-channel AI-Coding
- Supports HDCVI/AHD/TVI/CVBS/IP video inputs
- Max 32 channels IP camera inputs, each channel up to 8MP; Max 128 Mbps incoming bandwidth
- Up to 2 channels video stream (analog channel) Fenced Area Protection
- Up to 16 channels video stream (analog channel) Motion Detection
- Up to 2 channel video stream (analog channel) Human Face Recognition
- IoT & POS functionalities

AI Functions:

(Only supported on BNC Inputs 2.1MP or Higher)

- Fenced Area Protection
- Face Detection
- AI Motion



Camera Features:

- 5MP IR Turret Camera
- 1/2.7" 5MP CMOS image sensor
- Max 25 fps@5MP (16:9 video output)
- XVI/CVI/CVBS/AHD/TVI switchable
- Max. IR LEDs length 60m/196.9ft, Smart IR
- D-WDR, BLC, HLC, Day/Night
- 2.8mm fixed lens
- IP67, 12V ±30% DC
- -40°C ~ +60°C (-40°F ~ +140°F)
- CVI Compatible Camera



FREE Multisite VMS software
Download from www.watchnetinc.com

DVR Specifications:

Model	PNT-1680AILR2	
System	Main Processor	Embedded Processor
	Operating System	Embedded LINUX
	Operating Interface	Web; Local GUI
Fenced Area Protection	Fenced Area Performance AI by Recorder (Number of channels)	2 channels, 10 IVS rules for each channel
Face Detection	Face Attributes	Gender; age group; glasses; expressions; face mask; beard
	Face Detection Performance of AI by Recorder (Number of Channels)	2 channels, and a single channel can detect up to 12 faces
Face Recognition	Face Database Capacity	Up to 10 face databases with 20,000 face images in total. Name, gender, birthday, address, certificate type, certificate No., countries & regions and state can be added to each face picture
	Face Recognition Performance of AI by Recorder (Number of Channels)	2 channels
Motion Detection	Motion Detection by Recorder	16 channels: Secondary filtering for human and motor vehicle motion detection, reducing false alarms caused by leaves, rain and lighting condition change, secondary filtering for human and motor vehicle motion detection, reducing false alarms caused by leaves, rain and lighting condition changes
Audio and Video	Analog Camera Input	16 BNC ports, CVI access by default, supports HDCVI/AHD/TVI/CVBS auto-detect
	Camera Input	1. CVI: 4K, 6 MP, 5 MP, 4 MP, 1080P@25/30 fps, 720P@50/60 fps, 720P@25/30 fps. 2. TVI: 4K, 5 MP, 4 MP, 3 MP, 1080P@25/30 fps, 720P@25/30 fps. 3. AHD: 4K, 5 MP, 4 MP, 3 MP, 1080P@25/30 fps, 720P@25/30 fps.
	IP Camera Input	Up to 32 channels of IPC access 16 IP CH by default + 16 CH (analog channels are converted to IP channels) incoming bandwidth: 128 Mbps, recording bandwidth: 128 Mbps and outgoing bandwidth: 128 Mbps *After IP channels are added beyond the existing channels, the AI Function (IVS, SMD, FACE) will be disabled.
	Encoding Capacity	Main stream: All channel 4K@(1-7 fps); 6MP@ (1-10 fps); 5MP@ (1-12 fps); 4K-N/4 MP/3 MP@ (1-15 fps); 4M-N/1080P/720P/960H/D1/CIF (1fps-25/30fps); Sub stream: 960H@ (1 fps-15 fps); D1/CIF@ (1 fps-25/30 fps)
	Dual-stream	Yes
	Video Frame Rate	PAL: 1 fps-25 fps. / NTSC: 1 fps-30 fps
	Video Bit Rate	32 Kbps-6144 Kbps Per Channel
	Audio Sampling	8 KHz, 16 bit Per Channel
	Audio Bit Rate	64 Kbps Per Channel
	Video Output	1 HDMI ,1 VGA HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 *Simultaneous/heterogeneous video sources output for VGA and HDMI is configurable.
	Multi-screen Display	When IP extension mode not enabled: 1/4/8/9/16 When IP extension mode enabled: 1/4/8/9/16/25/36
Compression Standard	Video Compression	AI Coding/H.265+/H.265/H.264+/H.264
	Audio Compression	G.711A/G.711u/PCM
Network	Network Protocol	HTTP; HTTPS; TCP / IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P
	Mobile Phone Access	iPhone, Android
	Interoperability	ONVIF 21.06, CGI
	Browser	Chrome, IE9 or above, Firefox
	Network Mode	Single-address mode
Recording Playback	Record Mode	General, motion detection; intelligent; alarm; POS
	Recording Playback	When the AI Function (IVS, FACE) is not enabled:1/4/9/16 When the AI Function (IVS, FACE) is enabled:1/4/9
	Backup Method	USB Device/Network
	Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)
Alarm	General Alarm	Motion detection, video loss, tampering, and local alarm
	Anomaly Alarm	No disk, disk error, low space, offline, ip conflict, MAC conflict
	Intelligent Alarm	Face Detection, face recognition, fenced area protection
	Alarm Linkage	Record, snapshot (panoramic), IPC external alarm output, access controller, voice prompt, buzzer, log, preset, email
Ports	Audio Input	1-channel RCA (external) 16-channel BNC (coaxial audio)
	Audio Output	1CH, RCA
	Two-way Talk	Yes (share the same audio input with the first channel)
	HDD Interface	1 SATA port, up to 16 TB, the maximum HDD capacity varies with environment temperature
	RS-485	1
	USB	2 USB Ports (1 USB 2.0, 1 USB 3.0)
	HDMI	1
General	VGA	1
	Network Port	1 (10/100/1000 Mbps Ethernet port, RJ-45)
	Power Supply	DC12V, 3A
	Power Consumption	Lower than 15W
	Net Weight	1.23 kg (2.71 lb)
	Gross Weight	2.11 kg (4.65 lb)
	Product Dimensions (W × D × H)	Mini 1U, 325.0mm × 256.6mm × 55.0mm 12.80" × 10.10" × 2.17"
	Packaging Dimensions	372.0mm × 117.0mm × 308.0mm (L × W × H) 14.65" × 4.61" × 12.13" (L × W × H)
	Installation	Desktop installation
	Operating Conditions	-10°C ~ +55°C (+14°F ~ +131°F)
	Operating Humidity	10%-90%

Camera Specifications:

Model	XVI-50IRBTR2
Camera	
Image Sensor	1/2.7" 5MP CMOS Image Sensor
Effective Pixels	2880 (H) × 1620 (V), 5MP
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25s–1/100000s / NTSC: 1/30s–1/100000s
Minimum Illumination	0.01 Lux/F1.6, 30IRE, 0 Lux IR on
S/N Ratio	More than 65dB
Max IR Distance	60m (196.9ft)
IR On/Off Control	Auto / Manual
IR LEDs	2
Lens	
Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8mm fixed
Max Aperture	F1.6
Field of View	132° × 111° × 58° (diagonal × horizontal × vertical)
Iris Type	Fixed iris
Close Focus Distance	0.9m (3.0ft)
Video	
Resolution	5M (2880 × 1620); 4M (2560 × 1440); 1080P (1920 × 1080); 960 H (960 × 576/960 × 480)
Frame Rate	<p>CVI: PAL: 5M@25 fps; 4M@25 fps; 1080P@25 fps; NTSC: 5M@25 fps; 4M@30 fps; 1080P@30 fps</p> <p>AHD: PAL: 4M@25 fps; NTSC: 4M@30 fps</p> <p>TVI: PAL: 4M@25 fps; NTSC: 4M@30 fps</p> <p>CVBS: PAL: 960H; NTSC: 960H</p>
Day/Night	Auto switch by ICR
BLC/HLC/WDR	BLC/HLC/D-WDR
White Balance	Auto; manual
Gain Control	Auto; manual
Noise Reduction	2D NR
Smart IR	Yes
Mirror	Off/On
Privacy Masking	Off/On (8 area, rectangle)

Port	
Audio Interface	One channel built-in mic
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Electrical	
Power Supply	12V ±30% DC
Power Consumption	Max 5.2W (12V DC, IR on)
Environmental	
Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / <95% (non-condensation)
Storage Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / <95% (non-condensation)
Ingress Protection	IP67
Construction	
Casing	Metal
Dimensions	φ121.9mm × 99.1mm (φ4.8" × 3.9")
Net Weight	0.4kg (0.88lb)
Gross Weight	0.6kg (1.32lb)

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