



# 4K



PNT-0480AILR2

### 4 Channel Penta-Brid 8MP Mini 1U AI Digital Video Recorder



#### Features:

- 4 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 8 channels IP camera inputs, each channel up to 8MP; Max 64 Mbps incoming bandwidth
- Up to 1 channel video stream (analog channel) Fenced Area Protection
- Up to 4 channels video stream (analog channel) Motion Detection
- Up to 1 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:

- 1 channel, 10 IVS for each channel
- Human/Vehicle secondary recognition for line crossing and intrusion
- AI Search by target classification (Human, Vehicle)

##### Face Detection:

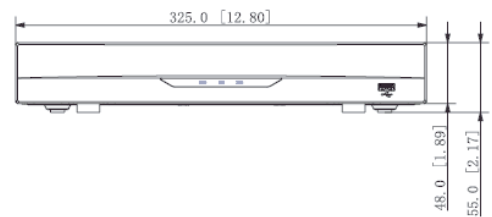
- Max 8 face pictures/sec processing
- 1 channel video stream face recognition, only support analog camera
- Detect strangers' faces (not in device's face database)  
Similarity threshold can be set manually
- Up to 8 target face images search at same time, similarity threshold can be set for each target face image
- 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
- Buzzer, Voice Prompts, Email, Snapshot, Recording, Alarm Out, PTZ Activation, etc.

##### AI Motion:

- Performance - 4 channels
- AI Search by target classification (Human, Vehicle)



FREE Multisite VMS software  
Download from [www.watchnetinc.com](http://www.watchnetinc.com)

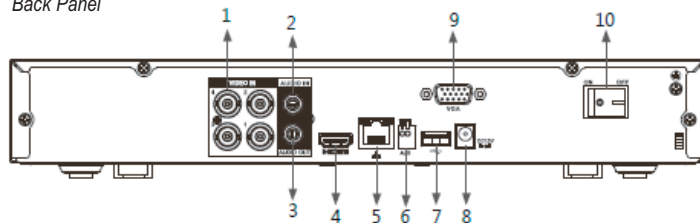


Model	PNT-0480AILR2	
System	Main Processor	Embedded Processor
	Operating System	Embedded LINUX
Fenced Area Protection	Performance	1 channels, 10 IVS for each channel
	Object classification	Human/Vehicle secondary recognition for line crossing and intrusion
	AI Search	Search by target classification (Human, Vehicle)
Face Recognition	Performance	Max 8 face pictures/sec processing 1 channels video stream face recognition on BNC Inputs Only 2.1MP or higher
	Stranger Mode	Detect strangers' faces (not in device's face database). Similarity threshold can be set manually.
	AI Search	Up to 8 target face images search at same time, similarity threshold can be set for each target face image
	Database Management	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
	Database Application	Each database can be applied to video channels independently
	Trigger Events	Buzzer, Voice Prompts, Email, Snapshot, Recording, Alarm Out, PTZ Activation, etc.
	AI Motion	Performance
Video and Audio	AI Search	Search by target classification (Human, Vehicle)
	Analog Camera Input	4 channels, BNC
	HDCVI Camera Input	4K, 6MP, 5MP, 4MP, 1080p@ 25/30 fps, 720p@ 50/60 fps, 720p@ 25/30 fps
	AHD Camera Input	4K, 5MP, 4MP, 3MP, 1080p@ 25/30 fps, 720p@ 25/30 fps
	TVI Camera Input	4K, 5MP, 4MP, 3MP, 1080p@ 25/30 fps, 720p@ 25/30 fps
	CVBS Camera Input	PAL/NTSC
	IP Camera Input	4+4 channels, each channel up to 8MP
	Audio In/Out	1/1, RCA
	Two-way Talk	Reuse audio in/out, RCA
Recording	Compression	AI Coding/H.265+/H.265/H.264+/H.264
	Resolution	4K; 6MP; 5MP; 4MP; 3MP; 4M-N; 1080p; 720p; 960H; D1; CIF
	Record Rate	<b>Main stream:</b> All channel 4K (1 fps-7 fps); 6MP (1 fps-10 fps); 5MP (1 fps-12 fps); 4MP/3MP (1 fps-15 fps); 4M-N/1080p/720p/960H/D1/CIF (1 fps-25/30 fps); <b>Sub stream:</b> 960H (1 fps-15 fps); D1/CIF (1 fps-25/30 fps)
	Bit Rate	32 Kbps-6144 Kbps Per Channel
	Record Mode	Manual, Schedule (General, Continuous), MD (Video detection: Motion Detection, Video Loss, Tampering), Alarm, Stop
	Record Interval	1 - 60 min (default: 60 min), Pre-record: 1 s-30 s, Post-record: 10 s-300 s
	Audio Compression	G.711A; G.711U; PCM
	Audio Sample Rate	8 KHz, 16 bit Per Channel
	Audio Bit Rate	64 Kbps Per Channel

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Display	Interface	1 HDMI, 1 VGA
	Resolution	<b>HDMI:</b> 3840×2160, 1920×1080, 1280×1024, 1280×720 <b>VGA:</b> 1920×1080, 1280×1024, 1280×720
	Multi-screen Display	When IP extension mode not enabled: 1/4 When IP extension mode enabled: 1/4/8/9
	OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording
Network	Interface	1 RJ-45 Port (100 MB)
	Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, Wi-Fi, 3G/4G, SNMP, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, P2P, IP Search (Supports WatchNET IP camera, DVR, NVS, etc.)
	Max. User Access	128 users
	Smart Phone	iPhone, iPad, Android
	Interoperability	ONVIF 16.12, CGI Conformant
Video Detection and Alarm	Trigger Events	Recording, PTZ, Tour, Video Push, Email, FTP, Snapshot, Buzzer and Screen Tips
	Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering and Diagnosis
	Alarm input	N/A
	Relay Output	N/A
Playback and Backup	Playback	1/4
	Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)
	Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom
	Backup Mode	USB Device/Network
	Storage	Internal HDD
Auxiliary Interface	eSATA	N/A
	USB	2 USB Ports (USB 2.0)
	RS485	1 Port, for PTZ Control
Electrical	RS232	N/A
	Power Supply	DC 12V/2A
	Power Consumption	<7W (Without HDD)
Construction	Dimensions	Mini 1U, 325 mm × 256.6 mm × 55 mm (12.80" × 10.10" × 2.17")
	Net Weight	1.3 kg (2.87 lb)
	Gross Weight	1.76 kg (3.88 lb)
	Installation	Desktop installation
Environmental	Operating Conditions	-10°C ~ +55°C (+14°F ~ +131°F), 0~90% RH
	Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F), 0~90% RH

Back Panel



- 1 VIDEO IN
- 2 AUDIO IN, RCA Connector
- 3 AUDIO OUT, RCA Connector
- 4 HDMI Interface
- 5 Network Interface
- 6 RS485 Interface
- 7 USB Interface
- 8 DC 12V Power Input
- 9 VGA Interface
- 10 Power Switch

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