

# 4K



8x MPIX-50IRBFT-IR28AI Cameras

Kit Contains:

- 1 – ENMR3-16POE
- 8 – MPIX-50IRBFT-IR28AI
- 1 – USB Mouse

ENMR3-16POE

## Easy auto enroll / plug & play with built-in POE

- Includes everything you need – Just add Ethernet
- 16 Ch Embedded NVR with 2TB HDD plus 8x 5.0MP Turret Camera
- Plug and Play Setup with Camera Auto Enroll Feature
- Free DDNS, VMS Software, User-Friendly GUI and Web Server



### NVR Features:

16 CH with 16 PoE Ports built-in NVR

- Embedded LINUX OS
- Industrial-grade embedded processor
- New 4.0 user interface, Security baseline 2.1
- H.264, H.265, Smart H.264+, and Smart H.265+. H.265 auto switch
- Max. decoding capability: 8 × 1080p@30 fps.
- Supports adaptive decoding
- Supports mainstream cameras of ONVIF and RTSP protocols
- P2P remote surveillance, video play on mobile device
- VGA/HDMI simultaneous video output, maximum resolution of HDMI is 4K
- **AI by Camera:** Face detection, fenced area protection, IVS, people counting, heat map, and motion detection

\* (AI Features only supported when using AI Cameras)



### Camera Features:

5MP, 1/2.7" CMOS image sensor, low illuminance

- 2.8 mm fixed lens
- Outputs max. 5MP (2592 × 1944)@20 fps
- Built-in IR LED, max. IR distance: 50m/164ft
- WDR(120dB)
- Micro SD Card (Support max. 256GB), IP67
- 12V DC/PoE (802.3af)
- -40°C ~ +60°C (-40°F ~ +140°F)

### AI Functions:

- Fenced Area protection
- AI Motion Detection
- Line Crossing (Person & Vehicle Classification)



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



ENMR3-16POE Technical Specifications	
<b>System</b>	
Main Processor	Industrial-grade embedded processor
OS	Embedded Linux
Operation Interface	Web/operating in local GUI
<b>Fenced Area Protection by Camera</b>	
Performance	8 channels
AI Search	Search for pictures by channel, time and event type
<b>Face Detection by Camera</b>	
Performance	4 channels
Face Attributes	6 attributes: Gender, age, glasses, expression, mouth mask, and beard
AI Search	Search for pictures by channel, time and face attributes
<b>Motion Detection by Camera</b>	
Performance	12 channels
AI Search	Search by target classification (human, vehicle)
<b>Video</b>	
Access Channel	16
Network Bandwidth	Access: 160 Mbps; Storage: 160 Mbps; Forward: 64 Mbps
Resolution	8MP; 6MP; 5MP; 4MP; 3MP; 1080p; 720p; D1
Decoding Capability	8 × 1080p@30 fps
Video Output	1 × VGA output, 1 × HDMI output, supports simultaneous video sources output for VGA & HDMI
Multi-screen Display	1, 4, 8, 9, 16 views
Third-party Camera Access	ONVIF; RTSP
<b>Compression</b>	
Video	Smart H.265/H.265/Smart H.264/H.264/MJPEG
Audio	PCM/G711A/G711U/G726/AAC
<b>Network</b>	
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search (Support WatchNET IP camera; DVR; NVS; etc.); P2P; auto register
Mobile Phone Access	Android; iOS
Interoperability	ONVIF(profile T/S/G); CGI; SDK
Browser	Chrome; IE9 or later; Firefox
<b>Record Playback</b>	
Multi-channel Playback	Up to 16 channels for playback
Record Mode	Manual record; alarm recording; Motion Detection recording; smart recording
Storage	Local HDD; network
Backup	USB storage device
Playback Function	1. Play/pause/stop/slow/quick/backward/by frame 2. Full screen, backup (video clip/file), partial zoom in, and audio on/off

<b>Storage</b>	
Disk Group	Yes
<b>Alarm</b>	
General Alarm	Motion detection, privacy masking, video loss, scene changing, PIR alarm, IPC external alarm
Anomaly Alarm	Camera disconnection, storage error, disk full, IP conflict, MAC conflict, login locked, and cyber security exception
Intelligent Alarm	Face detection, fenced area protection (intrusion and line crossing), IVS, people counting, heat map, and motion detection alarms
Alarm Linkage	Recording, snapshot, audio, buzzer, log, preset, and email
<b>External Port</b>	
Audio Input	1 × RCA input
Audio Output	1 × RCA output
HDD	2 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature
Alarm Input	4
Alarm Output	2
USB	2 (1 × front USB2.0; 1 × back USB2.0)
HDMI	1 (supports up to 4K resolution output)
VGA	1
Network	1 × RJ-45, 10/100/1000 Mbps self-adaptive Ethernet port
POE	16
<b>General Parameter</b>	
Power Supply	100 V–240 V, 47 Hz–63 HZ, 3.5 A
Power Consumption	< 10 W (HDD not included, idling) Total output power of PoE is 117W, the maximum output power of a single port is 25.5W
Net Weight	2.63kg (5.80lb)
Gross Weight	3.91kg (8.62lb)
Product Dimensions	375mm × 327.4mm × 53.8mm (14.76" × 12.89" × 2.12") (W × L × H)
Package Dimensions	170mm × 449mm × 421mm (6.69" × 17.68" × 16.57") (W × L × H)
Operating Conditions	–10°C to +55°C (+10°F to +131°F)
Storage Conditions	0°C to +40°C (32°F to 104°F)
Operating Humidity	10c/o ~ 93c/o
Storage Humidity	30% ~ 85%
Operating Altitude	3000m (9842.52ft)
Installation	Desktop mounted
Certification	CE, FCC

Model	MPIX-50IRBFT-IR28AI
<b>Camera</b>	
Image Sensor	1/2.7" 5Megapixel progressive CMOS
Effective Pixels	2592 (H) × 1944 (V)
RAM/ROM	128 MB / 512MB
Min. Illumination	0.005 Lux@F1.6
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
IR Distance	50m (164ft)
IR On/Off Control	Auto/Manual
IR LEDs Number	2 (IR LEDs)
<b>Lens</b>	
Max Aperture	F1.6
Focal Length	Fixed 2.8mm lens
Optical Zoom	N/A
Mount Type	M12
Angle of View	Horizontal: 98°; vertical: 72°; diagonal: 130°
Close Focus Distance	0.9m/3ft
Aperture Type	Fixed
<b>Video</b>	
Compression	H.265; H.264; H.264H; H.264B; MJPEG
Smart Codec	Yes
Resolution	5M (2592 × 1944); 4M (2688 × 1520); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	<b>Main Stream:</b> (2592 × 1944@1–20 fps) (2688 × 1520@1–25/30 fps) <b>Sub Stream:</b> (704 × 576@1–25 fps/ 704 × 480@1–30 fps) <b>Third Stream:</b> 1280 × 720@1–25/30 fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Digital Zoom	N/A
Flip	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution)
Mirror	Yes
Privacy Masking	Off / On (4 Area, Rectangle)

Professional Intelligence	
Fenced Area Protection	Line Crossing, Intrusion (Human & Vehicle classification)
Intelligent Search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos
<b>Audio</b>	
Audio Compression	G.711a; G.711Mu; G726; AAC
<b>Network</b>	
Ethernet	RJ-45 (10/100 Base-T)
Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP;RTP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP; Multicast;IGMP;IGMP;NFS;PPPoE;802.1x;SNMP
Interoperability	ONVIF(Profile S/Profile G/Profile T); P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 64M)
Scene Self-adaptation	Yes
Max. User / Host	20 Users (Total bandwidth: 64 M)
Edge Storage	FTP; SFTP; Micro SD Card (support max. 256GB); WatchNET Cloud; NAS
<b>Electrical</b>	
Power supply	12V DC/PoE (802.3af)
Power Consumption	<8.1W
<b>Environmental</b>	
Operating Conditions	-40°C ~ +60°C (-40°F ~ +140°F) / less than≤95%
Storage Conditions	-40°C ~ +60°C (-40°F ~ +140°F)
Ingress protection	IP67
<b>Construction</b>	
Casing	Metal
Dimensions	99.1 mm × Φ121.9 mm (3.9" × Φ4.8")
Net Weight	480 g (1.05 lb)
Gross Weight	660 g (1.45 lb)

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