

IPMX-E40F-IRW1-AI

4MP Starlight AI Eyeball Network Camera



- 1/1.8" 4 Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30fps@4M (2688x1520)
- IVS, Intelligent Motion Detect, Perimeter Protection, Face Detect and People Counting
- WDR (140 dB), Day/Night (Electronic), 3D DNR, AWB, AGC, BLC
- 2.8mm fixed lens, Built-In Microphone
- Colored Starlight (ISniper+) support, Max IR Length 131ft
- IP67, PoE

System Overview

The IPMX-E40F-IRW1-AI is the newest camera in the Max line which features deep-learning Artificial Intelligence algorithms to significantly improve accuracy and help eliminate false positives (Intelligent motion Detect and Perimeter Protection). This camera pairs with our AI enhanced NVRs and HDVRs to enable real-time facial recognition and Advanced People counting.

This eyeball dome style camera also features enhanced imaging and low light support due to advanced 140dB WDR and Colored Starlight (ISniper+) support. It is also equipped with Smart IR technology with 131ft max distance at night as well as a built-in microphone for audio and 256GB Micro SD support.

Functions

Perimeter Protection

IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

Starlight Technology

Featuring Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (0.002 lux).

Advanced Intelligence (People Counting)

In addition to the basic IVS functions, such as Tripwires and Intrusion Zones, this camera also supports more advanced IVS solutions. People Counting provide essential analytic data for a variety of business applications by keeping track of key census statistics.

Smart (H.265+ & H.264+)

Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265

Protection (IP67, wide voltage)

The camera allows for $\pm 30\%$ input voltage tolerance, The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 rating, making it suitable for indoor or outdoor environments. It also features $\pm 30\%$ input voltage tolerance, allowing it to operate under unstable power supply conditions. Its 4KV lightning rating provides protection from the effects of a lightning strike.

iMD (Intelligent Motion Detect)

This is an upgraded version of motion detection currently known as Intelligent Motion Detection (iMD). The upgraded Plus version greatly improves alarm accuracy by pre-loading a deep learning algorithm that recognizes people and vehicles. Motion detection alerts containing a human and/or vehicle intrusion event are now possible with up to 95% accuracy. Eliminate false alarms, save time and keep stress levels low knowing you're protected.

Technical Specification

Camera

Image Sensor	1/1.8" 4 Megapixel progressive scan CMOS
Effective Pixels	2688(H) x1520(V)
RAM/ROM	512 MB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3 s–1/100000 s
Minimum Illumination	0.002 Lux@F1.6
IR Distance	Distance up to 40 m (131.2 ft)
IR On/Off Control	Auto / Manual
IR LEDs	2

Lens

Lens Type	Fixed-focal				
Mount Type	Board-in				
Focal Length	2.8mm				
Max. Aperture	F1.6				
Angle of View	H: 113°, V: 60°				
Close Focus Distance	1.3 m (4.27 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	192 ft	75 ft	39 ft	20 ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–360°; Tilt: 0°–78°; Rotation: 0°–360°
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Smart Event

Perimeter Protection	Tripwire, Intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking detection and people gathering
Intelligent Motion Detect (iMD)	Motion detection alarm for human and vehicle. Filters misinformation such as leaves and light.
Face Detection Support	Supports face image capture
People Counting Support	Supports Line crossing/Region/Queueing people counting; Supports 4 accesses independent detection, 4 areas independent detection
IVS	Object Abandoned/Missing, Heat Map

Video

Compression	H.265,H.264,H.264B,H.264H,MJPEG (sub stream)
Streaming Capability	3 Streams
Resolution	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	Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps) 1920 × 1080 (1 fps–50/60 fps) Sub Stream: D1(1–30/60fps) Third Stream: 1080P (1 fps–16 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 Kbps–8192 Kbps H.265: 19 Kbps–8192 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(140dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual

Gain Control	Auto / Manual
Noise Reduction	3D DNR
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a, G.711Mu, G.726, AAC, G.723
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP;Multicast;CMP;IGMP;NFS;PPPoE;802.1x;SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T), CGI., P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 Users
Edge Storage	NAS; FTP; SFTP Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Interface

Video Interface	N/A
Audio Interface	Built-In Microphone
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC 12V (±30%), PoE (802.3af) (Class 0)
Power Consumption	<7.2W

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F)
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	106 mm × 99.2 mm (4.17" × 3.91")
Net Weight	0.55 kg (1.21 lb)
Gross Weight	0.71 kg (1.57 lb)

Accessories

Dimensions (mm/in)

