IPMX-E40F-W1-LED
4MP Full-Color LED AI Eyeball Network Camera

IC REALTIME

- 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- 4MP (2688 × 1520) @ 30 fps
- IVS, Intelligent Motion Detect, Perimeter Protection
- 2.8mm fixed lens, Built-In Microphone
- Warm light LEDs, up to 98ft of full color Illumination
- 256GB Micro SD memory, 120dB WDR, IP67, PoE

System Overview

The IPMX-E40F-W1-LED is the newest camera in the Max line which features enhanced imaging and low light imaging due to 120dB WDR and Starlight support. The camera is equipped with a 2.8mm lens on top of an 1/2.7" low illuminance, high image definition I-Sniper+ CMOS image sensor paired with warm light LED technology, reaching more than 98ft max distance at night. This combination provides a crisp, vibrant, full color image under the most demanding lighting conditions.

The camera also comes with AI features such as Intelligent Motion Detect (iMD) and Perimeter Protection technology, which filters moving objects as vehicle or person on motion detect or when setting up virtual tripwire and intrusion zones. This helps reduce false alarms and streamline the playback search functionality when used with IC Realtime AI NVRs.

Functions

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

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 (0.003 lux).

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.

Full Color at Night
Utilizing a high-performance sensor and large aperture lens, IC Realtime's Full-color LED technology can display clear colorful image in the environment of ultra low illuminance. With this photosensitivity technology, the camera can capture more available light, and display more colorful image details.

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.

Protection
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.

IC REALTIME

Technical Specification

Camera

Image Sensor	1/2.7" 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	0.003 Lux@F1.0
Illumination Distance	98.4 ft (30 m)
Illumination Control	Auto / Manual
Full color LEDs	2

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8mm
Max. Aperture	F1.0
Angle of View	Horizontal:103°; Vertical: 53°
Close Focus Distance	3.9 ft (1.2 m)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	183 ft	73 ft	36 ft	18 ft

Pan/Tilt/Rotation

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

Smart Event

IVS	Tripwire, Intrusion
Perimeter Protection	Supports human/ vehicle recognition for tripwire and intrusion
Intelligent Motion Detect (iMD)	Supports human/ vehicle recognition Filters misinformation such as leaves and light.
Intelligent Search	Works with supported IC Realtime AI recorders with Intelligent search

Video

Compression	H.265,H.264,H.264B,H.264H, MJPEG (sub stream)
Smart Codec	Smart H.265+/ Smart H.264+
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(1–25/30 fps)
	Sub Stream: 704 × 480 (1-30 fps)
	Third Stream: 720P(1~25/30fps)
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(120dB)
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° (Supports 90°/270° with 1080p resolution and lower.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a; G.711Mu; G726

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; SNMP
Interoperability	ONVIF(Profile S/Profile G/Profile T);CGI;P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 64M)
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	FCC Part 15, Subpart B

Interface

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

Electrical

Power Supply	12V DC/PoE
Power Consumption	<8.5W

Environmental

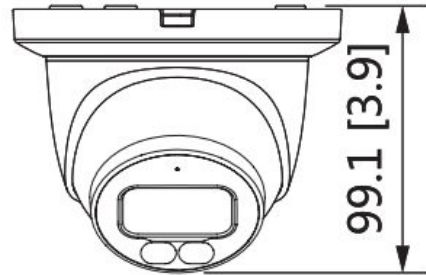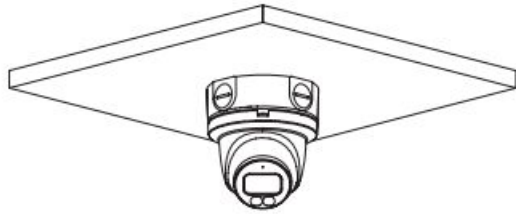|	
Operating Conditions	-40°F to +140°F (-40°C to +60°C)/ less than 95%
Storage Conditions	-40°F to +140°F (-40°C to +60°C)
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	3.9" × 4.8" (99.1 mm × 121.9 mm)
Net Weight	1.05 lb (480 g)
Gross Weight	1.45 lb (660 g)

| Accessories | Dimensions (mm/in) |

MNT-JUNCTIONBOX-1

99.1 [3.9]

MNT-IPMINIDOME-WALL

83.3 [3.28]

4-4.5 × 5.5

⌀84.0 [⌀3.31]

⌀121.9 [⌀4.8]

3-120°