

# IPMX-E40F-W2-LED

4MP Full-Color LED AI Eyeball Network Camera



- 1/1.8" 4 Megapixel STARVIS™ CMOS
- Built-in mic and speaker for 2-way talk
- 30fps@4MP, H.265 Encoding
- iMD & Perimeter Protection
- i-Sniper+ Pro, 24/7 full color image
- Warm LED Illumination distance up to 98 feet
- IP67, 256GB mSD support, DC 12V or PoE

## System Overview

Experience the next generation 24/7 full color video with IC Realtime's IPMX-E40F-W2-LED! This Elite Eyeball camera is equipped with a high-performance sensor and large aperture lens enabling clear, colorful image in ultra low illuminance environments. The camera provides 30FPS@ 4MP (2688 × 1520) with H.265 support and features a 1/1.8" low illuminance, high image definition CMOS image sensor on top of a 2.8 fixed lens. Boasting up to 98 feet of full color illumination and 120dB WDR, the camera provides a colorful, vibrant image under the most demanding lighting conditions.

The camera also comes equipped with 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.

## 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 (0.0005 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.

## Technical Specification

### Camera

Image Sensor	1/1.8" CMOS
Effective Pixels	2688 (H) × 1520 (V)
RAM/ROM	256 MB / 128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Minimum Illumination	0.0005 lux@F1.0
S/N Ratio	> 56 dB
Illumination Distance	Distance up to 98 ft (30 m)
LED On/Off Control	Auto / Manual
Full color LEDs	2 (Warm White)

### Lens

Lens Type		Fixed-focal			
Mount Type		Module			
Focal Length		2.8 mm			
Max. Aperture		F1.0			
Iris Type		Auto			
Angle of View		Horizontal: 112°, Vertical: 60°			
Close Focus Distance		6.56 ft (2 m)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	189 ft	76 ft	38 ft	19 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°
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### Video

Compression	Smart H.265+; H.265; Smart H.264+; H.264B; H.264M; H.264H; MJPEG (Sub Stream)
Streaming Capability	2 Streams
Resolution	4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 2688 × 1520@ (1–20 fps)/ 2560 × 1440@ (1–25/30 fps) Sub stream1: 704 × 576@ (1–25 fps)/ 704 × 480@ (1–30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps–6144 kbps; H.265: 12 kbps–6144 kbps
Day/Night	Color/B/W
Backlight Compensation	BLC / HLC / DWDR
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto / Manual
Noise Reduction	2DNR/3DNR
Region of Interest	Yes (4 Zones)
Flip	0°/90°/180°/270° (Support 90°/270° with 4MP resolution and lower)

Mirror	Off / On
Privacy Masking	4 areas

### Audio

Microphone	Yes, built-in MIC
Compression	PCM; G.711a; G.711Mu; G.726; G.723

### 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; P2P
Interoperability	ONVIF(Profile S/ Profile G/ Profile T); CGI; P2P
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Streaming Method	Unicast / Multicast
Max. User Access	20 Users (Total bandwidth: 48 M)
Edge Storage	FTP; SFTP; Micro SD card (Max. 256 GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	IC Now, IC Now Pro
Smart Phone	iOS, Android

### Certifications

Certifications	FCC Part 15, Subpart B
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### Interface

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

### Electrical

Power Supply	12 VDC; PoE
Power Consumption	Basic: 2.0 W (12 VDC); 2.5 W (PoE) Max. (H.265+ intelligence on + WDR + illuminator intensity): 5.3 W (12 VDC); 6.4 W (PoE)

### 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

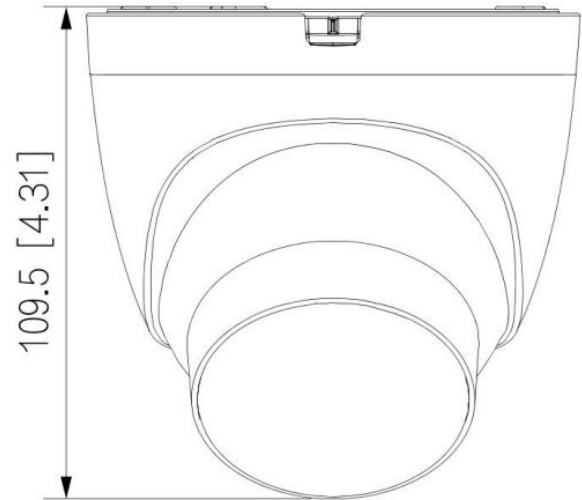
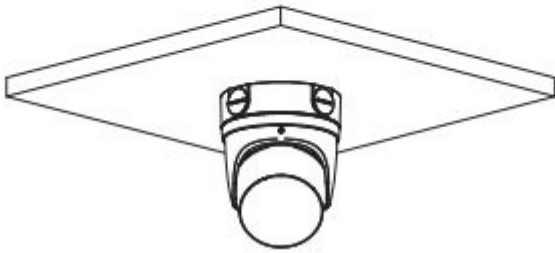
### Construction

Casing	Inner core: Metal; Cover: Plastic
Dimensions	4.31" × Ø4.33" (109.5mm × 109.9 mm)
Net Weight	0.93 lb (0.42 kg)
Gross Weight	1.30 lb (0.59 kg)

## Accessories

## Dimensions (mm/in)

## MNT-JUNCTIONBOX-1



## MNT-IPMINIDOME-WALL

