

IPEL-E80V-IRW2

8MP Starlight Eyeball Network Camera



- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- Outputs max. 8MP (3840 × 2160) @20 fps (AI function enabled by default) and supports 8MP (3840 × 2160) @25/30 fps when AI function is disabled
- Intelligent Motion Detect and Perimeter Protection
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC, Starlight, Max. IR LEDs Length 164 ft, Built-in Mic
- 256GB Micro SD memory, IP67, PoE, ePOE support

System Overview

IC Realttime's IPEL-E80V-IRW2 is a 4K eyeball style IP camera equipped with a 2.7 mm–13.5 mm motorized varifocal lens capable of up to 8MP (3840 × 2160) @30 fps. Due to the high resolution, the camera supports H.265 compression for optimized storage. The camera lens features enhanced low light capabilities with Starlight support and a max IR distance of 164 feet. This tough IP67 rated camera also supports 256GB Micro SD storage, audio capabilities with a built-in microphone, as well as ePOE support.

As an Elite line camera, it is also equipped with advanced AI capabilities with Intelligent Motion Detect and Perimeter Protection. This technology utilizes a deep learning algorithm that recognizes people and vehicles, which drastically reduces false positives, enabling a more optimized search function.

Functions

ePOE Technology

ePOE technology adopts advanced 2D-PAM3 coding modulation from the physical layer and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. It supports PoE and PoC power supply technology, which has greatly simplified construction and wiring. ePoE technology offer a new way to accomplish long distance transmission between IP cameras and network switches. It allows for a more flexible surveillance system design, improves reliability, and saves on construction and wiring costs.

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.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

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 (0.005 lux).

Wide Dynamic Range (WDR)

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Perimeter Protection

IC Realttime'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

Technical Specification

Camera

Image Sensor	1/2.8"8 Megapixel progressive CMOS
Effective Pixels	3840 (H) × 2160 (V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.007 Lux @F1.5
S/N Ratio	> 56 dB
IR Distance	164 ft (50 m)
IR On/Off Control	Auto / Manual
IR LEDs	2

Lens

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.7 mm–13.5 mm				
Max. Aperture	F1.5				
Angle of View	Horizontal: 113°–31° Vertical: 58°–17°				
Iris Type	Fixed aperture				
Close Focus Distance	2.6 ft (0.8 m)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	279 ft	111 ft	55 ft	27 ft
	T	918 ft	367 ft	183 ft	91 ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Horizontal: 0°–360°; vertical: 0°–78°; rotation: 0°–360°
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Intelligence

Perimeter Protection	Tripwire; intrusion (Supports classification and accurate vehicle and human detection)
Intelligent Motion Detect (iMD)	Motion detection alarm for human and vehicle. Filters misinformation such as leaves and light.
Intelligent Search	Works together with AI-enabled NVRs to perform refine intelligent search, event extraction and merging to event videos

Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
Streaming Capability	3 Streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536/2304 × 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: 3840 × 2160 @(1–20 fps by default) 3840 × 2160 @(1–25/30 fps when AI function disabled) Sub stream: 704 × 576 @(1–25 fps)/ 704 × 480 @ (1–30 fps) Third Stream: 1920 × 1080 @(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)
Smart IR	Support
Starlight	Support
Digital Zoom	16x
Flip	0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

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

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 72 M)
Edge Storage	NAS, SFTP, Micro SD Card (support max. 256 GB) Local PC for instant recording
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	iOS, Android

Certifications

Certifications	FCC Part 15, Subpart B
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Interface

Video Interface	N/A
Audio Interface	Built-in Microphone
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (802.3af)
ePOE	Support
Power Consumption	Basic power consumption: 2.6W (12V DC); 3.3W (PoE) Max. power consumption (WDR + H.265 + IR LED intensity): 6W (12V DC); 7.3W (PoE)

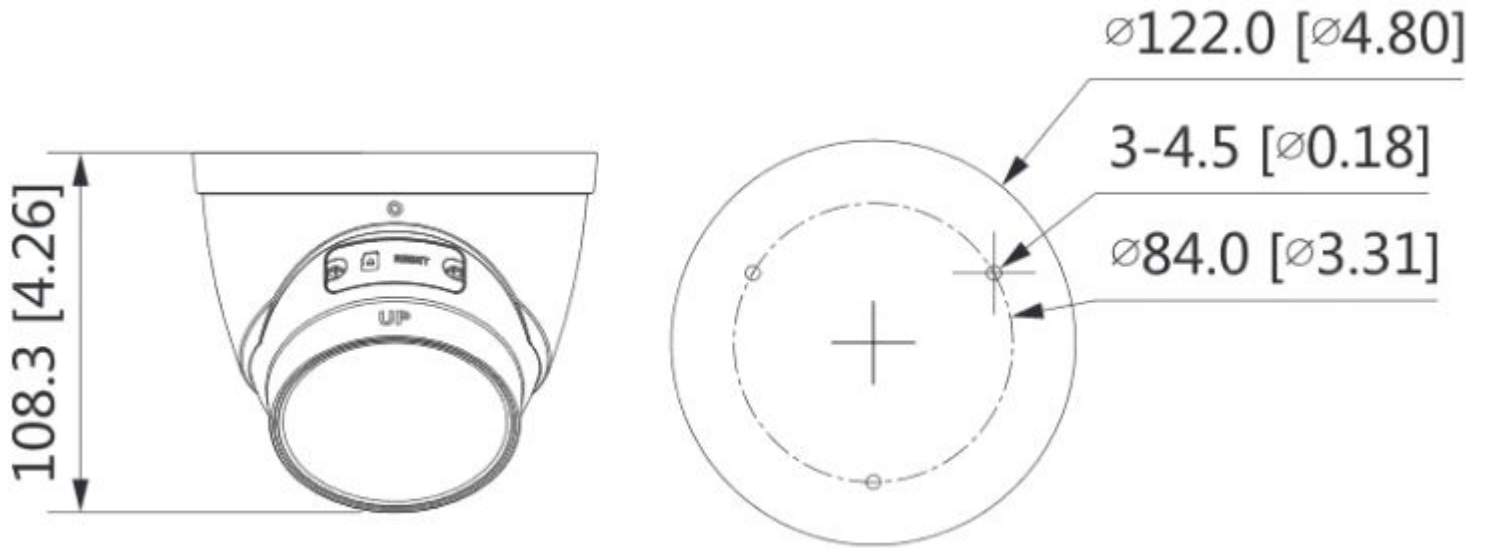
Environmental

Operating Conditions	-22°F to +140°F (-30°C to +60°C)/Less than 95% RH
Storage Conditions	-40°F to +140°F (-40°C to +60°C)
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	4.3" × 4.8" (108.3 mm × 122 mm)
Net Weight	1.5 lb (685g)
Gross Weight	1.8 lb (828 g)

Dimensions (mm/in)



Accessories

MNT-IPMINIDOME-WALL-3



MNT-IPMINIDOME-WALL-3 + MNT-POLIP

