

IPEG-E40F-IRW3

4MP Eyeball Network Camera



- 4MP, 1/2.9" CMOS image sensor
- H.265 & H.264 dual-stream encoding
- Outputs max. 4 MP (2688 × 1520)@20 fps, supports 4MP (2560 × 1440) @1–25/30 fps
- 120 dB WDR, 3D DNR, HLC, BLC
- 2.8 mm fixed lens, Max. IR LEDs Length 98ft
- Intelligent Motion Detect, Perimeter Protection
- Built-in Mic, PoE/12V DC, IP67 Protection

System Overview

The IPEG-E40F-IRW3 is a 4MP Eyeball Turret style camera in IC Realtime's newly updated Edge lineup. The camera comes packed with usual high end features including H.265 encoding, Starlight support and Smart IR support with up to 98ft of illumination as well as a built-in microphone for audio, and is waterproof and dust-proof by complying to IP67 standards.

This Edge camera has also been updated with the addition of IVS (Intelligent Video System), Perimeter Protection and Intelligent Motion Detect. This allows the camera to utilize AI Search and event extraction with IC Realtime AI NVRs.

Functions

Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

Environmental

With a temperature range of -40°F to +140°F (-40°C to +60°C) , the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

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+

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

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.

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.

Technical Specification

Camera

Image Sensor	1/2.9" 4 Megapixel progressive CMOS
Effective Pixels	2688 (H) × 1520 (V)
RAM/ROM	128MB/ 128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.006 lux@F1.6 (Color, 30IRE) 0.0006 lux@F1.6 (B/W, 30IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
IR Distance	98.43 ft (30 m)
IR On/Off Control	Auto / Manual
IR LEDs	1

Lens

Lens Type		Fixed			
Mount Type		M12			
Focal Length		2.8mm			
Max. Aperture		F1.6			
Angle of View		Horizontal: 95°, Vertical: 52°			
Optical Zoom		N/A			
Focus Control		Fixed			
Close Focus Distance		2.95 ft (0.9 m)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	208 ft	83 ft	41 ft	20 ft

Pan/Tilt/Rotation

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

Video

Compression	H.265; H.264; H.264B; MJPEG (Sub Stream Only)
Smart Codec	Smart H.265+; Smart H.264+
Streaming Capability	2 Streams
Resolution	4M (2688 × 1520); 4M (2560 × 1440); 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@ (1–20 fps)/ 2560 × 1440@ (1–25/30 fps) Sub stream: 704 × 576@ (1–25 fps)/ 704 × 480@ (1–30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120dB)
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
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
Digital Zoom	16x

Flip	0°/90°/180°/270° (Supports 90°/270° with 2688 × 1520 resolution and lower)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Intelligence

Basic IVS	Tripwire; Intrusion
Perimeter Protection	Tripwire; Intrusion (These functions support the classification and detection of vehicle and human objects)
Intelligent Motion Detect	Motion Detection with human and motor vehicle recognition, reducing false alarms caused by leaves, rain and lighting condition change.
AI Search	Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P
Cyber Security	Configuration encryption; Trusted execution; Digest; Security logs; WSSE; Account lockout; syslog; Video encryption; 802.1x; IP/MAC filtering; HTTPS; Trusted upgrade; Trusted boot; Generation and importing of X.509 certification
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	6 (Total bandwidth: 36 M)
Edge Storage	FTP; SFTP; Micro SD card (supports max. 256 GB)
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	IC Now, IC now Pro
Smart Phone	IOS, Android

Certifications

Certifications	FCC Part 15, Subpart B
----------------	------------------------

Interface

Video Interface	N/A
Audio Interface	Built-in mic
Audio Compression	G.711a; G.711Mu; PCM; G.726
Alarm	N/A

Electrical

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2.5 W (12 VDC); 3.3 W (PoE); Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS): 4.2 W (12 VDC); 5.1 W (PoE)

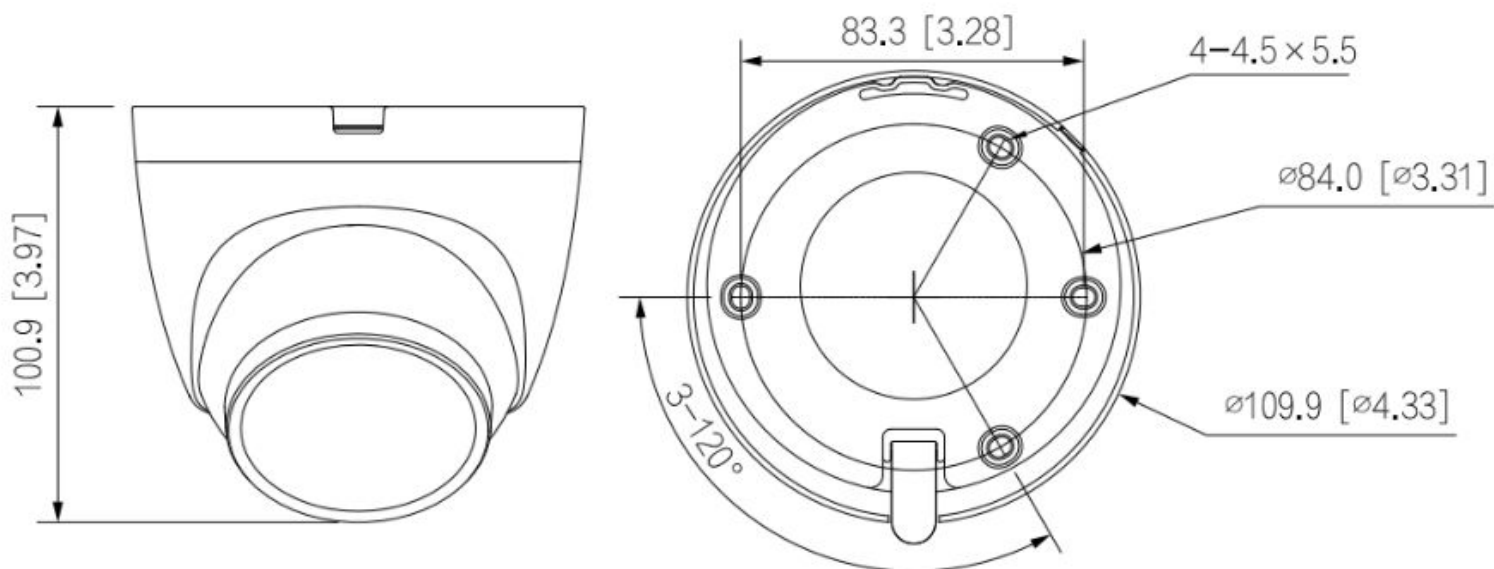
Environmental

Operating Conditions	-40°F to +140°F (-40°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 + Plastic
Dimensions	3.97" × Φ4.33" (100.9 mm × Φ109.9 mm)
Net Weight	0.82 lb (0.37 kg)
Gross Weight	1.23 lb (0.56 kg)

Dimensions (mm/in)



Accessories