IPEL-E80F-IRB2
8MP Starlight Eyeball Network Camera

IC REALTIME

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-steam 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 98 ft, Built-in Mic
- 256GB Micro SD memory, IP67, PoE,

System Overview

The IPEL-E80F-IRB2 is a 4K eyeball style IP camera in our Elite line. Under the tough, discreet black housing is a Starlight supported 2.8mm fixed 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 also supports 256GB Micro SD storage, a max IR distance of 98 feet, increased Cyber Security features and a built-in microphone.

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, for a more optimized search function.

Functions

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 (0.007 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

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 (IP67, wide voltage)
Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times.Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with unstable voltage.

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.

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.

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 @F1.4
S/N Ratio	> 56 dB
IR Distance	98.4 ft (30 m)
IR On/Off Control	Auto / Manual
IR LEDs	2

Lens

Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8 mm
Max. Aperture	F1.4
Angle of View	Horizontal 108°, Vertical 58
Iris Type	Fixed aperture
Focus Control	Fixed
Close Focus Distance	4.6 ft (1.4 m)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	280 ft	112 ft	56 ft	28 ft

Pan/Tilt/Rotation

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

Intelligence

Perimeter Protection	Tripwire; intrusion (support the classification and accurate detection of vehicle and human)
Intelligent Motion Detect	Support
Intelligent Search	Works together with AI-enabled NVRs to perform refined 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	8MP/4K (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
Flip	0°/90°/180°/270° (Supports 90°/270° with 1920 × 1080 resolution.)
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	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
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 (Total bandwidth: 72 M)
Edge Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
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
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (802.3af)
Power Consumption	Basic power consumption: 2.6W (12V DC); 3.3W (PoE)Max. power consumption (WDR + H.265 + IR LED intensity): 6.9W (12V DC); 7.9W (PoE)

Environmental

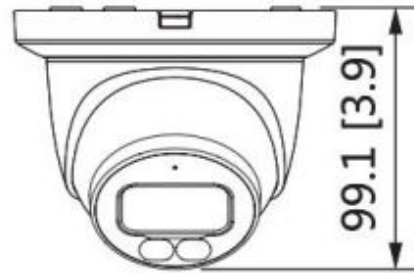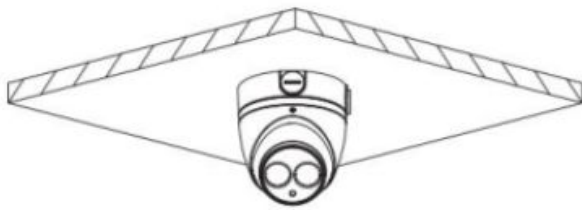|	
Operating Conditions	-40°F to +140°F (-40°C to +60°C)/Less than 95% RH
Storage Conditions	-40°F to +140°F (-40°C to +60°C)
Ingress Protection	IP67

Construction

Casing	Metal/ Plastic
Dimensions	3.9" × 4.8" (99.1 mm × 121.9 mm)
Net Weight	1.1 lb (500 g)
Gross Weight	1.7 lb (770 g)

Accessories

Dimensions (mm/in)

MNT-JUNCTION BOX 3-B

99.1 [3.9]

MNT-IPMINIDOME-WALL-B

83.3 [3.28]

4-4.5 × 5.5

∅84.0 [∅3.31]

3-120

∅121.9 [∅4.8]