IPEG-E20F-IRW3
2MP Starlight Eyeball Network Camera

IC REALTIME

- 2MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 dual-stream encoding
- Outputs 2MP (1920 × 1080)@25/30 fps
- DWDR, 3D DNR, HLC, BLC
- 2.8 mm fixed lens, Built in Microphone
- Starlight support, Max. IR LEDs Length 98ft
- 256GB Micro SD memory, IP67, PoE

System Overview

The IPEG-E20F-IRW3 is a Eyeball Turret style camera in IC Realtime's cost-effective Edge lineup. The camera comes equipped with high end features including H.265 encoding and Starlight support with DWDR for a more colorful image in daylight as well as low illumination environments and Smart IR support with up to 98ft of illumination.

The H.265 encoding technology provides a more efficient video encoding capacity, and saves bandwidth and storage space compared to H.264. In addition, the camera includes a built-in microphone for audio, supports 256GB SD card storage and is waterproof and dust-proof by complying to IP67 standards.

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 (0.005 lux).

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.

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.

Smart IR Technology
With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 98ft (30m).

Technical Specification

Camera

Image Sensor	1/2.7"2 Megapixel progressive CMOS
Effective Pixels	1920 (H) × 1080 (V)
RAM/ROM	128MB /128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.005 Lux @ F1.6
S/N Ratio	>56 dB
IR Distance	98.43 ft (30 m)
IR On/Off Control	Auto / Manual
IR LEDs	2

Lens

Lens Type	Fixed
Mount Type	M12
Focal Length	2.8mm
Max. Aperture	F1.6
Angle of View	Horizontal: 110.0°, Vertical: 59.0°
Optical Zoom	N/A
Focus Control	Fixed
Close Focus Distance	1.97 ft (0.6 m)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	122ft	48ft	24ft	12ft

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)
Streaming Capability	2 Streams
Resolution	1080P(1920x1080)/1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 1920 × 1080 (1 fps-25/30 fps) Sub Stream: 704 × 576 (1 fps-25fps) 704 × 480 (1 fps-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 / DWDR
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
Starlight	Support
Digital Zoom	16x
Flip	0°/90°/180°/270° (Supports 90°/270° with 1080p resolution.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711A; G.711Mu; G.726

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; Bonjour
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
Edge Storage	FTP; Micro SD card (support max. 256 G); NAS; SFTP
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	DC12V, PoE
Power Consumption	Basic power consumption: 1.7W (12V DC), 2.1W (POE) Max power consumption (H.265, Max resolution, Max stream, WDR, IR on): 5.1W (12V DC), 5.9W (POE)

Environmental

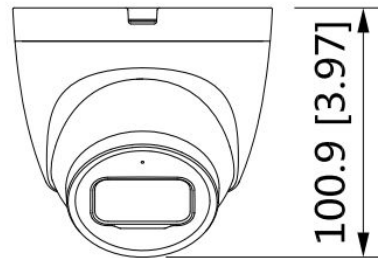|	
Operating Conditions	-40°F to +140°F (-40°C to +60°C)/less than ≤ 95% RH
Storage Conditions	-40°F to +140°F (-40°C to +60°C)
Ingress Protection	IP67

Construction

Casing	Metal + Plastic
Dimensions	3.97" × 4.3" (100.9 mm × 109.9 mm)
Net Weight	0.86 lb (0.39 kg)
Gross Weight	1.15 lb (0.52 kg)

Accessories

Dimensions (mm/in)

MNT-IPMINIDOME-WALL-2

MNT-JUNCTION BOX 4

100.9 [3.97]

83.3 [3.28]

4-4.5 × 5.5

⌀84.0 [⌀3.31]

⌀109.9 [⌀4.33]

3-120