

IPEL-F50F-W2

5MP Network Panoramic Fisheye Camera



- 5MP, 1/2.7" CMOS image sensor, low illuminance, high image definition
- H.265/H.264 triple-stream encoding
- 5MP(2592 × 1944) @25/30 fps
- Multiple dewarp modes, Built-in Mic
- 120dB WDR, 3DNR, AWB, AGC, BLC
- IVS Support, People Counting, Heat Map
- 256GB Micro SD memory, IP67, IK10, PoE

System Overview

IC Realtime's IPEL-F50F-W2 is a real-time, 360° situational awareness camera housed in a tough IP67 and IK10 rated housing. It features a 5 megapixel fixed 1.4mm lens with a 360° dewarpable image and a built-in microphone.

It is capable of recording a wide area of surveillance and de-warping the native fisheye view in order to watch a stream that is undistorted to the human eye.

In addition, the camera supports H.265 encoding, IVS Intelligence including: Perimeter Protection (Tripwire, Intrusion) and Heat Map. It also supports Intelligent Search with our IC Realtime AI enabled NVRs, enabling a more refined playback experience.

Functions

Dewarping Mode

Fisheye dewarping solves the problem of distortion in the circular panoramic view. The camera offers multiple dewarping modes for different installations and configurations, either with an AVR, NVR or, via the Web interface. Each dewarping mode offers options to adjust each scene.

Advanced Intelligence (Heatmap)

In addition to the basic IVS functions, such as Tripwires and Intrusion Zones, this camera also supports more advanced IVS solutions. Heat Maps will overlay different 'thermographic' colors depending on activity levels in a region ranging from blue to red. Heat Mapping provides essential analytic data for a variety of business applications by keeping track of key crowd density statistics.

Environmental

With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments. 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. IK08 compliance enables the camera to sustain 5 joules of impact.

HEVC(H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264, some retain the original technology, while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream, encoding quality and the delay between algorithm complexity, optimize settings specific contents include: Improve compression efficiency, improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random access delay, reduce complexity, etc

Intelligent Video Analysis (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 Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

Protection (IP67, IK10, wide voltage)

The camera's outstanding reliability, 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. The camera complies with an IK10 vandal resistance rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in). It also features ±25% input voltage tolerance, allowing it to operate under unstable power supply conditions. Its 6KV lightning rating provides protection from the effects of a lightning strike.

Technical Specification

Camera

Image Sensor	1/2.7" 5 Megapixel progressive scan CMOS
Effective Pixels	2592(H)x1944(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.006 Lux@F2.0 (Color, 30IRE) 0.0006 Lux@F2.0 (B/W, 30IRE) 0 Lux (Illuminator on)
S/N Ratio	More than 50dB
Illumination Distance	N/A
IR On/Off Control	N/A
IR LEDs	N/A

Lens

Lens Type	Fixed			
Mount Type	M12			
Focal Length	1.4mm			
Max. Aperture	F2.0			
Angle of View	H: 180°, V:180°			
Optical Zoom	N/A			
Focus Control	Fixed			
Close Focus Distance	0.2 m (0.7 ft)			
DORI Distance	Detect	Observe	Recognize	Identify
	92ft	36ft	18ft	9ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°-355°, Tilt: 0°-55°, Rotation: 0°-360°
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Intelligence

IVS	Heat Map
Perimeter Protection	Tripwire, Intrusion, Heat Map
People Counting	Supports people counting in area, and displaying and outputs yearly/monthly/daily reports (matching devices are needed); supports people counting in 4 areas
AI Search	Works together with AI NVRs to perform refined intelligent search, event extraction and merging to event videos

Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (substream support only)
Streaming Capability	3 Streams
Resolution	5M(2592x1944)/3M(2048x1536)/UXGA(1600x1200)/1.3M(1280x960)/D1(704x576/704x480)/CIF(352x288/352x240)
Frame Rate	Main Stream: 5M(1~25/30fps)
	Sub Stream: D1(1 ~ 25/30fps)
	Third Stream: (1280 x 720 @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	Color/ B/W
BLC Mode	BLC / HLC / 120dB WDR
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)
Electronic Image Stabilization (EIS)	N/A
Digital Zoom	16x
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	PCM; G.711a; G.711Mu; G726
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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
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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 64 M)
Edge Storage	FTP; SFTP; Micro SD card (Max. 256 GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
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Interface

Video Interface	N/A
Audio Interface	Built-in Microphone, 1 channel (RCA port) Input/ Output
Alarm	1 channel in: 5mA 3V-5V DC
	1 channel out: 300mA 12V DC

Electrical

Power Supply	DC12V, PoE
Power Consumption	Basic power consumption: 3.7W (12V DC); 4.7W (PoE) Max. power consumption (H.265 + intelligent function + WDR): 5.1W (12V DC); 6W (PoE)

Environmental

Operating Conditions	-30°C to +55°C (-22°F to +131°F)/Less than 95% RH
Storage Conditions	-40°C to +60°C (-40°F to +140°F)
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	62.0 mm × Φ110.0 mm (2.44" × Φ4.3")
Net Weight	387 g (0.9 lb)
Gross Weight	502 g (1.1 lb)

Accessories

Dimensions (mm/in)

