

# IPEL-MB80F-IRW1

Quad Lens 4x2 MP Panoramic Bullet Starlight Network Camera



- Four 2MP 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265+ & H.265 triple-stream encoding
- Max 8MP (4096 × 1800) @30 fps
- Supports 180-degree panoramic view
- IVS, Starlight Support
- Day/Night(ICR), 3DNR, AWB, AGC, BLC,WDR
- Max IR LEDs Length 98 feet
- Micro SD memory, IP67, IK10,PoE+

## System Overview

IC Realtime's unique 180° panoramic camera now comes with four lenses for added flexibility when capturing wide-area surveillance. The IPEL-MB80F-IRW1 provides four 2MP I-Sniper sensors spliced together to create a panoramic, 8MP (4096 × 1800) 180° overview, allowing the camera to replace multiple single-sensor cameras at a lower overall cost. Furthermore, the camera supports 256GB Micro SD for onboard storage, a max IR distance of 98 feet, and protected by a tough IP67 and IK10 rated housing.

This camera also supports a suite of AI features, including Tripwire and Intrusion. Future proof as well, this camera supports three video streams as well as H.264 and H.265 compression capabilities. Ideal applications for this camera include parking lots, schools, resorts and hotels.

## Functions

### Panoramic Splicing

IC Realtime's Panoramic Splicing technology splices multiple camera images and deletes overlapped areas to create a complete panoramic image. After splicing, a four-sensor camera results in a single 180° field of view,

### Starlight Technology

Featured with Starlight Technology, the camera is ideal for applications with challenging light 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 nearly complete darkness.

### 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.

### 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.

### Smart IR

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 30m (98ft).

### 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	(4x) 1/2.8" 2 Megapixel progressive CMOS
Effective Pixels	4096 (H) × 1800 (V)
RAM/ROM	2GB/ 4GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Minimum Illumination	0.002 Lux @F1.6
S/N Ratio	>56dB
IR Distance	Distance up to 30m (98ft)
IR On/Off Control	Auto / Manual
IR LEDs	8

### Lens

Lens Type	Fixed			
Mount Type	M12			
Focal Length	2.8mm			
Max. Aperture	F1.6			
Angle of View	Horizontal: 180°; Vertical: 90°			
Focus Control	Fixed			
Close Focus Distance	0.6 m (2.0 ft)			
DORI Distance	Detect	Observe	Recognize	Identify
	126ft	50ft	25ft	12ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–90° Rotation: 0°–360°
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### Intelligence

IVS	Tripwire, Intrusion
Advanced Intelligent Functions	Vehicle density(BETA): Parking maximum limit; vehicle congestion alarm
	Crowd map (BETA): Global people counting; Area people counting

### Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)
Streaming Capability	3 Streams
Resolution	4096 × 1800; 3840 × 1680; 2880 × 1264; 1024 × 452; 1920 × 832; 1280 × 560
	Main stream: 4096 × 1800 (1–25/30 fps)
Frame Rate	Sub stream: 1024 × 452 (1–25/30 fps)
	Third stream: 1920 × 832 (1–25/30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 9 kbps–17664 kbps H.265: 9 kbps–17664 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)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	Yes
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

### Audio

Compression	G.711A; G.711Mu; G.726; AAC; G.723
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### Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 802.1x; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 80 M)
Edge Storage	NAS Local PC for instant recording Micro SD card 256GB
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 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	1 Port(For adjustment only)
Audio Interface	1/1 channel In/Out
RS485	1 (baud rate range: 1200 bps–115200 bps)
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 1A 30VDC / 0.5A 50VAC

### Electrical

Power Supply	12V DC/24V AC/PoE+ (802.3at)
Power Consumption	<16.2W

### Environmental

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

### Construction

Casing	Metal + Plastic
Dimensions	297 mm × 169mm × 120mm (11.69" × 6.65" × 4.72")
Net Weight	2.86 kg (6.31 lb)
Gross Weight	3.35 kg (7.39 lb)

Accessories

Dimensions (mm/in)

