

# IPEL-F12F-IRW2

12MP Panoramic Network IR Fisheye Camera



- 1/1.7" 12MP progressive scan STARVIST™ CMOS
- H.265/H.264 triple-stream encoding
- Max 25fps@12M(4000x3000), 8M(3280 × 2480)@25/30 fps
- Multiple dewarped Modes
- Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Perimeter Protection, People Counting, Heat Map
- Max. IR LEDs length 33ft
- Built-in dual array Microphone and speaker, Micro SD memory, IP67, IK10, PoE

## System Overview

IC Realtime's premier 360° situational awareness camera, the IPEL-F12-IRW2 features a full 12MP (4000x3000) fisheye image for wide area coverage. This allows for dewarping to a native fisheye view in order to deliver a crisp stream that is undistorted to the human eye. It is equipped with a 1/1.7" Progressive scan Starvis CMOS image sensor and capable of 25fps @12MP or 30fps @8MP.

This camera offers a suite of AI support and IVS rules such as Intrusion, Tripwire and Heat mapping, It is equipped with Smart IR support with a max distance of 33 feet and a built-in mic and speaker. It is also well suited to outdoor environments thanks to its IP67 and IK10 rated protection.

## Functions

### True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens.

### 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.

### 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 10m (33ft).

### 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

### Protection (IP67, IK10, wide voltage)

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. IP67 is supported by the camera, which makes it suitable for both indoor and outdoor environments. IK10 compliance enables the camera to sustain the equivalent of 5kg (11.02lbs) force.

## Technical Specification

### Camera

Image Sensor	1/1.7" 12 Megapixel CMOS
Effective Pixels	4000(H)x3000(V)
RAM/ROM	4GB/ 2GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.01 Lux@F2.0 (Color, 30 IRE) 0.001 Lux@F2.0 (B/W, 30 IRE) 0 Lux (Illuminator on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 33ft (10m)
IR On/Off Control	Auto / Manual
IR LEDs	3

### Lens

Lens Type	Fixed								
Mount Type	M12								
Focal Length	1.85mm								
Max. Aperture	F2.0								
Angle of View	H: 185°, V:180°								
Optical Zoom	N/A								
Focus Control	Fixed								
Close Focus Distance	1.31 ft (0.4 m)								
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Detect	Observe	Recognize	Identify						
131 f t	52 ft	26 ft	13 ft						

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	N/A
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### Intelligence

IVS	Tripwire, Intrusion
Perimeter Protection	Support
Advanced Intelligent Functions	Heat Map, People Counting (Supports 4 rules)

### Video

Compression	H.265; H.264; H.264H; MJPEG (Sub stream only)
Streaming Capability	3 Streams
Resolution	12M(4000x3000)/ 8M(2880x2880)/ 6M(2880x2160)/ 3M(2048x1536)/ 1.3M(1280x960)/ D1(704x576/704x480)/ CIF(352x288/352x240)
Dewarp Modes:	1O:(4000 x 3000), 1P:(4096 x 1024), 2P:(2432 x 2432), 1R:(1216 x 1216), 2R:(2432 x2432), 4R:(2432 x 2432), 1O + 3R:(2432 x 2432)
Frame Rate	Main Stream: 12MP (1~25fps)/ 8MP(1~25/30fps) Sub Stream: D1(1 ~ 25/30fps) Third Stream: 1280 x 960@(1~17 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H264: 8 kbps~16384 kbps H265: 3 kbps~16384 kbps
Day/Night	Auto(ICR) / Color / B/W
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
Privacy Masking	4 Areas

### Audio

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

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP;HTTPS;TCP;ARP;RTSP;RTP;UDP;SMTP;FTP;DHC P;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
Edge Storage	FTP Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	FCC Part 15, Subpart B
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### Interface

Video Interface	N/A
Audio Interface	Built-in Mic, 1 input, 1 Output (RCA)
RS485	N/A
Alarm Input	2 channel in: 5mA 3V~5V DC
Alarm Output	2 channels out: 1,000mA 30V DC/500mA 50V DC

### Electrical

Power Supply	12V DC/PoE
Power Consumption	Basic: 6.5 W (12V DC); 6.1 W (PoE) Max. (ICR + IR intensity): 13 W (12V DC); 13.9 W (PoE) Heating: 3 W (12V DC); 3 W (PoE)

### Environmental

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

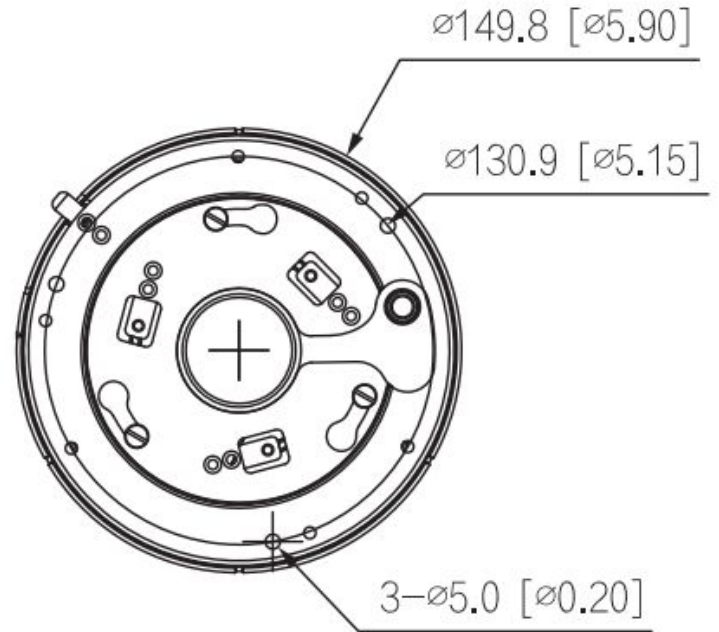
### Construction

Casing	Metal
Dimensions	2.35" x 5.90" (59.8 mm x 149.8 mm)
Net Weight	1.74 lb (0.79 kg)
Gross Weight	2.67 lb (1.21 kg)

Accessories

Dimensions (mm/in)

MNT-JUNCTIONBOX-5



MNT-DVIR-MPA100 +  
MNT-CEILING-MPA

