



- 1/2.5" 8 Megapixel progressive scan STARVIST™ CMOS
- H.265&H.264 triple-stream encoding
- 15fps@4K(3840×2160),25/30fps@3M(2304×1296) · Smart Detection supported
- WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- 2.8mm fixed lens
- Built-in Mic
- Max. IR LEDs Length 50m
- Micro SD memory, IP67, ePOE support

System Overview

Ultra HD Surveillance is here - now you can capture your surveillance footage in stunning 4K resolution! The new IP Elite series of 4K cameras paired with a compatible 4K series NVR will bring your surveillance system to new, unforeseen levels of clarity and resolution.

The IPEL-E80F-IRW1 is an 8MP (4K) Day/Night Dome camera. It utilizes a cutting edge 1/2.5" 8MP CMOS sensor to deliver stunning 4K resolution at frame rates as high as 15FPS. On top of the sensor sits a fixed 2.8mm lens which delivers a handy, general purpose 112° Horizontal field of view. 24 IR LEDs are equipped and yield 98' (30 meters) of IR distance, allowing long range shots as well.

This camera also represents the 'AI' line of smart cameras from ICRealtime. It's AI (Advanced Intelligence) suite of features includes: Tripwire, Intrusion, Missing/Abandoned Object, Face Detection. H265 compression is included standard as well to handle these extreme high resolutions.

Functions

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.

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 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.

Environmental

With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), 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.

Protection (IP67, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

ePOE Technology

ePOE technology adopts advanced 2D-PAM3 coding modulation from the physical layer and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. It supports PoE and PoC power supply technology, which has greatly simplified construction and wiring. ePoE technology offer a new way to accomplish long distance transmission between IP cameras and network switches. It allows for a more flexible surveillance system design, improves reliability, and saves on construction and wiring costs.

Technical Specification

Camera

Image Sensor	1/2.5" 8 Megapixel progressive scan CMOS
Effective Pixels	3840(H)x2160(V)
RAM/ROM	512MB/32MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
Minimum Illumination	0.06Lux/F1.6(Color,1/3s,30IRE) 0.3Lux/F1.6(Color,1/30s,30IRE) 0Lux/F1.6(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 50m (164ft)
IR On/Off Control	Auto / Manual
IR LEDs	1

Lens

Lens Type	Fixed										
Mount Type	Board-in										
Focal Length	2.8mm										
Max. Aperture	F2.5										
Angle of View	H:112° , V:69°										
Optical Zoom	N/A										
Focus Control	Fixed										
Close Focus Distance	0.9m										
DORI Distance	<table border="1"> <tr> <td>Lens</td> <td>Detect</td> <td>Observe</td> <td>Recognize</td> <td>Identify</td> </tr> <tr> <td>2.8 mm</td> <td>69m(226ft)</td> <td>28m(92ft)</td> <td>14m(46ft)</td> <td>7m(23ft)</td> </tr> </table>	Lens	Detect	Observe	Recognize	Identify	2.8 mm	69m(226ft)	28m(92ft)	14m(46ft)	7m(23ft)
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2.8 mm	69m(226ft)	28m(92ft)	14m(46ft)	7m(23ft)							

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~78°; Rotation:0°~360°
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Intelligence

IVS	Tripwire, Intrusion, Object Abandoned/Missing
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	4K(3840×2160)/6M(3072×2048)/5M(2560×1920)/ 3M(2048×1536)/3M(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: 4K(1~15fps)/3M(1~25/30fps) Sub Stream: D1(1~ 25/30fps) Third Stream: 1080P(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 24K ~ 10240Kbps H.265: 14K ~ 9984Kbps
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)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	N/A
Digital Zoom	16x
Flip	0°/90°/180°/270° (90°/ 270° only supported at 4MP or less)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a/ G.711Mu/ AAC/ G.726
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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
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast / Multicast
Max. User Access	10 Users /20 Users
Edge Storage	NAS Local PC for instant recording Micro SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B
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Interface

Video Interface	N/A
Audio Interface	Built-in Mic
RS485	N/A
Alarm	N/A

Electrical

Power Supply	DC12V, PoE (802.3af)(Class 0)
ePOE	Support
Power Consumption	<6W

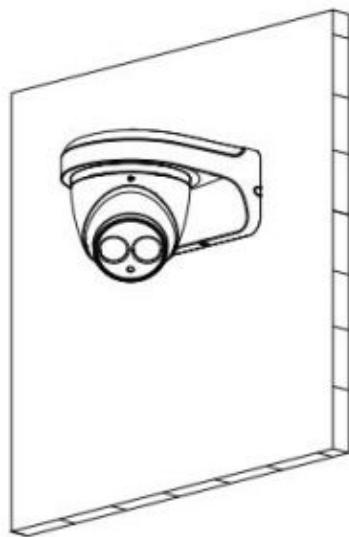
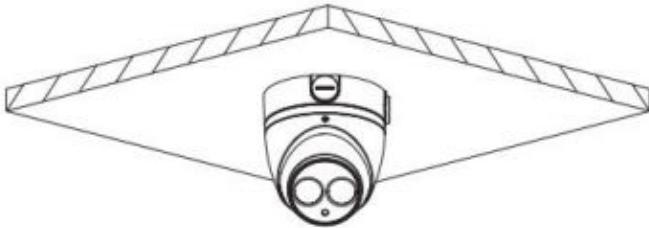
Environmental

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

Construction

Casing	Metal
Dimensions	106mmx93.7mm (4.17"×3.69")
Net Weight	0.47Kg (1.04lb)
Gross Weight	0.65Kg (1.43lb)

Accessories



Dimensions (mm/in)

