

# IPEL-B80F-IRW1

8MP WDR IR Mini Bullet Network Camera



- 1/2.5" 8 Megapixel progressive scan STARVIS™ 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
- Max. IR LEDs Length 40m
- 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-B80F-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. 2 IR LEDs are equipped and yield 98' (40 meters) of IR distance, allowing long range shots as well. The camera also supports ePOE for long distance transmission.

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

Cameras operate in extreme temperature environments, rated for use in temperatures from -40° C to +60° C (-40° F to +140° F) with 95% humidity.

### Protection (IP67, IK10, 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) and impact tests (IK10), 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)<br>0.3Lux/F1.6( Color,1/30s,30IRE)<br>0Lux/F1.6(IR on |
| S/N Ratio                | More than 50dB                                                                        |
| IR Distance              | Distance up to 40m (131ft)                                                            |
| IR On/Off Control        | Auto / Manual                                                                         |
| IR LEDs                  | 2                                                                                     |

### Lens

|                      |        |                |           |           |          |
|----------------------|--------|----------------|-----------|-----------|----------|
| Lens Type            |        | Fixed          |           |           |          |
| Mount Type           |        | Board-in       |           |           |          |
| Focal Length         |        | 2.8mm          |           |           |          |
| Max. Aperture        |        | F1.6           |           |           |          |
| Angle of View        |        | H:112° , V:69° |           |           |          |
| Optical Zoom         |        | N/A            |           |           |          |
| Focus Control        |        | Fixed          |           |           |          |
| Close Focus Distance |        | 0.9m           |           |           |          |
| DORI Distance        | Lens   | Detect         | Observe   | Recognize | Identify |
|                      | 2.8 mm | 69m(226ft)     | 28m(92ft) | 14m(46ft) | 7m(23ft) |

### Pan/Tilt/Rotation

|                         |                                            |
|-------------------------|--------------------------------------------|
| Pan/Tilt/Rotation Range | Pan:0°~355°; Tilt:0°~64°; Rotation:0°~355° |
|-------------------------|--------------------------------------------|

### 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)/<br>3M(2048×1536)/3M(2304×1296)/<br>1080P(1920×1080)/1.3M(1280×960)/<br>720P(1280×720)/D1(704×576/704×480) /<br>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 ~ 1024Kbps<br>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 | N/A |
|-------------|-----|

### 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<br>Local PC for instant recording<br>Micro SD card 128GB                                                                                   |
| Web Viewer          | IE, Chrome, Firefox, Safari                                                                                                                    |
| Management Software | SmartICRSS, DSS                                                                                                                                |
| Smart Phone         | IOS, Android                                                                                                                                   |

### Certifications

|                |                                                                  |
|----------------|------------------------------------------------------------------|
| Certifications | CE (EN 60950:2000)<br>UL:UL60950-1<br>FCC: FCC Part 15 Subpart B |
|----------------|------------------------------------------------------------------|

### Interface

|                 |     |
|-----------------|-----|
| Video Interface | N/A |
| Audio Interface | N/A |
| RS485           | N/A |
| Alarm           | N/A |

### Electrical

|                   |                               |
|-------------------|-------------------------------|
| Power Supply      | DC12V, PoE (802.3af)(Class 0) |
| ePOE              | Support                       |
| Power Consumption | <6.5W                         |

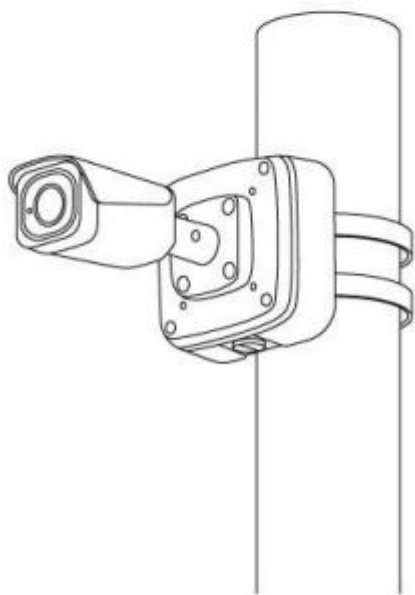
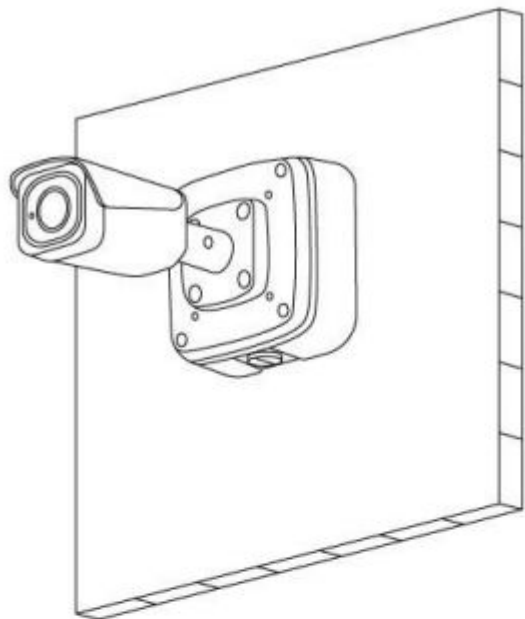
### Environmental

|                      |                                                       |
|----------------------|-------------------------------------------------------|
| 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    | N/A                                                   |

### Construction

|              |                             |
|--------------|-----------------------------|
| Casing       | Metal                       |
| Dimensions   | Φ109.9mm×81mm (4.33"×3.19") |
| Net Weight   | 0.41kg (0.91lb)             |
| Gross Weight | 0.53 kg (1.17lb)            |

## Accessories



## Dimensions (mm/in)

