# IPEL-B80F-IRB3
## 8MP Starlight Bullet Network Camera

**IC REALTIME**

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-steam encoding
- Outputs max. 8MP (3840 × 2160) @25/30 fps
- Intelligent Motion Detect 2.0 and Perimeter Protection
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC,
- Starlight support, Max. IR LEDs Length 98 ft
- 256GB Micro SD memory, Built-in Mic, IP67, PoE

## System Overview

Capture your surveillance footage in stunning 4K resolution with IC Realtime's Elite line of 4K cameras!. New in the Elite lineup, the IPEL-B80F-IRB3 boasts an impressive 8MP, 1/2.8" low illuminance, high image definition CMOS image sensor supporting up to 4K (3840 × 2160) @30 fps. The camera excels in low light environments with Starlight support and a max IR distance of 98 feet. It is also features a built-in microphone and is IP67 rated for outdoor use as well as 256GB Micro SD storage support.

This camera is also equipped with a suite of AI features including Intelligent Motion Detect (iMD) 2.0 and Perimeter Protection. This technology utilizes a deep learning algorithm that recognizes people and vehicles, which drastically reduces false positives, enabling a more optimized search function.

## Functions

**Starlight Technology**
Featuring Starlight Technology, this camera is ideal for applications with challenging lighting 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 near complete darkness (0.007 lux).

**Perimeter Protection**
IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

**iMD 2.0 (Intelligent Motion Detect)**
The AI Machine Learning algorithms in our Intelligent Motion Detection (iMD) recorders & cameras means detection gets more accurate over time. Now, iMD 2.0 provides even better recognition, even fewer false alerts, and it encodes detection metadata in every video frame right from installation. This enables our new Object Search system to quickly locate recorded clips matching your search parameters.

**Protection (IP67, wide voltage)**
Subjected and certified to rigorous dust and water immersion tests, 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.Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with unstable voltage.

**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.

**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.

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**IC REALTIME**

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.8" 8 Megapixel progressive CMOS |
| Effective Pixels | 3840 (H) × 2160 (V) |
| RAM/ROM | 1GB/ 128MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100000 s |
| Minimum Illumination | 0.007 lux@F1.4 (Color, 30 IRE)<br>0.0007 lux@F1.4 (B/W, 30 IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| IR Distance | 98.4 ft (30 m) |
| IR On/Off Control | Auto / Manual |
| IR LEDs | 1 |

### Lens

| | | | | |
|---|---|---|---|---|
| Lens Type | Fixed-focal | | | |
| Mount Type | M12 | | | |
| Focal Length | 2.8 mm | | | |
| Max. Aperture | F1.4 | | | |
| Angle of View | Horizontal:107°; vertical: 56° | | | |
| Iris Type | Fixed aperture | | | |
| Close Focus Distance | 4.9 ft (1.5 m) | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 2.8mm | 287 ft | 115 ft | 57 ft | 28 ft |

### Pan/Tilt/Rotation

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|---|---|
| Pan/Tilt/Rotation Range | Horizontal: 0°–360°; vertical: 0°–90°; rotation: 0°–360° |

### Video

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|---|---|
| Compression | H.265; H.264; H.264H; H.264B; MJPEG (sub stream only) |
| Smart Codec | Smart H.265+; Smart H.264+ |
| AI Coding | AI H.265; AI H.264 |
| Streaming Capability | 3 Streams |
| Resolution | 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048×1536); 3M (2304×1296); 1080p (1920 × 1080); 1.3M(1280 × 960); 720p (1280 × 720); D1 (704 × 576/704×480); CIF (352 × 288/352 × 240); VGA (640 × 480) |
| Frame Rate | Main stream: 3840 × 2160 @ (1–25/30) fps |
| | Sub stream: 704 × 576 @ (1–25 fps)/<br>704 × 480 @ (1–30 fps) |
| | Third Stream: 1920 × 1080 @(1–25/30 fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 3 Kbps–8192 Kbps<br>H.265: 3 Kbps–8192 Kbps |
| 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) |
| Smart IR | Support |
| Starlight | Support |
| Digital Zoom | 16x |
| Flip | 0°/90°/180°/270° (supports 90°/270° with 2688×1520 resolution and lower) |
| Mirror | Off / On |
| Privacy Masking | Off / On (4 Area, Rectangle) |

### Audio

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|---|---|
| Compression | G.711a; G.711Mu; PCM; G.726; G.723 |

### Network

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|---|---|
| Ethernet | RJ-45 (10/100Base-T) |
| Protocol | IPv4; IPv6; HTTP;TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; 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; P2P |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 20 (Total bandwidth: 64 M) |
| Edge Storage | NAS, FTP, SFTP, Micro SD Card (256 GB)<br>Local PC for instant recording |
| Web Viewer | IE, Chrome, Firefox, Safari |
| Management Software | SmartICRSS, DSS |
| Smart Phone | IOS, Android |

### Certifications

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|---|---|
| Certifications | FCC Part 15, Subpart B |

### Interface

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|---|---|
| Video Interface | N/A |
| Audio Interface | Built-in Mic, 1 channel input/ output (RCA port) |
| Alarm | Input: 1 channel in: 5mA 3V–5V DC<br>Output: 1 channel out: 300mA 12V DC |

### Electrical

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|---|---|
| Power Supply | DC12V, PoE (802.3af) |
| Power Consumption | Basic: 3.8 W (12 VDC); 4.6 W (PoE)<br>Max: (WDR + IR intensity + Intelligence): 5.9 W (12 VDC); 7.2 W (PoE) |

### Environmental

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|---|---|
| Operating Conditions | −40°F to +140°F (−40°C to +60°C)/Less than 95% RH |
| Storage Conditions | −40°F to +140°F (−40°C to +60°C) |
| Ingress Protection | IP67 |

### Construction

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|---|---|
| Casing | Metal |
| Dimensions | 7.59" × 2.77" × 2.61 (L × W × H)<br>(192.7 mm × 70.5 mm × 66.4 mm) |
| Net Weight | 1.3 lb (590 g) |
| Gross Weight | 1.7 lb (780 g) |

## AI Functions

### IVS

| Basic IVS | Tripwire; Intrusion |
|---|---|

### Perimeter Protection

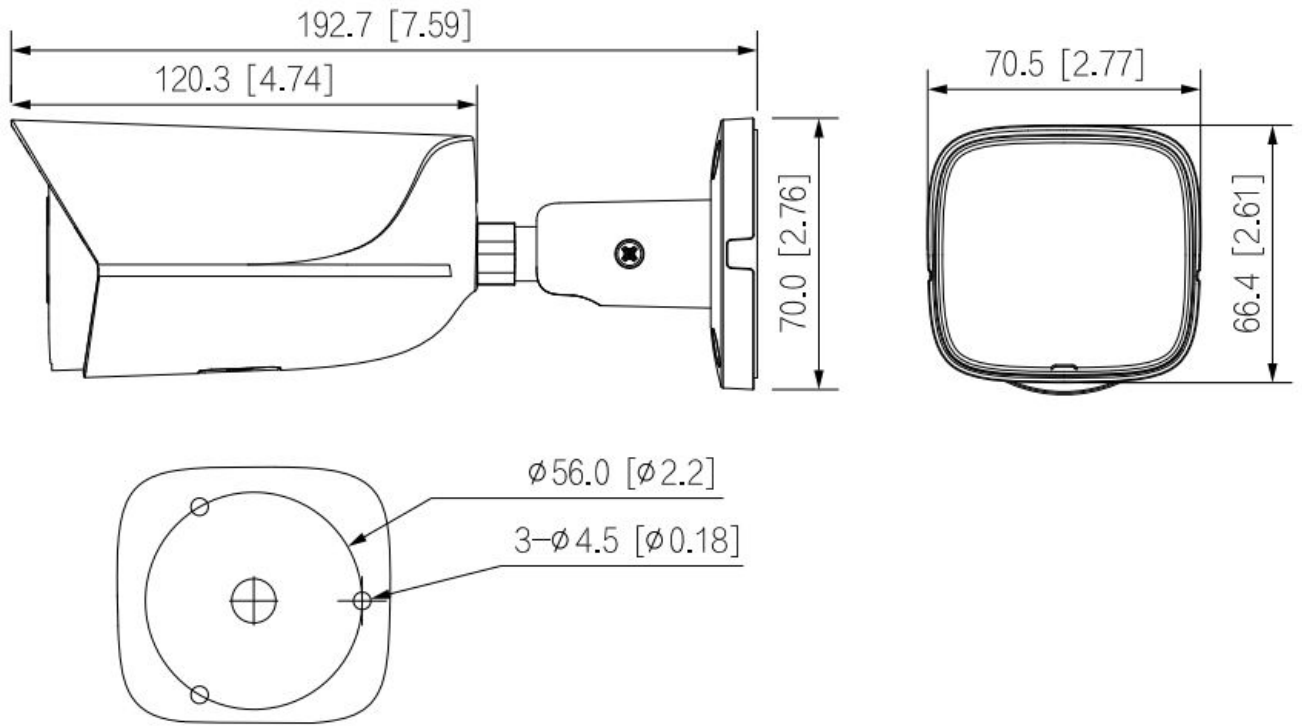| Capabilities | Tripwire; Intrusion<br>(These functions support the classification and detection of vehicle and human objects) |
|---|---|

### Intelligent Motion Detect 2.0

| Capabilities | Advanced secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change. Supports Object Search with compatible NVRs. |
|---|---|

### AI Search

| Capabilities | Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos |
|---|---|

## Dimensions (mm/in)



## Accessories

MNT-JUNCTIONBOX-1-B

Included Mount