# IPEL-M80V-IRW1
## 4x2MP IR Dome Network Camera

**IC REALTIME**

- Four 1/2.8" 2 Megapixel progressive scan STARVIS TM CMOS
- H.265/ H.264 triple-stream encoding
- 25/30fps@2M(1920×1080)
- WDR(140dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC
- 2.7mm ~12mm motorized lens
- Max IR LEDs Length 30m
- Micro SD memory, IP67, IK10, PoE+

## System Overview

The IPEL-M80V-IRW1 multi-sensor camera provides added flexibility for capturing wide area video surveillance. With four 2MP adjustable lenses can provide a flexible choice of the angle, the camera can replace multiple single-sensor cameras providing a higher return on investment.

The camera features enhanced imaging via 140dB Ultra WDR support for the first lens and 120dB for the other 3. The multi-sensor camera features contrast, backlight compensation, white balance, and resolution control to create a crystal-clear image even in the most challenging lighting conditions.

## Functions

**Starlight Technology**
For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

**Ultra WDR**
Standard WDR/HDR camera can provide 120dB dynamic Range, However, for some scenes with wider contrast range, 120dB is slightly insufficient. By adopting the latest technology, Cameras can provide an amazing dynamic range up to 140dB.

**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.

**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 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

**Environmental**
With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies to an IK10 impact rating making it capable of withstanding the equivalent of 5kg (11.02lbs) of force. 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.

**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.

**Interoperability**
The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | Four 1/2.8" 2 Megapixel progressive scan CMOS |
| Effective Pixels | 1920(H)x1080(V) |
| RAM/ROM | 1024MB/128MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual, 1/3(4)~1/100000s |
| Minimum Illumination | 0.005Lux/F1.8( Color,1/3s,30IRE)<br>0.06Lux/1.8( Color,1/30s,30IRE)<br>0Lux/F1.8(IR on) |
| S/N Ratio | More than 50dB |
| IR Distance | Distance up to 30m(98ft) |
| IR On/Off Control | Auto / Manual |
| IR LEDs | 8 |

### Lens

| | |
|---|---|
| Lens Type | Motorized |
| Mount Type | Board-in |
| Focal Length | 2.7~12mm motorized |
| Max. Aperture | F1.8 |
| Angle of View | H: 105° ~44°, V:54° ~25 |
| Optical Zoom | 4x |
| Focus Control | Motorized |
| Close Focus Distance | 0.2m |

| DORI Distance | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|
| | 148ft | 59ft | 29ft | 14ft |
| | 325ft | 131ft | 66ft | 33ft |

### Pan/Tilt/Rotation

| | |
|---|---|
| Pan/Tilt/Rotation Range | Pan:0˚~360˚; Tilt:0˚~80˚; Rotation:0˚~355˚ |

### Intelligence

| | |
|---|---|
| IVS | Tripwire, Intrusion |

### Video

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|---|---|
| Compression | H.265(+)/H.264(+)/H.264B/H.264H/MJPEG(sub stream) |
| Streaming Capability | 2 Streams |
| Resolution | 1080P(1920×1080)/1.3M(1280×960)/<br>720P(1280x720)/D1(704×576/704x480)/<br>CIF(352×288/352×240) |
| Frame Rate | Main Stream: 1080P(1~25/30fps) |
| | Sub Stream: D1(1~25/30fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.265: 12~6144Kbps<br>H.264: 32~8192Kbps |
| Day/Night | Auto(ICR) / Color / B/W |
| BLC Mode | BLC / HLC |
| WDR | 140dB support for Lens 1; 120dB support for Lens 2-4 |
| White Balance | Auto/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 | N/A |
| Defog | N/A |
| Digital Zoom | 16x |
| Flip | 0˚/90˚/180˚/270˚ |
| Mirror | Off / On |
| Privacy Masking | Off / On (4 Area, Rectangle) |

### Audio

| | |
|---|---|
| Compression | G.711a/ G.711Mu/ AAC/ G.726 |

### Network

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|---|---|
| Ethernet | RJ-45 (10/100Base-T) |
| Protocol | HTTP;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP;FTP;DHCP;DNS;DDNS;PPPOE;IPv4/v6;SNMP;QoS;UPnP;NTP |
| Interoperability | ONVIF, GB/T28181, 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 256GB |
| 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

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|---|---|
| Video Interface | N/A |
| Audio Interface | 1/1 channel In/Out |
| RS485 | 1 port |
| Alarm | 1 channel In: 5mA 5VDC<br>1 channel Out: 300mA 12VDC |

### Electrical

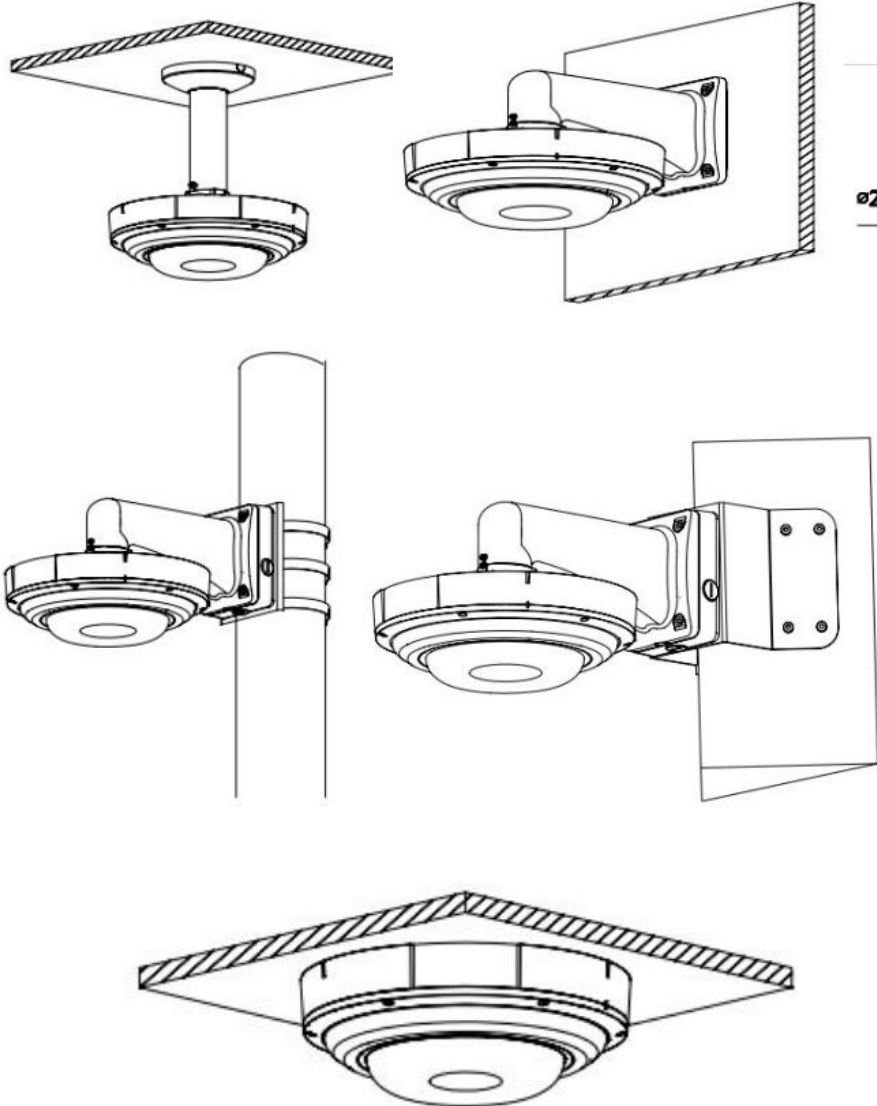| | |
|---|---|
| Power Supply | AC24V, PoE+(802.3at)(Class 4) |
| Power Consumption | AC 24V: 9.9W 31.2W(IR on); PoE: 10.6W 23.8W(IR on) |

### 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 | IK10 |

### Construction

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|---|---|
| Casing | Metal |
| Dimensions | 286.1mm×111.3mm |
| Net Weight | 2.7kg (5.95lb) |
| Gross Weight | 3.6kg (7.94lb) |

## Accessories

## Dimensions (mm/in)

⌀286.1 [⌀11.26"]

⌀210.0 [⌀8.27"]

4-⌀4.5 [⌀0.18"]

80.4 [3.17"]

111.3 [4.38"]