

# IPVMX-E40F-IRW1

4MP Starlight IR Eyeball Network Camera



- 1/3" 4 Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 25/30fps@4M(2688×1520)
- WDR(120dB), Day/Night(ICR), 3DNR, AGC,BLC
- 2.8mm fixed lens, Built-In Microphone
- Max IR LEDs Length 98ft
- Micro SD support up to 256GB, IP67, PoE

## System Overview

The IPVMX-E40F-IRW1 is a small form factor eyeball turret camera adopts a 4MP, 1/3" CMOS sensor enabling 4 Megapixel video at up to 30FPS. This sensor sits atop a 2.8mm fixed lens and is paired with IR LEDs capable of supplying illumination up to 98'. The image sensor itself has a strong 120 dB dynamic range, making this dome camera a 'True WDR' camera. The camera is also ONVIF compliant, making it suitable for most third party NVRs and VMS.

## Functions

### Wide Dynamic Range(WDR)

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### 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.

### Environmental

With a temperature range of -40 °C to +60 °C (-40 °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

Supporting ±30% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

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## Technical Specification

### Camera

|                          |                                        |
|--------------------------|----------------------------------------|
| Image Sensor             | 1/3" 4 Megapixel progressive scan CMOS |
| Effective Pixels         | 2688(H)x1520(V)                        |
| RAM/ROM                  | 512MB/32MB                             |
| Scanning System          | Progressive                            |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s          |
| Minimum Illumination     | 0.005Lux @ F1.6                        |
| S/N Ratio                | More than 50dB                         |
| IR Distance              | Distance up to 98ft (30m)              |
| IR On/Off Control        | Auto / Manual                          |
| IR LEDs                  | 2                                      |

### Lens

|                      |                 |         |           |          |
|----------------------|-----------------|---------|-----------|----------|
| Lens Type            | Fixed           |         |           |          |
| Mount Type           | M12             |         |           |          |
| Focal Length         | 2.8mm           |         |           |          |
| Max. Aperture        | F1.6            |         |           |          |
| Angle of View        | H: 103°, V: 55° |         |           |          |
| Optical Zoom         | N/A             |         |           |          |
| Focus Control        | Fixed           |         |           |          |
| Close Focus Distance | 3ft (0.9m)      |         |           |          |
| DORI Distance        | Detect          | Observe | Recognize | Identify |
|                      | 183ft           | 73ft    | 36ft      | 18ft     |

### Pan/Tilt/Rotation

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Pan/Tilt/Rotation Range | Horizontal: 0°–360°, Vertical: 0°–78°, Rotation: 0°–360° |
|-------------------------|----------------------------------------------------------|

### Video

|                      |                                                                                                                                                                     |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compression          | H.265, H.264, H.264H, H.264B, MJPEG                                                                                                                                 |
| Streaming Capability | 3 Streams                                                                                                                                                           |
| Resolution           | 4M (2688 × 1520); 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: 2688 × 1520 (1–25/30 fps)<br>Sub Stream: 704 × 576 (1–25 fps) / 704 × 480 (1–30 fps)<br>Third stream 1280 × 720 (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                                                                                                                                                       |

### Certifications

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

|                                      |                              |
|--------------------------------------|------------------------------|
| 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°             |
| Mirror                               | Off / On                     |
| Privacy Masking                      | Off / On (4 Area, Rectangle) |

### Audio

|             |                            |
|-------------|----------------------------|
| Compression | G.711a; G.711Mu; G726; AAC |
|-------------|----------------------------|

### Network

|                  |                                                                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet         | RJ-45 (10/100Base-T)                                                                                                                     |
| Protocol         | IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP; RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;N TP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP |
| Interoperability | ONVIF (Profile S/Profile G)                                                                                                              |
| Streaming Method | Unicast / Multicast                                                                                                                      |
| Max. User Access | 20 (Total bandwidth: 64 M.)                                                                                                              |
| Edge Storage     | FTP; SFTP; Micro SD card (support max. 256 G); NAS                                                                                       |
| Web Viewer       | IE, Chrome, Firefox, Safari                                                                                                              |

### Interface

|                 |                     |
|-----------------|---------------------|
| Video Interface | N/A                 |
| Audio Interface | Built-in Microphone |
| RS485           | N/A                 |
| Alarm           | N/A                 |

### Electrical

|                   |                                                                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply      | DC12V, PoE (802.3af)(Class 0)                                                                                                                                                         |
| Power Consumption | Basic power consumption: 2.6W (12V DC); 3W (POE)<br>Max. power consumption (intelligent functions enabled + H.265 + max. stream + WDR + IR full intensity): 6.6W (12V DC); 7.7W (POE) |

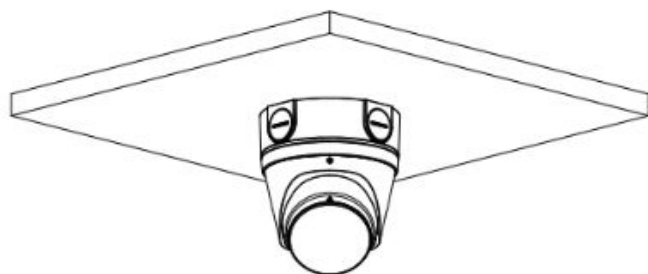
### Environmental

|                      |                                  |
|----------------------|----------------------------------|
| Operating Conditions | -40°F to +140°F (-40°C to +60°C) |
| Storage Conditions   | -40°F to +140°F (-40°C to +60°C) |
| Ingress Protection   | IP67                             |
| Vandal Resistance    | N/A                              |

### Construction

|              |                               |
|--------------|-------------------------------|
| Casing       | Metal+ Plastic                |
| Dimensions   | 4.18" × 4.8" (106.2mm×122mm ) |
| Net Weight   | 0.3Kg (0.66lb)                |
| Gross Weight | 0.42Kg (0.93lb)               |

## Accessories



## Dimensions (mm/in)

