

IPMX-W40F-IRW2

4MP Starlight Mini Wedge Network Camera



- 1/3" 4 Megapixel progressive scan CMOS
- H.265 & H.264 triple-stream encoding
- 30fps @4MP(2688 × 1520)
- Intelligent Motion Detect and Perimeter Protection
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC
- 2.8mm fixed lens, Built-in Mic
- Starlight support, Max IR LED Length 164 feet
- 256GB Micro SD memory, IP67, IK10, PoE

System Overview

The IPMX-W40F-IRW2 is the newest wedge dome in the Max line of cameras updated with the newest AI features. This small form factor camera adopts a 4MP, 1/3" Megapixel progressive scan CMOS sensor enabling 4 Megapixel video at up to 30FPS. This sensor is paired with a 2.8mm fixed lens, and Starlight supported with IR LEDs capable of illumination up to 164'. The image sensor itself has a strong 120 dB dynamic range, making this dome camera a 'True WDR' camera. The camera also supports audio with a built-in mic.

The real magic of this camera lies in its new AI (Advanced Intelligence) suite of features, which includes: Intelligent Motion Detect and Perimeter Protection. These features combined with our AI line of recorders provide extra reduction in false positives and efficiency using the search function.

Made in South Korea and conforms to the Trade Agreements Act (TAA).

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 (0.005 lux).

iMD (Intelligent motion Detect)

This is an upgraded version of motion detection currently known as Intelligent Motion Detection (iMD). The upgraded Plus version greatly improves alarm accuracy by pre-loading a deep learning algorithm that recognizes people and vehicles. Motion detection alerts containing a human and/or vehicle intrusion event are now possible with up to 95% accuracy. Eliminate false alarms, save time and keep stress levels low knowing you're protected.

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.

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.

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.

Protection (IP67, IK10, wide voltage)

The camera allows for $\pm 25\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV 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 complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.)

Technical Specification

Camera

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|--------------------------|----------------------------------|
| Image Sensor | 1/3"4 Megapixel progressive CMOS |
| Effective Pixels | 2688 (H) ×1520 (V) |
| RAM/ROM | 512MB/128MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100000 s |
| Min. Illumination | 0.005 Lux@F1.6 |
| S/N Ratio | > 56 dB |
| IR Distance | 50 m (164.0 ft) |
| IR On/Off Control | Auto / Manual |
| IR LEDs | 8 |

Lens

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|----------------------|---------------------------------|---------|-----------|----------|
| Lens Type | Fixed | | | |
| Mount Type | M12 | | | |
| Focal Length | 2.8mm | | | |
| Max. Aperture | F1.6 | | | |
| Angle of View | Horizontal:103°; vertical: 55°; | | | |
| Optical Zoom | N/A | | | |
| Focus Control | Fixed | | | |
| Close Focus Distance | 0.9 m (3.0 ft) | | | |
| DORI Distance | Detect | Observe | Recognize | Identify |
| | 183ft | 73ft | 36ft | 18ft |

Pan/Tilt/Rotation

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|-------------------------|---|
| Pan/Tilt/Rotation Range | Pan: -30°–30°; Tilt: 0°–80°; Rotation: 0° to 360° |
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Intelligence

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| Perimeter Protection | Tripwire; intrusion (Recognition of human and vehicle) Works together with Smart NVRs to perform refined intelligent search, event extraction and merging to event videos |
| Intelligent Motion Detect | Support |

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+ |
| 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) Sub Stream:(704 × 576@1–25 fps/ 704 × 480@1–30 fps) Third Stream: (1280 × 720@1–25/30 fps) |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 3 Kbps–8192 Kbps 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 |

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|--------------------------------------|--|
| 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 |
| Flip | 0°/90°/180°/270° (Support 90°/270° with 1920 × 1080 resolution and lower.) |
| Mirror | Off / On |
| Privacy Masking | Off / On (4 Area, Rectangle) |

Audio

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

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| Ethernet | RJ-45 (10/100Base-T) |
| Protocol | Pv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP; RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP |
| Interoperability | ONVIF(Profile S/Profile G);CGI;P2P |
| Scene Self-adaptation | Support |
| Max. User Access | 20 (Total bandwidth: 64 M) |
| Edge Storage | NAS Local PC for instant recording Micro SD card 256GB |
| Web Viewer | IE, Chrome, Firefox, Safari |
| Management Software | SmartICRSS, DSS |
| Smart Phone | IOS, Android |

Certifications

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|----------------|---|
| Certifications | CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B |
|----------------|---|

Interface

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

Electrical

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|-------------------|----------------------|
| Power Supply | DC12V, PoE (802.3af) |
| Power Consumption | <5.7W |

Environmental

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| Operating Conditions | -40°C to +60°C (-40°F to +140°F)/less than 95% |
| Storage Conditions | -40°C to +60°C (-40°F to +140°F) |
| Ingress Protection | IP67 |
| Vandal Resistance | IK10 |

Construction

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|--------------|--------------------------------|
| Casing | Metal |
| Dimensions | 55 mm × 108.9 mm (2.2" × 4.3") |
| Net Weight | 380 g (0.8 lb) |
| Gross Weight | 520 g (1.1 lb) |

Accessories

Dimensions (mm/in)

