

# IPMX-B20F-IRW2

2MP Starlight Mini Bullet Network Camera



- 2MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- 30fps@1080P(1920×1080)
- Intelligent Motion Detect and Perimeter Protection
- WDR(120dB), 3D DNR, HLC, BLC
- 2.8mm fixed lens
- Starlight support, Max. IR LEDs Length 164ft
- 256GB Micro SD Support, IP67, PoE

## System Overview

The IPMX-B20F-IRW2 is the newest camera from the Max line of cameras now upgraded with our newest technology including AI support and Starlight. This mini bullet camera provides 30FPS @1080P with H,265 support and equipped with a 1/2.8" low illuminance, high image definition CMOS image sensor on top of 2.8mm lens. Combined with Starlight support, 164 feet of IR distance and 120dB WDR, the camera provides a crisp, vibrant image under the most demanding lighting conditions.

With Intelligent Motion Detect (iMD) and Perimeter Protection technology, you can filter moving objects as vehicle or person on motion detect or when setting up virtual tripwire and intrusion zones. This helps reduce false alarms and streamline the playback search functionality.

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

## Functions

### Smart (H.265+ & H.264+)

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, wide voltage)

The camera allows for  $\pm 30\%$  input voltage tolerance, The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 rating, making it suitable for indoor or outdoor environments. It also features  $\pm 30\%$  input voltage tolerance, allowing it to operate under unstable power supply conditions. Its 4KV lightning rating provides protection from the effects of a lightning strike.

### 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.

### 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 (0.002 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.

## Technical Specification

### Camera

Image Sensor	1/2.8" 2 Megapixel progressive CMOS
Effective Pixels	1920 (H) × 1080 (V)
RAM/ROM	256MB / 128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s~1/100000 s
Minimum Illumination	0.002 Lux@F1.6
S/N Ratio	> 56 dB
IR Distance	Distance up to 50 m (164.0 ft)
IR On/Off Control	Auto / Manual
IR LEDs	1

### Lens

Lens Type	Fixed-focal				
Mount Type	M12				
Focal Length	2.8mm				
Max. Aperture	F1.6				
Angle of View	Horizontal:106°; vertical: 57°;				
Close Focus Distance	0.6 m (2.0 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	126 ft	50 ft	25 ft	12 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°
-------------------------	--

### Intelligence

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

Compression	H.265; H.264; H.264H; H.264B; MJPEG(sub stream only)
Streaming Capability	3 Streams
Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/VGA(640x480)/CIF(352x288/352x240)
Frame Rate	Main Stream: 1080P(25/30fps) Sub Stream: D1(1~30fps) Third Stream: 720P(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 Kbps~8192 Kbps H.265: 3 Kbps~8192 Kbps
Day/Night	ICR auto switch
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
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	Pv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP;Multicast;IGMP;NFS;PPPoE;802.1x;SNMP
Interoperability	ONVIF(Profile S/Profile G);CGI;P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 Users (Total bandwidth: 64 M)
Edge Storage	NAS, 256GB SD Card, FTP, SFTP
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

### Certifications

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
----------------	--

### Interface

Audio Interface	Built-in Microphone; Audio In/ Out (RCA ports)
RS485	N/A
Alarm	1 channel in: 5mA 3V~5V DC 1 channel out: 300mA 12V DC

### Electrical

Power Supply	DC12V, PoE (802.3af)
Power Consumption	<5.2W

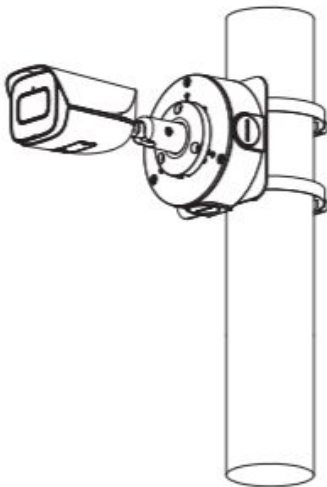
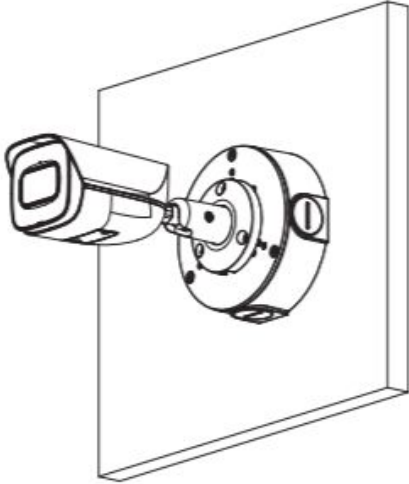
### Environmental

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

### Construction

Casing	Metal
Dimensions	192.7 mm × 70.5 mm × 66.4 mm (7.5" × 2.77" × 2.6")
Net Weight	590 g (1.3lb)
Gross Weight	780 g (1.7lb)

Accessories



Dimensions (mm/in)

