

IPMX-D40F-W1

4MP Starlight Dome AI Network Camera



- 4MP 1/2.7" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- 2.8mm fixed lens, 30fps@4MP (2688x1520)
- IVS, Intelligent Motion Detect, Perimeter Protection
- WDR(120dB), Day/Night(ICR), 3DNR, AWB,BLC
- No IRs, Starlight support
- 256GB Micro SD memory, IP67, IK10

System Overview

IC Realtime's IPMX-D40F-W1 features 1/2.7" CMOS sensor capable of 4 Megapixel (2688x1520) video at up to 30FPS with H.265 encoding support. This sensor sits atop a 2.8mm fixed lens and is equipped with 120dB WDR, Starlight and 256GB Micro SD support all housed in a tough, IP67 weatherproof and IK10 vandal proof dome housing.

The camera also comes with AI features such as Intelligent Motion Detect (iMD) and Perimeter Protection technology, which filters 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 when used with IC Realtime AI NVRs.

Functions

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.

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

Wide Dynamic Range

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

Starlight Technology

For challenging low-light applications, Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.003 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Protection(IP67, IK10, wide voltage)

The camera allows for $\pm 30\%$ 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.

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.

Technical Specification

Camera

Image Sensor	1/2.7"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
Minimum Illumination	0.003 Lux@F1.0
IR LEDs	N/A
S/N Ratio	More than 56dB

Lens

Lens Type	Fixed			
Mount Type	M12			
Focal Length	2.8mm			
Max. Aperture	F1.0			
Angle of View	Horizontal:103°; Vertical: 53°			
Optical Zoom	N/A			
Focus Control	Fixed			
Close Focus Distance	3.9 ft (1.2 m)			
DORI Distance	Detect	Observe	Recognize	Identify
	183ft	73ft	36ft	18ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Horizontal: 0°–355°; vertical: 0°–65°; rotation: 0°–355°
-------------------------	----------------------------------------------------------

Intelligence

IVS	Tripwire, Intrusion, Audio Detection
Perimeter Protection	Supports human/ vehicle recognition for tripwire and intrusion
Intelligent Motion Detect (iMD)	Supports human/ vehicle recognition Filters misinformation such as leaves and light.
Intelligent Search	Works with supported IC Realtime AI recorders with Intelligent search

Video

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 × 480 (1–30 fps) 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	Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/ natural/ street lamp/ outdoor/ manual/ regional custom

Gain Control	Auto / Manual
Noise Reduction	3DNR
Region of Interest	Off / On (4 Zone)
Defog	N/A
Flip	0°/90°/180°/270° (Supports 90°/270° with 1920 × 1080 resolution.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	G.711a; G.711Mu; G.726
-------------	------------------------

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IIPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; SNMP
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 Local PC for instant recording Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android

Certifications

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

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out
Alarm	1 channel In 5mA 3V–5V DC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V, PoE
Power Consumption	<4.4W

Environmental

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

Construction

Casing	Metal
Dimensions	3.2" × 4.3" (81 mm × 109.9 mm)
Net Weight	0.8 lb (378 g)
Gross Weight	1.2 lb (523 g)

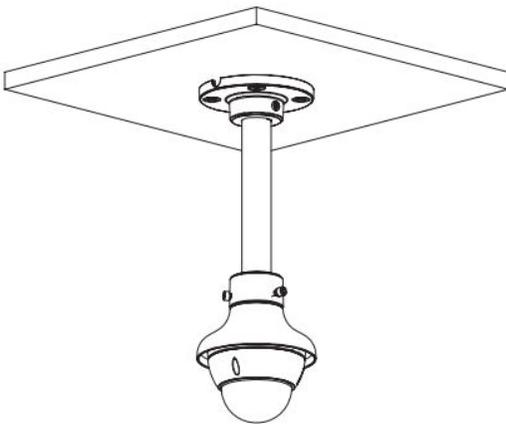
Accessories

Dimensions (mm/in)

MNT-JUNCTIONBOX-6



MNT-POLEXT-3



MNT-IPMINIDOME-WALL

