IPMX-D40F-IRW2
4MP Starlight AI Dome Network Camera

IC REALTIME

- 4MP 1/3" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- 30fps@4MP (2688×1520)
- iMD (Intelligent Motion Detect), Perimeter Protection support
- WDR(120dB), Day/Night(ICR), 3DNR, AWB,,BLC
- 2.8mm fixed lens
- Starlight support, Max IR LEDs Length 164 ft
- Micro SD memory, IP67, IK10
- TAA Compliant, Made In South Korea

System Overview

The IPMX-D40F-IRW2 is a small form factor dome camera adopting a 1/3" CMOS sensor capable of 4 Megapixel (2688×1520) video at up to 30FPS with H.265 encoding support. This sensor sits atop a 2.8mm fixed lens, and is paired with Starlight supported IR LEDs capable of supplying illumination up to 164'. The image sensor itself has a strong 120 dB dynamic range, making this dome camera a 'True WDR' camera.

The real magic of this camera lies in it's AI (Advanced Intelligence) suite of features, which includes iMD (Intelligent Motion Detect) and Perimeter Protection, which allows a greater degree of accuracy thanks to its ability to discern human/ vehicle objects. In addition, the camera is IK10 and IP67 rated, making it a great choice for outdoor installations.

Made In South Korea And Conforms To The Trade Agreements Act (TAA)

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.

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.

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 0.005 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 ±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.

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IC REALTIME

Technical Specification

Camera

Image Sensor	1/3" 4 Megapixel progressive scan CMOS
Effective Pixels	2688(H)x1520(V)
RAM/ROM	512MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.005 Lux@F1.6
S/N Ratio	More than 50dB
IR Distance	Distance up to 164' (50 m)
IR On/Off Control	Auto / Manual
IR LEDs	3

Lens

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	0.9m			
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 abnormality detection
Perimeter Protection	Support
Intelligent Motion Detect	Support
Smart Search	Compatible with AI ICRealtime NVRs to perform refined intelligent search, event extraction and merge event based recordings

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(1280x960)/ 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/ regional custom

Gain Control	Auto / Manual
Noise Reduction	3DNR
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Defog	N/A
Digital Zoom	16x
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; 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);CGI;P2P; Milestone
Streaming Method	Unicast / Multicast
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

Certifications	CE-LVD: EN60950-1 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

Video Interface	N/A
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In 5mA 3V–5V DC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V, PoE (802.3af)(Class 0)
Power Consumption	<7.3W

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
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	109.9mm×81mm (4.33"×3.19")
Net Weight	378 g (0.8 lb)
Gross Weight	523 g (1.2 lb)

Accessories

Dimensions (mm/in)

41.0 [1.61]

81.0 [3.19]

⌀109.9 [⌀4.33]

⌀98.2 [⌀3.87]

3-⌀4.7 [⌀0.19]