IPMX-B40F-ADW2

4MP Active Deterrence Bullet Network Camera





System Overview

The IPMX-B40F-ADW2 improves upon IC Realtime's Active Deterrence line with the addition of Smart dual illumination. This 4MP bullet camera is capable of 4MP@ 25FPS, H.265 support and features Smart Illumination with both White Light and IR LEDs. The Active Deterrence line of cameras feature a triggerable, built-in Red and Blue warning lights and speaker to deter unwanted personnel from the area.

The IPMX-B40F-ADW2 also comes with a suite of AI features to compliment its Active Deterrence function. With Intelligent Motion Detect (iMD)2.0 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 as well as link with the Active Deterrence features to warn and potentially deter intruders.

Functions

ADW 2.0

IC Realtime's 24/7 Color cameras With Active deterrence use 2 LED sets, a warm white illuminator to stream in color, then upon iMD detection, Active Deterrence stepping in with flashing red & blue LED light and audio warnings. ADW 2.0 cameras add a 3rd invisible & silent IR in standby mode to replace the 24/7 Color camera's always on warm white illuminator. With ADW2, a human or vehicle detection lights the white floodlight, and full Active Deterrence triggers only when the camera's tripline or defined trigger zone is violated.

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 (0.003 lux).

- 4MP, 1/2.7" CMOS image sensor, low illuminance, high definition image, 2.8mm fixed lens
- H.265 & H.264 triple-stream encoding
- 4MP (2688 × 1520) @25/30 fps
- Active Deterrence: Built-in Siren, Red and Blue LEDs
- Built-in Mic and 2-Way Talk
- Intelligent Motion Detect and Perimeter Protection
- Smart Dual Illumination: Warm White LED Full color and IR night illumination, max distance 98ft
- 256GB Micro SD Support, IP67, PoE

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.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

iMD 2.0 (Intelligent Motion Detect)

Based on the encoded detection skills of iMD 2.0, Object Search is IC Realtime's easy to use video clip search tool. You can review recordings to select people or objects you want searched for. Once defined, Object Search reviews video recordings from every iMD 2.0 equipped camera on the system and matches up detections that match your selection, then shows you those timelined clips.

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.



Technical Specification

Camera

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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–1/100,000 s
Minimum Illumination	0.003 lux@F1.0 (Color, 30 IRE) 0.0003 lux@F1.0 (B/W, 30 IRE) 0 lux (illuminator on)
S/N Ratio	> 56 dB
Illumination Distance	IR and Warm Light- Up to 98.43 ft (30 m)
Illumination On/Off Control	Auto / Manual
Illumination LEDs	2x (Warm white), 2x (IR)
Lens	
Lens Type	Fixed-focal
Mount Type	M12
Focal Length	2.8mm
Max. Aperture	F1.0

Focal Length		2.8mm			
Max. Aperture		F1.0			
Angle of View		Horizontal:101°; Vertical: 53°;			
Close Focus Distance		4.9 ft (1.5 m)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8mm	216 ft	86 ft	43 ft	21 ft

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°
Video	
Compression	Smart H.265+; Smart H.264+, H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
AI Coding	AI H.265; AI H.264
Streaming Capability	3 Streams
Resolution	4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296/2048 × 1536); 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: 1920 × 1080@(1 fps-30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32kbps–8192 kbps H.265: 12kbps–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	3D DNR
Motion Detection	Off / On (4 areas)

Region of Interest	Off / On (4 areas)
Smart IR	Support
AISSA	Utilizes deep learning algorithms to adjust the image parameters to suit the environmental conditions.
Flip	0%90%180%270° (Supports 90%270° with 2688 \times 1520 resolution and lower)
Mirror	Off / On
Privacy Masking	Off / On (8 areas)
Audio	
Compression	PCM; G.711a; G.711Mu; G.726; G.723
Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP;NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Cyber Security	Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; RTMP
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 72 M)
Edge Storage	FTP; SFTP; Micro SD card max. 256 GB); NAS
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	IOS, Android
Certifications	
Certifications	FCC Part 15, Subpart B
Interface	
Audio Interface	Built-in dual Microphone; 1/1 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	12V DC/PoE (802.3af)
Power Supply Power Consumption	12V DC/PoE (802.3af) Basic: 3.3 W (12 VDC); 4.4 W (PoE) Max. (streaming+warning light+speaker+warm light on): 6.8 W (12 VDC); 8.2 W (PoE)
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AI Functions

IVS		
Basic IVS	Tripwire; Intrusion	
Perimeter Protection		
Capabilities	Tripwire; Intrusion (Supports the classification and detection of vehicle and human objects)	
Intelligent Motion Detect 2.0		
Capabilities	Advanced secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change. Supports Object Search with compatible NVRs.	
AI Search		
Capabilities	Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos	

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