

IPMX-DB20-IRB1

2MP IR POE Network Doorbell



- 1/2.8" 2MP CMOS Sensor
- Built-in mic and speaker for 2-way talk
- Can be used with third-party SIP monitors
- H.264 and H.265 Video Compression
- Ethernet or WiFi network connection
- SIP Server and Protocol support
- IP65, 256GB mSD support, DC 12-33V or PoE

System Overview

The IPMX-DB20 is IC Realtime's premium IP doorbell camera in the Max lineup, delivering 2MP video with a 1/2.8" CMOS sensor and built-in two-way audio for clear, real-time communication. With support for both Ethernet and WiFi, as well as H.264 and H.265 compression, it ensures efficient, high-quality streaming and storage—up to 256GB locally via microSD. Its IP65-rated housing makes it reliable in outdoor environments, and flexible power options include DC 12–33V or PoE for easy installation.

Ideal for smart home integration, the IPMX-DB20 supports full SIP protocol communication, allowing it to work seamlessly with third-party SIP monitors and smart home touch panels. Whether used in residential or light commercial applications, this doorbell delivers robust performance, advanced connectivity, and the reliability you'd expect from the IC Realtime.

Functions

Interoperability

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

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP65 rating, making it suitable for outdoor environments.

Flexible Connection and Power

This doorbell supports data over ethernet and also has a built-in WiFi supporting IEEE 802.11b, IEEE 802.11g, and IEEE 802.11n for wireless communication. The device also supports power over Ethernet (PoE)

SIP Protocol

The IC Realtime doorbell supports SIP communication for integration with third-party devices and smart home systems. To function properly, it must be registered to a SIP server, and the SIP client should support both a login ID for authentication and a separate username for identification. This ensures seamless two-way audio/video communication within SIP-based environments.

Built for Integration in Mind

IC Realtime's doorbell is designed for seamless integration with third-party devices and smart home systems, supporting SIP, CGI commands, and RTSP streaming. Professional features include PoE for simplified power and connectivity, door lock control, and compatibility with IC card devices for secure access management.

Access Control Options

The IPMX-DB20 can connect to a door lock and provide unlock access from a connected touch screen, IC View Pro mobile app, Access card or Keyfobs.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Effective Pixels	1920 (H) × 1080 (V)
RAM/ROM	256MB/ 128MB
Electronic Shutter Speed	1/30-1/100000s
Illumination Distance	16.5ft (5m) distance
IR LED On/Off Control	Auto / Manual

Lens

Lens Type	Fixed-focal			
Max. Aperture	F2.1			
Angle of View	H: 110°; V: 62°; D: 133°			
DORI Distance	Detect	Observe	Recognize	Identify
	99.5 ft	39.7 ft	19.88 ft	10 ft

Video

Compression	H.264; H.265
Streaming Capability	2 Streams
Resolution	1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 480); WVGA (800×480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	NTSC: 30 fps PAL: 25 fps
Bit Rate Control	CBR
Bit Rate	768 kbps–8 Mbps
Day/Night	Auto (ICR)/Color/B/W; Color/B/W
WDR	120 dB
Noise Reduction	2DNR/3DNR

Audio

Audio Interface	Built-In Microphone and Speakers
Compression	G.711a; G.711u; PCM
Audio Bit Rate	16 kHz, 16 bit
Audio Mode	Two-way audio
Audio Enhancements	Echo suppression/digital noise reduction; Echo suppression; Digital noise reduction

Integration

2-Way Talk	Built-in SIP Server; supports connection to third party SIP servers/ touch panels.
Video	RTSP Support, JPEG Snapshots
Events	Motion Detect, Doorbell Push

Network

Ethernet	1 × RJ-45 10/100 Mbps Ethernet port
Protocol	RTSP; DNS; P2P; UPnP; RTP; RTMP; SIP; SSH; HTTP/HTTPS; ONVIF
Interoperability	ONVIF 23.12; CGI; Third-party SIP Clients
Network Connection	LAN or WiFi
WiFi Standards supported	IEEE 802.11b; IEEE 802.11g; IEEE 802.11n
Wireless Frequency Range	2.4 GHz
Storage	Micro SD card (Max. 256 GB)
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	IC Now, IC Now Pro
Smart Phone	IOS, Android (IC View Pro)

Interface

Button Type	Mechanical
Tamper Alarm	Supported

Access Control

Communication Mode	Full digital
Unlock Mode	Card; App; CGI; Indoor monitor via DTMF (SIP-INFO)
Lock Control	1
Card Type	IC card
Card Capacity	3000
Card Reading Distance	0"–1.18" (0 cm–3 cm)

Certifications

Certifications	FCC Part 15, Subpart B
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Electrical

Power Supply	12–33 VDC, 1 A ; Standard PoE
Power Consumption	≤ 3.5 W (standby), ≤ 6 W (working)

Environmental

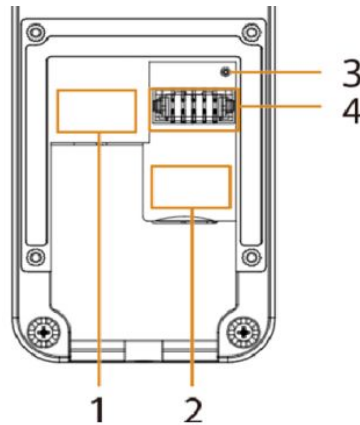
Operating Conditions	-40°F to +140°F (-40°C to +60°C)
Operating Humidity	10%–90% (RH), non-condensing
Operating Altitude	0 m–3,000 m (0 ft–9,842.51 ft)
Ingress Protection	IP65

Construction

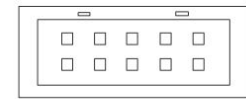
Casing	PC+ABS
Dimensions	6.30" × 1.97" × 1.18" (160 mm × 50 mm × 30 mm)
Included Accessories	Alarm power ribbon cable, surface mount, optional Sun shade included
Installation	Surface Mounted
Net Weight	0.88 lb (0.4 kg)
Gross Weight	0.40 lb (0.18 kg)

Rear Panel

No.	Function
1	Network Port
2	SD Card Slot
3	Reset Button
4	Multi-function Port



Multi-function Port



DC_IN+	GND	DOOR_EXIT	DOOR_SR	GND
DC_IN-	DOOR_NC	DOOR_NO	DOOR_COM	NA

Dimensions

