



AI Privacy & Analytics	Superior Image Quality	Industrial Grade	Professional Features
Face masking, body anonymization, people counting, perimeter protection, metadata	4MP 1/1.8" CMOS, 140 dB WDR, 0.001 Lux, motorized 2.7-12 mm lens	IP67 & IK10, -40 °C to +60 °C, 24/7 operation	Triple stream, ONVIF S/G/T, long-distance PoE transmission

Datasheet rev.A26.02

Advanced AI Privacy Protection Technology

Industry-leading real-time face masking and human body anonymization. Advanced AI algorithms automatically detect and blur faces and bodies in the video stream, ensuring GDPR compliance while maintaining full surveillance effectiveness.

FEATURES

- 1/1.8" 4MP CMOS sensor with ultra-low light performance
- Max. resolution 4MP (2688x1520) @50/60 fps
- 140 dB true WDR, day/night (ICR), 3D NR
- Efficient H.265+ compression
- Advanced AI for people counting, face detection, perimeter protection, ANPR, video metadata
- Real-time face masking and human body anonymization
- Alarm I/O: 3 in / 2 out; Audio: 1 in / 1 out; RS-485; BNC
- Micro SD card up to 256 GB on-board storage
- Power supply: 24V AC / 12V DC / PoE+ (802.3at)
- 5 streams for 3 HD video channels
- Long-distance PoE transmission technology
- IP67 weatherproof, IK10 vandal-resistant

MT-IPB9104AI

TECHNICAL SPECIFICATIONS

Camera	
Image Sensor	1/1.8" 4 Megapixel progressive CMOS
Max. Resolution	2688 (H) × 1520 (V)
ROM / RAM	4 GB / 2 GB
Scanning System	Progressive
Electronic Shutter	Auto/Manual, 1/3 s – 1/100,000 s
Min. Illumination	0.001 Lux @ F1.2
S/N Ratio	> 56 dB
IR Distance	60 m
IR LED	4 (Auto/Manual control)
Pan/Tilt/Rotation	Pan: 0°–360° / Tilt: 0°–90° / Rotation: 0°–360°

Intelligent	
IVS	Abandoned/missing object detection
Perimeter Protection	Tripwire; intrusion; fast moving (human/vehicle classification); loitering; crowd gathering; illegal parking
Face Detection	Detection, tracking, priority, snapshot, optimized upload; face enhancement, face exposure, facial attributes (6) & expressions (8); mask & beard detection; 3 snapshot modes
ANPR	License plate recognition, tracking, priority, snapshot; vehicle attributes: plate, category, color, brand, rearview mirror, seat belt, smoking, phone use
Video Metadata	Faces, human figures, 4-wheel and 2-wheel vehicles
People Counting	Entry/exit/passage counting, annual/monthly/daily reports; area counting with 4 configurable rules; dwell time & alarm linkage; queue management
Smart Search	Event extraction and video-event merge with NVR

Audio	
Audio Compression	G.711a; G.711Mu; G.726; AAC; G.723

Alarm Event	
Alarm Event	No SD card; SD memory full; SD card error; network disconnection; IP conflict; unauthorized access; motion detection; video tampering; defocus detection; scene change; intrusion; tripwire; abandoned/missing object; fast moving; parking; loitering; crowd gathering; audio; people counting; face detection; voltage detection; area people counting; queue management

Network	
Network Port	RJ-45 (10/100/1000 Base-T)
SDK & API	Yes
Protocol	HTTP; HTTPS; 802.1x; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP; QoS; UPnP; NTP; SFTP; RTMP; Genetec; Bonjour; Multicast
Interoperability	ONVIF (Profile S/G/T); CGI; compatible VMS
User/Host	20 (total bandwidth: 80 MB)
Storage	FTP; Micro SD card (256 GB); NAS; SFTP; Cloud
Browser	IE 9+; Chrome 42+; Firefox 48.0.2+
Management Software	ONVIF (Profile S/G/T), CGI, compatible VMS
Mobile Phone	iOS; Android

Structure	
Casing	Metal and plastic
Dimensions	340.1 × 108.5 × 92.9 mm (13.39" × 4.27" × 3.66")
Net Weight	1,600 g (3.5 lb)
Gross Weight	2,400 g (5.3 lb)

Lens			
Lens Type	Motorized vari-focal		
Mount	Module interface		
Focal Length	2.7 mm – 12 mm		
Max. Aperture	F1.2		
Field of View	H: 114°(W)–47°(T) / V: 59°(W)–27°(T) / D: 141°(W)–55°(T)		
Iris	Auto		
Close Focus Distance	W: 1 m / T: 2.5 m		
DORI Distance	Lens	W	T
	Detect	60.1 m	128.6 m
	Observe	24.0 m	51.4 m
	Recognize	12.0 m	25.7 m
	Identify	6.0 m	12.8 m

Video	
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
Advanced Codec	H.265+ / H.264+
Main Stream	2688×1520 @1–50/60fps
Sub Stream	704×576 @1–25fps; 704×480 @1–30fps
Third Stream	1920×1080 @1–25/30fps
Fourth Stream	1920×1080 @1–25/30fps
Fifth Stream	704×576 @1–25fps; 704×480 @1–30fps
Stream Capability	5 streams
Resolutions	4MP (2688×1520), 3MP (2304×1296), 1080p (1920×1080), 1.3MP (1280×960), 720p (1280×720), D1, VGA, CIF
Bit Rate Control	CBR / VBR
Video Bit Rate	H.264: 32–10,240 kbps; H.265: 12–10,240 kbps
Day/Night	Auto (ICR) / Color / B/W
BLC	Yes
HLC	Yes
WDR	140 dB
Auto Scene Adaptation	Yes
White Balance	Auto / Natural / Artificial / Outdoor / Manual / Custom
Gain Control	Auto / Manual
Noise Reduction	3D NR
Motion Detection	ON/OFF (4 rectangular areas)
ROI	Yes (4 areas)
EIS	Yes
Smart Illumination	Yes
Defog	Yes
Image Rotation	0° / 90° / 180° / 270° (90°/270° with 1080p or lower)
Mirror	Yes
Privacy Masking	4 areas

Power	
Power Supply	12V DC / 24V AC / PoE+ (802.3at)
Power Consumption	< 17.3 W

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TECHNICAL SPECIFICATIONS

Environment	
Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Operating Humidity	≤95% RH
Storage Temperature	-40°C to +60°C (-40°F to +140°F)
Protection	IP67, IK10

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