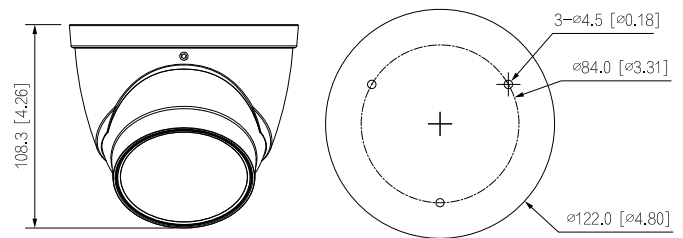


# 8MP IR Vari-focal Eyeball Network Camera



Dimensions (mm[inch])



- \* 8-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- \* Outputs max. 8MP (3840×2160) @25/30 fps.
- \* Built-in IR LED, and the max. illumination distance is 40 m.
- \* ROI, SVC, SMART H.264+/H.265+, AI H.264/H.265, encoding after filter, flexible coding, applicable to various bandwidth and storage environments.
- \* Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- \* With deep learning algorithm, it supports: video metadata, IVS, face detection, smart object detection, and people counting, etc.
- \* Supports max. 512 GB Micro SD card, built-in MIC.
- \* 12 VDC/PoE power supply; ePoE.
- \* IP67 protection.
- \* SMD 3.0.

## Technical Specification

### Camera

Image Sensor	1/1.8" CMOS
Max. Resolution	3840 (H) × 2160 (V)
ROM	4 GB
RAM	2 GB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.0008 lux@F1.8 (Color, 30 IRE) 0.0004 lux@F1.8 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	40 m (131.23 ft) (IR)
Illuminator On/Off Control	Auto; Manual
Illuminator Number	2 (IR LED)
Angle Adjustment	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–360°

### Lens

Lens Type	Motorized vari-focal				
Lens Mount	φ14				
Focal Length	2.7 mm–12 mm				
Max. Aperture	F1.8				
Field of View	H: 113°–47°; V: 60°–26°; D: 133°–53°				
Iris Control	Auto				
Close Focus Distance	1.5 m (4.92 ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	83.4 m (273.62 ft)	33.4 m (109.58 ft)	16.7 m (54.79 ft)	8.3 m (27.23 ft)
	T	189.6 m (622.05 ft)	75.8 m (248.69 ft)	37.9 m (124.34 ft)	19.0 m (62.34 ft)

### Intelligence

EPTZ	Yes
IVS (Perimeter Protection)	Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection, people gathering, and parking detection
Smart Object Detection	Smart abandoned object; smart missing object
SMD 3.0	Less false alarm, longer detection distance
AI SSA	Yes
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes and 8 expressions; face snapshot set as face, one-inch photo or custom; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting

### People Counting

Tripwire people counting, generating and exporting report (day/week/month/year); people counting in area and queue management, generating and exporting report (day/week/month); 4 rules can be set for tripwire, people counting in area and queue management.

### Heat Map

Yes

### Video Metadata

Motor vehicle, non-motor vehicle, face, human body detection; track; snapshot; snapshot optimization; optimal face snapshot upload.  
Motor vehicle attributes: vehicle type, vehicle color, vehicle logo and other attributes : seatbelt, smoking, calling.  
Non-motor vehicle attributes: type, color, number of people, top type and color, hat.  
Human body attributes: gender, top/bottom type and color, bag, hat and umbrella.  
Face attributes: gender, age, expressions, glasses, face mask and beard.

### Smart Search

Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos

### Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream)
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Video Frame Rate	Main stream: 3840 × 2160@(1–25/30 fps) Sub stream: D1@(1–25/30 fps) Third stream: 1080p@(1–25/30 fps) Fourth stream: 720p@(1–10 fps) *The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity.
Stream Capability	4 streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728); 5M (2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 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)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 32 kbps–16384 kbps; H.265: 12 kbps–13568 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
Scene Self-adaptation (SSA)	Yes
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Image Stabilization	Electronic Image Stabilization (EIS)
Smart Illumination	Yes

Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 4M (2688 × 1520) resolution and lower)
Mirror	Yes
Privacy Masking	8 areas

### Audio

Built-in MIC	Yes
Audio Compression	G.711a; G.711Mu; PCM; G.726; G.723

### Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; face detection; video metadata; SMD; people counting in area; stay detection; people counting; people number error detection; queue people number alarm; queue time alarm; security exception; defocus detection
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### Network

Network Port	RJ-45 (10/100 Enhancement Base-T)
SDK and API	Yes
Network 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; P2P
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
User/Host	20 (Total bandwidth: 80 M)
Storage	FTP; SFTP; Micro SD card (support max. 512 GB); NAS
Browser	IE: IE 9 and later Chrome: Chrome 102 and later Firefox: Firefox 88 and later
Management Software	SmartPSS Lite; DSS; DMSS
Mobile Client	iOS; Android
Cyber Security	Configuration encryption; trusted execution; Digest; security logs; WSSE; account lockout; syslog; video encryption; 802.1x; IP/MAC filtering; HTTPS; trusted upgrade; trusted boot; firmware encryption; generation and importing of X.509 certification

### Certification

Certifications	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14
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### Power

Power Supply	12 VDC/PoE (802.3af)/ePoE
Power Consumption	Basic: 4.1 W (12 VDC); 5.4 W (PoE) Max. (H.265+ WDR+ Intelligence on+IR on): 7.5 W (12 VDC); 9.0 W (PoE)

### Environment

Operating Temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Operating Humidity	≤95%
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)

Storage Humidity	10%–95% (RH), non-condensing
Protection	IP67

### Structure

Casing Material	Metal
Product Dimensions	108.3 mm × Φ122 mm (4.26" × Φ4.80")
Net Weight	0.70 kg (1.54 lb)
Gross Weight	0.96 kg (2.12 lb)

### Accessories

#### Optional:



WM-EL203W  
Wall Mount  
Bracket



PM-EL152-E  
Pole Mount  
Bracket



MA-EL106  
Mount Adapter



JB-EL137  
Junction Box

