# IPC-HDBW5241E-ZE

2MP Vari-focal Dome Network Camera





#### Overview

Shogun network camera with starlight solution and deep learning algorithm, has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, com -plying with the standards of IP67 and IK10 (Supported by some select models).

#### Key Feature

- 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
- · Outputs max. 2 MP (1920 × 1080)@30 fps.
- $\cdot\,$  Built-in IR LED, and the max. illumination distance is 30 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.
- · Three switchable intelligent resources: IVS, face detection, and people counting.
- · Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card.
- · 24 VAC/12 VDC/PoE power supply, easy for installation.
- · IP67 and IK10 protection.

#### Function

### **Face Detection**

Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

### Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

#### **Perimeter Protection**

With deep learning algorithm, Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, park- ing detection, loitering detection and gathering detection) are largely reduced.

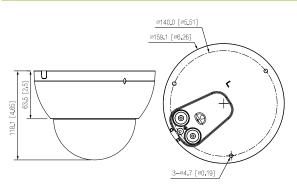
#### **People Counting**

With deep learning algorithm, People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

#### Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes. IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J). Wide voltage: The camera allows  $\pm$ 30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to out-door environment with instable voltage.

### Diamensions





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Technical Specification					
Camera					
Image Sensor		1/2.8" CMOS			
Max. Resolution		1920 (H) × 1080 (V)			
ROM		128 MB			
RAM		512 MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual 1/3 s-1/100,000 s			
Min. Illumination		0.002 lux@F1.5 (Color, 30 IRE) 0.0002 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)			
S/N Ratio		>56 dB			
Illumination Distance		30 m (98.43 ft) (IR)			
Illuminator On/Off Control		Auto			
Illuminator Number		3 (IR LED)			
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–65° Rotation: 0°–355°			
Lens					
Lens Type		Motorized vari-focal			
Lens Mount		φ14			
Focal Length		2.7 mm–13.5 mm			
Max. Aperture		F1.5			
Field of View		Horizontal: 109°–30° Vertical: 57°–17° Diagonal: 131°–35°			
Iris Control		Auto			
Close Focus Distance		0.8 m (2.62 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	44.1 m (144.69 ft)	17.6 m (57.74 ft)	8.8 m (28.87 ft)	4.4 m (14.44 ft)
	т	146.2 m (479.66 ft)	58.4 m (191.60 ft)	29.2 m (85.80 ft)	14.6 m (47.90 ft)
Smart Event					

IVS	Abandoned object; missing object
Heat Map	Yes

## Professional, intelligent

Professional, intelligent				
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			
SMD 3.0	Less false alarm, longer detection distance			
Face Detection	Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face attributes extraction including 6 attributes (gender, age, glasses, expressions, mask, and beard) and 8 expressions (angry, sad, disgusted, scared, surprised, calm, happy, confused); face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting			
People Counting	Tripwire people counting and people counting in area, generating and exporting report (day/month/year); queue management, generating and exporting report (day/month); 4 rules can be set for tripwire, people counting in area and queue management			
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: 1920 × 1080@(1 fps-25/30 fps) Sub stream: D1@(1 fps-25/30 fps) Third stream: 1080p@(1 fps-25/30 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	3 streams			
Resolution	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-8192 kbps H.265: 32 kbps-8192 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; manual			
Noise Reduction	3D NR			
Motion Detection	OFF/ON (4 areas, rectangular)			

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Region of Interest (RoI)	Yes (4 areas)		
Image Stabilization	Electronic Image Stabilization (EIS)		
Smart Illumination	Yes		
Defog	Yes		
Image Rotation	0°/90°/180°/270°		
Mirror	Yes		
Privacy Masking	8 areas		
Audio			
Audio Compression	PCM; G.711a; G.711Mu; 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; defocus detection; scene changing; tripwire; intrusion; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; input error; intensity change; people gathering; face detection; voltage detection; people counting in area; stay detection; people number error detection; queue management		
Network			
Network Port	RJ-45 (10/100 Enhancement Base-T)		
SDK and API	Yes		
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		
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; Bonjour		
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone		
User/Host	20 (Total bandwidth: 88 M)		
Storage	FTP; SFTP; Micro SD card (support max. 256 GB); NAS		
Browser	IE: IE8 and later Chrome Firefox		
Management Software	Smart PSS; DSS; DMSS		
Mobile Client	iOS; Android		
Certification			
Certifications	CE-LVD: EN 62368-1 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		

Port			
Audio Input	1 channel (RCA port)		
Audio Output	1 channel (RCA port)		
Alarm Input	1 channels in: 5 mA 3 V–5 VDC		
Alarm Output	1 channel out: 300 mA 12 VDC		
Power			
Power Supply	12 VDC (±30%)&24 VAC (±30%); PoE (802.3af); ePoE		
Power Consumption	Basic: 4.6 W (12 VDC); 4.9 W (24 VAC); 4.9 W (PoE) Max. (max. stream + intelligence + IR on + focus): 11.8 W (12 VDC); 11.5 W (24 VAC); 11.3 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)		
Protection	IP67; IK10		
Structure			
Casing	Metal + plastic		
Product Dimensions	Φ159 mm × 117.9 mm (6.26" × 4.64")		
Net Weight	950 g (2.09 lb)		
Gross Weight	1200 g (2.65 lb)		

#### SHOGUN TECHNOLOGY CO., LTD