SHOGUN
Technology Solution

IPC-HFW2241T-ZAS
2MP Vari-focal Bullet Network Camera

ONVIF®
GST

Overview

With advanced deep learning algorithm, network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

Key Feature

· 2-MP 1/2.8" CMOS image sensor, low luminance, and high definition image.
· Outputs max. 2 MP (1920 × 1080)@25/30 fps.
· H.265 codec, high compression rate, ultra-low bit rate.
· Built-in IR LED, and the max. illumination distance is 60 m.
· ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
· Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable   to various monitoring scenes.
· Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human).
· Alarm: 1 in, 1 out; audio: 1 in, 1 out.
· Supports max. 256 G Micro SD card; built in MIC.
· 12 VDC/PoE power supply, easy for installation.
· IP67, IK10 (optional) protection.
· Smart motion detection plus

Function

SMD Plus

With intelligent algorithm, Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

Perimeter Protection

With deep learning algorithm, the 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) are largely reduced.
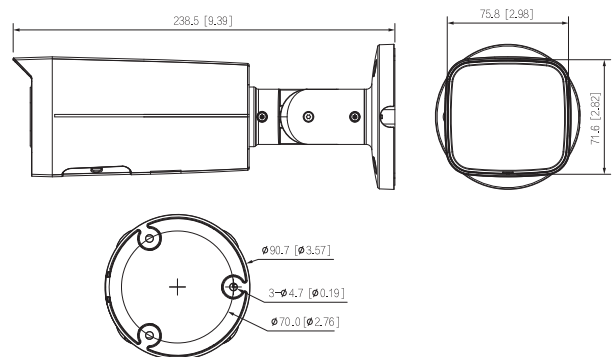
Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, the network camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with back light shadow.

Protection (IP67, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normally after soaking in 1 m deep water for 30 minutes. Wide Voltage: The camera allows ±30% (for some power supplies) input Voltage tolerance (wide Voltage range), and it is widely applied to outdoor environment with unstable voltage.

Dimensions

238.5 [9.39]   75.8 [2.98]   71.6 [2.82]

Ø90.7 [Ø3.57]
3-Ø4.7 [Ø0.19]
Ø70.0 [Ø2.76]

CE FC
ISO 9001 QUALITY ASSURANCE MANAGEMENT
ISO 14001 ENVIRONMENTAL MANAGEMENT

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Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Max. Resolution	1920 (H) × 1080 (V)
ROM	128 MB
RAM	128 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	Up to 60 m (196.85 ft) (IR LED)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	4 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–360° Tilt: 0°–90° Rotation: 0°–360°

Lens

Lens Type	Motorized vari-focal
Lens Mount	φ14
Focal Length	2.7 mm–13.5 mm
Max. Aperture	F1.5
Field of View	H: 108°–30°; V: 56°–17°; D: 131°–35°
Iris Control	Fixed
Close Focus Distance	0.8 m (2.62 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	44.1 m (144.69 ft)	17.7 m (58.07 ft)	8.8 m (28.87 ft)	4.4 m (14.44 ft)
	T	144.8 m (475.07 ft)	57.9 m (189.96 ft)	29.0 m (96.14 ft)	14.5 m (47.57 ft)

*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/ project design tool.

Intelligence

IVS (Perimeter Protection)	Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human)
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+
Video Frame Rate	Main stream: 1920 × 1080@(1–25/30 fps) Sub stream: 704 × 576@(1–25 fps)/704 × 480@(1–30 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	2 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–6144 kbps H.265: 12 kbps–6144 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	120 dB
White Balance	Auto; natural; street lamp; outdoor; manual; regional custom
Gain Control	Manual;Auto
Noise Reduction	3D NR
Motion Detection	OFF/ON (4 areas, rectangular)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower)
Mirror	Yes
Privacy Masking	4 areas

Audio

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

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Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; audio detection; voltage detection; defocus detection; external alarm (Only- ZAS supports); SMD; security exception

Network

Network Port	RJ-45 (10/100 Base-T)
SDK and API	Yes
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P; SNMP;
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
User/Host	6 (Total bandwidth: 36 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 GB)
Browser	IE Chrome Firefox
Management Software	SmartPSS Lite; DSS; DMSS
Mobile Client	iOS; Android
Cyber Security	Video 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

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

Port

Audio Input	1 channel (RCA port)
Audio Output	1 channel (RCA port)
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC

Power

Power Supply	12 VDC/PoE (802.3af)
Power Consumption	Basic: 2W (12 VDC); 2.6 W (PoE) Max. (H.265+intelligence on +WDR +IR on): 8.6 W (12 VDC); 9.9 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 (optional)

Structure

Casing Material	Metal
Product Dimensions	238.5 mm × 90.7 mm × 90.7 mm (9.39" × 3.57" × 3.57") (L × W × H)
Net Weight	0.76 kg (1.7 lb)
Gross Weight	1.02 kg (2.2 lb)

* Note : The model IPC-HFW2241T-ZAS is the OEM version of the Dahua model DHI-IPC-HFW2241T-ZAS