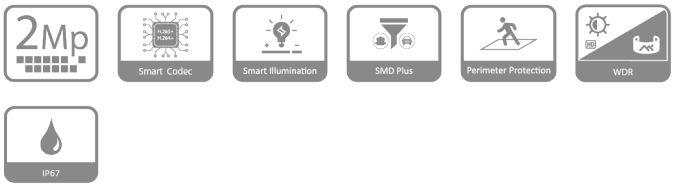
DH-IPC-HFW4231T-ZAS

2MP IR Vari-focal Bullet Network Camera



- 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)
- Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- 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.
- SMD Plus.



Series Overview

With advanced H.265 encoding technology, Dahua Pro series network camera has efficient video encoding capacity, which saves bandwidth and storage space. This series camera adopts starlight technology, intelligent IR technology, and intelligent image analysis. It supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

Functions

Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, Dahua 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.

Smart Illumination

Dahua Smart Illumination technology can display image in the environment of low illuminance or completely dark environment. According to the distance of the targets, the camera adjusts Illuminations intensity automatically to display the details of the moving target.

SMD Plus

With intelligent algorithm, Dahua 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.

Perimeter Protection

With deep learning algorithm, Dahua 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, parking detection, loitering detection and gathering detection) are largely reduced.

WDR

With advanced Wide Dynamic Range (WDR) technology, Dahua 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 backlight shadow.

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)
Angle Adjustment	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)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	W	44.1 m (144.69 ft)	17.7 m (58.07 ft)	8.8 m (28.87 ft)	4.4 m (14.4 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)
SMD	SMD Plus
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.
Streaming 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

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; 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 T & Profile G); CGI
User/Host	6 (Total bandwidth: 36 M)

Storage	FTP;SFTP; Micro SD card (support max. 256 GB) 4.17
Browser	IE Chrome Firefox
Management Software	Smart PSS; DSS; DMSS
Mobile Client	iOS;Android
Security	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 4.16
Certification	
Certifications 4.19	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: wet contact, 5 mA 3–5 VDC
Alarm Output	1 channel out: wet contact, 300 mA 12 VDC
Power	
Power Supply	12 VDC; PoE (802.3af) 4.13
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) 4.15
Operating Humidity	≤95%
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Protection 4.14	IP67; IK10 (optional)
Structure	
Casing Material	Metal + Plastic
Product Dimensions	239.2 mm × 90.7 mm × 90.7 mm (9.42" × 3.57" × 3.57") (L × W × H)
Net Weight	0.79 kg (1.74 lb)
Gross Weight	1.05 kg (2.31 lb)

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-HFW4231T-ZAS	2MP IR Vari-focal Bullet Network Camera
Accessories (Optional)	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-W100-256GB	MicroSD Card
Accessories (Optional)	DHI-TF-P100/256GB	MicroSD Card

Accessories

Optional:



DH-PFM320D-EN
DC12V2A power adapter



DH-PFM321-EN
DC12V1A power adapter



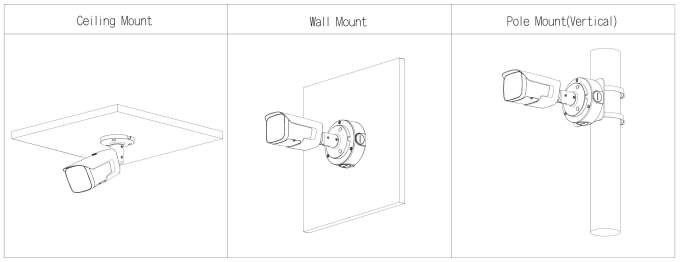
DHI-TF-P100/256GB
MicroSD Card



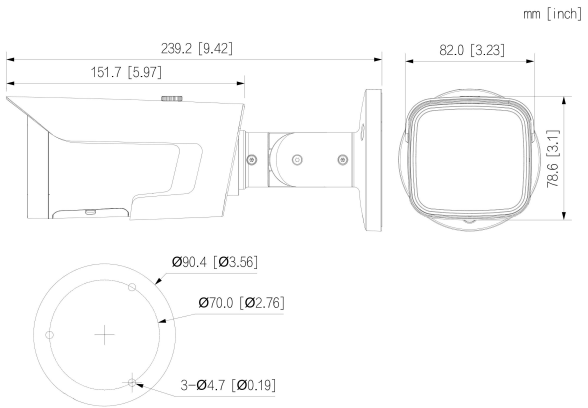
DHI-TF-W100-256GB
MicroSD Card



PFM900-E
Integrated Mount Tester



Dimensions (mm[inch])



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