DH-IPC-B1E20-SA

2MP ECO IR Fixed-focal Bullet Network Camera



- 2-MP 1/3" CMOS image sensor, low luminance, and high definition image.
- Outputs max 2 MP (1920 ×1080)@30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED, and the max illumination distance is 30 m.
- DWDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and invalid access.
- Supports max. 256 G Micro SD card; built in Mic.
- 12 VDC/PoE power supply, easy for installation.
- IP67 protection.
- Supports human detection.



Series Overview

The Dahua ECO Series camera is designed with simplicity for practicality. Plug and play, it immediately outputs images when connected to the Dahua NVR. It supports remote monitoring through the Dahua mobile app, and triggers alarms for motion detection, video tampering, and security exception, providing you with a convenient and secure IP service.

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.

Human Detection

Dahua intelligent algorithms extract moving human targets from videos and filters out alarms that are triggered by non-human targets to increase the accuracy and effectiveness of alarms.

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 instable voltage.

Technical Specification

Camera

Image Sensor	1/3" CMOS
Max. Resolution	1920 (H) × 1080 (V)
ROM	16 MB
RAM	64 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.01 lux@F2.0 (Color, 30 IRE) 0.005 lux@F2.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>56 dB
Illumination Distance	Up to 30 m (98.43 ft) (IR)
Illuminator On/Off Control	Auto;Manual
Illuminator Number	2 (IR LED)
Angle Adjustment	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°

Lens

Lens Type	Fixed-focal
Lens Mount	M12
Focal Length	2.8 mm; 3.6 mm
Max. Aperture	F2.0
Field of View	2.8 mm: H: 96°; V: 54°; D: 112° 3.6 mm: H: 80°; V: 43°; D: 94°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 0.6 m (1.97 ft) 3.6 mm: 0.9 m (2.95 ft)

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	45.6 m (149.61 ft)	18.3 m (60.04 ft)	9.1 m (29.86 ft)	4.6 m (15.09 ft)
	3.6 mm	56.3 m (184.71 ft)	22.5 m (73.82 ft)	11.3 m (37.07 ft)	5.6 m (18.37 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

Human Detection	Supports the classification and accurate detection of 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 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	VBR;CBR
Video Bit Rate	H.264: 32 kbps–4096 kbps; H.265: 12 kbps–4096 kbps
Day/Night	Auto(ICR)/Color/B/W
BLC	Yes
HLC	Yes
WDR	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)
Region of Interest (RoI)	Yes (4 areas)
Smart Illumination	Yes
Image Rotation	0°/180°
Mirror	Yes
Privacy Masking	4 areas

Audio

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

Alarm

Alarm Event	No SD card; SD card full; SD card error; network disconnection; IP conflict; invalid access; motion detection; video tampering; security exception; audio detection; SMD (human)

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; DHCP; DNS; DDNS; NTP; Multicast; ICMP; IGMP; P2P
Interoperability	ONVIF (Profile S & Profile T); CGI
User/Host	6 (Total bandwidth: 24 M)
Storage	FTP; Micro SD card (support max 256 GB)
Browser	IE; Chrome; Firefox
Management Software	SmartPSS Lite; DSS; DMSS; DoLynk Care
Mobile Client	iOS;Android

Security	Digest;WSSE;Account lockout;Security logs;Generation and importing of X.509 certification;HTTPS;Trusted boot;Trusted execution;Trusted upgrade

Certification

Certifications	CE-LVD: EN62368-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU

Power

Power Supply	12 VDC (±30%); PoE (802.3af)
Power Consumption	Basic: 1.2 W (12 VDC); 2.6 W (PoE) Max (H.265 + Intelligence + WDR + IR on): 2.7 W (12 VDC); 4.3 W (PoE)

Environment

Operating Temperature	–40 °C to +50 °C (–40 °F to +122 °F)
Operating Humidity	≤95% (RH), non-condensing
Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Storage Humidity	≤95% (RH), non-condensing
Protection	IP67
Anti-corrosion Level	Basic Protection *The products are designed for general use and are applicable even in areas with no specific requirements for anti-corrosion protection.

Structure

Casing Material	Plastic
Product Dimensions	198.9 mm × 80.2 mm × 76.2 mm (7.83" × 3.16" × 3.00") (L × W × H)
Net Weight	0.25 kg (0.55 lb)
Gross Weight	0.37 kg (0.82 lb)

Accessories

Optional:



DH-PFA130-E
Water-proof Junction Box



G3416GW
G3/4" Water Joint



DH-PFA151
Corner Mount Bracket



DH-PFA157
Pole Mount Bracket



DH-PFA134
Junction Box



DH-PFM321-EN
DC12V1A power adapter



DH-PFM325D-1210EN
DC12V 1A Power Adapter



DH-PFM320D-EN
DC12V2A power adapter



PFM900-E
Integrated Mount Tester



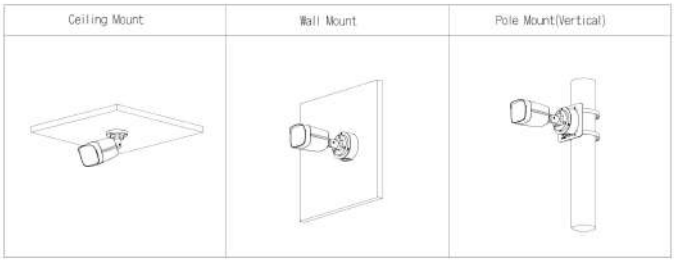
DHI-TF-W100-256GB
MicroSD Card



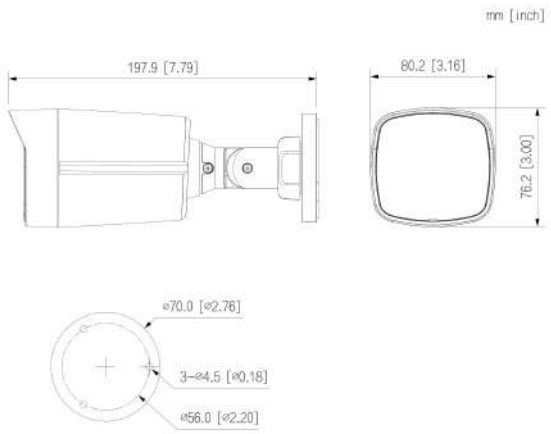
DHI-TF-P100/256GB
MicroSD Card

Ordering Information

Type	Model	Description
IP CAMERA	DH-IPC-B1E20-SA	2MP ECO IR Fixed-focal Bullet Network Camera
Accessories (Optional)	DH-PFA130-E	Water-proof Junction Box
	G3416GW	G3/4" Water Joint
	DH-PFA151	Corner Mount Bracket
	DH-PFA157	Pole Mount Bracket
	DH-PFA134	Junction Box
	DH-PFM321-EN	DC12V1A power adapter
	DH-PFM325D-1210EN	DC12V 1A Power Adapter
	DH-PFM320D-EN	DC12V2A power adapter
	PFM900-E	Integrated Mount Tester
	DHI-TF-W100-256GB	MicroSD Card
	DHI-TF-P100/256GB	MicroSD Card



Dimensions (mm[inch])



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