alhua TECHNOLOGY

DH-IPC-HDBW5541R-ASE-OPAT

5 MP DHOP IR-Bullet Box Network Camera

- 5 MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 5 MP (2592 × 1944)@20 fps and supports 4 MP (2688 × 1520)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in IR LED; the max. IR illumination distance is 30 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.
- Abnormality detection: motion detection, privacy masking, scene changing, 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.
- 12 VDC/PoE power supply, ePoE, transmission over long distance, easy for installations of various scenes.
- IP67/IK10 protection.

| 5Mp | Diverse Ecosystem | Open Architecture | Algorithm Loading on Demand | IP67 | IK10 |

Series Overview

Dahua DHOP series network cameras adopt open application platform, allows 3rd party applications to be downloaded and installed on this series cameras. It provides end-users with the right solutions to optimize their security or IoT environment. Flexibility is also guaranteed as users can always remove existing applications and upload new solutions.

Functions

DHOP (Dahua Hardware Open Platform)

With open architecture, encapsulated hardware make it easier to develop and upgrade software this series cameras. It has a diverse ecosystem, various applications are available for the users to select the suitble solutions. Find more available applications here: https://depp. dahuasecurity.com/OpenPlatform.

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.

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.

ePOE

Dahua's innovative ePoE technology offers a new solution to transmit power and data over long distances between cameras and network switch, allowing more flexible design of surveillance system, improving reliability, reducing installation time and saving money. ePoE technology encompasses pure network systems where a single CAT6 cable can carry signals up to 300 m (984 ft) at 100 Mbps, 800 m (2625 ft) at 10 Mbps.

Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

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 ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

DHOP

Computing Power	1T computing power for enhanced performance
Flash	58M
System Memory	380M
Multimedia Memory	256M
DHOP Partners	A.I.Tech, ACIC, Grekkom, Kobi, Retailflux, Siteeye, TechnoAware, etc. (https://depp.dahuasecurity.com/OpenPlatform)

Camera

Image Sensor	1/2.7" CMOS
Max. Resolution	2592 (H) × 1944 (V)
ROM	1 GB
RAM	128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s
Min. Illumination	0.002 Lux@F1.6 (Color, 30 IRE) 0.0002 Lux@F1.6 (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, manual
Illuminator Number	1 (IR LED)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt:0°–75° Rotation:0°–355°

Lens

Lens Type	Fixed-focal			
Lens Mount	M12			
Focal Length	2.8 mm			
Max. Aperture	F1.6			
Field of View	Horizontal: 98°× Vertical: 71°× Diagonal: 129°			
Iris Control	Fixed			
Close Focus Distance	1.1 m (3.6 ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	63.6 m (208.7 ft)	25.4 m (83.3 ft)	12.7 m (41.7 ft)	6.4 m (21 ft)

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: 2592 × 1944@(1 fps–20 fps)/2688 × 1520 @(1 fps–30 fps) Sub stream: 704 × 576@(1 fps–25 fps)/704 × 480@(1 fps–30 fps) Third stream: 1920 × 1080@(1 fps–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	5M (2592 × 1944); 4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); VGA (640 x 480); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Bit Rate Control	CBR/VBR
Video Bit Rate	H.264: 3 kbps–20480 kbps H.265: 3 kbps–20480 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)
Region of Interest (RoI)	Yes (4 areas)
Defog	Yes
Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower)
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; scene changing; audio detection; voltage detection; external alarm; security exception

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
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI; Milestone;DHOP SDK
User/Host	20 (Total bandwidth: 72 M)
Storage	FTP; SFTP; Micro SD card (support max. 256 G); NAS
Browser	IE: IE8/9/11 Chrome Firefox
Management Software	Smart PSS; DSS

Certification

Certification	CE-LVD: EN62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC:47 CFR FCC Part 15, Subpart B

Port

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

Power

Power Supply	12 VDC/PoE (802.3af)/ePoE
Power Consumption	Basic power consumption: 2.8W (12V DC); 3.3W (PoE) Max. power consumption (max. stream + IR LED): 5.6W (12V DC); 6.1W (PoE)

Environment

Operating Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Operating Humidity	≤ 95%
Storage Temperature	−40 °C to +60 °C (−40 °F to +140 °F)
Protection	IP67;IK10

Structure
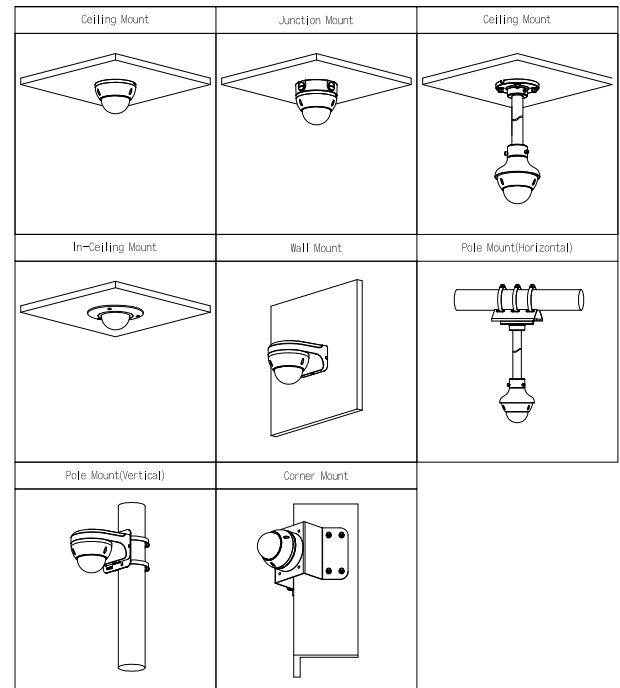
Casing	Metal
Product Dimensions	88.9 mm × Φ122 mm (3.5"×Φ4.8")
Net Weight	0.46kg (1 lb)
Gross Weight	0.62kg (1.4 lb)

Ordering Information

Type	Model	Description
4MP Camera	DH-IPC-HDBW5541R-ASE-OPAT	5MP DHOP Vandal-proof IR Dome Network Camera
	IPC-HDBW5541R-ASE-OPAT	5MP DHOP Vandal-proof IR Dome Network Camera
Accessories (Optional)	PFA137	Junction Mount Bracket
	PFB203W	Wall Mount Bracket
	PFB200C	In-Ceiling Mount Bracket
	PFA106+PFB220C	Ceiling Mount Bracket
	PFB203W+PFA152-E	Pole Mount Bracket
	PFM321D	12 VDC 1A Power Adapter
	PFM900-E	Integrated Mount Tester

Accessories

Optional:

PFA137
Junction Mount Bracket

PFB203W
Wall Mount Bracket

PFB200C
In-Ceiling Mount Bracket

PFA106+PFB220C
Ceiling Mount Bracket

PFB203W+PFA152-E
Pole Mount Bracket

PFM321D
12 VDC 1A Power Adapter

PFM900-E
Integrated Mount Tester

Dimensions (mm[inch])