

# DH-SD6CE445GB-HNR

4MP 45x Starlight IR Network PTZ Camera





Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

#### **System Overview**

Unique and elegant, the black semicircular sphere discreetly monitors from a distance without drawing undue attention to itself. It has a powerful optical zoom, and accurate pan, tilt and zoom capabilities, providing an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day, and True WDR for locations with direct sunlight and glare.

#### **Functions**

#### **Starlight Technology**

With advanced image processing technology and optical technology, Dahua Starlight technology can provide clear colorful video in the environment of low illuminance. It widely applies to various environments of low illuminance.

#### **Perimeter Protection**

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, and more, and uses secondary recognition during target detection to improve alarm accuracy.

#### **Face Detection**

Supports 6 attributes and 8 expressions: Gender, age, glasses, face mask, beard and expressions (anger, sadness, disgust, fear, surprise, calm,

happiness, and confusion). It also supports face cutout settings: Face, and single inch photo. Three snapshot methods are also featured: Real-time snapshot, priority snapshot, and quality priority.

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 45x optical zoom.
- · Starlight technology.
- · Max. 25/30fps@4M.
- IR distance up to 250 m.
- · Auto-tracking 3.0.
- · Perimeter protection.
- · Face detection.
- SMD 4.0.
- IP67, IK10.











#### **Auto-tracking**

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

#### Protection (IP67, TVS 6000 V)

IP67, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

#### **SMD 4.0**

Dahua Smart Motion Detection technology works with intelligent algorithms to classify targets that trigger motion detection alarms. It filters out objects that are not targets, such as small and large animals, to avoid triggering false alarms. With an AI NVR, Quick Pick technology becomes available, allowing you to easily search for and pick out human and vehicle targets from SMD event videos, prioritizing the highest matches.

Technical Specification			Tripwire; intrusion; climbing fences; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; vehicle/human alarm classification; linkage tracking
Camera		IVS (Perimeter Protection)	
Image Sensor	1/2.8" CMOS		Supports face detection, optimization, tracking,
Pixel	4 MP		capturing pictures, uploading high-quality face snapshots, and face enhancement; Supports attributes extraction. 6 attributes and 8 expressions: Gender, age, glasses, expressions (angry, sad, hate, scary, surprise, calm, happy and confused), mask, mustache; Supports face cutout: Face, one-inch photo. Capturing strategies include real-time capturing, optimization, and quality first.
Max. Resolution	2560 (H) × 1440 (V)	Face Detection	
ROM	4 GB		
RAM	1 GB		
Electronic Shutter Speed	1/1 s-1/30,000 s		Detects 6 helmet colors: Red, orange, yellow, blue, white, and black. An alarm will be triggered when a person is not wearing a helmet or when the color of the helmet that they are wearing does not match
Scanning System	Progressive		
Min. Illumination	Color: 0.005 Lux@F1.6; B/W: 0.0005 Lux@F1.6; 0 Lux@F1.6 (IR on)	the configured color. It also supports comp detection for work uniforms. Up to 5 work sample libraries can be uploaded, which to can contain up to 1,000 images (the image	
Illumination Distance	250 m (820.21 ft)		be 1080p and in the JPG format). An alarm will be triggered when the similarity between the detected work uniform and the samples in the library is
Illuminator On/Off Control	Zoom Prio; Manual; Smart IR; Off	Construction Detection	work uniform and the samples in the library is below the set threshold (that is, below the minimum compliance standard for work uniforms). The system supports detecting the attributes of work uniforms such as the color of the uniform, and whether or
Illuminator Number	6 (IR)		
Lens			not the person is wearing a mask and wearing shoe covers. An alarm will be triggered when the target
Focal Length	3.95 mm-177.75 mm		is detected as not meeting the set requirements. It also detects and triggers alarms when only one person is in the construction site, and when no one is present in the detection area such as when a worker
Max. Aperture	F1.6-F4.95		
Field of View	H: 70.3°-1.8°; V: 37°-1°; D: 69.3°-2°	Auto Tracking	leaves their post or an area is left unmanned. Yes
Optical Zoom	45×	SMD	SMD 4.0
Focus Control	Auto/Semi-Auto/Manual	SIVID	Uses deep learning algorithms and works with back-
Close Focus Distance	0.1 m-1 m (0.33 ft-3.28 ft)	Acupick	end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets.
Iris Control	Auto/Manual		It triggers the IVS rule when a target is detected and
DORI Distance	Detect Observe Recognize Identify	Auto Patrol	makes the camera link with the PTZ to rotate to the position of the target and patrol based on its presets.
DORI Distance	3,555 m (11,663.39 ft) 1,404.2 m 711 m 355.5 m (4,606.96 ft) (2,332.68 ft) (1,166.34 ft)	Video	
PTZ	,	Video Compression	H.264H; H.264B; Smart H.265+; H.264; H.265; MJPEG(Sub Stream); Smart H.264+
Pan/Tilt Range	Pan: 0° to 360° endless Tilt: –20° to +90°, auto flip 180°	Streaming Capability	3 streams
Manual Control Speed	Pan: 0.1°/s-300°/s; Tilt: 0.1°/s-200°/s		4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)
Preset Speed	Pan: 400°/s; Tilt: 300°/s	Resolution	
Preset	300		Main stream: 4M/3M/1080p/1.3M/720p (1–25/30
Tour	8 (up to 32 presets per tour)	Video Frame Rate	fps) Sub stream 1: D1/VGA/CIF (1–25/30 fps)
Pattern	5		Sub stream 2: 1080p/1.3M/720p (1–25/30 fps)
Scan	5	Bit Rate Control	CBR/VBR
Power-off Memory	Yes	Video Bit Rate	H264: 96 kbps–14848 kbps H265: 38 kbps–8960 kbps
Idle Motion	Pattern; Preset; Scan; Tour	Day/Night	Auto (ICR)/Color/B/W
PTZ Protocol DH-SD Pelco-P/D (auto recognition)		BLC	Yes
Intelligence		WDR	120 dB
Detects motor and non-motor vehicles, faces and human bodies. It also performs tracking, takes  Video Metadata snapshots, uploads high-quality face images and optimizes images. It extracts attributes from motor		HLC	Yes
		White Balance	Auto; Indoor; Outdoor; ATW; Manual; Sodium Lamp; Natural Light; Street Lamp

vehicles, detecting up to 10 attributes for them.

Gain Control   Noise Reduction   20/30   Motion Detection   Yes   Region of Interest (Rol)   Yes   Image Stabilization   Electronic   Electronic   Digital Zoom   16×   Image Rotation   180°   Privacy Masking   Up to 24 areas can be set, with up to 8 areas in the same view   S/N Ratio   255 dB   Audio Compression   PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1, G729, G723   Network   Network Port   1 × R1-45 (10/100 Base-T)   Network Protocol   PTP, RTMP; IPV6, Bonjour; IPV4; DNS, RTCP; PPOE, NTP, RTP, RSD, EMP, LUTP; SNMP; TCP/IP; DNS, UPPe; NTS, EMP; UPD; IGMP; HTTP; SSI, DHCP; SMTP; Qos; RTSP; ARP    Interoperability   CGI; SDK; ONVIF (Profile S&G&T); P2P   Streaming Method   Unicast/Multicast   User/Host   20 (total bandwidth: 64 M)   Storage   Micro SD card (Up to 512 GB); FTP; NAS   IE 9 and later versions   Chrome 41 and later versions   Priefox SD and later versions   Inferos SD and later versions   Inferos SD and later versions   Chrome 41 and later versions   Management Software   DSS; DMSS   Mobile Client   OS; Android   Certification   Cer		
Motion Detection     Yes       Region of Interest (RoI)     Yes       Image Stabilization     Electronic       Digital Zoom     16×       Image Rotation     180¹       Privacy Masking     Up to 24 areas can be set, with up to 8 areas in the same view       S/N Ratio     ≥ 55 dB       Audio Compression     PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723       Network     PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723       Network Port     1 × RJ-45 [10/100 Base-T)       FTP; RTMP; IPV6; Bonjour; IPv4; DN5; RTCP; PPPOE; NTP; RTP; 803, Lx; HTTP5; SNMP; TCP/IP; DDN5; UPR2; MST; CMP; UPP; IGMP, HTTP; SSL, DHCP; SMTP; Caps; RTSP; ARP       Interoperability     CGI; SDK; ONVIF (Profile S&G&T); P2P       Streaming Method     Unicast/Multicast       User/Host     20 (total bandwidth: 64 M)       Storage     Micro SD card (Up to 512 GB);FTP;NAS       Browser     IE 9 and later versions       Chrome 41 and later versions     Frefox S0 and later versions       Monagement Software     DSS; DMSS       Mobile Client     IOS; Android       Certification     CE: ENS5032/ENS5024/ENS0130-4 FCC: Part15 subpartB, ANSI C63.4-2014       Port     Analog Output     1 channel       Audio Input     1 channel       Audio Input     1 channel       Audio Output     1 channel <td>Gain Control</td> <td>Auto/Manual</td>	Gain Control	Auto/Manual
Region of Interest (RoI)       Yes         Image Stabilization       Electronic         Defog       Electronic         Digital Zoom       16×         Image Rotation       180°         Privacy Masking       Up to 24 areas can be set, with up to 8 areas in the same view         S/N Ratio       ≥ 55 dB         Audio Compression       PCM, G.711a; G.711Mu; G.726; MPEG2-Layer2; G722; G723         Network       FTP; RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPP06; MTP; RTP8, B02, Ixx; HTTPS; SMMP; TCP/IP; DDNS; UPP8; IPS; ICMP; UDP; IGMP; HTTP; SSI; DHCP; SMTP; Qos; RTSP; ARP         Interoperability       CGI; SDK; ONVIF (Profile S&G&T); P2P         Streaming Method       Unicast/Multicast         User/Host       20 (total bandwidth: 64 M)         Storage       Micro SD card (Up to 512 GB);FTP;NAS         ILE 9 and later versions       Chrome 41 and later versions         Chrome 41 and later versions       Chrome 41 and later versions         Management Software       DSS; DMSS         Mobile Client       IOS; Android         Certification       CE: ENS5032/ENS5024/ENS0130-4 FCC: Part15 subpartB, ANSI C63.4-2014         Port       Analog Output       1 channel         Audio Input       1 channel         Audio Input       1 channel         Audio Output <td>Noise Reduction</td> <td>2D/3D</td>	Noise Reduction	2D/3D
Image Stabilization       Electronic         Defog       Electronic         Image Rotation       180°         Privacy Masking       Up to 24 areas can be set, with up to 8 areas in the same view         S/N Ratio       ≥ 55 dB         Audio       PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722; G722; G722; G723         Network       PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722; G723         Network Port       1 × RJ-45 (10/100 Base-T)         Network Protocol       FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPOE; NTP; RTP; 802.1x; HTTPs; ShMP; TCP/IP; DDNS; UPP; MTP; RTP; BMP; TCP/IP; DDNS; UPP; PDP; DDNS; UPP; PDP; DDNS; UPP; PDP; DDNS; UPP; PDP; PDP; PDP; RTP; RTP; RTP; PDP; PDP; PDP; PDP; PDP; PDP; PDP; P	Motion Detection	Yes
Defog Electronic  Digital Zoom 16×  Image Rotation 180°  Privacy Masking Up to 24 areas can be set, with up to 8 areas in the same view 5/N Ratio ≥ 55 dB  Audio Audio Compression PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network Port 1×RJ-45 (10/100 Base-T)  FTP; RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPP0E; NPP, RTS; JCMP; UPP; SMP; TCP/IP; DDNS; UPP, RTS; LCMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP  Interoperability CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method Unicast/Multicast  User/Host 20 (total bandwidth: 64 M)  Storage Micro SD card (Up to 512 GB); FTP; NAS  IE 9 and later versions Chrome 41 and later versions income and later versions income 41 and later versions income 41 and later versions  Management Software DSS; DMSS  Mobile Client ioS; Android  Certification  Certification  Certification  Certification  Certification  Certification  1 channel (CVBS output, BNC)  RS-485 (Ißit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage 2 capture; recording; send email; preset; tour; pattern, alarm digital output  Motion/Tampering detection; audio detection; memory card state detection; memory card state detection; memory card state detection; memory card capture, pace detection in the capture in the c	Region of Interest (RoI)	Yes
Digital Zoom  Image Rotation  16×  Image Rotation  180°  Privacy Masking  Up to 24 areas can be set, with up to 8 areas in the same view  S/N Ratio  ≥ 55 dB  Audio  Audio Compression  PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network  Network Port  1 × RJ-45 (10/100 Base-T)  FTP; RTMP; IPV6; Bonjour; IPV4; DN5; RTCP; PPP06; NTP; RTP, RD2.1x; HTTPS; SMMP; TCP/IP; DDN5; UPP6; INS; ICMP; UDP, IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP  Interoperability  CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method  Unicast/Multicast  User/Host  20 (total bandwidth: 64 M)  Storage  Micro SD card (Up to 512 GB); FTP; NAS  IE 9 and later versions Firefox So and later versions Firefox So and later versions IOS 10 and later versions IOS 10 and later versions CS and later versions CS and later versions  Management Software  DSS; DMSS  Mobile Client  Certification  Certification  Certification  Certification  Certification  1 channel  Analog Output  1 channel  Audio Output  1 channel  Audio Output  1 channel  Alarm Linkage  Alarm Event  Alarm Event  Alarm Event  Alarm I/O  7/2	Image Stabilization	Electronic (EIS)
Image Rotation 180°  Privacy Masking Up to 24 areas can be set, with up to 8 areas in the same view  S/N Ratio ≥ 55 dB  Audio  Audio Compression PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network Port 1 × RJ-45 (10/100 Base-T)  FTP; RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPP06; NTP; RTS; LCMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; CQs; RTSP; ARP  Interoperability CGi; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method Unicast/Multicast  User/Host 20 (total bandwidth: 64 M)  Storage Micro SD card (Up to 512 GB); FTP; NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions IOS 10 and later versions Management Software DSS; DMSS  Mobile Client IOS; Android  Certification  Certification  Certification C: ENS5032/ENS5024/EN50130-4 FCC: Part15 subpartB, ANSI CG3.4-2014  POrt  Analog Output 1 channel Audio Input 1 channel  Audio Output 1 channel  Audio Output 1 channel  Audio Output 2 capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; undio detection; metwork disconnection detection; peonflict detection; memory card state detection; memory space detection  Alarm Event  Alarm I/O 7/2	Defog	Electronic
Privacy Masking  S/N Ratio  ≥ 55 dB  Audio  Audio Compression  PCM, G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network  Network Port  1 × RJ-45 (10/100 Base-T)  FTP, RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPPoE; NPP, RTP; 802.1x; HTTP5; SNMP; TCP/IP; DDNS; UPPP, INS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP  Interoperability  CGI; SDK; ONVIF (Profile s&G&T); P2P  Streaming Method  Unicast/Multicast  User/Host  20 (total bandwidth: 64 M)  Storage  Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions InoS 10 and later versions InoS 10 and later versions OS 10 and later versions Chrome 41 and later versions Chrome 41 and later versions Firefox 50 and later versions Chrome 41 and later versions Chrome 41 and later versions Chrome 41 and later versions InoS 10 and later versio	Digital Zoom	16×
S/N Ratio ≥ 55 dB  Audio Compression   PCM, G.711a; G.711Mu; G.726; MPEG2-Layer2; G.722.1; G.729; G.723    Network   Port   1 × RJ-45 (10/100 Base-T)    Network Protocol   PTP, RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPP0E; MTP, RTP, 802.1x; HTTP; SDL; DHCP; SMTP; Qos; RTSP, ARP   Interoperability   CGI; SDK; ONVIF (Profile S&G&T); P2P    Streaming Method   Unicast/Multicast   User/Host   20 (total bandwidth: 64 M)    Storage   Micro SD card (Up to 512 GB); FTP; NAS    E 9 and later versions   IE 9 and later versions   Irrefox S0 and later versions   Irrefox S0 and later versions   IOS 10 and later versions   IOS 10 and later versions    Management Software   DSS; DMSS    Mobile Client   IOS; Android    Certification   CE: ENS5032/ENS5024/ENS0130-4   FCC: Part15 subpartB, ANSI C63.4-2014    Port   Analog Output   1 channel (CVBS output, BNC)    RS-485   1(Bit range: 1200 bps-9600 bps)    Audio Input   1 channel    Audio Output   1 channel    Audio Output   1 channel    Audio Output   Alarm Linkage   Capture; recording; send email; preset; tour; pattern; alarm digital output   Motion/Tampering detection; audio detection; metwork disconnection detection; peroording space detection   Pc conflict detection; memory space detection   Alarm I/O   7/2	Image Rotation	180°
Audio Compression PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network Port 1 × RI-45 (10/100 Base-T)  FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPOE; NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP  Interoperability CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method Unicast/Multicast  User/Host 20 (total bandwidth: 64 M)  Storage Micro SD card (Up to 512 GB); FTP; NAS  IE 9 and later versions Chrome 41 and later versions IOS10 and later versions IOS10 and later versions  GCS and later versions  Certification  Certification  Certification  Certification  Certification  Certification  Certification  1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Capture; recording; send email; preset; tour; pattern; alarm digital output  Alarm Linkage Alarm inversion detection; undio detection; network disconnection detection; memory space detection  Alarm I/O 7/2	Privacy Masking	
Audio Compression PCM; G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; G729; G723  Network  Network Port 1 × RJ-45 (10/100 Base-T)  FTP; RTMP; IPV6; Bonjour; IPV4; DNS; RTCP; PPPOE; MTP; RTP; 802.1x; HTTPS; SMMP; TCP/IP; DDNS; UPNP; NFS; ICMP; UDP; SMTP; COs; RTSP; ARP  Interoperability CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method Unicast/Multicast  User/Host 20 (total bandwidth: 64 M)  Storage Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions  Management Software DSS; DMSS  Mobile Client iOS; Android  Certification  Certification  Certifications CE: ENS5032/ENS5024/ENS0130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; memory space detection memory card state detection; memory space detection; memory card state detection; memory space detection	S/N Ratio	≥ 55 dB
Network  Network Port  1 × RI-45 (10/100 Base-T)  FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPOE; NTP; RTP; 802_1x; HTTPS; SMMP; TCP/IP; DDNS; MTP; RTP, 802_1x; HTTPS; SMMP; TCP/IP; DDNS; MTP; RTP; 802_1x; HTTPS; SMMP; TCP/IP; DDNS; MTP; Qos; RTSP; ARP  Interoperability  CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method  Unicast/Multicast  User/Host  20 (total bandwidth: 64 M)  Storage  Micro SD card (Up to 512 GB); FTP; NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions  Management Software  DSS; DMSS  Mobile Client  Certification  Certification  Certification  Certifications  CE: ENS5032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014  POrt  Analog Output  1 channel (CVBS output, BNC)  RS-485  1(Bit range: 1200 bps-9600 bps)  Audio Input  1 channel  Audio Output  1 channel  Alarm Linkage  Motion/Tampering detection; audio detection; network disconnection detection; iP conflict detection; memory card state detection; memory space detection  Alarm Event	Audio	
Network Port  1 × RJ-45 (10/100 Base-T)  FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPOE; NTP; RTP; 802.1x; HTTPs; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP  Interoperability  CGI; SDK; ONVIF (Profile S&G&T); P2P  Streaming Method  Unicast/Multicast  User/Host  20 (total bandwidth: 64 M)  Storage  Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions iOS 10 and later versions iOS 10 and later versions  Management Software  DSS; DMSS  Mobile Client  iOS; Android  Certification  Certificatio	Audio Compression	
Network Protocol       FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; RO2.1x; HTTPS; SNMP; TCP/IP; DDNS; UPP; RFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP         Interoperability       CGI; SDK; ONVIF (Profile S&G&T); P2P         Streaming Method       Unicast/Multicast         User/Host       20 (total bandwidth: 64 M)         Storage       Micro SD card (Up to 512 GB); FTP; NAS         IE 9 and later versions Chrome 41 and later versions iOS 10 and later versions iOS 10 and later versions         Mobile Client       iOS; Android         Certification       CE: ENS5032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014         Port       Analog Output         Analog Output       1 channel (CVBS output, BNC)         RS-485       1(Bit range: 1200 bps-9600 bps)         Audio Input       1 channel         Audio Output       1 channel         Alarm Linkage       Capture; recording; send email; preset; tour; pattern; alarm digital output         Motion/Tampering detection; audio detection; network disconnection detection; iP conflict detection; memory vard state detection; memory space detection         Alarm I/O       7/2	Network	
Network Protocol       NTP; RTP; RD2.1x; HTTPS; SNMP; TCP/IP; DDNS; UPAP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; Qos; RTSP; ARP         Interoperability       CGI; SDK; ONVIF (Profile S&G&T); P2P         Streaming Method       Unicast/Multicast         User/Host       20 (total bandwidth: 64 M)         Storage       Micro SD card (Up to 512 GB);FTP; NAS         Browser       IE 9 and later versions Chrome 41 and later versions iOS 10 and later versions iOS 10 and later versions         Management Software       DSS; DMSS         Mobile Client       iOS; Android         Certification       CE: ENS5032/ENS5024/ENS0130-4 FCC: Part15 subpartB, ANSI C63.4-2014         Port       Analog Output         Analog Output       1 channel (CVBS output, BNC)         RS-485       1(Bit range: 1200 bps-9600 bps)         Audio Input       1 channel         Audio Output       1 channel         Alarm Linkage       Capture; recording; send email; preset; tour; pattern; alarm digital output         Motion/Tampering detection; audio detection; network disconnection detection; iP conflict detection; memory card state detection; memory space detection         Alarm I/O       7/2	Network Port	1 × RJ-45 (10/100 Base-T)
Streaming Method  Unicast/Multicast  User/Host  20 (total bandwidth: 64 M)  Storage  Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions  Management Software  DSS; DMSS  Mobile Client  Certification  Certification  Certification  Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014  Port  Analog Output  1 channel (CVBS output, BNC)  RS-485  1(Bit range: 1200 bps-9600 bps)  Audio Input  1 channel  Audio Output  1 channel  Alarm Linkage  Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; audio detection; network disconnection detection; person of the conflict detection; memory space detection  Alarm I/O  7/2	Network Protocol	NTP; RTP; 802.1x; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP;
User/Host 20 (total bandwidth: 64 M)  Storage Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions IOS 10 and later versions  Management Software DSS; DMSS  Mobile Client iOS; Android  Certification  Certification  Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; performed of the conflict detection; memory space detection  Alarm I/O 7/2	Interoperability	CGI; SDK; ONVIF (Profile S&G&T); P2P
Storage Micro SD card (Up to 512 GB);FTP;NAS  IE 9 and later versions Chrome 41 and later versions Firefox 50 and later versions Firefox 50 and later versions OS 10 and later versions  Management Software DSS; DMSS  Mobile Client iOS; Android  Certification  Certification  Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps—9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory space detection Alarm I/O 7/2	Streaming Method	Unicast/Multicast
Browser Chrome 41 and later versions Chrome 41 and later versions Firefox 50 and later versions IOS 10 and later versions  Management Software DSS; DMSS  Mobile Client iOS; Android  Certification  Certification  Certifications CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Audio Output 2 capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory space detection  Alarm I/O 7/2	User/Host	20 (total bandwidth: 64 M)
Browser Chrome 41 and later versions Firefox 50 and later versions iOS 10 and later versions  Management Software DSS; DMSS  Mobile Client iOS; Android  Certification  Certification  Certifications CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Audio Output 2 capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Storage	Micro SD card (Up to 512 GB);FTP;NAS
Mobile Client  Certification  Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Browser	Chrome 41 and later versions Firefox 50 and later versions
Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection	Management Software	DSS; DMSS
Certifications  CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4- 2014  Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Mobile Client	iOS; Android
Port  Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory space detection  Alarm I/O 7/2	Certification	
Analog Output 1 channel (CVBS output, BNC)  RS-485 1(Bit range: 1200 bps-9600 bps)  Audio Input 1 channel  Audio Output 1 channel  Alarm Linkage Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Certifications	
RS-485  1(Bit range: 1200 bps–9600 bps)  Audio Input  1 channel  Audio Output  1 channel  Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O  7/2	Port	
Audio Input  1 channel  1 channel  Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O  7/2	Analog Output	1 channel (CVBS output, BNC)
Audio Output  1 channel  Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O  7/2	RS-485	1(Bit range: 1200 bps–9600 bps)
Alarm Linkage  Capture; recording; send email; preset; tour; pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O  7/2	Audio Input	1 channel
Alarm Linkage pattern; alarm digital output  Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Audio Output	1 channel
Alarm Event network disconnection detection; IP conflict detection; memory card state detection; memory space detection  Alarm I/O 7/2	Alarm Linkage	
	Alarm Event	network disconnection detection; IP conflict detection; memory card state detection; memory
Audio I/O 1/1	Alarm I/O	7/2
	Audio I/O	1/1

Power				
Power Supply	24 VDC, 2.5 A ± 25% PoE+ (802.3at)			
Power Consumption	Basic: 13 W Max: 25 W			
Environment				
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)			
Operating Humidity	≤ 95% (RH)			
Protection	IP67; IK10; TVS 6000V lightning proof; surge protection; voltage transient protection			
Structure				
Product Dimensions	337.4 mm × Φ209 mm (13.28" × Φ8.23")			
Net Weight	5.9 kg (13.00 lb)			
Gross Weight	9.6 kg (21.16 lb)			

Ordering Information				
Туре	Model	Description		
4MP WizSense PTZ Camera	DH-SD6CE445GB-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera		
	SD6CE445GB-HNR	4MP 45x Starlight IR WizSense Network PTZ Camera		
	PFB305W	Wall Mount Bracket		
	DC 24 V/2.5 A	Power Adapter		
	PFA111	Mount Adapter		
	PFA126	Mount Adapter		
Accessories	PFB300C	Ceiling Mount Bracket		
	PFA150	Pole Mount Bracket		
	PFA151	Corner Mount Bracket		
	PFB301C	Ceiling Mount Bracket		
	PFB301S-E	Plane Mount Bracket		
	PFB303S	Parapet Mount Bracket		

### Accessories

# Included:







DC 24 V/2.5 A Power Adapter

# Optional:



PFA111 Mount Adapter



PFA126 Water-proof Junction Box



PFB300C Ceiling Mount Bracket



PFA150 Pole Mount Bracket



PFA151 Corner Mount Bracket



PFB301C Ceiling Mount Bracket



PFB301S-E Plane Mount Bracket



PFB303S Parapet Mount Bracket

# Installation

Wall Mount	Ceiling Mount 1	Ceiling Mount 2
PFB305W+PFA126	PFA111+PFB300C	PFA111+PFB301C
Pole Mount (Vertical)	Corner Mount	Pole Mount (Horizontal)
PFB305W+PFA150	PFB305W+PFA151	PFA111+PFB300C+PFA150
Plane Mount	Parapet Mount	
PFB301S-E	PFA111+PFB303S	

# Dimensions (mm [inch])

