DH-SDT3E410-8P-MB-A-PV1

8MP+4MP 10x Starlight TiOC Network Panoramic & PTZ Camera



Xinghan X-Spans

- Panorama: Outputs 180° wide angle splicing image
- Detail: 1/2.8"4Megapixel STARVIS™ CMOS
- 10x optical zoom
- Starlight technology
- Max. 25/30 fps@8M
- IR distance up to 70 m
- Warm light illumination distance up to 30 m
- Active deterrence
- Auto Tracking Lite
- Perimeter protection
- Face detection
- SMD4.0
- IP66
- Smart dual light



System Overview

Designed with more lens than the conventional PTZ camera, the X-Spans series camera captures an expansive view, producing wide, vivid images. It has the combined power of the panoramic and detail camera in its structure and is highly cost-effectve, greatly reducing the installation cost of security systems. It also leverages its two cameras to perform smart tracking, and has an independent mode that allows you to separately use each camera.

Functions

Starlight Technology

For challenging low-light conditions, Dahua's Starlight Ultra-low Light Technology has exceptional light sensitivity, capturing images in vivid detail, even in lighting as low as 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, producing clear images in dark environments.

Smart Codec

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

Acupick

This industry-leading search technology effectively utilizes both front-end and back-end intelligence to help with searching through massive video data to quickly and conveniently locate targets with greater precision.

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.

Smart Tracking

The panoramic camera links with the detail camera to track targets. When the target enters the panoramic area, the detail camera starts to monitor them and tracks their movement by rotating, zooming and focusing the PTZ camera lens. This allows the camera to produce highly detailed images with the movement of targets for security personnel.

Smart Dual Light

Dahua Smart Dual Light technology adopts smart algorithm to detect targets. Usually, the IR illuminator is on at night; when the target appears in the monitoring area, the white light is on, and the camera records the full-color video and information of key events. That is, the camera links snapshot and video with full-color image. When the target is out of the monitoring area, the white light is off and the IR illuminator is on, which reduces light pollution efficiently.

Protection (IP66, TVS 6000 V)

IP66, TVS 6000 V lightning proof, surge protection, and voltage transient protection.

Xinghan Large-Scale AI Models-Vision

Xinghan Large-Scale AI Models-Vision seamlessly expands the storage and operational capacity of algorithmic models through the powerful integration of edge AI model algorithms and NPU computing power. Engineered with a lightweight transformer architecture and enhanced by model distillation and quantization techniques, it optimizes the computing power consumption of ViT operators. This enables the system to collaborate on multiple tasks simultaneously through joint inference between small and large models optimized for edge devices.

Technical Specification

Camera

Image Sensor	Overview channel: 1/2.8" CMOS; Detail channel: 1/2.8" CMOS
Pixel	Overview channel: 8 MP; Detail channel: 4 MP
Max. Resolution	Overview channel: 5376 (H) × 1520 (V); Detail channel: 2560 (H) × 1440 (V)
ROM	Overview channel: 4 GB; Detail channel: 4 GB
RAM	Overview channel: 2 GB; Detail channel: 1GB
Electronic Shutter Speed	Overview channel: 1 s–1/100,000 s; Detail channel: 1 s–1/30,000 s
Scanning System	Progressive
Min. Illumination	Overview channel: 0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE); 0 lux (illuminator on) Detail channel: 1 s–1/30,000 s 0.005 lux@F1.6 (Color, 30 IRE); 0.0005 lux@F1.6 (B/W, 30 IRE); 0 lux (illuminator on)
Illumination Distance	Overview channel: 30 m (98.43 ft) (IR); 30 m (98.43 ft) (white light) Detail channel: 70 m (229.66 ft); 30 m (98.43 ft) (white light)
Illuminator On/Off Control	Overview channel: Manual; Auto; Off Detail channel: Zoom Prio; Manual; Auto; Off
Illuminator Number	Overview channel: 2 (IR light); 2 (white light); Detail channel: 2 (Dual light fusion); 2 (IR light)

Lens

Focal Length	Overview channel: 2.8 mm; Detail channel: 4 mm–40 mm
Max. Aperture	Overview channel: F1.6; Detail channel: F1.6-F3.6
Field of View	Overview channel: H: 180°; V: 47°; Detail channel: H: 58°–11.3°; V: 33.1°–6.4°; D: 66.4°–12.8°
Optical Zoom	Overview channel: NA; Detail channel: 10×
Focus Control	Auto; manual; semi-auto
Close Focus Distance	Overview channel: 0.6 m (1.97 ft); Detail channel: 0.1 m–0.5 m (0.33 ft–1.64 ft)
Iris Control	Overview channel: NA; Detail channel: NA
DORI Distance	Detect: 500 m (1640.42 ft); Observe: 197.5 m (647.97 ft); Recognize: 100 m (328.08 ft); Identify: 50 m (164.04 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.

PTZ

Pan/Tilt Range	Pan: 0° to 345°; Tilt: -10° to +90°
Manual Control Speed	Overview channel: NA; Detail channel: H: 0.1°–80°/s; V: 0.1°–50°/s
Preset Speed	H: 80°/s; V: 50°/s
Preset	300
Tour	8 (up to 32 presets per tour)
Power-off Memory	Yes
Idle Motion	Preset; Tour

Intelligence

IVS (Perimeter Protection)	Tripwire; intrusion; crossing fence detection; loitering detection; abandoned/missing object; fast moving; parking detection; people gathering; human/vehicle alarm classification; linkage tracking (only for people)
Face Detection	Detail channel: Supports face detection, optimization, capturing pictures, uploading high-quality face snapshots and enhancing face images. Attribute Extraction is also supported, where 6 attributes and 8 expressions can be detected. Face cutout is also offered, where you can cutout one face at a time and customize the size to be a one-inch photo. The supported methods for capturing snapshots are real-time capturing, quality first, and selecting a preferred image among a group of snapshots.
Auto Tracking	Auto Tracking Lite
Smart Tracking	WizTracking: Xinghan large-scale AI models-driven human tracking Relay tracking: X-SPANS series only. Tracking continues after target exits overview channel until target leaves scene. Linkage tracking: X-SPANS series only. Tracks only targets visible in overview channel.
Auto Patrol	After an IVS alarm is triggered, it can link with up to 5 presets or scan to patrol the key areas. IVS can be enabled with SMD at the same time.
SMD	Yes
Acupick	Uses deep learning algorithms and works with backend devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets (Overview channel support)

Active Deterrence

Light Warning	Red and blue light warning; Flash duration: 5 s–30 s; Flash frequency: high, medium, low
Sound Warning	Offers 11 sound alarm and 10 custom sound alarms can be imported. Sound can be set from 0%–100%. Play times can be set from 1-10.

Video

Video Compression	H.264H; H.264B; Smart H.265+; H.265; Smart H.264+; H.264M; MJPEG (Sub Stream 1)
Streaming Capability	3 streams

Resolution	Overview channel: 5376 × 1520; 26886 × 752; 1080p (1920 × 1080); 720p (1280 × 720); 1344 × 368; D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); Detail channel: 2560 × 1440; 3M (2304 × 1296); 1080p (1920 × 1080); 1280 × 960 (1.3M); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Video Frame Rate	Overview channel: Main stream: 5376 × 1520 @(1–25/30 fps) Sub stream 1: 1344 × 368/D1/VGA/CIF@ (1–25/30 fps) Sub stream 2: 2688 × 752/1080p/1.3M/720p @ (1–25/30 fps); Detail channel: Main stream: 4M/3M/1080p/1.3M/720p @(1–25/30 fps) Sub stream 1: D1/VGA/CIF@ (1–25/30 fps) Sub stream 2: 1080p/1.3M/720p/ @(1–25/30 fps)
Bit Rate Control	CBR/VBR
Video Bit Rate	Overview channel: H264: 128 kbps–16,384 kbps H265: 51 kbps–13,312 kbps; Detail channel: H264: 96 kbps–16,384 kbps H265: 38 kbps–10,240 kbps
Day/Night	Overview channel: Auto; Color; B/W; Detail channel: Auto; Color; B/W; Electronic
BLC	Yes
WDR	Overview channel: DWDR Detail channel: 120 dB
HLC	Yes
White Balance	Overview channel: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp Detail channel: Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Overview channel: Auto; manual; gain prio Detail channel: Auto; manual; gain prio
Noise Reduction	Overview channel: 2D NR; 3D NR Detail channel: 2D NR; 3D NR
Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Overview channel: NA Detail channel: Electronic Image Stabilization (EIS)
Defog	Overview channel: Electronic Detail channel: Electronic
Digital Zoom	Overview channel: NA Detail channel: 16×
Image Rotation	Overview channel: NA Detail channel: 180°
S/N Ratio	Overview channel: ≥55dB Detail channel: ≥55dB

Audio

Audio Compression	Overview channel: PCM, G.711A, G.711Mu, G.726, MPEG2-Layer2, G.722.1, G.729; Detail channel: NA
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view Multiple colors and mosaic available

Network

Network Port	RJ-45 (100 Base-T)
Network Protocol	FTP; RTMP; IPv6; Bonjour; IPv4; DNS; RTCP; PPPoE; NTP; RTP; 802.1x; QoS; HTTPS; SNMP; TCP/IP; DDNS; UPnP; NFS; ICMP; UDP; IGMP; HTTP; SSL; DHCP; SMTP; RTSP; ARP
Interoperability	ONVIF (Profile S & Profile G & Profile T); CGI; SDK; P2P
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	Micro SD card (512 GB); FTP/SFTP; NAS
Browser	web5.0: IE 9 and later versions; Chrome 41 and later versions; Firefox 50 and later versions; Safari 10 and later versions
Management Software	DMSS; DSS Pro
Mobile Client	iOS; Android

Certification

Certifications	CE: EN55032/EN55035/IEC61000-3-2/IEC61000-3-3/EN62368-1/IEC62471

Port

Audio Input	1 channel (LINE IN, bare wire,built-in mic (mutually exclusive))
Audio Output	1 channel (LINE OUT,bare wire;built-in speaker (mutually exclusive))
Alarm Input	1 (on-off value input: 0–5 VDC)
Alarm Output	1 channel
Alarm Linkage	Capture; recording; send email; preset; alarm digital output; audio; warning light
Alarm Event	Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection

Power

Power Supply	12 VDC, 3 A ± 10% PoE+(802.3at)
Power Consumption	Basic: 12 W; Max: 25 W (illuminator + heating glass + siren and light active deterrence + PTZ)

Environment

Operating Temperature	–30 °C to +60 °C (–22 °F to +140 °F)
Operating Humidity	≤95%
Protection	TVS 6000 V lightning proof; IP66; surge protection; voltage transient protection

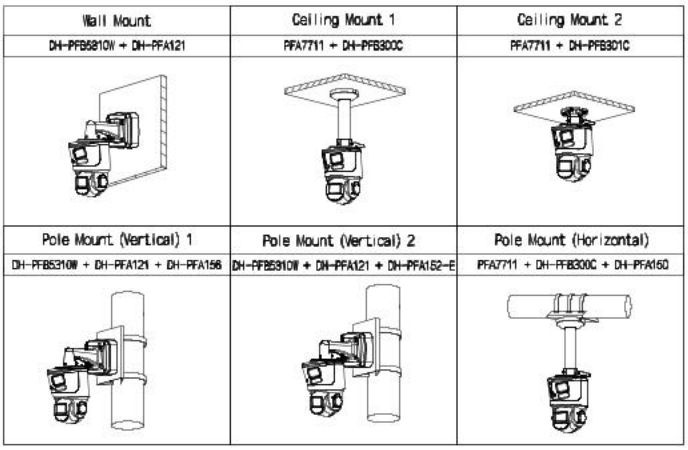
Structure

Product Dimensions	140.3 mm × 181.7 mm × 238.8 mm (5.52" × 7.15" × 9.40") (L × W × H)
Net Weight	2.17 kg (4.78 lb)
Gross Weight	3.1 kg (6.83 lb)

*The precision of the presets for PTZ cameras might vary depending on different series. For scenes with high requirements on the precision, contact your local sales representative for assistance with selecting the model.

Ordering Information

Type	Model	Description
Network PTZ Camera	DH-SDT3E410-8P-MBA-PV1	8MP+4MP 10x Starlight TiOC Network Panoramic & PTZ Camera
Accessories	PFB5310W	Wall Mount Bracket
	DH-PFA121	Water-proof Junction Box
	PFA7711	Mount Adapter
	DH-PFB300C	Ceiling Mount Bracket
	DH-PFB301C	Ceiling Mount Bracket
	DH-PFA152-E	Pole Mount Bracket
	DH-PFA156	Pole Mount Bracket
	DH-PFA150	Pole Mount Bracket



Accessories

Included:



PFB5310W
Wall Mount Bracket

Optional:



DH-PFA121
Water-proof Junction Box



PFA7711
Mount Adapter



DH-PFB300C
Ceiling Mount Bracket



DH-PFB301C
Ceiling Mount Bracket



PFA152-E
Pole Mount Bracket

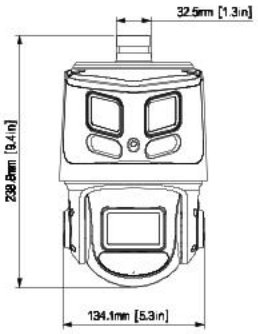


PFA156
Pole Mount Bracket

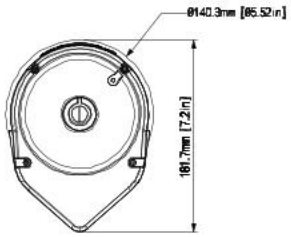


DH-PFA150
Pole Mount Bracket

Dimensions (mm[inch])







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