

DH-HAC-HDW1801TQ-IL-T

4K Smart Dual Light HDCVI Two-way Talk Fixed-focal Eyeball Camera



Series Overview

The Lite Series is a great choice for consumers looking for high quality monitoring products at a reasonable price. Its low cost and high performance make it ideal for residential areas and SMB solutions. This series is equipped with a wide range of technologies, such as full-color and starlight, providing various solutions for different scenarios.

Functions

Two-way Talk

With its built-in high-sensitivity microphone and high-power speaker, the camera realizes two-way talk through the mobile app.

Smart Light+

Equipped with advanced LEDs and beam processing technology, the camera effectively reduces interference of stray light, ensuring concentrated illumination within the lens's field of view. This allows the camera to easily produce clear images that reveal the fine details of targets even in low light conditions.

Smart Area Lighting

Automatically adjusts the intensity of the brightness and exposure for the left and right areas in the video based on the proportion and position of the targets to reveal more details in the image.

Smart Dual Light

With its smart dual light mechanism, the camera automatically turns on the white light when Perimeter Protection/SMD Plus function of AI XVR detects a target in the rule area to capture clear, vivid images. When the target leaves the rule area, the camera automatically switches over from the white light to the IR light to significantly reduce light pollution.

- * The parameters and datasheets below can only be applied to 1801-IL-T series.
- * In order to use the Smart Dual Light HDCVI camera, the firmware of XVR must be upgraded to V4.001.0000004.1.R.220323 or later version.
- Max. 15 fps@4K.
- Two-way Talk.
- Smart Dual Light.
- Smart Light+
- 40 m illumination distance.
- Super Adapt.
- Quick-to-install eyeball saves installation time.
- 3.6 mm fixed lens (2.8 mm optional).
- CVI/CVBS/AHD/TVI switchable.
- IP67, 12 VDC.



Easy Installation

HDCVI eyeball comes with a quick-to-install pedestal, which makes it easier to install than conventional eyeballs and reduces cost on time and labor.

Super Adapt

With its intelligent algorithm, the camera automatically adjusts its parameters to provide optimal performance and vivid images.

Advanced 3DNR

Dahua's advanced 3DNR technology reduces image noise with little to no impact on image sharpness, especially in poor lighting conditions. It detects the noise, and compares the sequential frames to effectively reduce the noise. It also makes efficient use of bandwidth, saving on storage space.

Protection (IP67, Wide Voltage)

IP67: The camera passed a series of rigorous dust and immersion tests. Its enclosure is both dust-proof and waterproof, and can function normally while being immersed in 1 m deep water for up to 30 minutes. Wide voltage: The camera has $\pm 30\%$ input voltage tolerance (for some power supplies) and a wide voltage range, making it suitable for a variety of outdoor scenarios.

Long Distance Transmission

HDCVI technology provides long distance transmission in real time without transmission loss. It supports transmission distances up to 700 m for 2-MP/5-MP/8-MP HD videos through coaxial cables, and up to 300 m through UTP cables. The results were obtained and verified through rigorous testing in Dahua's test laboratory.

Technical Specification

Camera	
Image Sensor	4K CMOS
Max. Resolution	3840 (H) × 2160 (V)
Scanning System	Progressive
Electronic Shutter Speed	PAL: 1/25 s–1/100,000 s NTSC: 1/30 s–1/100,000 s
Min. Illumination	0.01 lux@F2.0 (Color, 30 IRE) 0.001 lux@F2.0 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	>65 dB
Illumination Distance	IR: 40 m (131.23 ft);Warm light: 40 m (131.23 ft)
Illuminator On/Off Control	Auto/Manual
Illuminator Number	4 (Multi-core light)
Angle Adjustment	Pan: 0°–360° Tilt: 0°–78° Rotation: 0°–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: 105.5°; V: 56.5°; D: 125.3° 3.6 mm: H: 86.8°; V: 44.6°; D: 104.5°
Iris Control	Fixed
Close Focus Distance	2.8 mm: 1.3 m (4.27 ft) 3.6 mm: 2.1 m (6.89 ft)

DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	88.0 m (288.71 ft)	35.2 m (115.49 ft)	17.6 m (57.74 ft)	8.8 m (28.87 ft)
	3.6 mm	113.6 m (372.70 ft)	45.4 m (148.95 ft)	22.7 m (74.48 ft)	11.4 m (37.40 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.				

Video	
Video Frame Rate	CVI: PAL: 4K@15 fps NTSC: 4K@15 fps AHD: PAL: 4K@15 fps NTSC: 4K@15 fps TVI: PAL: 4K@15 fps NTSC: 4K@15 fps CVBS: PAL: 960H NTSC: 960H
Resolution	4K (3840 × 2160); 960H (960 × 576/960 × 480)

Day/Night	Auto(ICR)/Color/B/W
BLC	BLC; HLC; WDR
WDR	WDR
White Balance	Auto
Gain Control	Auto
Noise Reduction	3D NR
Illumination Mode	Smart IR&WL (CVI, TVI); WL Mode; IR Mode
Mirror	Yes

Certification	
Certifications	CE-LVD: EN 62368-1 CE-EMC: EN 55032; EN 55035

Audio	
Built-in Mic	Yes
Camera Audio	CVI
Pick-up Distance	8 m (26.25 ft)
Two-way Talk	Yes
Speaker	Yes
Speaker Distance	8 m (26.25 ft)

Port	
Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)

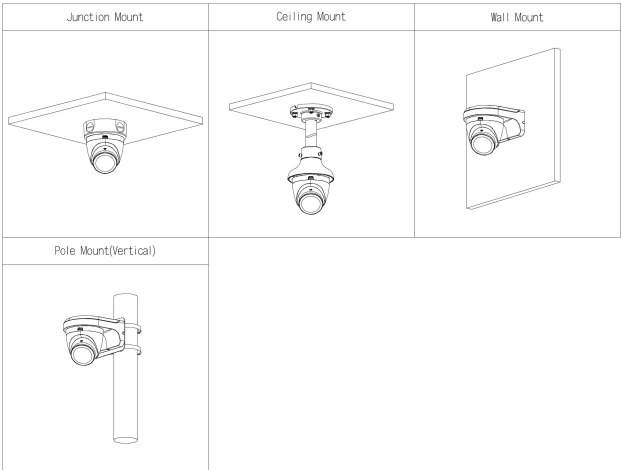
Power	
Power Supply	12 VDC (±30%)
Power Consumption	Max 9.4 W (12 VDC, IR on)

Environment	
Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °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.

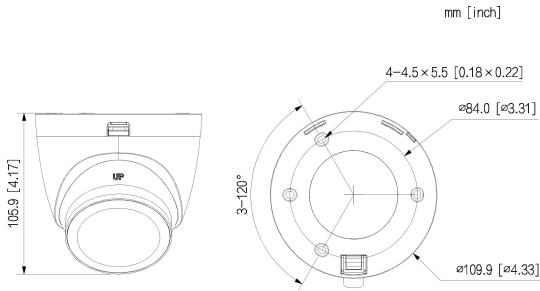
Structure	
Casing Material	Dome (metal + plastic) + plastic enclosure
Product Dimensions	Φ109.9 mm × 105.9 mm (Φ4.33" × 4.17")
Net Weight	0.32 kg (0.71 lb)
Gross Weight	0.44 kg (0.97 lb)
Installation	Wall mount; ceiling mount; vertical pole mount

Ordering Information

Type	Model	Description
HDCVI CAMERA	DH-HAC-HDW1801TQN-IL-T	4K Smart Dual Light HDCVI Two-way Talk Fixed-focal Eyeball Camera,NTSC
	DH-HAC-HDW1801TQP-IL-T	4K Smart Dual Light HDCVI Two-way Talk Fixed-focal Eyeball Camera,PAL
Accessories (Optional)	DH-PFB220C	Ceiling Mount Bracket
	DH-PFA109	Mount Adapter
	DH-PFA151	Corner Mount Bracket
	DH-PFB305W	Wall Mount Bracket
	DH-PFA150	Pole Mount Bracket
	DH-PFA152-E	Pole Mount Bracket
	DH-PFB2203W	Wall Mount Bracket
	DH-PFA13G	Junction Box
	DH-PFM800-4K	1 Channel Passive HDCVI Balun
	PFM904	Integrated Mount Tester



Dimensions (mm[inch])



Accessories

Optional:



DH-PFA109
Mount Adapter



DH-PFA13G
Junction Box



DH-PFA150
Pole Mount Bracket



DH-PFA151
Corner Mount Bracket



DH-PFA152-E
Pole Mount Bracket



DH-PFB2203W
Wall Mount Bracket



DH-PFB220C
Ceiling Mount Bracket



DH-PFB305W
Wall Mount Bracket



DH-PFM800-4K
1 Channel Passive HDCVI
Balun



PFM904
Integrated Mount Tester