

DH-HAC-HDBW2802EA-A

4K Starlight HDCVI Fixed-focal Dome Camera



System Overview

The Pro Series contains a series of highly reliable and flexible cameras, making it a great choice for SMB solutions and projects. It has Starlight technology, up to 130 dB true WDR and 3DNR, and produces vivid images in rich detail even under difficult lighting conditions.

Functions

Starlight

With its large image sensor and large aperture, the camera delivers high performance and quality, even in low-light conditions. The starlight feature allows the camera to capture highly detailed images in accurate color, recognizing targets even at night or in scenes with limited light.

Wide Dynamic Range

With its advanced Wide Dynamic Range technology (WDR), the camera captures highly detailed images and produces high-definition recordings in high-contrast lighting conditions, and in scenes with backlighting or shadows.

Broadcast-quality Audio

Audio signal transmission over coaxial cables is supported by the HDCVI camera. It adopts a unique audio processing and transmission technology that restores source audio and eliminates noise, ensuring the quality and reliability of the audio information that is collected. This becomes important for video surveillance applications that use audio information as a type of supplementary evidence.

4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals (video, audio*, data and power) which are simultaneously transmitted over a coaxial cable. Dual-way data transmission allows the HDCVI camera to interact with the XVR to perform various actions such as sending control signals and triggering alarms. HDCVI technology also supports PoC, which makes the camera easy and quick to install.

* Audio input is available for select HDCVI camera models.

* The parameters and datasheets below can only be applied to 2802-S2 series.

- Max. 15 fps@4K.
- Starlight, 120 dB true WDR, 3D NR.
- Smart IR Illumination.
- 40 m illumination distance.
- Super Adapt.
- Built-in MIC.
- 3.6 mm fixed lens.
- CVI/CVBS/AHD/TVI switchable.
- IP67, IK10, 12 VDC.



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.

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.

Smart IR Illumination

With its IR illumination, the camera provides optimal performance in low light conditions, ensuring uniformity in the brightness of B/W images. Through its smart IR technology, the camera also compensates for the distance of targets by adjusting the intensity of its IR LEDs, preventing overexposure of images as targets move closer to the camera.

Protection (IP67, IK10, 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.
IK10: The enclosure can withstand up to 5 punches from a 5 kg hammer falling from a height of 40 cm (impact energy is 20 J).
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.

Technical Specification						Noise Reduction	3D NR
Camera						Illumination Mode	Smart IR
Image Sensor		4K CMOS				Defog	Electronic defog
Max. Resolution		3840 (H) × 2160 (V)				Digital Zoom	4×
Scanning System		Progressive				Mirror	Yes
Electronic Shutter Speed		PAL: 1/3 s–1/100000 s NTSC: 1/4 s–1/100000 s				Privacy Masking	Off/On (8 areas, rectangle)
Min. Illumination		0.001 lux@F1.5 (Color, 30 IRE) 0.0001 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)				Certification	
S/N Ratio		>65 dB				Certifications	CE-LVD: EN 62368-1; CE-EMC: EN 55032; EN 55035; FCC: 47 CFR FCC Part 15, Subpart B; UL: UL62368-1 + CAN/CSA C22.2 No. 62368-1-14
Illumination Distance		40 m (131.23 ft)				Port	
Illuminator On/Off Control		Auto				Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)
Illuminator Number		3 (IR light)				Audio Input	One channel built-in MIC
Pan/Tilt/Rotation Range		Pan: 0°–355° Tilt: 0°–75° Rotation: 0°–355°				Power	
Lens						Power Supply	12 VDC ± 30% (It is recommended to use a power adapter to supply the power for one camera)
Lens Type		Fixed-focal				Power Consumption	Max 4.7 W (12 VDC, IR on)
Auto Focus		No				Environment	
Lens Mount		M12				Operating Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Focal Length		3.6 mm				Operating Humidity	<95% (RH), non-condensing
Max. Aperture		F1.5				Storage Temperature	–40 °C to +60 °C (–40 °F to +140 °F)
Field of View		3.6mm: H: 87°; V: 49°; D: 99°				Storage Humidity	<95% (RH), non-condensing
Iris Control		Fixed				Protection	IK10; IP67
Close Focus Distance		3.6mm: 2.2 m (7.22 ft)				Structure	
DORI Distance	Lens	Detect	Observe	Recognize	Identify	Casing Material	Metal
	3.6 mm	98.0 m (321.52 ft)	39.2 m (128.61 ft)	19.6 m (64.30 ft)	9.8 m (32.15 ft)	Product Dimensions	Φ112.0 mm × 89.1 mm (Φ4.41" × 3.51")
	*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.					Net Weight	0.46 kg (1.01 lb)
						Gross Weight	0.64 kg (1.41 lb)
						Installation	Wall mount; ceiling mount; vertical pole mount
Video							
Video Frame Rate		CVI: PAL: 4K@15 fps; 5M@25 fps; 4M@25 fps; NTSC: 4K@15 fps; 5M@25 fps; 4M@30 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); 5M (2880 × 1620); 4M (2560 × 1440); 960H (960 × 576/960 × 480)					
Day/Night		Auto(ICR)/Color/B/W					
BLC		BLC; HLC; WDR; HLC-Pro					
WDR		120 dB					
White Balance		Auto;Area white balance					
Gain Control		Auto/Manual					

Ordering Information		
Type	Model	Description
2M Camera	DH-HAC-HDBW2802EAP-A	4K Starlight HDCVI Fixed-focal Dome Camera,PAL
	DH-HAC-HDBW2802EAN-A	4K Starlight HDCVI Fixed-focal Dome Camera,NTSC
Accessories (Optional)	PFA136	Junction Box
	PFB203W	Wall Mount Bracket
	PFA106	Adapter Plate of Mini Dome & Eyeball Camera
	PFB220C	Ceiling Mount Bracket
	PFA152-E	Pole Mount Bracket
	PFM800-4K	1-CH Passive Video Balun
	PFM321D	12V 1A Power Adapter
	PFM904	Integrated Mount Tester

Accessories

Optional:



PFA136
Junction
Box



PFB203W
Wall Mount
Bracket



PFA106
Adapter Plate of Mini Dome
& Eyeball Camera



PFB220C
Ceiling Mount
Bracket



PFA152-E
Pole Mount
Bracket



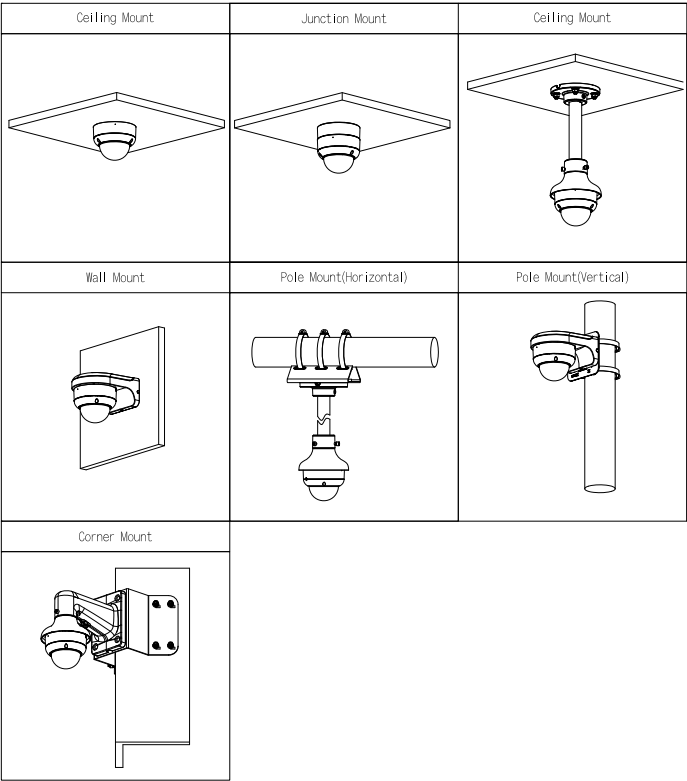
PFM800-4K
1-CH Passive Video
Balun



PFM321D
12V 1A Power
Adapter



PFM904
Integrated Mount
Tester



Dimensions (mm [inch])

