

# DH-HAC-HFW2501E-A

5MP Starlight HDCVI IR Bullet Camera



- \* The parameters and datasheets below can only be applied to 2501-S2 series.
- \* In order to use the 5MP 16:9 HDCVI camera, the firmware of XVR must be upgraded to V4.001.000001.0.R.200908 or later version.
- · Max 25 fps@5MP (16:9 video output)
- · Starlight, 120 dB true WDR, 3D NR
- · CVI/CVBS/AHD/TVI switchable
- · 3.6 mm fixed lens (2.8 mm, 6 mm optional)
- · Built-in mic
- · Max. IR length 40 m, Smart IR
- · IP67, DC12V±30%















# **System Overview**

Experience 5MP full HD video and the simplicity of using existing cabling infrastructure with HDCVI. The Pro series 5MP HDCVI camera features a compact design and offers a high quality image at a friendly price. It offers various motorized/fixed lens models with 120 dB true WDR and a multi-language OSD and HD/SD switchable output. Its structural flexibility and high cost-performance make the camera an ideal choice for SMB solutions.

## **Functions**

#### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the XVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

#### **Long Distance Transmission**

HDCVI technology guarantees real-time transmission at long distance without any loss. It supports up to 700 m for 5MP HD video via coaxial cable, and up to 300 m via UTP cable.\*

\*Actual results verified by real-scene testing in Dahua's test laboratory.

#### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

#### Starlight

With the adoption of large sized high performance sensor, the camera is able to provide incomparable performance even under extreme lowlight environment. The starlight feature allows more details to be captured and accurate color to be recognized at night or in scenes with limited illumination.

#### **Broadcast-quality Audio**

Audio information is used as supplementary evidence in video surveillance applications. The HDCVI camera supports audio signal transmission over coaxial cable. In addition, it adopts unique audio processing and transmission technology that best restores source audio and eliminates noise, guaranteeing the quality and effectiveness of collected audio information.

#### Smart IR

The camera is designed with IR LED illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua unique Smart IR adjusts the intensity of camera's infrared LEDs to compensate for the distance of an object, and prevents IR LEDs from overexposing images as the object comes closer to the camera.

#### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### **Advanced 3DNR**

3DNR is noise reduction technology that detects and eliminates random noises by comparing two sequential frames. Dahua's advanced 3DNR technology allows remarkable noise reduction with little impact to sharpness, especially under limited lighting condition. Besides, the advanced 3DNR effectively decreases the band width and saves the storage space.

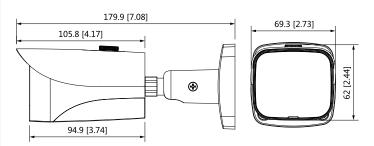
### Protection

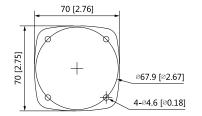
The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust with IP67 ranking, making it suitable for indoor or outdoor environments. With working temperature range of  $-40\,^{\circ}\text{C}$  to  $+60\,^{\circ}\text{C}$  ( $-40\,^{\circ}\text{F}$  to  $+140\,^{\circ}\text{F}$ ), the camera is designed for extreme temperature environments. Supporting  $\pm 30\%$  input voltage tolerance, this camera suits even the most unstable power supply conditions. Its 4 KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Technical Specification							Video		
Camera								CVI: PAL: 5M@25 fps; 4M@25 fps; 1080P@25 fps NTSC: 5M@25 fps; 4M@30 fps; 1080P@30 fps AHD: PAL: 4M@25 fps; NTSC: 4M@30 fps TVI: PAL: 4M@25 fps; NTSC: 4M@30 fps CVBS:	
Image Sensor		1/2.7 inch CMOS							
Max. Resolution		2880 (H) × 1620 (V)					Frame Rate		
Pixel		5 MP					riallie Nate		
Scanning System		Progressive							
Electronic Shutter Speed		PAL: 1/3 s–1/100,000 s NTSC: 1/4 s–1/100,000 s						PAL: 960H; NTSC: 960H	
S/N Ratio		> 65 dB					Resolution	5M (2880 × 1620); 4M (2560 × 1440); 1080P (1920 × 1080); 960H (960 × 576/960 × 480)	
Min. Illumination		0.001 Lux/F1.6, 30IRE, 0Lux IR on					Day/Night	Auto switch by ICR	
Illumination Distance		40 m (131.2 ft)					BLC	BLC/HLC/WDR/HLC-Pro	
Illuminator On/Off Control		Auto / Manual					WDR	120 dB	
Illuminator Number		2					White Balance	Auto / Manual	
Pan/Tilt/Rotation Range		Pan: 0°–360° Tilt: 0°–90°					Gain Control	Auto / Manual	
Pany Titty Notation Range		Rotation: 0°–360°					Noise Reduction	2D NR/3D NR	
Lens							Smart IR	Yes	
Lens Type		Fixed-focal					Mirror	Off/On	
Mount Type		M12					Privacy Masking	Off/On (8 areas, rectangle)	
Focal Length		2.8 mm; 3.6 mm; 6 mm					Certifications		
Max. Aperture Field of View		F1.6  2.8 mm: 132° × 111° × 58° (diagonal × horizontal × vertical) 3.6 mm: 109° × 92° × 48° (diagonal × horizontal × vertical) 6 mm: 65° × 57° × 30°					Certifications	CE (EN55032:2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN55024:2010+A1:2015, EN 55035:2017, EN50130-4:2011+A1:2014, EN 62368-1:2014+A11:2017) FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014) UL (UL60950-1+CAN/CSA C22.2 No.60950-1)	
		(diagonal × horizontal × vertical)					Port		
Iris Type		Fixed iris					Audio Interface	One channel built-in mic	
Close Focus Distance		2.8 mm: 0.9 m (3.0 ft) 3.6 mm: 1.6 m (5.2 ft) 6 mm: 3.1 m (10.2 ft)					Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port (DIP Switch)	
	Lens	Detect	Observe	Recognize	Identify		Power		
	2.8 mm	63.6 m (208.7 ft)	25.4 m (83.3 ft)	12.7 m (41.7 ft)	6.4 m (21.0 ft)		Power Supply	DC 12V ±30%	
	2.6 mm	80 m	32 m	16 m	8 m	8 m (26.2 ft)	Power Consumption	Max 5.9W (12V DC, IR on)	
DORI Distance	3.6 mm	(262.5 ft)	(105.0 ft)	(52.5 ft)	(26.2 ft)		Environment		
	6 mm	120 m (393.7 ft)	48 m (157.5 ft)	24 m (78.7 ft)	12 m (39.4 ft)		Operating Temperature	-40°C to $+60$ °C ( $-40$ °F to $+140$ °F); < 95% (non-condensation)	
	*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						Storage Temperature	$-40^{\circ}\text{C}$ to +60°C (–40°F to +140°F); < 95% (noncondensation )	
this table do no		t reflect intelligent function distances. For intelligent ces, refer to installation and commissioning manual/					Protection Grade	IP67	
project design tool.							Structure		
							Casing	Metal: Front cover+rear barrel+bracket Plastic: Sunshield cover+lower decorative cover	
							Camera Dimensions	179.9 mm × 70 mm × 70 mm (7.08" × 2.75" × 2.75")	
							Net Weight	0.42 kg (0.93 lb)	
							Gross Weight	0.56 kg (1.23 lb)	

Ordering Information								
Туре	Part Number	Description						
	DH-HAC-HFW2501EP-A 2.8mm	5MP Starlight HDCVI IR Bullet Camera						
	DH-HAC-HFW2501EN-A 2.8mm							
EMP 6	DH-HAC-HFW2501EP-A 3.6mm							
5MP Camera	DH-HAC-HFW2501EN-A 3.6mm							
	DH-HAC-HFW2501EP-A 6mm							
	DH-HAC-HFW2501EN-A 6mm							
	PFA121	IP66 Junction Box						
	PFA152-E	Pole Mount Bracket						
Accessories	PFA151	Corner Mount						
Accessories	PFM800-4K	Passive HDCVI Balun						
	PFM321D	12V 1A Power Adapter						
	PFM904	Integrated Mount Tester						

# Dimensions (mm[inch])





# **Accessories**

# **Optional:**



PFA121 IP66 Junction Box



PFA152-E Pole Mount Bracket



PFA151 Corner Mount



PFM800-4K Passive HDCVI Balun



PFM321D 12V 1A Power Adapter



PFM904 Integrated Mount Tester

