

DH-HAC-HDBWD2A1RA-AZ

2MP Professional Starlight HD IR Motorized Lens Dome Camera



- Max. 30 fps@1080P
- Starlight, 130dB true WDR, 3D NR
- Auto focus, 2.7 mm–12 mm motorized lens
- CVI/CVBS/AHD/TVI switchable
- Super Adapt
- Built-in mic
- Max. IR length 60 m, Smart IR
- IP67, IK10, 12 VDC
- 3th party software support
- Starlight



System Overview

Ultra Series is suitable for users who requires high quality monitoring products at a reasonable price. It is cost effective and offers high performance, which makes it an ideal choice for residential and small-medium business applications. This series offers an option of a wide range of technologies such as Full-color and Starlight, providing various solutions for different scenarios.

Functions

Starlight

With the adoption of large sized high performance sensor and large aperture lens, 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.

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

Wide Dynamic Range

With advanced Wide Dynamic Range (WDR) technology, Dahua HDCVI camera provides clear details in the environment of strong brightness contrast. The bright and dark area can get clear video even in high brightness environment or with backlight shadow.

Super Adapt

Embedded with intelligent algorithm, for changing external environment, camera can automatically adjust parameters to present the optimal image, and it solves the trouble of configuration.

Advanced 3D NR

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

Smart Illumination

The camera is designed with IR illumination for best lowlight performance. Smart IR is a technology to ensure brightness uniformity in B/W image under low illumination. Dahua's unique Smart IR adjusts to 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.

Protection (IP67, IK10, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 mins.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows $\pm 30\%$ (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

Pixel	2MP
Image Sensor	1/2.8"CMOS
Max. Resolution	1920 (H) × 1080 (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	0.002lux/F1.5, 30IRE, 0Lux IR on
S/N Ratio	> 65 dB
Illumination Distance	60 m (196.9 ft)
Illuminator On/Off Control	Auto
Illuminator Number	3 (IR light)
Pan/Tilt/Rotation Range	Pan: 0°–355° Tilt: 0°–80° Rotation: 0°–355°

Lens

Lens Type	Motorized vari-focal				
Auto Focus	Yes				
Lens Mount	φ14				
Focal Length	2.7 mm–12 mm				
Max. Aperture	F1.5				
Field of View	Diagonal: 38°–123° Horizontal: 33°–102° Vertical: 19°–53°				
Iris Control	Fixed				
Close Focus Distance	0.5 m (1.6ft)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	2.7 mm	47.6 m (156.2 ft)	19.0 m (62.3 ft)	9.5 m (31.2 ft)	4.76 m (15.6 ft)
	12 mm	132.1 m (433.4 ft)	52.9 m (173.6 ft)	26.4 m (86.6 ft)	13.2 m (43.3 ft)

Video

Video Frame Rate	CVI: PAL: 1080P@25fps; NTSC: 1080P@30fps; AHD: PAL: 1080P@25fps; NTSC: 1080P@30fps; TVI: PAL: 1080P@25fps; NTSC: 1080P@30fps; CVBS: PAL: 960 × 576H; NTSC: 960 × 480H
Resolution	1080P (1920 × 1080); 960H (960 × 576/960 × 480)
Day/Night	Auto (ICR)
BLC	BLC/WDR/HLC
WDR	130 dB

White Balance	Auto/Area WB
Gain Control	Auto/Manual
Noise Reduction	3D NR
Smart Illumination	Yes
Mirror	Yes
Privacy Masking	Off/On (8 areas, rectangle)
Interoperability	3th party software support

Certifications

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)
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Port

Video Output	Video output choices of CVI/TVI/AHD/CVBS by one BNC port
Audio Input	One channel built-in mic
Power	
Power Supply	12 VDC±30%
Power Consumption	Max. 8 W (12 VDC, IR on)

Environment

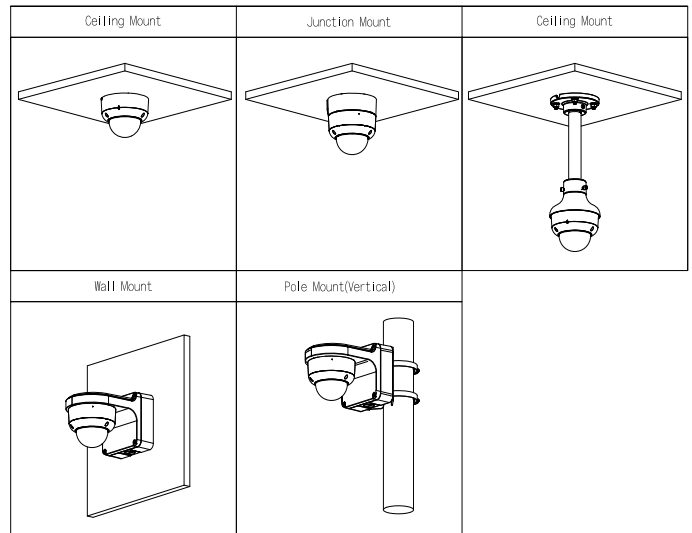
Operating Temperature	–30 °C to +60 °C (–22 °F to +140 °F); < 95% (non-condensation)
Storage Temperature	–30 °C to +60 °C (–22 °F to +140 °F); < 95% (non-condensation)
Protection	IP67; IK10
Interoperability	SDK & API support
Max. User Access	10 Users / Unlimited(Up to 64Mbps)

Structure

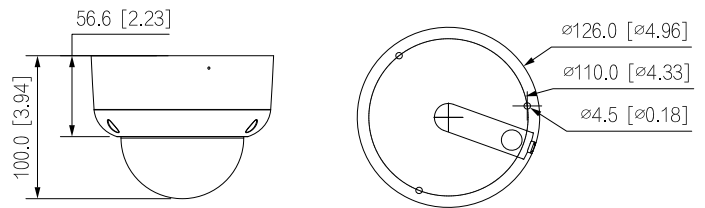
Casing	Aluminum alloy
Camera Dimensions	φ126 mm × 100 mm (φ5" × 3.9")
Net Weight	0.63 kg (1.4 lb)
Gross Weight	0.81 kg (1.8 lb)

Ordering Information

Type	Part Number	Description
2M Camera	DH-HAC-HDBWD2A1RA-AZ 2.7-12mm	2MP Professional Starlight HD IR Motorized Lens Dome Camera, PAL
	DH-HAC-HDBWD2A1RA-AZ 2.7-12mm	2MP Professional Starlight HD IR Motorized Lens Dome Camera, NTSC
Accessories (Optional)	PFA197R	Junction Box
	PFB206W	Wall Mount Bracket
	PFA109	Mount Adapter
	PFB220C	Ceiling Mount Bracket of Mini Dome & Eyeball Camera
	PFA156	Pole Mount Bracket
	PFM800-E	1 Channel Passive HDCVI Balun
	PFM321D	12V 1A Power Adapter
	PFM904	Integrated Mount Tester



Dimensions (mm[inch])



Accessories

Optional:



PFA197R
Junction Box



PFB206W
Wall Mount
Bracket



PFA109
Mount Adapter



PFB220C
Ceiling Mount Bracket
of Mini Dome & Eyeball
Camera



PFA156
Pole Mount Bracket



PFM800-E
1 Channel Passive HDCVI
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PFM904
Integrated Mount Tester