dahua
TECHNOLOGY

2MP HDCVI Fixed Dome Camera
Starlight+ Technology and True Wide Dynamic Range

HDCVI

ArcticPro

- 1/2.8-in. 2 MP Progressive-scan CMOS Sensor
- 2 MP (1920 x 1080) at 30 fps Maximum Resolution
- 2.8 mm Fixed Lens
- Starlight+ Technology for Low-light Applications
- True Wide Dynamic Range (130 dB) and 3D Noise Reduction
- ArcticPro Series Camera — Operational down to −40° C (−40° F)
- Supports Multiple Video Formats: HDCVI, CVBS, AHD and TVI
- HD or SD Output, Switchable
- Built-in Microphone
- Maximum IR Length 40 m (131.23 ft)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Five-year Warranty*

Pro Series | 2Mp | Starlight | WDR | IP67 | Audio

System Overview

Experience the superior clarity of Dahua's 2MP HDCVI camera for vast coverage and superior image details. The 2MP HDCVI series leverages existing coax infrastructures to deliver forensic-level images seamlessly and over long distances. The camera offers a 2.8 mm fixed lens, a multi-language On-screen Display, and HD/SD switchable output. The camera is ideal for hosting diverse applications — Starlight Technology and True Wide Dynamic Range allow the camera to operate in any lighting condition and the IP67 rating makes the camera suitable for the harshest environments.

Functions

Starlight+ Technology

For challenging low-light applications, Dahua's Starlight+ Technology captures details in low light applications. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Three Signals over One Coaxial Cable

HDCVI technology simultaneously transmits video, audio, and data over a single coaxial cable. Dual-way data transmission allows the HDCVI camera to communicate with an HCVR to send control signals or to trigger alarms.

Long Distance Transmission

HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI cameras provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

Simplicity

HDCVI technology seamlessly integrates traditional analog security systems with upgraded, high-quality HD video, making it the best choice to protect security investments. The plug and play approach enables full HD video security without the hassles of configuring a network.

Super Adapt

The Super Adapt function is a built-in algorithm that automatically adjusts the camera's optical settings as environmental conditions change to produce optimal video quality. This function helps to make initial configuration easy since it does not require setting the optical settings manually once the camera is installed.

Broadcast-quality Audio

Audio information is used as supplementary evidence in video security applications. This HDCVI camera transmits audio signals over the coaxial cable, eliminating the need for separate audio wiring. In addition, the camera uses unique audio processing and transmission technology that eliminates noise to best duplicate source audio, guaranteeing high-quality and highly effective audio information.

Multiple-format Support

The camera supports multiple video formats including, HDCVI, CVBS, AHD, and TVI. The camera can switch between these four formats via the switch located on the video output cable, making the camera compatible with not only HDCVI DVRs but also most existing HD/SD DVRs.

True Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Protection

The camera complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications, and its 4KV lightning rating provides effective protection for both the camera and its structure against lightning.

Technical Specification

Camera

Image Sensor	1/2.8-in. CMOS Sensor
Effective Pixels	1920 (H) x 1080 (V), 2MP
Scanning System	Progressive
Electronic Shutter Speed	1/30 s to 1/100,000 s
Minimum Illumination	Color: 0.001 lux at F1.6, 30 IRE 0 lux at F1.6 with IR On
S/N Ratio	More than 65 dB
IR Distance	Up to 40.0 m (131.23 ft)
IR Control	Auto, Manual
IR LEDs	Three (3)

Lens

Lens Type	Fixed Lens
Mount Type	M12
Focal Length	2.8 mm
Maximum Aperture	F1.6
Angle of View	Horizontal: 109° Vertical: 58° Diagonal: 127°
Iris Type	Fixed Iris
Close Focus Distance	700.0 mm (27.56 in.)

Installation Angle

Range	Pan: 0° to 355° Tilt: 0° to 65° Rotation: 0° to 355°

DORI Distances[1]

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
42.20 m (138.50 ft)	16.90 m (55.40 ft)	8.40 m (27.6 ft)	4.2 m (13.8 ft)

Video

Maximum Resolution		1080p (1920 x 1080), 960H (960 x 480)
Frame Rate	HDCVI	1080p at 30 fps
	AHD	1080p at 30 fps
	TVI	1080p at 30 fps
	CVBS	960 x 480H at 30 fps
Video Output		One (1) BNC, Transmits HDCVI High-definition signal or CVBS, AHD or TVI Channel, switchable
Video Transmission[2]	RG-59/U Coax	720p: 800 m (2624.67 ft) 1080p: 500 m (1640.42 ft)
	RG-6/U Coax	720p: 1200 m (3937.01 ft) 1080p: 800 m (2624.67 ft)
	CAT 6 UTP (balun required)	720p: 450 m (1476.38 ft) 1080p: 300 m (984.25 ft)
Day/Night		Auto (ICR), Manual
OSD Menu		Multi-language
BLC Mode		BLC, HLC, True WDR
WDR		130 dB
Gain Control		Auto, Manual
Noise Reduction		3D
White Balance		Auto, Manual
Smart IR		Auto, Manual
Mirror		On, Off
Privacy Masking		Off/On (8 areas, rectangular)

Certifications

CE	EN55032 EN55024 EN50130-4
Safety	UL60950-1 CAN/CSA C22.2 No.60950-1
Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 subpart B ANSI C63.4-2014

Interface

Video	One (1) Port, BNC HDCVI, TVI, AHD, CVBS selectable via DIP Switch
Audio	Input: One (1) Built-in Microphone

Electrical

Power Supply	12 VDC ± 30%
Power Consumption	Maximum 3.1 W (12 VDC, IR On)

Environmental

Operating Conditions	−40° C to +60° C (−40° F to +140° F) Less than 95% RH
Storage Conditions	−40° C to +60° C (−40° F to +140° F) Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

1. The DORI distance is a measure of the general proximity for a specific classification to help pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4 , the standard that defines the criteria for the Detect, Observe, Recognize and Identify classifications.
2. Transmission distance results verified by real-scene testing in Dahua's test laboratory. Actual transmission distances may vary due to external influences, cable quality, and wiring structures.

Construction

Casing	Metal
Dimensions	⌀112.0 mm x 89.10 mm (⌀3.87 in. x 3.51 in.)
Net Weight	0.33 kg (0.73 lb)
Gross Weight	0.47 kg (1.04 lb)

Ordering Information

Type	Part Number	Description
2MP Camera	A22DL62	2MP Starlight+, 2.8 mm Fixed Lens Dome Camera, True WDR
Accessories, optional	PFA106	Mount Adapter (use with PFB305W and PFB220C)
	PFA136	Junction Box
	PFA151	Corner Mount Bracket (use with PFB305W wall mount)
	PFA152-E	Pole Mount (use with PFB203W wall mount)
	PFA200W	Sun/Rain Shield
	PFB203W	Wall Mount (use with PFA152-E pole mount)
	PFB220C	Ceiling Mount (use with PFA106 mount adapter)
	PFB305W	Wall Mount (use with PFA106 mount adapter)
	PFM800-E	Passive HDCVI Balun
	DH-PFM321D-US	12 VDC, 1 A Power Adapter

Accessories

Optional:

PFA106 Mount Adapter	PFA136 Junction Box
PFA151 Corner Mount	PFA152-E Pole Mount
PFA200W Sun/Rain Shield	PFB203W Wall Mount
PFB220C Ceiling Mount	PFB305W Wall Mount
PFM800-E Passive HDCVI Balun	DH-PFM321D-US Power Adapter

Junction Mount	Pole Mount
PFA136	PFB203W + PFA152-E

Wall Mount
PFB203W

Wall Mount with Rain Shade	Ceiling Mount (Extensible)
PFA136+PFA200W	PFA106+PFB220C

Pole Mount with Rain Shade
PFA136+PFA200W+PFA152-E

Dimensions (mm/inch)

⌀98.2 [⌀3.87]
⌀112.0 [⌀4.41]
3–⌀4.5 [⌀0.18]
89.1 [3.51]
49.0 [1.93]

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