

# 2 MP HDCVI PTZ Camera

## 25x Starlight IR HDCVI PTZ Camera



- 1/2.8-in. 2 MP STARVIS™ CMOS Sensor
- Powerful 25x Optical Zoom
- Starlight Technology for Ultra-low Light Sensitivity
- 1080p at 30 fps, 720p at 60 fps Maximum Resolution
- Supports Multiple Video Formats: HDCVI, CVBS, AHD and TVI
- Maximum IR Distance up to 100 m (328 ft)
- Predictive Focus Analysis (PFA) Technology
- ArcticPro Series Camera - Operational down to  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ )
- IP66 Ingress Protection
- Five-year Warranty\*



### System Overview

The 2 MP Starlight IR PTZ Dome camera features a 1/2.8-in. STARVIS™ CMOS imager with a 25x optical zoom lens, and provides an all in one solution for capturing long-distance video surveillance for indoor and outdoor applications. The camera features 120 dB True WDR, suitable for applications with complex dynamic range, ensuring both the bright and dark areas are seen clearly. The PTZ camera is equipped with quick and accurate pan/tilt/zoom control and True WDR for applications with direct sunlight or glare.

### Functions

#### Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers light sensitivity that captures details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

#### Simplicity

HDCVI technology seamlessly integrates traditional analog surveillance 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 surveillance without the hassles of configuring a network.

#### Multi-Format Output Support

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

#### 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.

#### Predictive Focus Analysis Technology

The camera uses innovative PFA Technology to improve zoom accuracy and to decrease focus time. A series of advanced algorithms more accurately judge the direction and the distance to a subject, improving picture clarity throughout the zooming process.

#### 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 (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

#### ArcticPro

The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components, a waterproof enclosure, and an integrated heater to ensure flawless operation in temperatures as low as  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ). For applications that demand high-resolution video with advanced features in extremely cold environments, the Dahua ArcticPro Series offers a camera to satisfy the most demanding requirements.

#### Environmental

With a built-in heater and a temperature range of  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $158^{\circ}\text{F}$ ), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP66 rating makes it suitable for demanding outdoor applications.

#### Protection

This camera suits even the harsh conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

### Technical Specification

#### Camera

Image Sensor	1/2.8-in. STARVIS™ CMOS Sensor
Effective Pixels	1920(H) x 1080(V), 2 MP
Scanning System	Progressive
Electronic Shutter Speed	1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.005 lux at F1.6 B/W: 0.0005 lux at F1.6 0 lux at F1.6 with IR on
IR Distance	Distance up to 100.0 m (328.08 ft)
IR On/Off Control	Auto, Manual, Timer
IR LEDs	Six (6)

#### Lens

Focal Length	4.8 mm to 120 mm
Max. Aperture	F1.6 to F3.5
Angle of View	Horizontal: 2.8° to 61.0° Vertical: 0.40° to 22.60°
Optical Zoom	25x
Focus Control	Auto, Semi-automatic, Manual
Close Focus Distance	100 mm to 1500 mm (3.93 in. to 59.06 in.)

#### DORI Distance<sup>1</sup>

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
1655.20 m (5430.45 ft)	656.80 m (2154.86 ft)	331.0 m (1085.96 ft)	165.50 m (542.98 ft)

#### PTZ

Pan/Tilt Range	Pan: 0° to 360° Tilt: -15° to 90°
Manual Control Speed	Pan: 0.1° to 200° /s Tilt: 0.1° to 120° /s
Preset Speed	Pan: 240° /s Tilt: 200° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan
Speed Setup	Human-oriented Focal Length / Speed Adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset, Scan, Tour, Pattern if there is no command in the specified period
Protocol	DH-SD, Pelco-P/D (Auto-recognition)

#### Video

Resolution	1080p (1920 x 1080), 720p (1280 x 720), D1 (704 x 580)	
Frame Rate	1080p at 30 fps or 720p at 30/60 fps	
Transmission Rates <sup>2</sup>	RG-59/U Coax	720p: 500 m (1640.42 ft) 1080p: 400 m (1312.34 ft)
	RG-6/U Coax	720p: 800 m (2624.67 ft) 1080p: 600 m (1968.50 ft)
	CAT 6 UTP (balun required)	720p: 380 m (1246.72 ft) 1080p: 380 m (1246.72 ft)
Day/Night	Auto (ICR), Color, B/W, Timer	
OSD Menu	English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish	
Backlight Compensation	BLC, HLC, WDR (120 dB)	
White Balance	Auto, Indoor, Outdoor, Tracking, Manual, Sodium Lamp, Natural Light, Street Lamp	
Gain Control	Auto, Manual	
Noise Reduction	2D/3D	
Advanced Features	Motion Detection, Region of Interest, Defog, Image Stabilization, Defog	
Digital Zoom	16x	
Flip	0° / 180°	
Privacy Masking	Up to 24 areas	

#### Certifications

CE	EN 55032 EN 55024 EN 50130-4
UL	UL60950-1 + CAN/CSA C22.2, No.60950-1
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B ANSI C63.4-2014

#### Interface

Video	One (1) BNC High-definition Video Output (HDCVI, AHD, TVI) or CVBS Standard Definition Video Output (switchable)
Audio	Input: One (1) Channel
Alarm	Input: Two (2) Channels Output: One (1) Channel

#### Electrical

Power Supply	12 VDC, 3 A ± 10%
Power Consumption	9.6 W, 23.2 W with IR on

#### Environmental

Operating Conditions	-40° C to 70° C (-40° F to +158° F), with built-in heater, Less than 95% RH
Ingress Protection	IP66
Surge Protection	TVS 6000V

#### Construction

Casing	Metal
Dimensions	ø160.0 mm x 295.4 mm (ø6.30 in. x 11.63 in.)
Net Weight	3.0 kg (6.61 lb)
Gross Weight	4.20 kg (9.26 lb)

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.

**Ordering Information**

Type	Part Number	Description
2 MP PTZ Camera	49225ICLA	2 MP 25x Starlight IR HDCVI PTZ Camera, True WDR
Accessories, included	PFB305W	Wall Mount
Accessories, optional	PFA111	Mount Adapter
	PFA120	Water-proof Junction Box
	PFA140	Power Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB300C	Ceiling Mount
	PFB303S	Parapet Mount
	DC12V/3A	Power Adapter

**Accessories**

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PFB305W  
Wall Mount

Optional:



PFA111  
Mount Adapter



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PFA140  
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DC12V/3A  
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PFB300C  
Ceiling Mount



PFA151  
Corner Mount



PFA150  
Pole Mount



PFB303S  
Parapet Mount

Ceiling Mount	Junction Mount
PFA111 + PFB300C	PFB305W + PFA120
Power Box Mount	Pole Mount
PFB305W + PFA140	PFB305W + PFA150
Corner Mount	Parapet Mount
PFB305W + PFA151	PFA111+ PFB303S

**Dimensions (mm/in.)**

