DAHUA TECHNOLOGY

2 MP HDCVI PTZ Camera

2 MP 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
- Maximum IR Distance up to 100 m (328 ft)
- IP66 Ingress Protection
- Designed for Extreme Temperature Environments
- Five-year Warranty*

WDR | 0.005Lux | ICR D/N | IP66

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.

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.

Dual Video Output Signals
The camera offers one (1) BNC video output connection to transmit either an HDCVI or a CVBS signal. These output signals allow the camera to integrate with various devices, including analog matrix systems and monitors.

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.

Defog
Utilizing Dahua's advanced algorithm technology, the Defog feature dynamically adjusts the camera's contrast settings to provide improved image quality in scenes affected by fog, smog, mist, smoke or other low-contrast interference.

Environmental
With a built-in heater and a temperature range of-40 °C to +70 °C (-40 °F to 158 °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 1/300,000 s
Minimum Illumination	Color: 0.005 lux at F1.6; 0 lux at F1.6 with IR on
S/N Ratio	More than 55 dB
IR Distance	Distance up to 100.0 m (328.08 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Six (6)

Lens

Focal Length	4.8 mm to 120 mm
Max. Aperture	F1.6 to F4.4
Angle of View	Horizontal: 2.4° to 59.2°
Optical Zoom	25x
Focus Control	Auto, Manual
Close Focus Distance	100 mm to 1000 mm

DORI Distance[1]

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
1613 m (5292 ft)	646 m (2119 ft)	323 m (1060 ft)	161 m (528 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless Tilt: −15° to 90° Auto Flip 180°
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)
Frame Rate		1080p at 30 fps or 720p at 30/60 fps
Transmission Rates[2]	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
OSD Menu		English, French, German, Italian, Japanese, Polish, Portuguese, Russian, Spanish
Backlight Compensation		BLC, HLC, WDR (120 dB)
White Balance		Auto, ATW, Indoor, Outdoor, Manual
Gain Control		Auto, Manual
Noise Reduction		Ultra DNR (2D/3D)
Advanced Features		Defog
Digital Zoom		16x
Flip		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
RS485	One (1) Port
Alarm	Input: Two (2) Channels Output: One (1) Channel

Electrical

Power Supply	12 VDC, 3 A
Power Consumption	13 W, 22 W with IR and Heater on

Environmental

Operating Conditions	−40° C to 70° C (−40° F to +158° F), with built-in heater, Less than 90% RH
Ingress Protection	IP66

Construction

Casing	Metal
Dimensions	ø160.0 mm x 295.0 mm (ø6.30 in. x 11.61 in.)
Net Weight	4.0 kg (8.82 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	49225IC	2 MP 25x Starlight IR HDCVI PTZ Camera, Built-in Heater, 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

Included:

PFB305W
Wall Mount

Optional:

PFA111
Mount Adapter

PFA120
Junction Box

PFA140
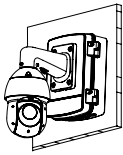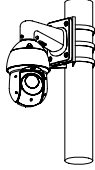Power Box

DC12V/3A
Power Adapter
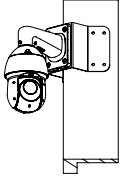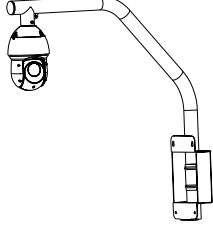
PFB300C
Ceiling Mount
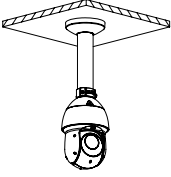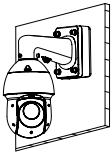
PFA151
Corner Mount

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.)

50.0 mm (1.97 in.)

109.0 mm (4.29 in.)

295.0 mm (11.61 in.)

140.0 mm (5.51 in.)

ø160.0 mm (ø6.30 in.)