

2 MP HDCVI PTZ Camera

30x Starlight IR WDR



HDCVI

- 1/2.8-in. 2 MP STARVIS™ Progressive-scan CMOS Sensor
- Powerful 30x Optical Zoom
- Supports Multiple Video Formats: HDCVI, CVBS, AHD and TVI
- Starlight Technology for Ultra-low Light Sensitivity
- 1080p at 30 fps or 720p at 30/60 fps, Maximum Resolution
- True Wide Dynamic Range (120 dB), 3D DNR
- Maximum IR Distance up to 150 m (492 ft)
- IP66 Ingress Protection
- Designed for Extreme Temperature Environments
- Five-year Warranty*



System Overview

The 2 MP Starlight IR PTZ Dome camera features a 1/2.8-in. STARVIS™ CMOS imager with a 30x optical zoom lens, and provides an all in one solution for capturing long-distance video surveillance for outdoor applications, day or night. The camera offers a built-in heater and IP66 Ingress Protection to extend its use to the harshest environments. 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.

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 or via dip switch settings, located inside the camera housing, making the camera compatible with not only HDCVI DVRs but also most existing HD/SD DVRs.

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.

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 $+60^{\circ}\text{C}$ (-40°F to $+140^{\circ}\text{F}$), the camera is designed for extreme temperature environments. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection 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 |
| 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 150.0 m (492.13 ft) |
| IR On/Off Control | Auto/Manual |
| IR LEDs | Four (4) |

Lens

| | |
|----------------------|---|
| Focal Length | 4.5 mm to 135 mm |
| Max. Aperture | F1.6 to F5.0 |
| Angle of View | Horizontal: 2.4° to 67.8° |
| Optical Zoom | 30x |
| Focus Control | Auto, Manual |
| Close Focus Distance | 100 mm to 1000 mm (3.94 in. to 39.37 in.) |

DORI Distance¹

| Detect (8 ppf) | Observe (19 ppf) | Recognize (38 ppf) | Identify (76 ppf) |
|------------------|------------------|--------------------|-------------------|
| 1862 m (6109 ft) | 744 m (2441 ft) | 372 m (1220 ft) | 186 m (610 ft) |

PTZ

| | |
|----------------------|---|
| Pan/Tilt Range | Pan: 0° to 360° endless; Tilt: -15° to 90° Auto flip 180° |
| Manual Control Speed | Pan: 0.1° to 300° /s; Tilt: 0.1° to 200° /s |
| Preset Speed | Pan: 400° /s Tilt: 300° /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

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|------------------------------------|---|
| Resolution | 1080p (1920 × 1080) 720p (1280 × 720) |
| Frame Rate | 1080p at 30 fps or 720p at 30/60 fps |
| Video Output | One (1) Channel, BNC High-definition Video Output (HDCVI, AHD, TVI) or CVBS Standard Definition Video Output (switchable) |
| Transmission Distance 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 | EN55032, EN55024, EN50130-4 |
| Safety | UL60950-1+CAN/CSA C22.2.No.60950-1 |
| Electromagnetic Compatibility (EMC) | FCC Part 15 subpart B ANSI C63.4- 2014 |

Interface

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|-------|--|
| Video | Output: One (1) BNC |
| Audio | Input: One (1) Channel |
| RS485 | One (1) Port |
| Alarm | Input: Two (2) Channels Output: One (1) Channel |

Electrical

| | |
|-------------------|-----------------------|
| Power Supply | 24 VAC, 3 A (±10%) |
| Power Consumption | 13 W, 23 W with IR on |

Environmental

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|----------------------|--|
| Operating Conditions | -40 °C to 60 °C (-40 °F to +140 °F), Less than 90% RH |
| Ingress Protection | IP66 |

Construction

| | |
|--------------|--|
| Casing | Metal |
| Dimensions | ø186.0 mm x 309.0 mm (ø7.32 in. x 12.17 in.) |
| Net Weight | 3.50 kg (7.72 lb) |
| Gross Weight | 6.80 kg (14.99 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 | 59230IC | 2 MP 30x Starlight IR PTZ HDCVI Camera, Built-in Heater, True WDR |
| Accessories, included | AC24V/3A | Power Supply |
| | PFA110 | Mount Adapter |
| | PFB300S | Wall Mount |
| Accessories, optional | PFA120 | Junction Box |
| | PFA140 | Power Supply Box |
| | PFA150 | Pole Mount |
| | PFA151 | Corner Mount |
| | PFB300C | Ceiling Mount |
| | PFB303S | Parapet Mount |

Accessories

Included:



PFB300S
Wall Mount



PFA110
Mount Adapter



AC24V/3A
Power Supply

Optional:



PFA140
Power Box



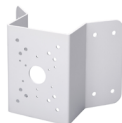
PFB300C
Ceiling Mount



PFA120
Junction Box



PFA150
Pole Mount



PFA151
Corner Mount



PFB303S
Parapet Mount

| Ceiling Mount | Junction Mount |
|---------------------------|---------------------------|
| PFA110 + PFB300C | PFA110 + PFB300S + PFA120 |
| | |
| Power Box Mount | Pole Mount |
| PFA110 + PFB300S + PFA140 | PFA110 + PFB300S + PFA150 |
| | |
| Corner Mount | Parapet Mount |
| PFA110 + PFB300S + PFA151 | PFA110 + PFB303S |
| | |

Dimensions (mm)

