

2MP Laser PTZ Network Camera

45x PTZ Network Camera



- 1/2.8-in. 2 MP Progressive-scan STARVIS™ CMOS Sensor
- Powerful 45x Optical Zoom Lens
- Smart H.265+ and H.264 Dual Codecs
- 2 MP at 60 fps Maximum Resolution
- Starlight Technology for Ultra Low-light Sensitivity
- Predictive Focus Algorithm
- Intelligent Video System with Auto-tracking
- Maximum IR Distance up to 550 m (1,804 ft)
- Supports Hi-PoE
- IP67 Environmental Protection
- Five-year Warranty*



System Overview

The 2MP Laser IR PTZ Dome camera features a 1/2.8-in STARVIS™ CMOS imager with a 45x optical zoom lens, and provides an all in one solution for capturing long-distance video surveillance for outdoor applications. The camera uses the Smart H.265+ video compression standard to improve encoding efficiency while preserving high-quality video. 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 best-in-class light sensitivity, capturing 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.

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.

PFA 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.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Environmental

With a built-in heater and a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.



Technical Specification

Camera

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|--------------------------|--|
| Image Sensor | 1/2.8-in. STARVIS™ CMOS |
| Effective Pixels | 1920(H) x 1080(V), 2 MP |
| RAM/ROM | 1024 MB / 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | 1/1 s to 1/30,000 s |
| Minimum Illumination | Color: 0.005 Lux at F1.6 0 Lux with IR on |
| S/N Ratio | More than 56 dB |
| IR Distance | Distance up to 550 m (1804.46 ft) |
| IR On/Off Control | Auto, Manual |
| IR LEDs | Laser Module |

Lens

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|----------------------|---------------------------|
| Focal Length | 3.95 mm to 177.7 mm |
| Max. Aperture | F1.6 to F4.95 |
| Angle of View | Horizontal: 70.3° to 1.8° |
| Optical Zoom | 45x |
| Focus Control | Auto, Manual |
| Close Focus Distance | 100 mm to 1000 mm |

DORI Distance¹

| Detect | Observe | Recognize | Identify |
|------------------|-----------------|-----------------|----------------|
| 2345 m (7694 ft) | 938 m (3077 ft) | 469 m (1539 ft) | 234 m (768 ft) |

PTZ

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|----------------------|---|
| Pan/Tilt Range | Pan: 0° to 360° endless Tilt: -20° 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

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|----------------------|---|---|
| Compression | Smart H.265+, H.265, Smart H.264+, H.264 | |
| Streaming Capability | Three (3) Streams | |
| Resolution | 1080p (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), D1 (704 x 380), CIF (352 x 240) | |
| Frame Rate | Main Stream | 1080p, 1.3 MP or 720p at 60 fps |
| | Sub Stream 1 | D1, CIF at 30 fps |
| | Sub Stream 2 | 1080p, 1.3 MP, 720p, D1, or CIF at 30 fps |

1. The DORI distance is a general proximity of distance helping to pinpoint the correct camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify.

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|------------------------|--|
| Bit Rate Control | CBR, VBR |
| Bit Rate | H.265 / H.264: 448 K to 8192 Kbps, |
| Day/Night | Auto (ICR), Color, B/W |
| Backlight Compensation | BLC, HLC, True WDR (120 dB) |
| White Balance | Auto, ATW, Indoor, Outdoor, Manual |
| Gain Control | Auto, Manual |
| Noise Reduction | Ultra DNR (2D/3D) |
| Advanced Features | Motion Detection, Region of Interest, Electronic Image Stabilization (EIS), Defog |
| Digital Zoom | 16x |
| Flip | 180° |
| Privacy Masking | Up to 24 areas |

Audio

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|-------------|--|
| Compression | G.711a, G.711Mu, AAC, G.722, G.726, G.729, MPEG2-L2 |
|-------------|--|

Network

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|-------------------------|---|
| Ethernet | RJ45 (1000 Base-T/100 Base-TX) |
| Protocol | IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x |
| Interoperability | ONVIF, PSIA, CGI |
| Streaming Method | Unicast / Multicast |
| Max. User Access | 20 users |
| Edge Storage | NAS (Network Attached Storage) Local PC for instant recording Micro SD Car, maximum 128 GB |
| Web Viewer | IE 10, Firefox, Safari |
| Management Software | Smart PSS, DSS |
| Mobile Operating System | iOS, Android |

Certifications

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|-------------------------------------|---|
| CE | EN55032 EN55024 EN50130-4 |
| Electromagnetic Compatibility (EMC) | FCC Part 15 Subpart B ANSI C63.4- 2014 |

Interface

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|-----------------|---|
| Video Interface | One (1) BNC (1.0 Vp-p, 75 Ω) |
| Audio Interface | Input: One (1) Channel Output: One (1) Channel |
| RS485 | One (1) |
| Alarm | Input: Seven (7) Channels Output: Two (2) Channels |

Electrical

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|-------------------|-----------------------------|
| Power Supply | 24 VAC, 3 A (± 25%), Hi-PoE |
| Power Consumption | 24 W, 38 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 | IP67 |
| Lightning Protection | 8KV |

Construction

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|--------------|--|
| Casing | Metal |
| Dimensions | ø240.0 mm x 357.0 mm (ø9.45 in. x 14.06 in.) |
| Net Weight | 6.75 kg (14.88 lb) |
| Gross Weight | 10.50 kg (23.15 lb) |

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

| | |
|-------------------|---|
| Standard Features | <ul style="list-style-type: none"> Tampering with the camera. Error writing to an onboard Micro SD card. Error sending or receiving data over the network. Unauthorized access to the camera. |
|-------------------|---|

Premium Features

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|--------------------------|--|
| Motion | An object moves through any part of the scene. |
| Tripwire | A target crosses a user-defined line. |
| Intrusion | A target enters or exits a defined perimeter. |
| Scene Change | A person or object moves the camera to change the scene or covers the camera to obscure the scene. |
| Abandoned/Missing Object | A target leaves an object in designated area, or a target removes an object from the same designated area. |
| Advanced Features | |
| Facial Detection | Detects and captures a snapshot of a human face in a defined area within a scene. |
| Heat Map | Generates a visual representation of data. |
| Auto-tracking | Controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. |

Ordering Information

| Type | Part Number | Description |
|-----------------------|-------------|-----------------------------------|
| 2 MP PTZ Camera | 6AL245UNI | 2 MP 45x Laser PTZ Network Camera |
| Accessories, Included | PFA111 | Mount Adapter |
| | PFB303W | Wall Mount |
| | AC24V/3A | Power Adapter |
| Accessories, Optional | PFA120 | Junction Box |
| | PFA140 | Power Box |
| | PFA150 | Pole Mount |
| | PFA151 | Corner Mount |
| | PFB300C | Ceiling Mount |
| | PFB303S | Parapet Mount |

Accessories

Included:



PFB303W
Wall Mount



PFA111
Mount Adapter



AC24V/3A
Power Adapter

Optional:



PFA140
Power Box



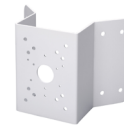
PFB300C
Ceiling Mount



PFA120
Junction Box



PFA150
Pole Mount



PFA151
Corner Mount



PFB303S
Parapet Mount

| Ceiling Mount | Junction Mount |
|---------------------------|---------------------------|
| PFA111 + PFB300C | PFA111 + PFB303W + PFA120 |
| | |
| Power Box Mount | Pole Mount |
| PFA111 + PFB303W + PFA140 | PFA111 + PFB303W + PFA150 |
| | |
| Corner Mount | Parapet Mount |
| PFA111 + PFB303W + PFA151 | PFA111 + PFB303S |
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