Pro Series | 6C430UNI

4 MP PTZ Network Camera
30x IR PTZ Network Camera

System Overview
The 4 MP IR PTZ Dome camera features a 1/3-in CMOS imager with a 30x optical zoom lens, and provides an all in one solution for capturing long-distance video surveillance for outdoor applications. The camera uses the 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

- **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.

- **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 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.

- **Predictive Focus Algorithm (PFA) Technology**
  The innovative PFA Technology is a series of built-in algorithms that improve zoom accuracy and decrease focus time. As the camera zooms in on a subject, PFA controls the zoom rate and the focus control to keep the subject in focus. This technology ensures the subject stays in focus during the entire zoom process.

- **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.

- **Interoperability**
  The camera conforms to the ONVIF (Open Network Video Interface Forum) and to the PSIA (Physical Security Interoperability Alliance) specifications, ensuring interoperability between network video products regardless of manufacturer.

- **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 IP66 rating makes it suitable for demanding outdoor applications.

- **1/3-in. 4 MP Progressive-scan CMOS Sensor**
- **Powerful 30x Optical Zoom**
- **Smart H.265+ and H.264 Video Compression Encoding**
- **4 MP / 3 MP at 30 fps and 1080p at 30/60 fps**
- **True Wide Dynamic Range**
- **Intelligent Video System (IVS) with Auto-tracking**
- **Maximum IR distance up to 100 m (328 ft)**
- **IP66 Environmental Protection Rating**
- **Designed for Extreme Temperature Environments**
- **Five-year Warranty*”

us.dahuasecurity.com

*Warranty applies to products sold through an authorized Dahua Dealer.
## Technical Specification

### Camera
- **Image Sensor**: 1/3-in. CMOS
- **Effective Pixels**: 2592(H) x 1520(V), 4 MP
- **RAM/ROM**: 1024 MB / 128 MB
- **Scanning System**: Progressive
- **Electronic Shutter Speed**: 1/1 s to 1/30,000 s
- **Minimum Illumination**: Color: 0.05 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 (328.10 ft)
- **IR On/Off Control**: Auto, Manual
- **IR LEDs**: Six (6)
- **Lens**
  - **Focal Length**: 4.5 mm to 135 mm
  - **Max. Aperture**: F1.6 to F4.4
  - **Angle of View**: Horizontal: 2.2° to 60°
  - **Optical Zoom**: 30x
  - **Focus Control**: Auto, Manual
  - **Close Focus Distance**: 100 mm to 1000 mm
  - **DORI Distance**
    - Detect (8 ppf): 2700 m (8858 ft)
    - Observe (19 ppf): 1080 m (3543 ft)
    - Recognize (38 ppf): 540 m (1772 ft)
    - Identify (76 ppf): 270 m (886 ft)
- **PTZ**
  - **Pan/Tilt Range**: Pan: 0° to 360° endless, Tilt: –15° to 90°, Auto Flip 180°
  - **Manual Control Speed**: Pan: 0.1° to 160°/s, Tilt: 0.1° to 120°/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, or Pattern if there is no command in the specified period
  - **Protocol**: DH-SD, Pelco-P/D (auto recognition)
- **Video**
  - **Compression**: Smart H.265+, H.265, Smart H.264+, H.264
  - **Streaming Capability**: Three (3) Streams
  - **Resolution**: 4 MP (2592 x 1520), 3 MP (2304 x 1296), 1080p (1920 x 1080), 720p (1280 x 720), CIF (352 x 240)
  - **Main Stream**: 4 MP, 3 MP at 30 fps or 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

### Bit Rate Control
- **CBR, VBR**: 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**
  - **Compression**: G.711a, G.711Mu, AAC, G.722, G.726, G.729, MPEG2-L2
- **Network**
  - **Ethernet**: RJ-45 (10 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 Card Slot, maximum 128 GB
  - **Web Viewer**: IE 10, Firefox, Safari
  - **Management Software**: Smart PSS, DSS
  - **Mobile Operating System**: iOS, Android
  - **Certifications**: CE, UL, 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 (1.0 Vp-p, 75 Ω) Output
    - **Audio**: Input: One (1) Channel, Output: One (1) Channel
    - **RS485**: One (1)
    - **Alarm**: Input: Two (2) Channels, Output: One (1) Channel
  - **Electrical**
    - **Power Supply**: 24 VAC, 3 A (± 10%)
    - **Power Consumption**: 10.5 W, 26 W with IR on

---

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.
Pro Series | 6C430UNI

Environmental

<table>
<thead>
<tr>
<th>Operating Conditions</th>
<th>-40° C to 60° C (–40° F to +140° F), Less than 95% RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP66</td>
</tr>
<tr>
<td>Lightning Protection Rating</td>
<td>6 kV</td>
</tr>
</tbody>
</table>

Construction

<table>
<thead>
<tr>
<th>Casing</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>Ø204.70 mm x 359.90 mm (ø8.06 in. x 14.17 in.)</td>
</tr>
<tr>
<td>Net Weight</td>
<td>5.0 kg (11.02 lb)</td>
</tr>
<tr>
<td>Gross Weight</td>
<td>8.30 kg (18.30 lb)</td>
</tr>
</tbody>
</table>

Intelligence

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

**Standard Features**
- 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**
- 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**
- 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**

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 MP PTZ Camera</td>
<td>6C430UNI</td>
<td>4 MP 30x IR PTZ Network Camera, WDR, IVS</td>
</tr>
<tr>
<td>Accessories, included</td>
<td>64FB</td>
<td>Wall Mount</td>
</tr>
<tr>
<td></td>
<td>AC24V/3A</td>
<td>Power Adapter</td>
</tr>
<tr>
<td>Accessories, optional</td>
<td>PFA114</td>
<td>Mount Adapter</td>
</tr>
<tr>
<td></td>
<td>PFB303W</td>
<td>Wall Mount</td>
</tr>
<tr>
<td></td>
<td>PFA140</td>
<td>Power Box</td>
</tr>
<tr>
<td></td>
<td>PFB300C</td>
<td>Ceiling Mount</td>
</tr>
<tr>
<td></td>
<td>PFA120</td>
<td>Junction Box</td>
</tr>
<tr>
<td></td>
<td>PFA150</td>
<td>Pole Mount</td>
</tr>
<tr>
<td></td>
<td>PFA151</td>
<td>Corner Mount</td>
</tr>
<tr>
<td></td>
<td>PFB303S</td>
<td>Parapet Mount</td>
</tr>
</tbody>
</table>

**Included:**
- 64FB Wall Mount
- AC24V/3A Power Adapter

Optional:
- PFA114 Mount Adapter
- PFA140 Power Box
- PFB300C Ceiling Mount
- PFB303W Wall Mount
- PFA150 Pole Mount
- PFA151 Corner Mount
- PFB303S Parapet Mount

**Ceiling Mount**

| PFA114 + PFB300C       | PFA114 + PFB303W + PFA120 |

**Junction Mount**

| PFA114 + PFB303W + PFA120 | PFA114 + PFB303W + PFA140 |

**Power Box Mount**

| PFA114 + PFB303W + PFA140 | PFA114 + PFB303W + PFA150 |

**Pole Mount**

| PFA114 + PFB303W + PFA151 | PFA114 + PFB303S |

**Corner Mount**

| PFA114 + PFB303W + PFA151 |

**Parapet Mount**

| PFA114 + PFB303S |
Dimensions (mm/in.)

ø204.70 mm
(ø8.06 in.)

920 mm
(36.22 in.)

359.90 mm
(14.17 in.)

9.20 mm
(0.36 in.)