

12 MP Network Fisheye Camera

180° Panoramic IR Fisheye Camera



- 1/1.7-in. 12 MP Progressive-scan CMOS Sensor
- 12 MP (4000 x 3000) at 25 fps Maximum Resolution
- Triple-stream Encoding
- H.265 and H.264 Dual Codecs
- Multiple Dewarp Modes
- Day/Night (ICR), 3DNR, AWB, AGC, BLC
- Maximum IR Distance 10 m (33 ft)
- IP67 Ingress Protection, IK10 Vandal Resistance
- Five-year Warranty*



System Overview

Dahua Fisheye Cameras provide detailed panoramic views in a compact, low-profile design. The progressive-scan sensor combined with a fisheye lens provide a high-quality 180° panoramic view without blind spots, making the camera the ideal solution for wide and open areas, such as airports, shopping malls and banks. The camera offers multiple dewarp modes for different installations and configurations that enhance the video for a specific scene. The IP67 environmental protection rating and the IK10 vandal resistance ensure the camera operates in the harshest environments.

Functions

True Day/Night

A day/night mechanical IR cut filter makes this camera ideal for applications with fluctuating lighting conditions, delivering color images during the day and automatically switching to monochrome as the scene darkens.

Dewarping Mode

Fisheye dewarping solves the problem of distortion in the circular panoramic view. The camera offers multiple dewarping modes for different installations and configurations, either with a Dahua XVR, NVR, via the Web interface. Each dewarping mode offers options to adjust each scene.

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 10 m (33 ft).

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

Protection

The camera allows for $\pm 25\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

Technical Specification

Camera

| | |
|--------------------------|--|
| Image Sensor | 1/1.7-in. 6 MP CMOS |
| Total Sensor Pixels | 4000(H) x 3000(V) |
| RAM/ROM | 1024 MB / 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto, Manual, 1/3 s to 1/100,000 s |
| Minimum Illumination | Color: 0.001 lux at F2.8 (1/3 s, 30 IRE) Color: 0.01 lux at F2.8 (1/30 s, 30 IRE) 0 lux at F2.8 with IR on |
| S/N Ratio | More than 50 dB |
| IR Distance | Up to 10 m (32.81 ft) |
| IR On/Off Control | Auto, Manual |
| IR LEDs | Three (3) |

Lens

| | |
|------------------|------------------------------------|
| Lens Type | Fixed |
| Mount Type | Board-in |
| Focal Length | 1.98 mm |
| Maximum Aperture | F2.8 |
| Angle of View | Horizontal: 180° Vertical: 180° |
| Focus Control | Fixed |

DORI Distance¹

| Detect (8 ppf) | Observe (19 ppf) | Recognize (38 ppf) | Identify (76 ppf) |
|----------------|------------------|--------------------|-------------------|
| 42 m (138 ft) | 17 m (56 ft) | 8 m (27 ft) | 4 m (14 ft) |

Video

| Compression | H.265, H.264 | |
|---|---|--------------------|
| Streaming Capability | Three (3) Streams | |
| Resolution | 12 MP (4000 x 3000), 8 MP (2880 x 2880), 6 MP (3072 x 2048), 3 MP (2048 x 1536), 1.3 MP (1280 x 960), D1 (704 x 576), CIF (352x288) | |
| Effective Maximum Resolution, based on Dewarping Mode | | |
| Dewarping Method | Mount Location | Resolution (H x V) |
| 1 Panoramic | Ceiling/Ground | 4096 x 1024 |
| | Wall | 2048 x 1024 |
| 2 Panoramic | Ceiling/Ground | 2048 x 2048 |
| 1 Original + 3 Regions | All Locations | 2048 x 2048 |
| 4 Regions | All Locations | 2048 x 2048 |
| 1 Region | All Locations | 1280 x 1024 |

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.

| | | |
|--------------------|--------------|---|
| Frame Rate | Main Stream | 12 MP at 25 fps or 8 MP at 30 fps |
| | Sub Stream 1 | D1 at 30 fps |
| | Sub Stream 2 | 1.3 MP at 30 fps |
| Bit Rate Control | | CBR, VBR |
| Bit Rate | | H.265: 3 Kbps to 9984 Kbps H.264: 8 Kbps to 16384 Kbps |
| Day/Night | | Auto (ICR), Color, B/W |
| BLC Mode | | BLC, HLC, DWDR |
| White Balance | | Auto, Natural, Street Lamp, Outdoor, Manual |
| Gain Control | | Auto, Manual |
| Noise Reduction | | 3D DNR |
| Motion Detection | | Off, On (4 Zone, Rectangle) |
| Region of Interest | | Off, On (4 Zone) |
| Advanced Features | | Smart IR, Defog |
| Digital Zoom | | 16x |
| Privacy Masking | | Off, On (4 Area, Rectangle) |

Audio

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|-------------|-----------------------------|
| Compression | G.711a, G.711Mu, AAC, G.726 |
|-------------|-----------------------------|

Network

| | |
|-------------------------|---|
| Ethernet | M12 D-coded Connector (100/1000 Base-T) |
| Protocol | HTTP, HTTPS, TCP, ARP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, IPv4/v6, QoS, UPnP, NTP, Bonjour, 802.1x, Multicast, ICMP, IGMP, SNMP |
| Interoperability | ONVIF, PSIA, CGI |
| Streaming Method | Unicast, Multicast |
| Maximum User Access | 10 Users, 20 Users |
| Edge Storage | Network Attached Storage (NAS) Local PC for instant recording Micro SD Card Slot, maximum 128 GB |
| Web Viewer | IE, Firefox, Safari |
| Management Software | Smart PSS, DSS |
| Mobile Operating System | IOS, Android |

Certifications

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|-------------------------------------|----------------------------|
| Safety | UL60950-1 EN 60950:2000 |
| Electromagnetic Compatibility (EMC) | FCC Part 15 Subpart B |

Interface

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|-----------------|--|
| Audio Interface | Input: One (1) Channel, Built-in Microphone Output: One (1) Channel |
| Alarm | Input: Two (2) Channels (5 VDC, 5 mA) Output: Two (2) Channels (30 VDC, 1 A; 50 VAC, 0.5 A) |

Electrical

| | |
|-------------------|---------------------------------------|
| Power Supply | 12 VDC ±25% or PoE (802.3af, Class 0) |
| Power Consumption | < 12 W |

Environmental

| | |
|----------------------|---|
| Operating Conditions | -30 °C to +60 °C (-22 °F to +140 °F), Less than 95% RH |
| Storage Conditions | -30 °C to +60 °C (-22 °F to +140 °F), Less than 95% RH |
| Ingress Protection | IP67 |
| Vandal Resistance | IK10 |

Construction

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|--------------|---|
| Casing | Metal |
| Dimensions | ø149.80 mm x 50.70 mm (ø5.90 in. x 2.0 in.) |
| Net Weight | 0.58 kg (1.28 lb) |
| Gross Weight | 1.0 kg (2.20 lb) |

Ordering Information

| Type | Part Number | Description |
|-----------------------|---------------------|--|
| 6 MP Fisheye | DH-IPC-EBW81230 M12 | 12 MP Panoramic Network IR Fisheye Camera, |
| Accessories, optional | PFA100 | Mount Adapter (Required for PFB302S Wall Mount) |
| | PFA105 | Mount Adapter (Required for PFB300C Ceiling Mount) |
| | PFA110 | Mount Adapter (Required for PFB300C Ceiling Mount) |
| | PFA152 | Pole Mount (For use with PFB302S Wall Mount) |
| | PFB300C | Ceiling Mount (Requires PFA105 and PFA110 Mount Adapters) |
| | PFB302S | Wall Mount (Requires PFA100 Mount Adapter) |

Accessories

Optional:



PFA100
Mount Adapter



PFB302S
Wall Mount



PFA152
Pole Mount



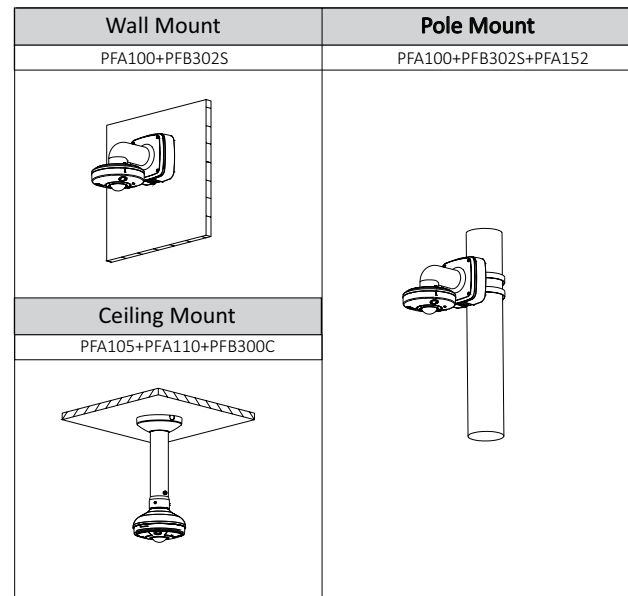
PFA105
Mount Adapter



PFA110
Mount Adapter



PFB300C
Ceiling Mount



Dimensions (mm/inch)

