

4 MP Box Network Camera

4 MP WDR Box Network Camera



- 1/3-in. 4 MP Progressive-scan CMOS Sensor
- Triple-stream Encoding
- Smart H.265+ and Smart H.264+ Dual Codec
- 4 MP (2688 × 1520) at 30 fps
- Smart Detection Supported
- True Wide Dynamic Range (120 dB) and True Day/Night
- Intelligent Video System with Facial Detection
- Alarm and Audio Inputs/Outputs
- Auto Back Focus (ABF)
- Micro SD Memory, PoE
- Five-year Warranty*



System Overview

Dahua's Pro series of cameras offers high-resolution video and cutting-edge technology in a compact and accessible package. The cameras feature H.265 video compression, reducing bandwidth and storage requirements without sacrificing video quality. The camera series incorporates True Wide Dynamic Range, and the Intelligent Video System, features typically found on high-end surveillance systems.

Functions

Wide Dynamic Range

For applications with both bright and low-light 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 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.

Street Light Compensation

The camera delivers exceptional images even when shooting under sodium-vapor lamps that typically add a yellowish-tint to the scene hampering identification. This camera provides a built-in white-balance mode that compensates for the tint to restore the scene to its original color.

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.

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.264 video compression.

Environmental

With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments.

Protection

Supporting ±30% input voltage tolerance, this camera suits even the most unstable 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 | 1/3-in. 4 MP Progressive-scan CMOS |
| Effective Pixels | 2688(H) x 1520(V) |
| RAM/ROM | 512 MB /32 MB |
| Scanning System | Progressive |
| Minimum Illumination | Color: 0.01 Lux at F1.2 B/W: 0.001 Lux at F1.2 |
| S/N Ratio | More than 50 dB |
| Lens Mount Type | C/CS |

Video

| | |
|----------------------|---|
| Compression | Smart H.265+, H.265, Smart H.264+, H.264, MJPEG |
| Streaming Capability | Three (3) Streams |
| Resolution | 4 MP (2688 x 1520), 3 MP (2304 x 1296), 1080p (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), D1 (704 x 480), VGA (640 x 480), CIF (352 x 240) |
| Frame Rate | Main Stream: 4 MP at 30 fps |
| | Sub Stream 1: D1 at 30 fps |
| | Sub Stream 2: 720p at 30 fps |
| Bit Rate Control | CBR/VBR |
| Bit Rate | H.264: 24 Kbps to 10240 Kbps H.265: 14 Kbps to 9984 Kbps |
| Day/Night | Auto (ICR), Color, B/W |
| BLC Mode | BLC, HLC, WDR (120 dB) |

| | |
|--------------------|---|
| 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) |
| Digital Zoom | 16x |
| Flip | 0° / 90° / 180° / 270° |
| Mirror | Off, On |
| Privacy Masking | Off, On (4 Area, Rectangle) |

Audio

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

Network

| | |
|-------------------------|---|
| Ethernet | RJ-45 (10/100 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 |
| Max. User Access | 10 Users /20 Users |
| Edge Storage | NAS Local PC for Instant Recording MicroSD Card, maximum 128 GB |
| Web Viewer | IE, Firefox, Safari |
| Management Software | Smart PSS, DSS |
| Mobile Operating System | IOS, Android |

Certifications

| | |
|-------------------------------|-----------------------|
| Safety | UL60950-1 |
| Electromagnetic Compatibility | FCC Part 15 Subpart B |

Interface

| | |
|-----------------|--|
| Video Interface | One (1) Port |
| Audio Interface | Input: One (1) Channel, with One (1) Built-in Microphone Output: One (1) Channel |
| RS485 | One (1) Port |
| Alarm | Input: Two (2) Channels Output: One (1) Channel |

Electrical

| | |
|-------------------|---------------------------------------|
| Power Supply | 12 VDC, 24 VAC, PoE (802.3af Class 0) |
| Power Consumption | < 5 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 |

Construction

| | |
|--------------|---|
| Casing | Metal |
| Dimensions | 135.40 mm x 74.40 mm x 65.50 mm (5.33 in. x 2.93 in. x 2.58 in.) |
| Net Weight | 0.66 kg (1.46 lb) |
| Gross Weight | 0.77 kg (1.70 lb) |

Intelligence

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

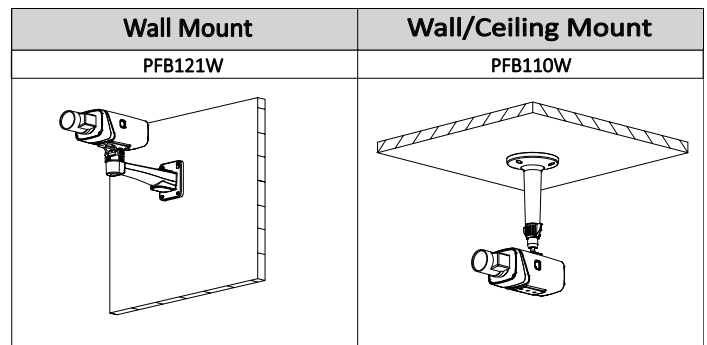
| | |
|--------------------------|---|
| Standard Features | <ul style="list-style-type: none"> • Tampering with the camera. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera. |
| Premium Features | |
| Motion | An object 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 human face in a defined area within a scene. |

Ordering Information

| Type | Part Number | Description |
|------------------------|----------------|---|
| Camera | N45BA5 | 4 MP Box Network Camera, WDR, IVS |
| Accessories (optional) | PFB110W | Wall Mount |
| | PFB121W | Wall Mount |
| | PFA121 | Junction Box (use with PFB121W) |
| | PFA122 | Junction Box (use with PFB110W) |
| | PFA150 | Pole Mount |
| | PFA151 | Corner Mount |
| | PFA152 | Pole Mount |
| | DH-PLZ20C0-D | 12 MP, 3.7 mm to 16 mm Vari-focal Lens |
| | DH-PLZ21C0-D | 12 MP, 10.5 mm to 42 mm Vari-focal Lens |
| | DH-PFL0550-E6D | 6 MP, 5 mm to 50 mm Vari-focal Lens |

Accessories

Optional:



Dimensions (mm/inch)

