

4 x 5 MP Flexible Multi-sensor Network Camera

Multi-directional IR Dome with Four (4) 2.8 mm to 12 mm Motorized Zoom Lenses



WizMind Series devices offer Dahua Analytics+ functions for comprehensive, human-oriented analytic solutions. WizMind Series products are ideal for complex applications with demanding requirements that need advanced analytic capabilities.

System Overview

The Dahua DH-IPC-PDBW82041N-B360 Flexible Multi-sensor Dome Camera features four (4) 1/2.7-in. 5 MP Progressive-scan CMOS sensors each with a 2.8 to 12 mm motorized lens. Each sensor can be positioned and configured independently of the others allowing flexible, multi-directional video surveillance that replaces multiple single-sensor cameras and is ideal for monitoring large areas. The camera offers True Wide Dynamic Range, a True Day/Night IR Cut filter, IP67 Ingress protection and operation in extreme temperatures to deliver superior images in all lighting and environmental conditions.

Functions

Perimeter Protection

Dahua Analytics+ includes Tripwire and Intrusion functions that offer custom tripwires based on object type for automation in limited access areas. Perimeter Protection requires less pixels to detect an object to deliver improved accuracy and decreased false alarms due to lights, weather, trees, or animals.

FlexStream Technology¹

The camera offers FlexStream technology that displays simultaneous video from each sensor in a single channel, streams viewed in the first channel simultaneously. That is, the multiple images can be displayed in one channel.

Face Detection

The camera detects and captures a snapshot of human face in a defined area within a scene. This technology supports detecting, tracking, capturing and selecting the best face image, and then outputs a face snapshot.

- Four (4) Independent 1/2.7-in 5 MP CMOS Sensors
- Flexible Multi-directional IR Dome with four (4) 2.8 mm to 12 mm Motorized Zoom Lenses
- Triple-stream Encoding per Channel
- Smart H.265+ and Smart H.264+ Dual Codec
- 5 MP at 30 fps Maximum Resolution per Sensor
- FlexStream Consolidates Video from All Channels into a Single Stream
- Analytics+ Functions — Perimeter Protection and Face Detection
- Starlight Technology for Low Light Sensitivity
- True Wide Dynamic Range and True Day/Night (ICR) on all Channels
- Maximum IR LED Distance 30 m (98 ft)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Five-year Warranty*

Starlight Technology

For challenging low-light applications, Dahua's Starlight low light Technology offers best-in-class light sensitivity, capturing details in low light applications. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for 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.

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.

Cybersecurity

Dahua network cameras are equipped with a series of key cybersecurity technologies including: security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage. These technologies improve the camera's ability to prevent malicious access and to protect data.

Environmental

With a temperature range of -30 °C to +60 °C (-22 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies with an IK10 impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

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

Technical Specification					
Camera					
Image Sensor	Four (4) 1/2.7-in. 5 MP CMOS				
Effective Pixels	2592(H) x 1944(V), per sensor				
RAM/ROM	4 GB/32 GB				
Scanning System	Progressive				
Electronic Shutter Speed	Auto, Manual, 1/3 s to 1/100000 s				
Minimum Illumination	Color: 0.005 lux at F1.7 0 lux at F1.7 (IR on)				
S/N Ratio	More than 56 dB				
IR Distance	Distance up to 30 m (98.43 ft)				
IR On/Off Control	Auto, Manual				
IR LEDs	Eight (8) total LEDs; Two (2) LEDs per sensor				
Lens					
Lens Type	Motorized				
Mount Type	φ 14				
Focal Length	2.8 mm to 12 mm				
Max. Aperture	F1.7				
Angle of View	Horizontal: 100° to 36° Vertical: 74° to 27° Diagonal: 133° to 45°				
Focus Control	Motorized				
Close Focus Distance	0.80 m (2.60 ft)				
DORI Distance ²	Lens	Detect	Observe	Recognize	Identify
	Wide	66.0 m (216.50 ft)	26.40 m (86.60 ft)	13.20 m (43.30 ft)	6.60 m (21.70 ft)
	Tele	140.40 m (460.60 ft)	56.10 m (184.10 ft)	28.0 m (91.90 ft)	14.0 m (45.90 ft)
Installation Angle					
Range	Pan: 0° to 360° Tilt: 0° to 80° Rotation: 0° to 355°				
Video					
Compression	Smart H.265+, H.265, Smart H.264+, H.264, H.264B, H.264H, MJPEG (sub stream)				
Streaming Capability	Three (3) Streams per sensor				
Resolution	Individual Streams	5 MP (2592 x 1944), 4 MP (2688 x 1520), 3 MP (2048 x 1536), 2304 x 1296, 2 MP (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), VGA (640 x 480), D1 (704 x 480), CIF (352 x 240)			
	FlexStream ¹	8 MP (3296 x 2472), 5 MP (2592 x 1944), 1600 x 1200, 1.3 MP (1280 x 960), D1 (704 x 480), CIF (352 x 240)			
Frame Rate	Individual Streams	Main Stream: 5 MP at 30 fps Sub Stream 1: D1 at 30 fps Sub Stream 2: 2 MP at 30 fps			
	FlexStream ¹	Main Stream: 1600 x 1200 at 30 fps Sub Stream 1: D1 at 30 fps Sub Stream 2: 8 MP at 30 fps			
Bit Rate Control	CBR, VBR				
Bit Rate	H.264: 3 Kbps to 19456 Kbps H.265: 3 Kbps to 19456 Kbps				
Day/Night	Auto (ICR), Color, B/W				
BLC Mode	BLC, HLC, True WDR (120 dB, all channels), SSA				
White Balance	Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom				
Gain Control	Auto, Gain Priority, Shutter Priority, Manual				
Noise Reduction	3D DNR				
Motion Detection	Off, On (4 Zone, Rectangle)				
Region of Interest	Off, On (4 Zone)				
Flip	0°, 90°, 180°, 270° (Supports 90°/270° with 1080p resolution or lower)				
Mirror	Off, On				
Privacy Masking	Off, On (4 Area, Rectangle)				
Audio					
Compression	PCM, G.711a, G.711Mu, G.726, G.723				
Network					
Ethernet	RJ-45 (10/100/1000 Base-T)				
Protocol	HTTP, HTTPS, TCP, ARP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, QoS, UPnP, NTP				
Interoperability	ONVIF (Profile S/Profile G/Profile T), CGI, Milestone, Genetec, RTMP, P2P				
Streaming Method	Unicast/Multicast				
Maximum User Access	20 Users				
Edge Storage	Network Attached Storage (NAS) Micro SD Card Slot, 256 GB maximum				
Web Viewer	IE 9 and later, Chrome 41.0 and later				
Management Software	DSS, DMSS				
Mobile Operating System	IOS, Android				
Cybersecurity	Video Encryption, Firmware Encryption, Configuration Encryption, Digest, WSSE, Account Lockout, Security Logs, IP/MAC Filtering, Generating and Importing X.509 Certification, Syslog, HTTPS, 802.1x, Trusted Boot, Trusted Execution, Trusted Upgrade				
Certifications					
Safety	UL 60950-1 CAN/CSA C22.2 No.60950-1-07 EN62368-1				
Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 Subpart B Electromagnetic Compatibility Directive 2014/30/EU				
Interface					
Audio	Input: One (1) Channel, RCA Output: One (1) Channel, RCA				
RS485	One (1) Port (baud rate range: 1200 bps–115200 bps)				
Alarm	Input: Three (3) Channels (5 mA, 3 VDC to 5 VDC) Output: Two (2) Channels (300 mA, 12 V)				
Electrical					
Power Input	12 VDC, 1.65 A or PoE (IEEE802.3af Class 0)				
Power Output	12 VDC				
Power Consumption	Basic	12 VDC: 8.1 W PoE: 9 W			
	Maximum	12 VDC: 21.5 W PoE: 22.2 W			
Environmental					
Operating Temperature	-30° C to +60° C (-22° F to +140° F) Less than 95% RH				
Storage Temperature	-30° C to +60° C (-22° F to +140° F)				
Ingress Protection	IP67				
Vandal Resistance	IK10				

Construction	
Casing	Metal and Plastic
Dimensions	ø286.10 mm x 111.30 mm (ø11.26 in. x 4.38 in.)
Net Weight	2.75 kg (6.06 lb)
Gross Weight	4.50 kg (9.92 lb)

Analytics+ Functions	
Perimeter Protection	<ul style="list-style-type: none"> Detects human or vehicle violations using the following methods: <ul style="list-style-type: none"> Tripwire: a target crosses a defined line. Intrusion: a target enters or exits a defined perimeter. Monitors a combination of detection methods. Search and retrieve video based on target type.
Face Detection	Detects faces from the video image. Supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

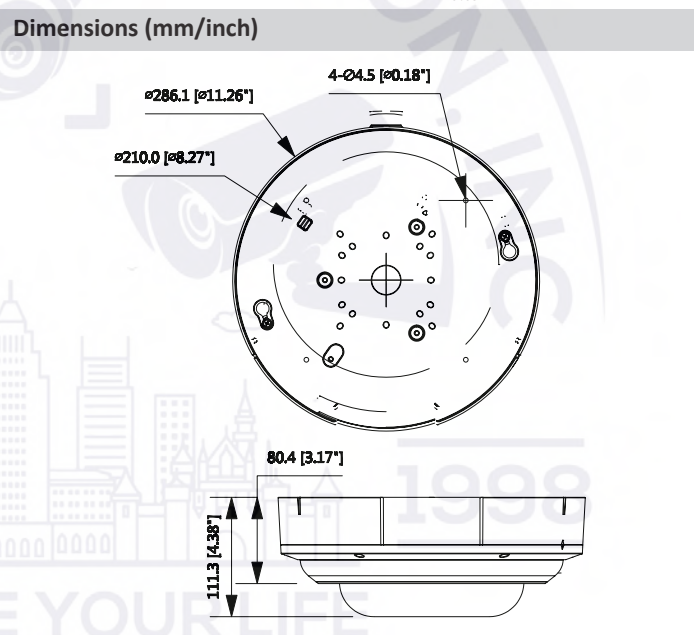
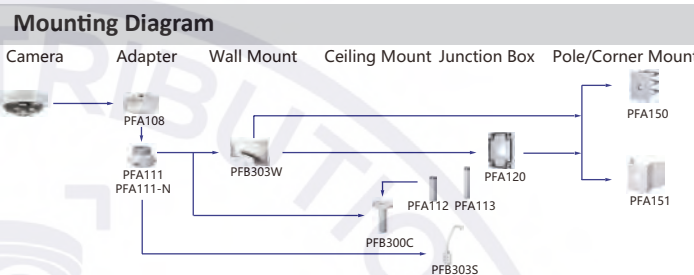
Intelligence	
IVS triggers an alarm and takes a defined action for the following events:	
Standard Features	<ul style="list-style-type: none"> Tampering with the camera. Error writing to an onboard Micro SD card. Error sending or receiving data over the network. Unauthorized access to the camera.
Premium Features	
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.
Fast Moving	Target exceeds a set speed when exiting a defined area
Parking Detection	Vehicle remains in a defined area without motion for a set period of time.
Crowd Gathering	Specified number of people remain inside a defined area for a set time.
Loitering Detection	Target is in motion inside a defined area longer than a specified amount of time.

Ordering Information		
Type	Part Number	Description
Panoramic Camera	DH-IPC-PDBW82041N-B360	4 x 5 MP Multi-sensor IR Dome Network Camera
	PFA108	Mount Adapter
	PFA111	Mount Adapter
	PFA111-N	Mount Adapter (NPT 1-1/2 in.)
Accessories, optional	PFA120	Junction Box (use with PFB303W)
	PFA150	Pole Mount (use with PFA108, PFA111 or PFA111-N, PFA120, and PFB303W)
	PFA151	Corner Mount (use with PFA108, PFA111 or PFA111-N, PFA120, and PFB303W)
	PFB300C	Ceiling Mount (use with PFA108 and or PFA111-N)
	PFB303S	Parapet Mount (use with PFA108 and or PFA111-N)
	PFB303W	Wall Mount Bracket (use with PFA108 and PFA111 or PFA111-N)
	DH-PFM320D-US	12 VDC, 2 A Power Adapter

Accessories

Optional:

PFA108 Mount Adapter PFA111 Mount Adapter PFA120 Junction Box PFA150 Pole Mount
 PFA151 Corner Mount PFB300C Ceiling Mount PFB303W Wall Mount DH-PFM320D-US Power Adapter



- The FlexStream channel connects to a Dahua NVR via an RTSP string. If the FlexStream feed is the only channel added only the live video feed will be transmitted and will not include alerts.
- 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.

