alhua
TECHNOLOGY

2 x 4MP Multi-sensor Network Dome Camera
True Wide Dynamic Range and Analytics+

WizMind

ArcticPro

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 2 x 4 MP Dual-sensor Dome Camera offers advanced analytics and starlight functionality for complete surveillance solution. Each sensor can be positioned and configured independently of the other allowing flexible, multi-directional video surveillance that is ideal for monitoring an entire corridor, a stairwell, or a street. In addition, Analytic+ functions can be applied to each channel and enabled simultaneously. 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.

People Counting
The camera uses complex real-time people counting algorithms to deliver accurate flow statistics from two distinct people counting functions, Line Crossing and Regional. The line crossing function counts the number of people crossing a defined line, and the regional function counts the number of people in a distinct, user-defined area.

Starlight Technology
For challenging low-light applications, Dahua's Enhanced Starlight 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.

- Two (2) Independent 1/2.7-in. 4 MP CMOS Sensors
- Triple-stream Encoding per each Channel
- AI Coding, Smart H.265+, and Smart H.264+ Video Compression
- Two (2) 2.8 mm Fixed Lenses
- Analytics+ Functions — Perimeter Protection, Smart Motion Detection+, People Counting, and Face Detection
- Option to Display Dual Video in the First Channel
- Enhanced Starlight Technology for Low Light Sensitivity
- ArcticPro Series Camera — Operational down to −40° C (−40° F)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Built-in Microphone
- Maximum IR LED Distance 30 m (98.43 ft)
- Five-year Warranty*

4Mp	SMD+	Perimeter Protection	People Counting	Face Detection	IP67&IK10

ArcticPro
The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as −40°F (−40°C) without the need for an internal heater. The lack of a heater reduces the camera's power consumption and saves operating costs. For applications that demand high-resolution video with advanced features in extremely cold environments, the Dahua ArcticPro Series offers a camera to satisfy the most demanding requirements.

AI Coding
The AI Coding function puts recording emphasis on human or vehicular objects in the video scene. This technology, based on constant bit rate (CBR), dynamically allocates increased bit rate to the target object while reducing the bit rate allocated to background objects. AI Coding reduces bit rate and storage requirements by up to 25% when compared to the H.265 video compression standard.

Smart Illumination
With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of the camera's infrared LEDs to compensate for 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.

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
The camera complies with the 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	Two (2) 1/2.7-in. 4 MP CMOS
Effective Pixels	2560(H) x 1440(V)
RAM/ROM	1 GB / 128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto, Manual; 1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.005 lux at F1.6 (30 IRE) Color: 0.0005 lux at F1.6 (30 IRE) 0 lux at F1.6 with IR on
S/N Ratio	More than 56 dB
IR Distance	Distance up to 30.0 m (98.43 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Eight (8) LEDs per sensor (16 total)

Lens

Lens Type	Fixed
Mount Type	M12
Focal Length	2.8 mm
Max. Aperture	F1.6
Angle of View	Horizontal: 95° Vertical: 52° Diagonal: 114°
Iris Control	Fixed
Close Focus Distance	1.10 m (3.61 ft)

	Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
DORI[1] Distance	63.60 m (208.66 ft)	25.40 m (83.33 ft)	12.70 m (41.67 ft)	6.40 m (21.0 ft)

Installation Angle

Range	Pan: 0˚ to 175˚ Tilt: 0˚ to 65˚ Rotation: 0˚to 360˚

Video

Compression	AI Coding, Smart H.265+, H.265, Smart H.264+, H.264, H.264H, H.264B, MJPEG (Sub Stream)
Streaming Capability	Three (3) Streams per Sensor
Resolution	4 MP (2688 x 1520), 3 MP (2048 x 1536), 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	Channel 1: 2560 x 1440 at 30 fps Channel 2: 2560 x 1440 at 30 fps
	Sub Stream	Channel 1: 704 x 480 at 30 fps Channel 2: 704 x 480 at 30 fps
	Sub Stream 2	Channel 1: 1920 x 1080 at 30 fps Channel 2: 1920 x 1080 at 30 fps

Bit Rate Control	CBR, VBR
Bit Rate	H.264: 32 to 8192 Kbps H.265: 12 to 8192 Kbps
Day/Night	Auto (ICR), Color, B/W
BLC Mode	BLC, HLC, True WDR, SSA
White Balance	Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom
Gain Control	Auto, Manual, Gain Priority, Shutter Priority
Noise Reduction	3D DNR
Motion Detection	Off, On (4 Zones, Rectangle)
Region of Interest	Off, On (4 Zones)
Advanced Functions	Smart Illumination, Defog
Flip	0°, 90°, 180°, 270°
Mirror	Off, On
Privacy Masking	Off, On (8 Areas, Rectangular)

Audio

Compression	PCM, G.711a, G.711Mu, G.726, G.723

Network

Ethernet	RJ-45 (10/100 Base-T)
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP
Interoperability	ONVIF Profile S, G, T, CGI, P2P, Milestone, API, SDK
Streaming Method	Unicast, Multicast
Maximum User Access	20 Users (Total Bandwidth: 64 Mbps)
Edge Storage	Network Attached Storage (NAS) FTP, SFTP Micro Card Slot, 256 GB maximum
Web Viewer	IE, Chrome, Firefox, Safari
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 62368-1 and CAN/CSA C22.2 No. 62368-1-14 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 plus a Built-in Microphone
	Output	One (1) Channel, RCA
Alarm	Input	Two (2) Channels (5 mA, 3 VDC to 5 VDC)
	Output	Two (2) Channels (300 mA, 12 VDC)

Electrical

Power Supply		12 VDC or PoE (IEEE 802.3af, Class 0)
Power Consumption	12 VDC	6.6 W, maximum
	PoE	8 W, maximum

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.

Environmental

Operating Temperature	−40° C to +60° C (−40° F to +140° F) Less than 95% RH
Storage Temperature	−40° C to +60° C (−40° F to +140° F) Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	ø122.0 mm x 66.20 mm (4.79 in. x 2.61 in.)
Net Weight	0.52 kg (1.15 lb)
Gross Weight	0.67 kg (1.48 lb)

Analytics+ Functions

Perimeter Protection	• Detects human violations using the following methods: 　**Tripwire**: a target crosses a defined line. 　**Intrusion:** a target enters or exits a defined perimeter. • Monitors a combination of detection methods.
People Counting	• Delivers accurate flow statistics from the following methods: 　**Line Crossing:** counts a person as they cross a threshold in a defined direction. 　**Region:** counts the number of people in a defined area. • Counts people simultaneously from four (4) threshold lines and four (4) defined regions.
Queue Management	Monitors four (4) user-defined regions where people wait in line (or queue). Issues an alarm for the following triggers: 　**People in Line**: the number of people in line exceeds a minimum threshold. 　**Wait Time:** time a person waits in line is greater than the minimum queue time.
Smart Motion Detection+	• Differentiates between and classifies human and vehicle objects. • Filters false alarms due to leaves, lights, animals, and other inconsequential objects. • Extracts human or vehicle objects from recorded video for quick target search and retrieval.
Face Detection	Detects and captures a snapshot of a human face in a defined area within a scene.

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.
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.
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
Dual Sensor Camera	DH-IPC-HDBW5441FN-AS-E2	2 x 4 MP IR Dome Network Camera, True WDR, Analytics+
Accessories, optional	PFA106	Mount Adapter
	PFA137	Junction Box
	PFA152-E	Pole Mount (use with PFB203W wall mount)
	PFB203W	Wall Mount
	PFB220C	Ceiling Mount (use with PFA106 mount adapter)
	DH-PFM321D-US	12 VDC 1 A Power Adapter

Accessories

Optional:
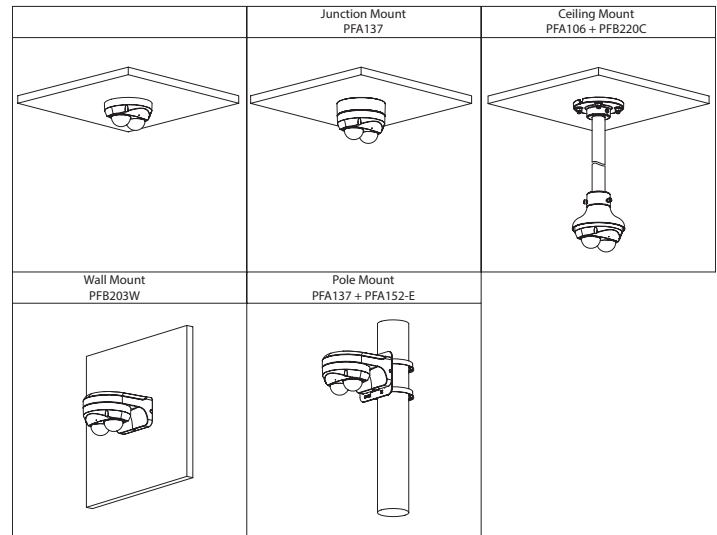

PFA106
Mount Adapter

PFA137
Junction Box

PFA152-E
Pole Mount

PFB203W
Wall Mount

PFB220C
Ceiling Mount

DH-PFM321D-US
12 VDC, 1 A Power Adapter

Junction Mount PFA137	Ceiling Mount PFA106 + PFB220C

Wall Mount PFB203W	Pole Mount PFA137 + PFA152-E

Dimensions (mm/inch)

39.9 [1.57]　66.2 [2.61]

ø122.0 [ø4.8]
3–ø4.5 [ø0.18]
ø110.0 [ø4.33]