dahua
TECHNOLOGY

4MP Enhanced Night Color Network Bullet Camera
True Wide Dynamic Range Fixed Lens Network Camera with Analytics+

WizSense

ArcticPro

WizSense Series devices combine Dahua's powerful Analytics+ with an intuitive and easy to use interface. WizSense devices offer Smart Motion Detection+ and Perimeter Protection functions that focus on human and vehicular images and ignore irrelevant images to capture important video while reducing false alarms. WizSense Series devices provide powerful general security for small to medium size businesses at a sensible price.

System Overview

The Dahua 4MP Enhanced Night Color camera offers Analytics+ functions at the edge – performing complex real-time perimeter protection. The Dahua Analytics+ algorithms significantly improve accuracy and reliability as compared to standard intelligent features. The camera is ideal for a host of diverse applications —Night Color and True Wide Dynamic Range allow the camera to operate in most lighting conditions and the IP67 rating makes the camera suitable for the harshest environments.

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.

Smart Motion Detection+
Smart Motion Detection+, a component of Dahua's Analytics+ technology, improves alarm accuracy and decreases the number of false alarms. The advanced SMD+ algorithm analyzes a scene for human or vehicle motion, while filtering out other motion due to trees, leaves, animals, weather, and triggers an alarm when detected. SMD+ also saves time when searching recorded video by filtering false alarms and allowing quick retrieval of an alarm due to a person or vehicle.

Enhanced Night Color Technology
The Enhanced Night Color camera incorporates white-light LEDs to offer full-color images in total darkness, as well as an effective visual deterrent. This technology provides smart illumination where the camera automatically activates the white-light illuminators when ambient light levels fall and adjusts exposure time and LED intensity to prevent overexposing the image.

- 1/2.7-in. 4MP Progressive-scan CMOS Sensor
- Triple-stream Encoding
- Smart H.265+ and Smart H.264+ Dual Codec
- 4MP (2688 x 1520) at 30 fps, 2.8 mm Fixed Lens
- True Wide Dynamic Range (120 dB)
- Enhanced Night Color Technology with High-performance Sensor and Large Aperture Lens
- White-light LEDs for Color Images in Total Darkness
- Analytics+ Functions — Perimeter Protection and Smart Motion Detection+
- Built-in Microphone
- ArcticPro Series Camera - Operational down to −40° C (−40° F)
- IP67 Ingress Protection
- Five-year Warranty*

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.

True 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.

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° C (−40° F) 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.

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
Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Technical Specification

Camera

Image Sensor	1/2.7-in. 4MP Progressive-scan CMOS
Effective Pixels	2688(H) x 1520(V)
RAM/ROM	512 MB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto, Manual, 1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.003 lux at F1.0
Illuminator Type	One (1) White-light LED
Illumination Distance	30.0 m (98.43 ft)
Illuminator Control	Auto, Manual
S/N Ratio	Greater than 56 dB

Lens

Lens Type	Fixed-local
Mount Type	M12
Focal Length	2.8 mm
Maximum Aperture	F1.0
Angle of View	Horizontal: 103° Vertical: 53° Diagonal: 122°
Iris Type	Fixed
Focus Control	Fixed
Close Focus Distance	1.20 m (47.24 in.)

DORI[1] Distance	Lens	Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
	2.8 mm	56.0 m (183.70 ft)	22.40 m (73.50 ft)	11.20 m (36.70 ft)	5.60 m (18.40 ft)

Installation Angle

Range	Pan: 0˚ to 360˚ Tilt: 0˚ to 90˚ Rotation: 0˚ to 360˚

Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264, H.264B, H.264H, MJPEG (sub stream only)
Streaming Capability	Three (3) Streams
Resolution	4MP (2688 x 1520), 3MP (2304 x 1296), 1080p (1920 x 1080), 1.3MP (1280 x 960), 720p (1280 x 720), D1 (704 x 480), VGA (640 x 480), CIF (352 x 240)
Frame Rate	Main Stream: 4MP (2688 x 1520) 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: 3 Kbps to 8192 Kbps H.265: 3 Kbps to 8192 Kbps
Day/Night	Color, B/W
BLC Mode	BLC, HLC, True WDR (120 dB), 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, Rectangular)
Region of Interest	Off, On (4 Zones)
Advanced Features	Defog, Smart Illumination
Flip	0°, 90°, 180°, 270°
Mirror	Off, On
Privacy Masking	Off, On (4 Areas)

Audio

Compression	PCM, G.711A, G.711Mu, 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, ICMP, IGMP, 802.1x
Interoperability	ONVIF Profile S, G, T; CGI, P2P
Auto Register	Support
Streaming Method	Unicast / Multicast
Maximum User Access	20 Users (total bandwidth: 64 MB)
Edge Storage	Network Attached Storage (NAS) FTP, SFTP Micro SD Slot, maximum 256 GB
Web Viewer	IE (Version 8 and higher), Chrome, Firefox
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	UL60950-1 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 + a Built-in Microphone Output: One (1) Channel
Alarm	Input: One (1) Channel (5 mA, 3 VDC to 5 VDC) Output: One (1) Channel (300 mA, 12 VDC)

Electrical

Power Supply	12 VDC or PoE (IEEE 802.3af, Class 0)
Power Consumption	< 8.4 W

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 Conditions	−40° C to +60° C (−40° F to +140° F), less than 95% RH
Storage Conditions	−40° C to +60° C (−40° F to +140° F)
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions (L x W x H)	192.70 mm x 70.50 mm x 66.40 (7.59 in. x 2.77 in. x 2.61 in.)
Net Weight	0.59 kg (1.30 lb)
Gross Weight	0.78 kg (1.72 lb)

Analytics+ Functions[2]

Perimeter Protection	• Detects human or vehicle 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.
	• Search and retrieve video based on target type.

Smart Motion Detection+[2]	• 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.
Recommended Detection Distance	Human	Up to 10.0 m (32.81 ft)
	Vehicle	Up to 15.0 m (49.21 ft)

Intelligent Video System Functions

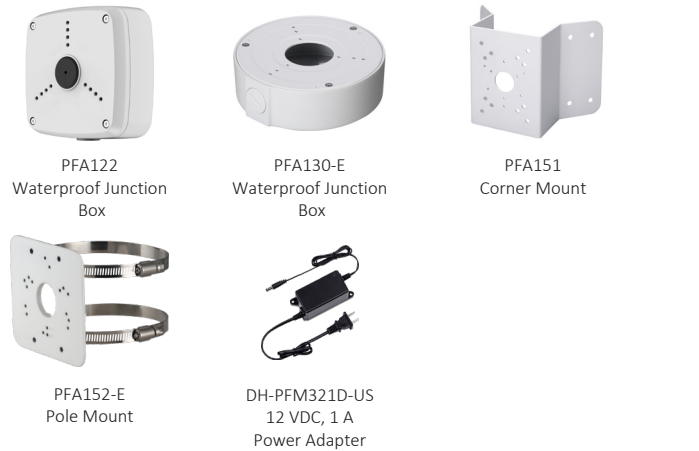| IVS triggers an alarm and takes a defined action for the following events:	
Standard Features	• Tampering with the camera. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera. • IP Address Conflict
Premium Features	
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.

2. Pair a Smart Motion Detection camera with a Dahua recording device that also offers SMD functionality to take advantage of SMD alarm filtering and object classification when searching and playing back recorded video.
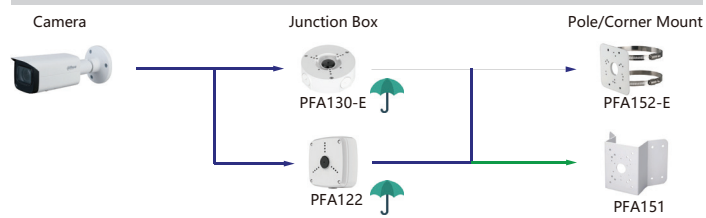
Ordering Information

Type	Part Number	Description
Analytics+ Camera	N43BB62	4MP Enhanced Night Color Fixed Lens Bullet Camera
Mounting Accessories, optional	PFA130-E	Waterproof Junction Box
	PFA122	Junction Box
	PFA151	Corner Mount (for use with PFA130-E junction box)
	PFA152-E	Pole Mount (for use with PFA130-E junction box)
	DH-PFM321D-US	12 VDC, 1 A Power Adapter

Accessories

Optional:

PFA122
Waterproof Junction Box

PFA130-E
Waterproof Junction Box

PFA151
Corner Mount

PFA152-E
Pole Mount

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

Mounting Diagram

Camera	Junction Box	Pole/Corner Mount
	PFA130-E	PFA152-E
	PFA122	PFA151

Dimensions

192.7 [7.59]
120.3 [4.74]
⌀70.0 [2.76]
70.5 [2.77]
66.4 [2.61]

⌀56.0 [⌀2.2]
3–⌀4.5 [⌀0.18]