Dahua TECHNOLOGY

Multi-Sensor Panoramic Camera

3 x 2 MP Multi-Sensor Panoramic Network IR Bullet Camera

- 3 x 2 MP Sensors for a 180° Panoramic View
- Starlight Technology for Ultra-low Light Sensitivity
- Smart H.265+ and H.264 Dual Codecs
- True Wide Dynamic Range (120 dB)
- True Day/Night
- Maximum IR Distance 30 m (98 ft) with Smart IR
- ArcticPro Series Camera - Operational down to −40° C (−40° F)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Intelligent Video System (IVS)
- On-board Storage
- Five-year Warranty*

| Ultra Series | ICR D/N | Vandal-proof | IP67 | WDR | AC 24V | PoE + | H.265 |

System Overview

The Dahua Multi-Sensor Camera uses three (3) 2 MP sensors to deliver a panoramic 180° scene. One multi-sensor camera replaces multiple single-sensor cameras providing a higher return on investment for your security dollars. The multi-sensor camera features contrast, backlight compensation, white balance, and resolution control to create a crystal-clear image even in the most challenging lighting conditions.

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.

Starlight Technology
For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing details in low light down to 0.007 lux. The Multi-sensor camera uses a set of optical features to balance light throughout the scene, resulting in clear images in very dark environments.

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

Wide Dynamic Range
The multi-sensor 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.

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 multi-sensor camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

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 30 m (98 ft).

ArcticPro
The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components, a waterproof enclosure, and an integrated heater to ensure flawless operation in temperatures as low as −40° C (−40° F). 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.

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.

Protection
The multi-sensor camera allows for ±25% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6 KV lightning rating provides effective protection for both the camera and its structure against lightning.

Onvif **PSIA**

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

Technical Specification

Camera

Image Sensor	Three (3), 1/2.8-in. 2 MP CMOS Sensors
Effective Pixels	4096 (H) x 832 (V)
RAM/ROM	1024 MB / 128 MB
Scanning System	Progressive
Minimum Illumination	Color: 0.007 Lux at F1.8 IR: 0 Lux at F1.8 (with IR on)
S/N Ratio	More than 50 dB
IR Distance	Distance up to 30.0 m (98.43 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Eight (8)

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	3.6 mm
Max. Aperture	F1.8
Angle of View	Horizontal: 180˚ Vertical: 44˚
Focus Control	Fixed

DORI Distance[1]

Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
52 m (171 ft)	21 m (69 ft)	10 m (33 ft)	5 m (16 ft)

Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264
Streaming Capability	Three (3) Streams
Resolution	4096 x 832, 3840 x 780, 2560 x 520, 1280 x 260, 1024 x 208
Frame Rate	Main Stream: 4096 x 832 at 30 fps
	Sub Stream 1: 1024 x 208 at 30 fps
	Sub Stream 2: 1280 x 260 at 30 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.264: 8 Kbps to 16 Mbps H.265: 4 Kbps to 10 Mbps
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 Zones, Rectangular)
Region of Interest	Off, On (4 Zones)
Smart IR	Support
Digital Zoom	16x
Privacy Masking	Off / On (4 Areas, Rectangular)

Audio

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

Network

Ethernet	RJ-45 (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
Max. User Access	20 Users
Edge Storage	Network Assisted Service (NAS) Local PC for instant recording Micro SD Card Slot, maximum 128 GB
Web Viewer	Internet Explorer, Firefox, Safari
Management Software	Smart PSS, DSS, P2P
Mobile Operating System	IOS, Android

Certifications

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

Interface

Audio Interface	Input: One (1) Channel Output: One (1) Channel
Alarm	Input: One (1) Channel Output: One (1) Channel

Electrical

Power Supply	24 VAC or PoE+ (802.3at, Class 4)
Power Consumption	24 W, maximum (with IR on)

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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% relative humidity
Storage Temperature	-40° C to +60° C (-40° F to +140° F), Less than 95% relative humidity
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	298.30 mm x 172.50 mm x 120.50 mm (11.74 in. x 6.79 in. x 4.74 in.)
Net Weight	2.60 kg (5.73 lb)
Gross Weight	3.41 kg (7.52 lb)

Intelligence

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

Standard Features	• Tampering with the camera. • Camera loses or changes focus drastically. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera.

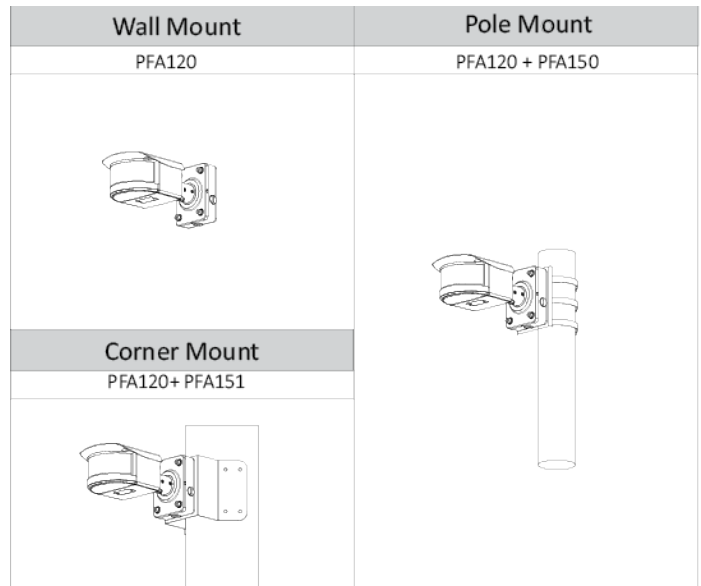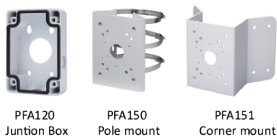| Premium Features	
Motion	An object moves through any part of the scene.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.

Advanced Features	
Heat Map	Generates a visual representation of data.

Ordering Information

Type	Part Number	Description
3 x 2 MP Camera	DH-IPC-PFW8601N-H-A180	3 x 2 MP Multi-Sensor Panoramic Network IR Bullet Camera, WDR, IVS
Accessories, optional	PFA120	Junction Box
	PFA120 + PFA150	Pole Mount
	PFA120 + PFA151	Corner Mount

Accessories

Optional:

PFA120
Juntion Box

PFA150
Pole mount

PFA151
Corner mount

Wall Mount	Pole Mount
PFA120	PFA120 + PFA150

Corner Mount
PFA120 + PFA151

Dimensions (mm/inch)

298.3 [11.74"]
187.0 [7.36"]
172.5 [6.79"]
120.5 [4.74"]

119.0 [4.69"]
84.0 [3.31"]
115.0 [4.53"]
160.0 [6.3"]