A1 SECURITY CAMERAS
The First Name in Security

2MP 3x IR Starlight Mini PTZ

2MP 3x WDR PTZ Network Camera

- 1/2.8-in. 2 MP STARVIS™ CMOS Sensor
- 3x Optical Zoom
- Starlight Technology for Low Light Sensitivity
- Triple-stream Encoding
- Smart H.265+ and H.264 Dual Codecs
- 1080p at 30 fps Maximum Resolution
- True Wide Dynamic Range (120 dB)
- Maximum IR Distance 15 m (49 ft)
- Built-in Microphone
- Intelligent Video System (IVS)
- IP66 Ingress Protection and IK08 Vandal Resistance
- Five-year Warranty*

System Overview

The 2 MP IR Mini PTZ Dome camera features a 1/2.8-in. STARVIS™ CMOS imager with a 3x optical zoom lens. The camera uses the Smart H.265+ video compression standard to improve encoding efficiency while preserving high-quality video. The PTZ camera uses a day/night mechanical IR cut filter and True WDR to deliver crystal clear images in challenging lighting conditions.

Functions

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 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

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.

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.

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 detects and captures a snapshot of human face in a defined area within a scene, and 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.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) and PSIA (Physical Security Interoperability Alliance) specifications, ensuring interoperability between network video products regardless of manufacturer.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from –30° C to +60° C (–22 °F to +140°F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection

The camera carries a 6KV lightning rating that provides effective protection for both the camera and its structure against lightning.

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

Available from A1 Security Cameras
www.a1securitycameras.com email: sales@a1securitycameras.com

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Technical Specification

Camera

Image Sensor	1/2.8-in. STARVIS™ CMOS
Effective Pixels	1920(H) x 1080(V), 2 MP
RAM/ROM	512 MB/128 MB
Scanning System	Progressive
Electronic Shutter Speed	1/1 s to 1/30,000 s
Minimum Illumination	Color: 0.005 lux at F1.8 0 lux at F1.8 (IR on)
S/N Ratio	More than 50 dB
IR Distance	Distance up to 15 m (49.20 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Three (3)

Lens

Focal Length	2.7 mm to 8.1 mm
Max. Aperture	F1.8
Angle of View	Horizontal: 105.6° to 35.2°
Optical Zoom	3x
Focus Control	Auto, Manual
Close Focus Distance	100 mm to 1000 mm (3.94 in. to 39.37 in.)

DORI Distance[1]

Detect	Observe	Recognize	Identify
100.40 m (329.40 ft)	40.20 m (131.90 ft)	20.10 m (65.90 ft)	10.0 m (32.80 ft)

PTZ

Pan/Tilt Range	Pan: 0° to 355° Tilt: 5° to 90°
Manual Control Speed	Pan: 0.1° to 70° /s; Tilt: 0.1° to 30° /s
Preset Speed	Pan: 80° /s; Tilt: 40° /s
Presets	300
PTZ Mode	8 Tours
Speed Setup	Human-oriented focal Length/speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/Tour if there is no command in the specified period
Protocol	DH-SD

Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264
Streaming Capability	Three (3) Streams
Resolution	1080p (1920 x 1080), 720p (1280 x 720), D1 (704 x 480), CIF (352 x 240)
Frame Rate	Main Stream: 1080p or 720p at 30 fps
	Sub Stream 1: D1 or CIF at 30 fps
	Sub Stream 2: 720p, D1, or CIF at 30 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.265/H.264: 448 K to 8192 Kbps
Day/Night	Auto (ICR), Color, B/W
Backlight Compensation	BLC, HLC, True WDR (120 dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto, Manual
Noise Reduction	Ultra DNR (2D/3D)
Advanced Features	Motion Detection, Region of Interest, Defog,
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

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

Network

Ethernet	RJ45 (10/100 Base-T)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF, PSIA, CGI
Streaming Method	Unicast, Multicast
Max. User Access	20 Users
Edge Storage	Network Attached Storage (NAS), Local PC for Instant Recording, Micro SD Card Slot, maximum 256 GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartPSS, DSS
Mobile Operating System	IOS, Android

Certifications

Safety	UL60950-1+CAN/CSA C22.2, No.60950-1
Electromagnetic Compatibility (EMC)	EN55032, EN55024, EN50130-4 FCC Part 15 Subpart B ANSI C63.4- 2014

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.

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Interface

Audio	Input: One (1) Channel plus a Built-in Microphone Output: One (1) Channel

Electrical

Power Supply	12 VDC, 1.5 A or PoE (IEEE 802.3af)
Power Consumption	7.8 W, 10.5 W with IR on

Environmental

Operating Temperature	–30° C to 60° C (–22° F to +140° F), Less than 95% RH
Ingress Protection	IP66
Vandal Resistance	IK08

Construction

Casing	Metal
Dimensions	ø128.0 mm x 63.0 mm (ø5.04 in. x 2.48 in.)
Net Weight	0.49 kg (1.08 lb)
Gross Weight	0.73 kg (1.60 lb)

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.
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 a human face in a defined area within a scene.

Ordering Information

Type	Part Number	Description
2 MP PTZ Camera	1A203TNI	2 MP 3x Starlight IR Mini PTZ Network Camera, True WDR, IVS
Accessories, optional	PFA107	Mount Adapter
	PFB220C	Ceiling Mount (requires PFA107 Mount Adapter)
	DH-PFM320D-US	12 VDC, 2 A Power Adapter
	PFB305W	Wall Mount (requires PFA107 Mount Adapter)

Accessories

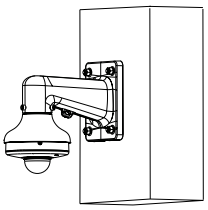
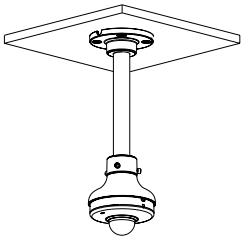
Optional :

PFA107
Mount Adapter

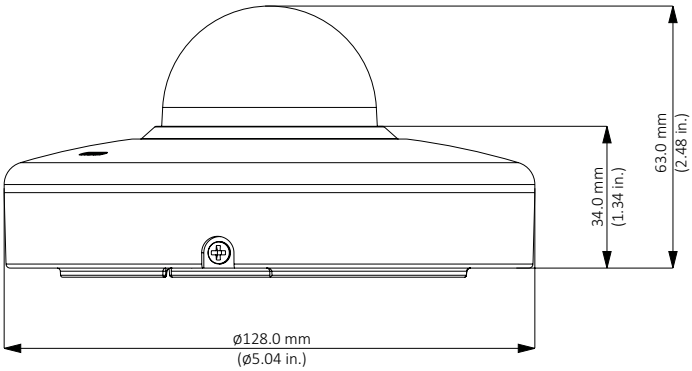
PFB305W
Wall Mount

PFB220C
Ceiling Mount

DH-PFM320D-US
Power Adapter

Wall Mount	Ceiling Mount
PFB305W+PFA107	PFB220C+PFA107
	

Dimensions (mm/in.)



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