dahua TECHNOLOGY

3 MP Varifocal MiniDome
3 MP MiniDome Network Camera

- Maximum 3 MP at 30 fps
- Starlight Technology for Ultra-low Light Sensitivity
- Ultra WDR (140 dB)
- True Day/Night
- 2.7 mm to 12 mm Motorized Lens
- Smart IR 50 m (165 ft)
- 2/1 Alarm in/out, 1/1 Audio in/out
- Outdoor Rated IP67, Vandal Resistant IK10
- Intelligent Video System (IVS)
- Onboard Storage
- Five-year Warranty

| 50 m IR | IP67 | Vandal-proof | IVS | WDR |

System Overview

The IR Megapixel Vari-focal MiniDome camera delivers 3MP resolution with 2.7 mm to 12 mm motorized lens. The camera's elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications.

Functions

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color 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 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.

Regions of Interest

Regions of Interest (ROI) is a user defined feature that allows the operator to monitor specific areas of a scene while still maintaining overall situational awareness of less important areas.
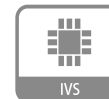
Smart IR

The camera's Smart IR technology adjusts to the intensity of camera's infrared LEDs to compensate for the distance of an object. Smart IR prevents IR LEDS from whiting out images as they come closer to the camera. The camera's integrated IR illumination provides high performance in extreme low-light environments up to 50m (165ft).

Image Flip

Capturing unnecessary data such as surrounding hallway walls can increase storage requirements without any added value. The image flip feature allows the camera's image to be rotated in 90° increments for better video optimization.

Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, Ultra WDR (140dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Intelligent Video System (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides standard intelligence at the edge allowing detection of multiple object behaviors such as abandoned or missing objects. IVS also supports Tripwire analytics, allowing the camera to detect when a pre-determined line has been crossed, People Counting, ideal for business intelligence, Facial Detection, for searching or identification of individuals, and Heat map, exporting the daily or hours report that shows the hottest area.

Protection

The camera's outstanding reliability is unsurpassed due to its rugged design. The camera is protected against water and dust to IP67 standards, making it suitable for indoor or outdoor environments. With its IK10 rated impact resistant design, the camera provides maximum durability against vandals making it capable of withstanding the equivalent of 55 kg (120lbs) of force.

Supporting ±25% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 8KV lightning rating provides protection against the camera and its structure from the effects of lightning.

Streaming

With a choice of unicast or multicast streaming, bandwidth-efficient viewing, recording and third-party video management can easily be achieved. Dual streaming enables bandwidth-efficient viewing and recording. Depending on the resolution and frame rate selected on the first stream, the second stream provides a copy at a lower resolution.

ONVIF PSIA

Technical Specification

Camera

Image Sensor	1/2.8-in. CMOS
Effective Pixels	2048(H) x 1536(V)
ROM, RAM	128 MB /256 MB
Scanning System	Progressive
Electronic Shutter Speed	1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.005 Lux at F1.4; 0 Lux at F1.4 (IR on)
S/N Ratio	More than 50 dB
IR Distance	Distance Up to 50 m (165 ft)
IR On/Off Control	Auto, Manual
IR LEDs	3
Video Output	1

Lens

Lens Type	Motorized/ Auto Iris (DC)
Mount Type	Board-in
Focal Length	2.7 mm to 12 mm
Max Aperture	F1.4
Angle of View	H: 87° to 31°
Focus Control	Motorized

Pan/Tilt/Rotation

Pan/Tilt Range	Pan: 0° to 355°; Tilt: 0° to 65°, Rotation：0° to 355°

Alarm and Audio

Alarm In/Out	2/1
Audio In/Out	1/1

Video

Compression	H.265, H.264, MJPEG
Streaming Capability	3 Streams
Resolution	3 MP (2048 × 1536), 1080p (1920 × 1080), 720p (1280 × 720), D1 (704 × 576), CIF (352 × 288)
	Main Stream: 3 MP at 30 fps
	Sub Stream 1: D1, CIF at 30 fps
	Sub Stream 2: 1080p, 720p, D1 at 30 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.264: 40K to 10Mbps
Day/Night	Auto (ICR), Color, B/W
BLC Mode	BLC, HLC, Ultra WDR (140dB)
White Balance	Auto, Sunny, Night, Outdoor, Customized
Gain Control	Auto, Manual
Noise Reduction	3D DNR
Motion Detection	Off, On (4 Zone, Rectangle)
Region of Interest	Off, On (4 Zone)
Smart IR	Support
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off, On
Privacy Masking	Off, On (4 Area, Rectangle)
EIS	Support
Ultra Defog	Support

Network

Ethernet	RJ-45 (10/100Base-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
Edge Storage	NAS (Network Attached Storage), Local PC for instant recording, Micro SD 128 GB
Web Viewer	IE10, Firefox, Safari
Management Software	Smart PSS, DSS
Mobile Operating System	Android, IOS

Certifications

Certifications	FCC (SEFD1507092-A) UL (E234884-A197-UL)

Electrical

Power Supply	12 VDC / 24 VAC, ±25%, PoE (af Class 0)
Power Consumption	Max. 12 W (12 VDC, with IR on, motorized lens working)

Environmental

Operating Conditions	-30°C to +60°C (-22°F to +140°F), Less than 90% RH
Storage Conditions	-30°C to +60°C (-22°F to+140°F), Less than 90% RH
Ingress Protection and Vandal Resistance	IP67, IK10

Construction

Casing	Metal
Dimensions	Φ 159.0 mm × 117.90 mm (6.26 in. x 4.64 in.)
Net Weight	0.80 kg (1.73 lb)
Gross Weight	1.10 kg (2.43 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

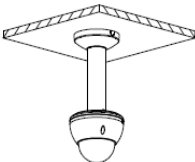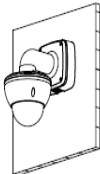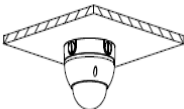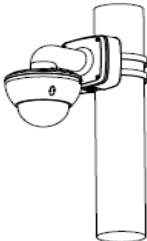| Motion	An object moves through any part of the scene.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target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

Advanced Features

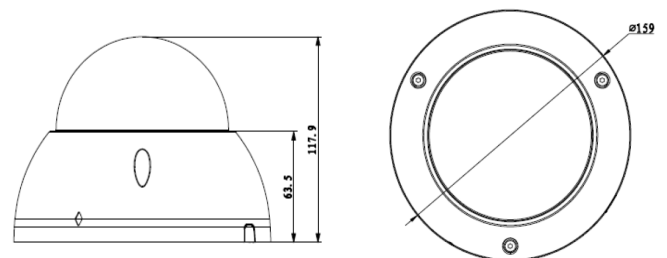| Facial Detection	Detects and captures a snapshot of a human face in a defined area within a scene.
People Counting	Measure the number of customers, visitors or passengers in a surveillance scene.
Heat Map	Generates a visual representation of data.

Ordering Information

Type	Part Number	Description
3MP Camera	DH-IPC-HDBW83A1EN-Z	3MP, 2.8 mm to 12 mm, True D/N, Ultra WDR, IP67, IK10, IR: up to 50 m (165 ft), PoE, IVS
Accessories	PFA138	Junction Box (For use alone)
	PFA101	Wall Mount (For use with PFB302S wall mount)
	PFB302S	Wall Mount (For use with PFA101 wall mount)
	PFA152	Pole Mount (For use with PFA101 and PFB302S wall mount)
	PFB300C	Ceiling Mount (For use with PFA101 wall mount)
	PFB201C	In-ceiling Mount (For use alone)

Accessories

Optional:

PFA138 Junction box | PFA101 Wall mount | PFB302S Wall mount | PFA152 Pole mount | PFB300C Ceiling mount | PFB201C In-ceiling mount

Ceiling Mount	Wall Mount	Juncton Mount
PFB300C	PFB302S+PFA101	PFA138

Pole Mount	In-ceiling Mount	
PFB300C+ PFB302S	PFB201C	

Dimensions (mm/inch)