

# IR Megapixel Vari-focal MiniDome

## 2 MP MiniDome Network Camera



### System Overview

The IR Megapixel Vari-focal MiniDome camera delivers 2 MP resolution with a 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

#### 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 whitening out images as they come closer to the camera. The camera's integrated IR illumination provides high performance in extreme low-light environments at distances of up to 50 m (165 ft).

#### 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, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

- Max. 30 fps @ 2 MP (1920 × 1080)
- True WDR (120 dB)
- True Day/Night
- 2.7 mm to 12 mm Motorized Lens
- Smart IR 50 m (165 ft)
- 1/1 Alarm In/Out, 1/1 Audio In/Out
- Outdoor Rated IP67, Vandal Resistant IK10
- Intelligent Video System (optional)
- Onboard Storage



### Intelligent Video System (IVS)

With built-in optional intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional 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, and Facial Detection, for searching or identification of individuals.

### 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, capable of withstanding the equivalent of 55 kg (120 lbs) 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 be easily 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.

### Smart H.264+

Delivering high quality video without straining the network, Smart H.264+ is the optimized implementation of H.264. The Smart H.264+ encoding platform includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing a savings of up to 70% of bandwidth and storage when compared with standard H.264.

Technical Specification

Camera

Image Sensor	1/2.7-in. CMOS
Effective Pixels	1920(H) x 1080(V)
ROM / RAM	128 MB / 256 MB
Scanning System	Progressive
Electronic Shutter Speed	1/3(4) s to 1/100,000 s
Minimum Illumination	Color: 0.01 lux @ F2.0; B/W: 0.001 lux @F 2.0; 0 lux (IR on)
S/N Ratio	More than 50d B
IR Distance	Distance Up to 50 m (165 ft)
IR On/Off Control	Auto / Manual
IR LEDs	3

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: 99° to 34°
Focus Control	Motorized

Pan/Tilt/Rotation

Pan/Tilt Range	Pan: 0° to 355° Tilt: 0° to 65° Rotation: 0° to 355°
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Alarm and Audio

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

Video

Compression	Smart H.264+ / MJPEG
Streaming Capability	3 Streams
Resolution	1080p (1920 × 1080) 720p (1280 × 720 D1(704 × 576/704 × 480) CIF (352 × 288/352 × 240)
Frame Rate	Main Stream: 1080p/720p (1 to 30 fps) Sub Stream 1: D1/CIF (1 to 30 fps) Sub Stream 2: 720p (1 to 14 fps)
Bit Rate Control	CBR / VBR
Bit Rate	H.264: 32 K to 10 Mbps
Day/Night	Auto (ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR (120 dB)
White Balance	Auto / Sunny / Night / Outdoor / Customized
Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detetion	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)

Intelligent Function

IVS (optional)	Tripwire, Intrusion, Abandoned Object Detection, Missing Object Detection, Face Detection
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Network

Ethernet	RJ-45 (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, ARP
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
Management Software	Smart PSS, DSS
Mobile Operating System	Android, IOS

## Pro Series | DH-IPC-HDBW52A1EN-Z (I)

### Certifications

Certifications	FCC (SEFD1506005-A) UL (E234884-A69-UL)
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### Electrical

Power Supply	DC12V / AC24V, ±25%, PoE (af Class 0)
Power Consumption	Max. 10 W (12V DC, 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	IP67
Vandal Resistance	IK10

### Construction

Casing	Metal
Dimensions	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)

### 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	

### Ordering Information

Type	Part Number	Description
2MP Camera	DH-IPC-HDBW52A1EN-Z	2 MP, 2.7 mm to 12 mm, True D/N, True WDR, IP67, IK10, IR: up to 50 m (165 ft), PoE
	DH-IPC-HDBW52A1EN-ZI	2 MP, 2.7 mm to 12 mm, True D/N, True 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)

### Dimensions (mm/inch)

