

# 4 MP WiFi Mini Bullet Network Camera

True Day/Night IR Camera



- 1/3-in. 4 MP Progressive-scan CMOS Sensor
- 2.4 GHz WiFi (IEEE802.11b/g/n)
- Smart H.265+ and Smart H.264+ Dual Codec
- Dual-stream Encoding
- 4 MP (2560 × 1440) at 20 fps
- 2.8 mm Fixed Lens
- True Day/Night (ICR)
- Maximum IR Distance 30 m (98 ft)
- IP67 Ingress Protection
- Five-year Warranty\*



## System Overview

The Dahua DH-IPC-HFW1435SN-W-S2 camera offers high-resolution video and WiFi connectivity in a compact and accessible package. The camera features Smart H.265+ video compression, reducing bandwidth and storage requirements without sacrificing video quality. 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 at an affordable price.

## 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.

### 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.

### Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. 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 technology prevents IR LEDs from whitening 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).

### 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.

### 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

The camera operate in extreme temperature environments, rated for use in temperatures from -30°C to +50°C (-22° F to +122° F) with 95% humidity. The camera complies with the IP67 rating makes it suitable for demanding outdoor applications.

### Protection

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning, and its IP67 ingress protection make it the choice for installation in even the most unforgiving environments.

### Technical Specification

#### Camera

Image Sensor	1/3-in. 4 MP Progressive-scan CMOS
Effective Pixels	2560 (H) x 1440 (V)
RAM/ROM	256 MB / 128 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto, Manual, 1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.9343 lux at F2.0 (1/30 s, 80 IRE) Color: 0.1195 lux at F2.0 (1/3 s, 80 IRE) B/W: 0.9258 lux at F2.0 (1/30 s, 80 IRE) B/W: 0.1190 lux at F2.0 (1/3 s, 80 IRE) 0 Lux at F2.0 (IR on)
S/N Ratio	More than 52 dB
IR Distance	Distance up to 30 m (98.04 ft)
IR On/Off Control	Auto, Manual
IR LEDs	18

#### Lens

Lens Type	Fixed			
Mount Type	M12			
Focal Length	2.8 mm			
Maximum Aperture	F2.0			
Angle of View	Horizontal: 97° Vertical: 52° Diagonal: 116°			
Focus Control	Fixed			
Iris Type	Fixed			
Close Focus Distance	0.80 m (2.60 ft)			
DORI <sup>1</sup> Distance	Detect (8 ppf)	Observe (19 ppf)	Recognize (38 ppf)	Identify (76 ppf)
	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°
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#### Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264, MJPEG	
Streaming Capability	Two (2) Streams	
Resolution	4 MP (2560 x 1440), 3 MP (2304 x 1296), 1080p (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), VGA (640 x 480), 640 x 360, QVGA (320 x 240)	
Frame Rate	Main Stream	2560 x 1440 at 20 fps 2304 x 1296 at 30 fps
	Sub Stream	640 x 480 at 20 fps (Main Stream: 2560 x 1440 at 20 fps) 640 x 480 at 30 fps (Main Stream: 2304 x 1296 at 30 fps)
Bit Rate Control	CBR, VBR	
Bit Rate	H.264: 24 kbps to 8192 kbps H.265: 9 kbps to 7424 Kbps	
Day/Night	Auto (ICR), Color, B/W	
BLC Mode	BLC, HLC, Digital WDR	

White Balance	Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom
Gain Control	Auto, Gain Priority, Shutter Priority, 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
Flip	0°, 90°, 180°, 270°
Mirror	Off, On
Privacy Masking	Off, On (4 Areas, Rectangular)

#### Network

Ethernet	RJ-45 (10/100 Base-T)
WiFi	2.4 GHz WiFi (IEEE802.11b/g/n)
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
Interoperability	ONVIF (Profile T, Profile S, Profile G), CGI, SDK, API
Streaming Method	Unicast, Multicast
Maximum User Access	20 Users (Total Bandwidth: 40 Mbps)
Edge Storage	Network Attached Storage (NAS), FTP, SFTP, Micro SD card Slot, maximum 128 GB
Web Viewer	IE 9 and IE 11 and later, Chrome, Firefox
Management Software	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	EN 62368-1
Electromagnetic Compatibility (EMC)	CFR 47 FCC Part 15 Subpart B Electromagnetic Compatibility Directive 2014/30/EU Radio Equipment Directive 2014/53/EU

#### Electrical

Power Supply	12 VDC ±30%, 1 A
Power Consumption	5.39 W, maximum (12 VDC, IR Full Intensity)

#### Environmental

Operating Temperature	-30°C to +50°C (-22° F to +122° F) Less than 95%RH
Storage Temperature	-40°C to +60°C (-40° F to +140° F)
Ingress Protection	IP67

#### Construction

Casing	Metal
Dimensions (L x W x H)	164.90 mm x 70.0 mm x 125.20 mm (6.49 in. x 2.76 in. x 4.93 in.)
Net Weight	0.43 kg (0.95 lb)
Gross Weight	0.71 kg (1.61 lb)

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.

Ordering Information		
Type	Part Number	Description
4 MP Camera	DH-IPC-HFW1435SN-W-S2	4 MP WiFi IR Mini Bullet Network Camera, 2.8 mm
Accessories, included	ADS-12AM-12 12012EPCU	12 VDC, 1 A Power Adapter
Accessories, optional	PFA134	Junction Box
	PFA152-E	Pole Mount
	PFA151	Corner Mount

**Accessories**

Included:



ADS-12AM-12 12012EPCU  
12 VDC, 1 A Power Adapter

Optional:



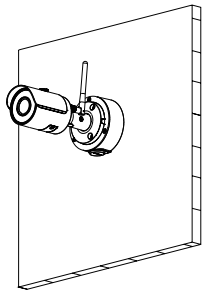
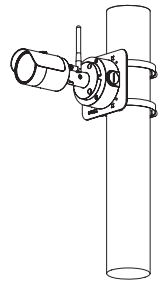
PFA134  
Junction Box



PFA152-E  
Pole Mount



PFA151  
Corner Mount

Junction Mount	Pole Mount
PFA134	PFA134 + PFA152-E
	

**Dimensions (mm/in.)**

