Dahua
TECHNOLOGY

4MP WiFi Network Dome Camera (2.8 mm)
WiFi IR Camera with Smart Motion Detection

- 1/3-in. 4 MP Progressive-scan CMOS Sensor
- 4MP (2560 × 1440) at 20 fps Maximum Resolution
- 2.8 mm Fixed Lens
- 2.4 GHz WiFi (IEEE802.11b/g/n), up to 80 m (262.48 ft) range
- Smart H.265+ and Smart H.264+ Dual Codec
- True Day/Night (ICR)
- Smart Motion Detection
- Maximum IR Distance 30 m (98 ft)
- IP67 Ingress Protection and IK10 Vandal Protection
- Five-year Warranty*

4Mp	Human Detection	H.265		SD Card	IP67

System Overview

The N41BL13-W 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 Motion Detection (Human Detection Only)
Smart Motion Detection, a component of Dahua's Analytics+ technology, improves alarm accuracy and decreases the number of false alarms. The advanced SMD algorithm analyzes a scene for human motion, while filtering out other motion due to trees, leaves, animals, weather, and triggers an alarm when detected.

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.

ArcticPro
The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as −40°F (−40°C) without the need for an internal heater. The lack of a heater reduces the camera's power consumption and saves operating costs. 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 an 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.

Technical Specification

Camera

Image Sensor	1/3-in. 4MP Progressive-scan CMOS
Max. Resolution	2560 (H) × 1440 (V)
RAM/ROM	64 MB / 16 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto, Manual, 1/3 s to 1/100,000 s
Minimum Illumination	Color: 0.03 lux at F2.0(30 IRE) B/W : 0.003 lux at F2.0 (30 IRE) 0 lux (with illuminators on)
S/N Ratio	Greater than 56 dB
Illumination Distance	IR: 30 m (98.43 ft)
Illuminator On/Off Control	Auto, Manual, Off
Illuminator Number	One (1) IR Light

Lens

Lens Type	Fixed-focal				
Lens Mount	M12				
Focal Length	2.8 mm				
Maximum Aperture	F2.0				
Angle of View	Horizontal: 90° Vertical: 50° Diagonal: 107°				
Iris Type	Fixed				
Close Focus Distance	1.0 m (3.28 ft)				
DORI¹ Distance	Lens	Detect	Observe	Recognize	Identify
	2.8 mm	68 m (223.10 ft)	27.2 m (89.24 ft)	13.6 m (44.62 ft)	6.8 m (22.31 ft)

Installation Angle

Range	Pan: 0° to 360° Tilt: 0° to 90° Rotation: 0° to 360°

Video

Video Compression	Smart H.265+, H.265, Smart H.264+, H.264, H.264B, H.264H	
Stream Capability	Two (2) Streams	
Resolution	4MP (2560 × 1440), 3MP (2304 × 1296), 1080p (1920 × 1080), 1.3M(1280 × 960), 720p (1280 × 720)	
Frame Rate	Main Stream	2560 × 1440 at 20 fps
	Sub Stream	640 × 480 at 30 fps
Bit Rate Control	CBR/VBR	
Video Bit Rate	H.264: 24 kbps to 4096 kbps H.265: 9 kbps to 4096 kbps	
Day/Night	Auto (ICR), Color, B/W	
BLC Mode	BLC, Digital WDR	
White Balance	Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom	
Gain Control	Auto	
Noise Reduction	3D NR	
Motion Detection	Off, On (4 Zones, Rectangular)	
Region of Interest (RoI)	Off, On (4 Zones)	
Smart IR	Support	
Image Rotation	0°, 180°	
Mirror	Off, On	

Network

Network Port	RJ-45 (10/100 Base-T)
WiFi	2.4 GHz WiFi (IEEE802.11b/g/n)
Wireless Range	Up to 80 m (262.48 ft)
Network Protocol	IPv4, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, DHCP, DNS, NTP, Multicast
Interoperability	ONVIF (Profile T, S, G), CGI, P2P, SDK, API
User/Host	6 Users (Total Bandwidth: 36 Mbps)
Edge Storage	Network Attached Storage (NAS) FTP, SFTP MicroSD Card (Maximum 256 GB)
Web Viewer	IE, Chrome, Firefox
Management Software	SmartPSS Lite, DSS, DMSS
Mobile Client	iOS, Android

Certification

CE	EN62368-1
Radio Equipment Directive (RED)	Radio Equipment Directive 2014/53/EU
Electromagnetic Compatability (EMC)	Electromagnetic Compatibility Directive 2014/30/EU
FCC	47 CFR FCC Part 15, Subpart B FCC PART 15C

Power

Power Supply	12 VDC
Power Consumption	Basic: 2 W Maximum (H.265 + IR Light): 4.9 W

Environment

Operating Temperature	-40 °C to 60 °C (-40 °F to 140 °F) Less than or equal to 95% RH
Storage Temperature	-30 °C to 60 °C (-22 °F to 140 °F)
Environmental Protection	IP67
Vandal Protection	IK10

Structure

Casing	Metal
Product Dimensions	Φ110.7 mm × 88.7 mm (Φ4.33 in. × 3.49 in.)
Net Weight	414 g (0.91 lb)
Gross Weight	592 g (1.31 lb)

Analytics+ Functions²

Smart Motion Detection³	• Differentiates between and classifies humans • Filters false alarms due to leaves, lights, animals, and • other inconsequential objects. • Extracts humans from recorded video for quick target search and retrieval.

Intelligent Video System Functions²

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.

Ordering Information

Type	Model	Description
4MP Camera	N41BL13-W	4MP IR Fixed-focal WiFi Dome Network Camera
Accessories	NBS05C120050VE	12V DC/0.5A Power Adapter
	PFA136	Junction Box
	PFB203W	Wall Mount
	DH-PFA109 + PFB220C	Ceiling Mount
	PFB203W + PFA152-E	Pole Mount
	DH-PFM900-E	Integrated Mount Tester
	DHI-TF-P100 Series	Micro SDCX Card

Accessories

Included

NBS05C120050VE
12V DC/0.5A
Power Adapter

Optional

PFA136
Junction Mount
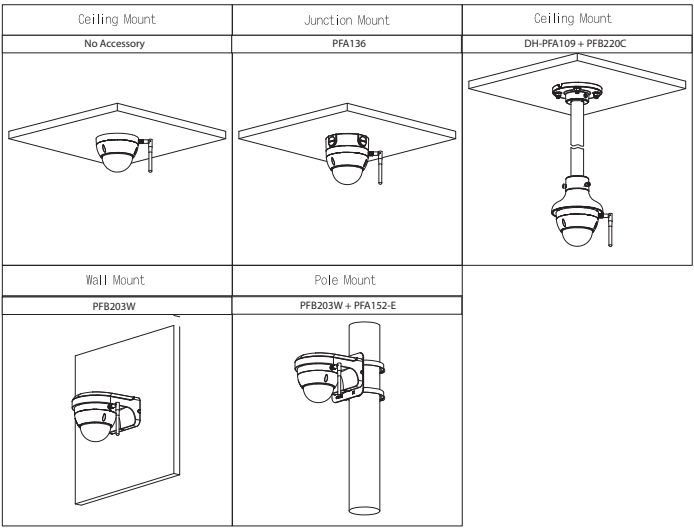
PFB203W
Wall Mount

DH-PFA109 + PFB220C
Ceiling Mount

PFB203W + PFA152-E
Pole Mount

DH-PFM900-E
Integrated
Mount Tester

DHI-TF-P100 Series
Micro SDCX Card

Ceiling Mount	Junction Mount	Ceiling Mount
No Accessory	PFA136	DH-PFA109 + PFB220C

Wall Mount	Pole Mount
PFB203W	PFB203W + PFA152-E

Dimensions

mm [in.]

146.2 [5.76]
90.6 [3.57]
88.7 [3.49]
48.7 [1.92]

∅110.7 [∅4.36]
∅98.2 [∅3.87]
3-∅4.7 [∅0.19]