dahua
TECHNOLOGY

8MP E-VU Network Eyeball Camera (2.8 mm)

Entry-level Viewing IR Camera with Motion Detection

- 1/2.7-in. 8MP Progressive-scan CMOS Sensor
- Dual Stream Encoding
- Smart H.265+ and Smart H.264+ Dual Codecs
- 8MP at 15 fps Maximum Resolution, 2.8 mm Fixed Lens
- DWDR and Day/Night (ICR)
- Maximum IR LED Length 30 m (98.43 ft) with Smart IR
- Built-in Microphone
- Motion Detection
- ArcticPro Series Camera - Operational down to −40 °C (−40 °F)
- IP67 Ingress Protection
- Five-year Warranty*

E-VU

ArcticPro

| 8Mp | H.265+ | Motion Detect | Image Flip | Smart Illumination | IP67 |

System Overview

The Dahua 8MP Entry-level Viewing (E-VU) Camera Series offers high-resolution video in a compact and accessible package. The camera feeatures Smart H.265+ video compression, reducing bandwidth and storage requirements without sacrificing video quality. The camera's elegant blend of aesthetics combined with range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

Functions

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 Illumination

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of the camera's infrared LEDs to compensate for the distance of an object. Smart IR technology prevents IR LEDs from whitening out 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 (98.43 ft)

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.

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

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	1/2.7-in. 8MP Progressive-scan CMOS
Effective Pixels	3840 (H) × 2160 (V)
RAM/ROM	256 MB / 16 MB
Scanning System	Progressive
Electronic Shutter Speed	Auto, Manual; 1/3 s to 1/100000 s
Minimum Illumination	Color, 30 IRE: 0.04 lux at F2.0 B/W, 30 IRE: 0.004 lux at F2.0 0 lux (Illuminator On)
S/N Ratio	> 56 dB
IR Distance	Distance up to 30.0 m (98.43 ft)
IR On/Off Control	Auto, Manual
IR LEDs	One (1)

Lens

Lens Type	Fixed-focal
Iris Type	Fixed
Mount Type	M12
Focal Length	2.8 mm
Maximum Aperture	F2.0
Field of View	Horizontal: 105° Vertical: 56° Diagonal: 125°
Close Focus Distance	1.0 m (3.28 ft)

DORI[1] Distance	Detect	Observe	Recognize	Identify
	74.7 m (245.08 ft)	29.9 m (98.10 ft)	14.9 m (48.88 ft)	7.5 m (24.61 ft)

Pan/Tilt/Rotation

Range	Pan: 0˚ to 360˚ Tilt: 0˚ to 78˚ Rotation: 0˚ to 360˚

Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264, H.264B, MJPEG
Streaming Capability	Two (2) Streams
Resolution	3840 × 2160, 3072 × 2048, 3072 ×1728, 2592 × 1944, 2688 × 1520, 3MP (2048 × 1536); 2304 × 1296, 1080p (1920 × 1080), 1.3MP (1280 × 960), 720p (1280 × 720), D1 (704 x 480), VGA (640 x 480), CIF (352 x 240)
Frame Rate	Main Stream	3840 × 2160 at 1 to 15 fps; 2688 x 1520 at 1 to 30 fps
	Sub Stream	704 × 480 at 1 to 15 fps
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32 kpbs to 8192 Kbps H.265: 12 kpbs to 8192 Kbps
Day/Night	Auto (ICR), Color, B/W
Backlight	BLC, HLC, DWDR
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, Rectangle)
Region of Interest	Off, On (4 Zones)
Smart IR	Support
Image Rotation	0°, 90°, 180°, 270° (Supports 90°, 270° with 2688 x 1520 resolution or lower)
Mirror	Off, On
Privacy Masking	Off, On (4 Areas)

Network

Ethernet	RJ-45 (10/100 Base-T)
Protocol	IPv4, IPv6, HTTP, TCP, UDP, ARP, RTIP, RTSP, SMTIP, FTIP, DHCP, DNS, DDNS, NTP, Multicast
Interoperability	ONVIF (Profile S, T), CGI, P2P, Milestone, Genetec, SDK, API
Max. User Access	6 (Total Bandwidth: 48 MB)
Edge Storage	FTP
Web Viewer	IE, Chrome, Firefox
Management Software	DMSS
Mobile Operating System	iOS, Android
Cybersecurity	Video Encryption Configuration Encryption, Digest, WSSE, Account Lockout, Security Logs, Generating and Importing X.509 Certification, HTTPS, Trusted Boot, Trusted Execution, Trusted Upgrade

Audio

Compression	G.711A, G.711Mu, G.726, PCM
Input	Built-in Microphone

Certifications

Safety	EN 62368-1
Electromagnetic Compatibility (EMC)	FCC CFR 47 Part 15 Subpart B Electromagnetic Compatibility Directive 2014/30/EU

Electrical

Power Supply	12 VDC or PoE (802.3af)
Power Consumption	Basic: 2.3 W (12 VDC), 3.1 W (PoE) Maximum (ICR + H.265 + Maximum Resolution + Main Stream + DWDR + IR Intensity): 4.6 W (12 VDC), 5.6 W (PoE)

Environmental

Operating Conditions	−40°C to +55°C (−40°F to +131°F), Less than or equal to 95% RH
Storage Conditions	−40°C to +55°C (−40°F to +131°F),
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	85.6 mm x 94.0mm (3.4 in. x 3.7 in.)
Net Weight	0.32 kg (0.71 lb)
Gross Weight	0.43 kg (0.95 lb)

Intelligent Video System Functions

Standard Features	• Tampering with the camera. • Error sending or receiving data over the network. • Unauthorized access to the camera.
Motion	An object moves through any part of the scene.

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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.
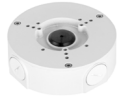
Ordering Information

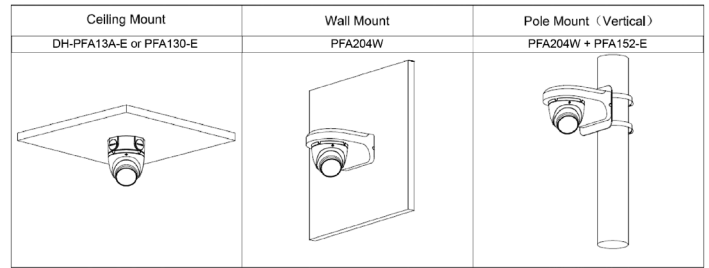| Type	Part Number	Description
Camera	N81CJ02	8MP E-VU IR Fixed-focal Eyeball Network Camera
Accessories, optional	DH-PFA13A-E	Junction Box
	PFA130-E	Waterproof Junction Box
	PFB204W	Wall Mount Bracket
	PFA152-E	Pole Mount

Accessories (Optional)

DH-PFA13A-E
Junction Box

PFA130-E
Waterproof Junction Box

PFB204W
Wall Mount Bracket

PFA152-E
Pole Mount

Ceiling Mount	Wall Mount	Pole Mount (Vertical)
DH-PFA13A-E or PFA130-E	PFA204W	PFA204W + PFA152-E

Dimensions

mm [in.]

85.6 [3.37]

⌀94 [⌀3.7]
⌀68.5 [⌀2.7]
⌀4.5 [⌀0.18]