

4 MP IR Rugged Exterior Network Camera

True WDR H.265 Camera, M12 D-coded Connector



System Overview

Dahua's Mobile series of cameras offers high-resolution video and cutting-edge technology in a compact and accessible package. The cameras feature H.265 video compression, reducing bandwidth and storage requirements without sacrificing video quality. The camera series incorporates True Wide Dynamic Range, and Smart IR, features typically found on high-end security systems. This series provides a rugged enclosure rated to IP67 Ingress Protection to protect your security investment.

Functions

Wide Dynamic Range

For applications with both bright and low-light 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.

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

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.

- 1/3-in. 4 MP Progressive Scan CMOS
- Triple-stream Encoding
- Smart H.265+ and H.264 Dual Codec
- 4 MP (2688 × 1520) at 30 fps
- 2.8 mm Fixed Lens
- Smart Detection
- True Wide Dynamic Range (120 dB) and True Day/Night
- Maximum IR LED Distance 20 m (65 ft)
- IP67 and IP6K9K Ingress Protection and IK10 Vandal Resistance
- PoE
- Five-year Warranty*



Environmental

With a temperature range of -40° C to +70° C (-40° F to +158° F), the camera is designed for extreme temperature environments. The camera complies with the IK10 Vandal Resistance 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.). The camera also complies with the IP6K9K Ingress Protection rating, certifying that the camera is dust-proof and waterproof when subjected to a high-pressure jet of water.

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.

Protection

Supporting $\pm 30\%$ input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 6KV lightning rating provides protection against the camera and its structure from the effects of lightning.

| Technical | Specification |
|-----------|---------------|
|-----------|---------------|

| Camora | |
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| Camera | | | |
|----------------------|------------|---|--|
| Image Sensor | | 1/3-in. 4 MP Progressive Scan CMOS | |
| Effective Pixels | | 2688(H) x 1520(V) | |
| RAM/ROM | | 512 MB / 32 MB | |
| Scanning System | m | Progressive | |
| Minimum Illumination | | Color: 0.08 lux at F2.0 0 lux at F2.0 with IR on | |
| S/N Ratio | | More than 50 dB | |
| IR Distance | | Distance up to 20.0 m (65.60 ft) | |
| IR On/Off Control | | Auto, Manual | |
| IR LEDs | | 10 | |
| Lens | | | |
| Lens Type | | Fixed | |
| Mount Type | | Board-in | |
| Focal Length | | 2.8 mm | |
| Max. Aperture | | F2.0 | |
| | Horizontal | 104° | |
| Angle of View | Vertical | 57° | |
| Focus Control | | Fixed | |
| Pan/Tilt/Rot | tation | | |
| Range | | Pan: 0° to 60° Tilt: 0° to 80° Rotation: 0° to 360° | |
| Video | | | |
| Compression | | Smart H.265+, H.265, Smart H.264+, H.264, MJPEG | |
| Streaming Capability | | Three (3) Streams | |
| Resolution | | 4 MP (2688 x 1520), 3 MP (2304 x 1296), 1080p (1920 x 1080) 1.3 MP (1280 x 960), 720p (1280 x 720), D1 (704 x 480), VGA (640 x 480), CIF (352 x 240) | |
| Frame Rate | | Main Stream: 4 MP at 30 fps | |
| | | Sub Stream 1: D1 at 30 fps | |
| | | Sub Stream 2: 720p at 10 fps | |
| Bit Rate Control | | CBR, VBR | |
| Bit Rate | | H.265: 12 to 8192 Kbps H.264: 24 to 10240 Kbps | |
| Day/Night | | Auto (ICR), Color, B/W | |
| BLC Mode | | BLC, HLC, True WDR (120 dB) | |
| | | | |

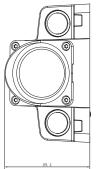
| White Balance | Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom |
|-------------------------------|---|
| Gain Control | Auto, Manual, Gain Priority, Shutter Priority |
| Noise Reduction | 3D DNR |
| Motion Detection | Off, On (4 Zone, Rectangle) |
| Region of Interest | Off, On (4 Zone) |
| Smart IR | Support |
| Digital Zoom | 16x |
| Flip | 0°, 90°, 180°, 270° |
| Mirror | Off, On |
| Privacy Masking | Off, On (4 Area, Rectangle) |
| Audio | |
| Compression | G.711a, G.711Mu, G.726 |
| Network | |
| Ethernet | M12 D-coded Connector (10/100 Base-T) |
| 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, SNMP |
| Interoperability | ONVIF, PSIA, CGI |
| Streaming Method | Unicast, Multicast |
| Maximum User Access | 10 Users / 20 Users |
| Edge Storage | Network Attached Storage (NAS) Local PC for Instant Recording Micro SD Card Slot, maximum 128 GB |
| Web Viewer | IE, Firefox, Safari |
| Management Software | Smart PSS, DSS |
| 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 60950:2000 UL60950-1 |
| Mobile Applications | EN 50155 E-mark (ECE-Regulation No.10) |
| Electromagnetic Compatibility | FCC Part 15 Subpart B |
| Electrical | |
| Power Supply | 12 VDC or PoE (802.3af, Class 0) |
| Power Consumption | < 12 W |
| | |

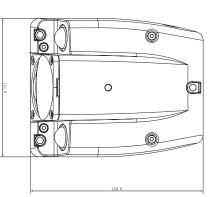
Mobile | DH-IPC-MBW4431N-M12 Series

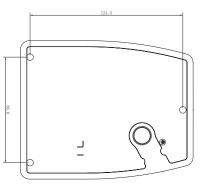
Environmental

| Operating Co | nditions | -40° C to +70° C Less than 95% RI | (-40° F to +158° F), H |
|----------------------|-------------|--|-------------------------------------|
| Storage Cond | litions | -40° C to +70° C Less than 95% RI | (-40° F to +158° F), H |
| Ingress Prote | ction | IP67, IP6K9K | |
| Vandal Resist | ance | IK10 | |
| Construction | | | |
| Casing | | Metal | |
| Dimensions | | 140.60 mm x 113 (5.54 in. x 4.45 ir | 3.0 mm x 69.10 mm n. x 2.72 in.) |
| Net Weight | | 0.70 kg (1.54 lb) | |
| Gross Weight | | 0.74 kg (1.63 lb) | |
| Ordering Information | | | |
| Tuno | Part Number | | Description |

Dimensions (mm)







| Туре | Part Number | Description |
|--------------------------|----------------------------|--|
| 4 MP Camera | DH-IPC-MBW4431N-M12 2.8 mm | 4 MP IR Rugged Exterior Network Camera, 2.8 mm, WDR, M12 D-coded Connector |
| Accessories, optional | MC-DF4-DM4-18 | M12 (D-Coding) Network Cable 18.0 m (59.06 ft) |
| | MC-DF4-DM4-6 | M12 (D-Coding) Network Cable 6.0 m (19.68 ft) |

