DH-IPC-MBW4431-AS/M12

4MP IR Mobile Network Camera

- 1/3” 4Megapixel progressive scan CMOS
- H.265&H.264 triple-stream encoding
- 25/30fps@4M(2688×1520)
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC,
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.8mm fixed lens (3.6mm, 6mm optional)
- Max. IR LEDs Length 30m
- Micro SD memory, IP67, IK10, IP6K9K, PoE
- E-MARK(ECE-Regulation No.10)

System Overview

The Dahua mobile camera is specially designed for trains, buses and other vehicles. Due to its high-specification design, the mobile camera meets the requirements of vehicle standards such as EN50155, E-MARK(ECE-Regulation No.10), making the camera able to withstand the tough conditions like vibrations, shocks and wide range temperature fluctuations. The external camera meets the IP6K9K standard, which makes it dustproof and waterproof, sustaining high pressure / steam jet cleaning directly.

Functions

IP6K9K

IP6K9K is the Degrees of protection (IP code, ISO 20653) for Road vehicles, Protection of electrical equipment against foreign objects, water and access. Products meet the IP6K9K standard, can be directly used high pressure / steam jet cleaning.

Wide Dynamic Range

Embeded with industry leading wide dynamic range (WDR) technology, vivid picutures are achieved even in the most intense contrast lighting conditions. For applications with both bright and low lighting conditions that change quickly, True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

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 to an IK10 impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Protection

Supporting ±30% input voltage tolerance, this camera suits even the most unstable conditions for outdoor applications. Its 4KV lightning rating provides protectection against the camera and its structure from the effects of lightning.

Smart H.265+

Deliver high quality video without straining the network, Smart H.265+ is the optimized implementation of H.265. The Smart H.265+ encoding technology includes a scene adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction, providing saving of up to 70% of bandwidth and storage when compared with standard H.265.

HEVC (H.265)

H.265 ITU-T VCEG is a new video coding standard. H.265 Following standard developed around the existing video coding standard H.264 , some retain the original technology , while some of the relevant technology to improve the new technology uses advanced technology to improve the relationship between the code stream , encoding quality , and the delay between algorithm complexity , optimize settings specific contents include : Improve compression efficiency , improve the robustness and error recovery capabilities, real-time to reduce the delay, reduce channel acquisition time and a random access delay , reduce complexity , etc

Technical Specification

Camera

Image Sensor	1/3" 4Megapixel progressive scan CMOS
Effective Pixels	2688(H) x 1520(V)
RAM/ROM	512MB/32MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.08Lux/F2.0(Color,1/3s,30IRE) 0.3Lux/2.0(Color,1/30s,30IRE) 0Lux/F2.0(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 30m (98ft)
IR On/Off Control	Auto/ Manual
IR LEDs	2

Lens

Lens Type	Fixed
Mount Type	Board-in
Focal Length	2.8mm (3.6mm, 6mm optional)
Max. Aperture	F2.0 (F2.0, F2.0)
Angle of View	2.8mm: Horizontal::104°; vertical: 55°; diagonal:125° 3.6mm: Horizontal::82.5°; vertical: 45°; diagonal:97° 6.0mm: Horizontal::55°; vertical: 31°; diagonal:65°
Optical Zoom	N/A
Focus Control	Fixed
Close Focus Distance	N/A

	Lens	Detect	Observe	Recognize	Identify
DORI Distance	2.8 mm	56m(184ft)	22m(72ft)	11m(36ft)	6m(20ft)
	3.6 mm	80m(262ft)	32m(105ft)	16m(52ft)	8m(26ft)
	6.0 mm	120m(394ft)	48m(157ft)	24m(79ft)	12m(39ft)

Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Pan:0°~20°; Tilt:±15°; Rotation:0°~360°

Intelligence

IVS	Tripwire, Intrusion, Object Abandoned/Missing
Advanced Intelligent Functions	Face Detection

Video

Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	3 Streams
Resolution	4M(2688×1520)/3M(2304×1296)/ 1080P(1920×1080) /1.3M(1280x960)/ 720P(1280×720)/D1(704×576/704×480)/ VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 4M(1~25/30fps)
	Sub Stream: D1(1~25/30fps)
	Third Stream: 720P(1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 24~10240Kbps H.265: 14~9984Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	N/A
Smart IR	Support
Defog	N/A
Digital Zoom	16x
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

Audio

Compression	N/A

Network

Ethernet	-AS: RJ45(10/100Base-T) -M12:M12 D-Coding(10/100Base-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
Max. User Access	10 Users /20 Users
Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, Easy4ip
Smart Phone	IOS, Android

Certifications

Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B E-mark(ECE-Regulation No.10) EN50155(Environment)

Interface

Video Interface	N/A
Audio Interface	1/1 channel In/Out (-AS Model)
RS485	N/A
Alarm	1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC (-AS Model)

Electrical

Power Supply	-AS: DC12V, PoE (802.3af)(Class 0) -M12: PoE (802.3af)(Class 0)
Power Consumption	<6.5W

Environmental

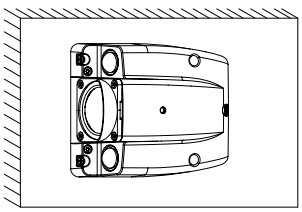
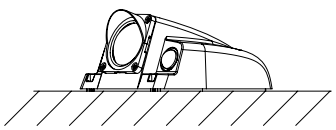
Operating Conditions	-40° C ~ +70° C (-40° F ~ +158° F) / Less than 95% RH
Strorage Conditions	-40° C ~ +70° C (-40° F ~ +158° F) / Less than 95% RH
Ingress Protection	IP67,IP6K9K
Vandal Resistance	IK10

Construction

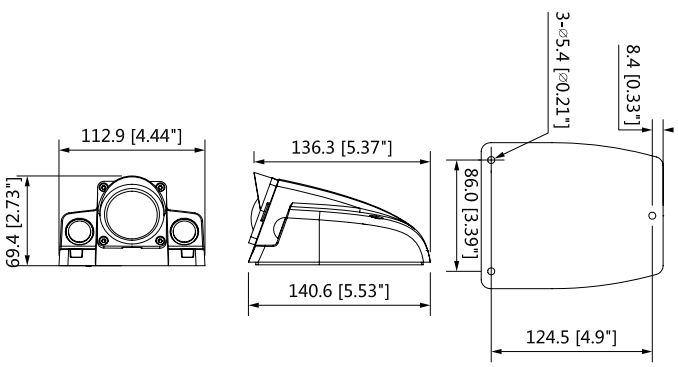
Casing	Metal
Dimensions	140.6mm×112.9mm×69.4mm (5.53"×4.44"×2.73")
Net Weight	0.59Kg (1.3lb)
Gross Weight	0.8Kg (1.76lb)

Ordering Information

Type	Part Number	Description
4MP camera	DH-IPC-MBW4431P-M12-0280B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-M12-0280B	4MP IR Mobile Network Camera,WDR,NTSC
	IPC-MBW4431P-M12-0280B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-M12-0280B	4MP IR Mobile Network Camera,WDR,NTSC
	DH-IPC-MBW4431P-AS-0280B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-AS-0280B	4MP IR Mobile Network Camera,WDR,NTSC
	IPC-MBW4431P-AS-0280B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-AS-0280B	4MP IR Mobile Network Camera,WDR,NTSC
	DH-IPC-MBW4431P-M12-0360B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-M12-0360B	4MP IR Mobile Network Camera,WDR,NTSC
	IPC-MBW4431P-M12-0360B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-M12-0360B	4MP IR Mobile Network Camera,WDR,NTSC
	DH-IPC-MBW4431P-AS-0360B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-AS-0360B	4MP IR Mobile Network Camera,WDR,NTSC
4MP camera	IPC-MBW4431P-AS-0360B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-AS-0360B	4MP IR Mobile Network Camera,WDR,NTSC
	DH-IPC-MBW4431P-M12-0600B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-M12-0600B	4MP IR Mobile Network Camera,WDR,NTSC
	IPC-MBW4431P-M12-0600B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-M12-0600B	4MP IR Mobile Network Camera,WDR,NTSC
	DH-IPC-MBW4431P-AS-0600B	4MP IR Mobile Network Camera,WDR,PAL
	DH-IPC-MBW4431N-AS-0600B	4MP IR Mobile Network Camera,WDR,NTSC
	IPC-MBW4431P-AS-0600B	4MP IR Mobile Network Camera,WDR,PAL
	IPC-MBW4431N-AS-0600B	4MP IR Mobile Network Camera,WDR,NTSC

Side Mount	Plane Mount
	

Dimensions (mm/inch)



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