alhua TECHNOLOGY

4 MP IR Rugged Exterior Network Camera
True WDR H.265 Camera

- 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
- 3.6 mm Fixed Lens Options
- 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*

1080p FULL HD	1080P 50/60fps	H.265	WDR	Temperature	IP66

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, Smart IR, and Intelligent Video Analysis, features typically found on high-end surveillance 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.

Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

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.

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.

Protection

Supporting ±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.

Onvif **PSIA**

Technical Specification

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	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		3.6 mm
Max. Aperture		F2.0
Angle of View	Horizontal	3.6 mm Lens: 87°
	Vertical	3.6 mm Lens: 48°
Focus Control		Fixed

Pan/Tilt/Rotation

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 × 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 30 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.265: 14 to 5632 Kbps H.264: 24 to 9472 Kbps
Day/Night	Auto (ICR), Color, B/W
BLC Mode	BLC, HLC, True WDR (120 dB)

White Balance	Auto, Natural, Street Lamp, Outdoor, Manual
Gain Control	Auto, Manual
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, AAC, G.726

Network

Ethernet	RJ45 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

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

Environmental

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

Construction

Casing	Metal
Dimensions	140.60 mm x 113.0 mm x 69.10 mm (5.54 in. x 4.45 in. x 2.72 in.)
Net Weight	0.70 kg (1.54 lb)
Gross Weight	0.74 kg (1.63 lb)

Intelligence

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.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.
Advanced Features	
Facial Detection	Detects and captures a snapshot of human face in a defined area within a scene.

Ordering Information

Type	Part Number	Description
4 MP Camera	DH-IPC-MBW4431N-AS 3.6 mm	4 MP IR Rugged Exterior Network Camera, 3.6 mm, WDR, IVS RJ45 Connector

Dimensions (mm)