alhua
TECHNOLOGY

Corrosion-resistant Vari-focal Network Camera

2 MP Starlight IR Network Dome Camera

- 1/1.9-in. 2 MP Progressive Scan CMOS
- 316L Corrosion-resistant Stainless Steel Housing
- Starlight Technology for Low Light Sensitivity
- Triple-stream Encoding
- Smart H.265+ and H.264 Dual Compression
- 1080p at 60 fps
- 4.1 mm to 16.4 mm Motorized Lens
- True Wide Dynamic Range (120 dB) and Day/Night IR Cut Filter
- Maximum IR Distance 50 m (164 ft)
- IP67 Ingress Protection and IK10 Impact Resistance
- Five-year Warranty*

System Overview

The Ultra Series Camera offers high-performance video and cutting-edge technology in a compact and accessible package. The 316L stainless steel housing, along with IP67 and IK10 ratings, protects the camera in corrosive and harsh environments. The camera features 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.

Functions

Starlight Technology
For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing details in low light down to 0.002 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

True 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. The built-in IVS features people counting and heat map functionality, advanced features that add business intelligence to your security system.

Street Light Compensation
The camera delivers exceptional images even when shooting under sodium-vapor lamps that typically add a yellowish-tint to the scene hampering identification. This camera provides a built-in mode that compensates for the tint to restore the scene to its original color.

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 Scene Adaptive (SSA) Technology
Smart Scene Adaptive (SSA) is an intelligent image technology, developed by Dahua that automatically evaluates and compensates for changes in the luminance of a scene. SSA automatically regulates the exposure parameters to improve image quality in a backlit scene, especially in scenes with traffic lights or headlights.

Smart IR
With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate 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 50 m (164 ft).

Environmental
With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.

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.

*Warranty applies to products sold through an authorized Dahua Dealer.

Technical Specification

Camera

Image Sensor	1/1.9-in. 2 MP Progressive Scan CMOS
Effective Pixels	1920(H) x 1080(V)
RAM/ROM	1024 MB / 128 MB
Scanning System	Progressive
Minimum Illumination	Color: 0.002 lux at F1.53 0 lux at F1.53 with IR on
S/N Ratio	More than 50 dB
IR Distance	Up to 50.0 m (164.04 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Three (3)

Lens

Lens Type	Motorized, Auto Iris (HALL)
Mount Type	Board-in
Focal Length	4.1 mm to 16.4 mm
Max. Aperture	F1.53
Angle of View	Horizontal: 32° to 92° Vertical: 18° to 53°
Optical Zoom	4x
Focus Control	Motorized
Close Focus Distance	1000 mm (39.37 in.)

Pan/Tilt/Rotation

Range	Pan: 0˚ to 355˚ Tilt: 0˚ to 65˚ Rotation: 0˚ to 355˚

Video

Compression	Smart H.265+, H.265, Smart H.264+, H.264
Streaming Capability	Three (3) Streams
Resolution	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: 1080p at 60 fps
	Sub Stream 1: D1 at 60 fps
	Sub Stream 2: 1080p at 60 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.264: 24 to 10240 Kbps H.265: 14 to 6144 Kbps
Day/Night	Auto (ICR), Color, B/W
BLC Mode	BLC, HLC, True WDR (120 dB), SSA

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)
Advanced Features	Electronic Image Stabilization (EIS), Smart IR, Defog
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	RJ-45 (100/1000 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 MicroSD 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 UL 60950-1
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B

Interface

Audio	In: One (1) Channel, RCA Out: One (1) Channel, RCA
Alarm	In: One (1) Channel Out: One (1) Channel

Electrical

Power Supply	12 VDC, 24 VAC, or PoE+ (802.3at Class 4)
Power Consumption	< 18 W

Environmental

Operating Conditions	−40° C to +60° C (−40° F to +140° F), Less than 95% RH
Storage Conditions	−40° C to +60° C (−40° F to +140° F), Less than 95% RH
Ingress Protection	IP67
Impact Protection	IK10
Enclosure Rating	Conforms to NEMA 4X

Construction

Casing	316L Stainless Steel
Dimensions	⌀162.50 mm x 118.10 mm (⌀6.40 in. x 4.65 in.)
Net Weight	2.25 kg (4.96 lb)
Gross Weight	3.0 kg (6.61 lb)

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

Standard Features	• Tampering with the camera. • Camera loses or changes focus drastically. • 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 a human face in a defined area within a scene.
People Counting	Measure the number of customers, visitors or passengers in a surveillance scene.
Heat Map	Generates a visual representation of data.

Ordering Information

Type	Part Number	Description
2 MP Camera	DH-IPCHDBW8232EN-Z-SL	2 MP Starlight Corrosion-resistant IR Dome Network Camera, True WDR, IVS
Accessory, optional	PFB720WA	Corrosion-resistant Wall Mount (316L Stainless Steel)

Accessories

Optional:

PFB720WA
Corrosion-resistant
Wall Mount

Dimensions (mm/inch)