

DH-ESD41A415-HNR

4MP 15X Starlight NETWORK PTZ CAMERA



Wiz Mind

- 1/2.8" 4Megapixel STARVIS™ CMOS.
- 15x optical zoom.
- Starlight+ technology.
- Face detection.
- Video Metadata.
- SMD 4.0.
- IP68.



System Overview

With its explosion-proof structure, this series ensures that safety and performance are delivered with each camera and its accessories. Its stainless steel design and ATEX and IECEx certification promise durability and protection for the surrounding area. It is applicable to Class I/II/III, Divisions 1 and 2, Zones 1, 2, 21, 22, and Groups IIC and IIIC, and is ideal for use in a wide variety of scenarios such as chemical plants, coal mines, fuel oil plants, and flour mills.

Functions

Perimeter Protection

Automatically filtering out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improving alarm accuracy.

Starlight Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Auto-tracking

This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

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.

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Max. Resolution	2560 (H) × 1440 (V)
Effective Pixels	4MP
ROM	1GB
RAM	4GB
Electronic Shutter Speed	1/3s~1/100000s
Scanning Mode	Progressive
Minimum Illumination	0.05lux@F1.6 (Color, 30 IRE); 0.005lux@F1.6 (B/W, 30 IRE)

Lens

Focal Length	4.77mm~71.55 mm			
Aperture	F1.6~ F2.8			
Field of View	H: 60.4°~4.3°; V: 34.5°~2.4°; D: 68.5°~5°			
Optical Zoom	15x			
Focus Control	Auto/Semi-auto/Manual			
Close Focus Distance	1m-1.5 m (3.28 ft-4.92 ft)			
Iris Control	Auto/Manual			
DORI Distance	Detect	Observe	Recognize	Identify
	1431 m (4694.88 ft)	565 m (1853.67 ft)	286 m (938.32 ft)	143 m (469.16 ft)
	*DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person viewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.			

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless ; Tilt: 0° to +90°, auto flip 180°
Manual Control Speed	Panorama: 0.1°/s~130°/s; Tilt: 0.1°/s~57°/s
Manual Control Speed	Panorama: 0.1°/s~130°/s; Tilt: 0.1°/s~57°/s
Preset Speed	Pan: 280°/s; Tilt: 216°/s
Presets	300
Tour	8(up to 32 preset per tour)
Pattern Number	5
Scanning Number	5
Speed Adjustment	Support
Power-off Memory	Support
Idle Motion	Preset/Tour/Pattern/Scanning
Protocol	DH-SD Pelco-P/D(Auto recognition)

Artificial Intelligence

Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.
Auto Tracking	Support

General Intelligence

Event Trigger	Motion detection, video tampering, scene changing, Network disconnection, IP address conflict, illegal access, and storage anomaly.
General IVS	Object Abandoned/Missing

Video

Compression	H.265/H.265+/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 4M/3M(1~25/30fps), 1080P/1.3M/720P(1~25/30fps) Sub stream 1: D1/CIF(1~25/30fps) Sub stream 2: 1080P/1.3M/720P(1~25/30fps), D1/CIF(1~25/30fps)
Bit Rate Control	Variable Bit Rate/Constant Bit Rate
Bit Rate	H.264: 96 kbps~14848 kbps H.265: 38 kbps~8960 kbps
Day/Night	Support
BLC	Support
WDR	120dB
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Electronic Image Stabilization (EIS)	Support
Optical Defog	Electronic Defog
Digital Zoom	15x
Flip	0°/180°
Privacy Masking	Up to 24 areas

Certifications

Certification	CE; IECEX/ATEX; NEMA 4X
---------------	-------------------------

Audio

Audio Compression	G.711A; G.711Mu; G.726; AAC; G.722.1; G.723; G.729; PCM; MPEG2-Layer2
-------------------	---

Port

Audio In	1 (LINE IN; bare wire)
----------	------------------------

Audio Out	1 (LINE OUT; bare wire)
Alarm Port	2 alarm input port; 1 alarm output port

Network

Ethernet Port	1 RJ-45 Port 10/100Base-T
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3(MIB-2); DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP
Interoperability	ONVIF Profile S&G; CGI
Streaming Method	Unicast/Multicast
Max. User Access	20 (Total bandwidth 48M)
Edge Storage	FTP; Micro SD card (256G); P2P
Browser	IE7 and newer versions Chrome 42 and older versions Firefox 52 and older versions

Safari

Management Software	Smart Player Smart PSS DSS Easy4ip
Smart Phone	IOS/Android/Windows Phone

Electrical

Power Supply	100-240 VAC or PoE (AT standard)
Power Consumption	Basic: 18 W Max: 21 W (Basic power consumption + PTZ operation)

Environment

Operating Conditions	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Humidity	≤95%RH
Ingress Protection	IP68, TVS 6000 V lightning proof; surge protection; voltage transient protection

Construction

Dimensions	ø184*277.4mm
Weight	Net Weight: 6.9 kg (15.21 lb); Gross Weight: 9.4 kg (20.72 lb)
Casing	SUS304/SUS316L

Ordering Information

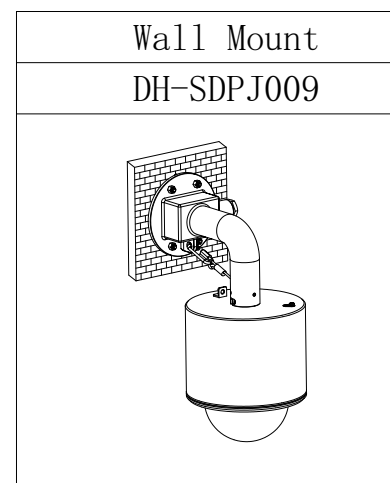
Type	Model	Description
SD6AL Series	DH-ESD41A415-HNR	4MP 15X Starlight NETWORK PTZ CAMERA
Accessories (Included)	CE4002-00	Wall Mount Bracket

Accessories

Included:



CE4002-00
Wall Mount
Bracket



Dimensions (mm[inch])

