

DH-ESD41A415-HNR

4MP 15X Starlight NETWORK PTZ CAMERA





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 certfcaton promise durability and protecton 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 off ers 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.

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





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.

Part	Technical Specificati	on	Artifical Intelligence
Mark Republication 289 000 yk 140 001 3	•		Perimeter Protection types (human and vehicle). Support filtering false alarm
Circle Piecle Circle Piecle Piec	Image Sensor	1/2.8" CMOS	
### A PACK 1998 1999 19	Max. Resolution	2560 (H) × 1440 (V)	
RAM	Effective Pixels	4MP	
Final	ROM	1GB	Event Trigger Network disconnection, IP address conflict, illegal access
Minimum Humination Codesing 1.6 Color 30 REL	RAM	4GB	
Compression H265/R264/H264/H264/H264/H264/H264/H264/H264/H	Electronic Shutter Speed	1/3s~1/100000s	Video
Minimum illumination	Scanning Mode	Progressive	Compression H.265/H.265+/H.264+/H.264/MJPEG(Sub Stream)
Process Proc	Minimum Illumination		
Resolution A,77mm*71,55 mm	Lens		4M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296
Field of View	Focal Length	4.77mm~71.55 mm	Resolution × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF
Field of View Hi- BLA* - 4.3 *, V. 3.45 * -2.4 *, D. 88.5 * -5 V Sob stream 1: D1/CIFL 1-25/JOftps) Sob stream 1: D1/CIFL 1-25/JOftps) Sob stream 1: D1/CIFL 1-25/JOftps) D	Aperture	F1.6~ F2.8	
Focus Control Auto//semi-auto/Manual Bit Rate Control Variable Bit Rate Variable Bit Rate Control Variable Bit Variab	Field of View	H: 60.4°-4.3°; V: 34.5°-2.4°; D: 68.5°-5°	Frame Rate Sub stream 1: D1/CIF(1–25/30fps)
Close Focus Distance Im: 5 mil 3.28 R 4.92 tt) Inis Control Auto/Manual Detect Detect Observe Recognize Identify (938.32 ft) DORI Distance Detect Observe Recognize Identify (938.32 ft) REGION Identify (938.32 ft) REGION Identify Recognize Identify Recog	Optical Zoom	15x	
Detect Observe Recognize Identify Support	Focus Control	Auto/Semi-auto/Manual	Bit Rate Control Variable Bit Rate/Constant Bit Rate
Detect Observe Recognize Identify 1431 m (4694 88 ft) (1853 67 ft) (298.32 ft) (469.16 ft) PORI Distance PORI Distance **ORI (Detect, Observe, Recognize, Identify) is a standard system (En-Des-Gar-fa) for defining the ability of a person viewing the video to distinguish persons or intelligent function distances. For intelligent function distances, refer to installation and commission manual/project design tool. PATZ Pan/Tilt Range Pan: 0° to 360° endless; Tilt: 0° to 990°, 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: 2809/s; Tilt: 216/s Presets 300 Preset Speed Panorama: 0.1/s-130//s; Tilt: 0.1/s-57/s Preset Speed Panorama: 0.1/s-130//s; Tilt: 0.1/s-57/s Presets 300 Preset Speed Panorama: 0.1/s-130//s; Tilt: 0.1/s-57/s Preset Speed Preset Speed Panorama: 0.1/s-130//s; Tilt: 0.1/s-57/s Preset Speed Prese			RIT RATE
Manual Control Speed Panorama: 0.11/s-1307/s; Tilt: 0.17/s-577/s Preset Speed Panorama: 0.11/s-1307/s; Tilt: 0.11/s-577/s Preset Speed Panorama	iris Control		Day/Night Support
born Distance **DORI (Detect, Observe, Recognize, Identify) is a standard system (EN-62676-4) for defining the ability of a person witeing 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 Manual Control Speed Panorama: 0.1°/s-130°/s; Tilt: 0.1°/s-57°/s Manual Control Speed Pan: 280°/s; Tilt: 216°/s Preset Speed Pan: 280°/s; Tilt: 216°/s Preset Speed Pan: 280°/s; Tilt: 216°/s Pattern Number Support Support Filip O°/180° Privacy Masking Up to 24 areas Certifications Support Audio Audio Audio Compression G.711A; G.711Mu; G.726; AAC; G.722.1; G.723, G.729; PCM, MPEG2-Layer2 Protocol Protocol Protocol		1431 m 565 m 286 m 143 m	BLC Support
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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. Part 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 Optical Defog Electronic Image Stabilization (EIS) Presets 300 Digital Zoom 15x Flip O"/180" Privacy Masking Up to 24 areas Certifications Speed Adjustment Support Certification Certification Certification Certification Certification Description/Pattern/Scanning Protocol DH-SD Pelco-P/D(Auto recognition) Protocol Protocol Protocol Protocol Protocol Protocol Pattern Number Support Autolio Auto/Manual Auto/Ma	DORI Distance	standard system (EN-62676-4) for defining the ability	HLC Support
PTZ Pan/Tilt Range Pan: 0* to 360* endless; Tilt: 0* to +90°, auto flip 180* Motion Detection Support Manual Control Speed Panorama: 0.1'/s-130'/s; Tilt: 0.1'/s-57'/s Region of Interest (Rol) Support Manual Control Speed Panorama: 0.1'/s-130'/s; Tilt: 0.1'/s-57'/s Region of Interest (Rol) Support Manual Control Speed Panorama: 0.1'/s-130'/s; Tilt: 0.1'/s-57'/s Electronic Image Stabilization (EIS) Support Preset Speed Pan: 280'/s; Tilt: 216'/s Optical Defog Electronic Defog Presets 300 Digital Zoom 15x Tour 8(up to 32 preset per tour) Flip 0'/180' Pattern Number 5 Scanning Number 5 Scanning Number 5 Speed Adjustment Support Certification CE; IECEX/ATEX; NEMA 4X Power-off Memory Support Audio Audio Idle Motion Preset/Tour/Pattern/Scanning Audio Compression G.711A', G.711Mu'; G.726; AAC; G.722.1; G.723; G.729; PCM', MPEG2-Layer2 Protocol DH-SD Pelco-P/D(Auto recognition)		or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For	
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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 Preset Speed Pan: 280*/s; Tilt: 0.1*/s-57*/s Privacy Masking Up to 24 areas Certifications Certification CE; IECEX/ATEX; NEMA 4X Power-off Memory Support Audio Audio Compression G.711A; G.711Mu; G.726; AAC; G.722.1; G.723; G.729; PCM; MPEG2-Layer2 Protocol Ph-SD Pelco-P/D(Auto recognition) Protocol Port	PTZ		Noise Reduction 2D/3D
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Manual Control Speed Panorama: 0.178–1307s; Tilt: 0.178–577s Preset Speed Pan: 280°/s; Tilt: 216°/s Optical Defog Electronic Defog Presets 300 Digital Zoom 15x Tour 8(up to 32 preset per tour) Pattern Number 5 Privacy Masking Up to 24 areas Certifications Speed Adjustment Support Certification CE; IECEX/ATEX; NEMA 4X Power-off Memory Support Audio Idle Motion Preset/Tour/Pattern/Scanning Protocol DH-SD Pelco-P/D(Auto recognition) Port	Manual Control Speed	Panorama: 0.1°/s–130°/s; Tilt: 0.1°/s–57°/s	Region of Interest (RoI) Support
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Protocol DH-SD Pelco-P/D(Auto recognition) Port Audio Compression PCM; MPEG2-Layer2 Port	Power-off Memory	Support	Audio
Protocol Pelco-P/D(Auto recognition) Port	Idle Motion		
Audio In 1 (LINE IN; bare wire)	Protocol		Port
			Audio In 1 (LINE IN; bare wire)

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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	
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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

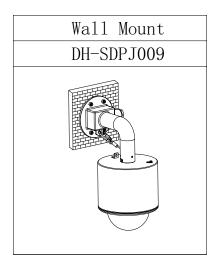
Ordering Information			
Туре	Model	Description	
SD6AL Series	DH-ESD41A415-HNR	4MP 15X Starlight NETWORK PTZ CAMERA	
Accessories (Included)	CE4002-00	Wall Mount Bracket	

Accessories

Included:



CE4002-00 Wall Mount Bracket



Dimensions (mm[inch])

