

DH-SD8A840VI-HNI

4K 40x Starlight IR PTZ Network Camera



System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

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 0.002lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting 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.

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 Wiper

With Dahua smart wiper technology, the wiper can be started/stopped automatically when the build-in rain senor discerns whether it rains. The technology could offer better surveillance performance against wet weather and reduce dependence on manual operation.

- · 1/1.8" 8Megapixel STARVIS™ CMOS
- · Powerful 40x optical zoom
- · Starlight technology
- · Max. 25/30fps@4K
- · Support Hi-PoE
- · Smart wiper
- · IR distance up to 450m
- · IP67



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.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.

Protection

The camera allows for $\pm 25\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 8KV lightning rating provides effective protection for both the camera and its structure against lightning.

Interoperability

The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.



Ultra Series | DH-SD8A840VI-HNI

Technical Specification

Camera

Image Sensor	1/1.8" STARVIS™ CMOS
Effective Pixels	3840(H) x 2160(V), 8 Megapixels
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.002Lux@F1.4; B/W: 0.0002Lux@F1.4; 0Lux@F1.4 (IR on)
IR Distance	Distance up to 450m (1476ft)
IR On/Off Control	Auto/Manual
IR LEDs	10
Smart Wiper	Support
Lens	
Focal Length	5.6mm~223mm
Max. Aperture	F1.4~ F4.8
Angle of View	H: 63.9° ~ 2.0°; V: 37.3° ~ 1.1° ; D: 71.2° ~ 2.3°
Optical Zoom	40x
Focus Control	Auto/Manual
Iris Control	Auto/Manual

DORI Distance

Close Focus Distance

*Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

100mm~ 1000mm

Detect	Observe		Recognize	Identify	
4400m(14435ft)	1740m(5708ft)		880m(2887ft)	440m(1443ft)	
PTZ					
Pan/Tilt Range		Pan: 0° ~ 360° endless; Tilt: -30° ~ 90°, auto flip 180°			
Manual Control Spee	Manual Control Speed P		Pan: 0.1° ~240° /s; Tilt: 0.1° ~100° /s		
Preset Speed	Ра		Pan: 240° /s; Tilt: 120° /s		
Presets		300			
PTZ Mode		5 Pattern, 8 Tour(up to 32 preset per tour), Auto Pan, 5 Auto Scan			
Speed Setup		Human-oriented focal Length/ speed adaptation			
Power up Action		Auto restore to previous PTZ and lens status after power failure			
Idle Motion		Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period			
Protocol		DH-SD, Pelco-P/D (Auto recognition)			
Intelligence					
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly			

Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing
Advanced Intelligent Functions	Face Detection, Heat Map
Video	
Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	4K(3840x2160)/1080P(1920×1080)/1.3M(1280x 960)/720P(1280×720)/D1(704×576/ 704×480)/ CIF(352×288/352×240)
	Main stream: 4K(1~25/30fps), 1080P/1.3MP/720P (1~25/30fps)
Frame Rate	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/1.3M/720P (1 ~ 25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 512K ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR(120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Optical Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas
Audio	
Compression	G.711a/G.711mu/PCM/G.726/AAC/G722.1/G.729/ MPEG2-Layer2
Network	
Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS, FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

Ultra Series | DH-SD8A840VI-HNI

Certifications

Certifications	
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA C22.2,No.60950-1
Interface	
Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
RS485	1
Audio I/O	1/1
Alarm I/O	7/2
Electrical	
Power Supply	AC24V/3A(±25%), Hi-PoE
Power Consumption	26W, 38W (IR on, Heater on)
Environmental	
Operating Conditions	-40°C \sim 70°C (-40°F \sim +158°F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	N/A
Construction	
Casing	Metal
Dimensions	Φ262(mm) x 415.6 (mm)
Net Weight	8.5kg(18.74lb)
Gross Weight	14.3kg(31.53lb)

Ordering Information

Туре	Part Number	Description
4K PTZ Camera	DH-SD8A840VI-HNI	4K 40x Starlight IR PTZ Network Camera, WDR, PAL
	DH-SD8A840VIN-HNI	4K 40x Starlight IR PTZ Network Camera, WDR, NTSC
	SD8A840VI-HNI	4K 40x Starlight IR PTZ Network Camera, WDR, PAL
	SD8A840VIN-HNI	4K 40x Starlight IR PTZ Network Camera, WDR, NTSC
Accessories	PFB306W	Wall Mount
	AC24V/3A	Power Adapter

Accessories

Included:



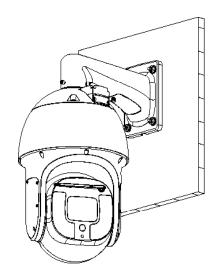
PFB306W Wall Mount



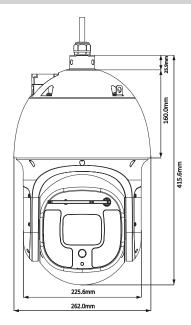
AC24V/3A Power Adapter

Wall Mount

PFB306W



Dimensions (mm)





Rev 001.001 © 2018 Dahua. All rights reserved. Design and specifications are subject to change without notice.