

DH-SD8A250WA-HNF

2MP 50x Starlight IR OIS PTZ AI Network Camera



Al series products adopt the most advanced Al technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Dahua Al series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Dahua Al includes network (PTZ) cameras, network video recorders, servers, and more devices. Beyond seeing the world, the power of Al allows devices to perceive the environment and understand the world in a better way.

System Overview

Dahua PTZ AI network camera adopts advanced CNN deep learning algorithms to support face recognition with high accuracy. This camera possess wide monitor range, PFA algorithm that can always present a clear, focused image while zooming, and smart wiper technology that supported by RainSensor.

Functions

Face Recognition

Once facial features are extracted from captured faces, they are stored in a database where they can be easily searched and compared against other images. Once a successful match is found, the system outputs the result. The Dahua Face Recognition camera supports a built-in database that stores up to 10,000 facial images, helping the camera achieve real-time face capture and comparison.

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.

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 to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

- · 1/2.8" 2Megapixel CMOS
- · Powerful 50x optical zoom
- · IR distance up to 500m
- · Support face recognition
- Deep-learning-based auto tracking and perimeter protection
- · Support metadata
- · Support Hi-PoE
- · Smart Wiper
- · IP67



Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. There are four kinds of metadata supported by Dahua PTZ AI camera: human face, human body, motor vehicle and non-motor vehicle metadata. Facial information includes gender, age, glasses, masks, beards, etc. Human body information includes hat, top type, top color, bottom type, bottom color, backpacks, etc. Motor vehicle information includes car color and car type, etc. Nonmotor vehicle information includes car type, car color, top type, top color, people number etc.

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.

Protection

The camera allows for ±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.



The part 1	Technical Spec	cification			Video Metodoto	Support human body, human face, motor vehicle
Track	-				Video Metadata	and non-motor vehicle image capture and attributes extraction
Effective Park P	Image Sensor		1/2.8" STARVIS™ CMOS		General Intelligence	
Seaming System			Event Trigger	changing, Network disconnection, IP address		
Production	Scanning System		Progressive		General Intelligence	
Nomination of the content of the co	Electronic Shutter Speed		1/1s~1/30,000s			, ,
Revolution	Minimum Illumination				Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
RELEDS	IR Distance		Distance up to 500m (1640ft)		Streaming Capability	3 Streams
Support	IR On/Off Control		Auto/Manual		Resolution	1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
Form Rate	IR LEDs		10			Main stream: 1080P/1.3M/720P(1~50/60fps)
Sub stream2: 1080Pf.1 3M/720Pf.1 25/30fps) Sub stream2: 1080Pf.1 3M/720Pf.1 25/30fps} Sub stream2: 1080Pf.1 3M/720Pf.1	Smart Wiper		Support		Frame Rate	Sub stream1: D1/CIF(1 ~ 25/30fps)
Max. Apertor	Lens					Sub stream2: 1080P/1.3M/720P(1 ~ 25/30fps)
Max. Aperture	Focal Length		6.6mm~330mm		Bit Rate Control	CBR/VBR
Angle of View	Max. Aperture		F1.8~ F6.5			
Focus Control Auto/Manual Iris Control Auto/Manual Auto/Manual Auto/Manual Close Focus Distance *Note: The DORI distance is a "seen and 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 626764 which defines the criteria for Detect, Diserve, Recognize Identify Detect Observe *Recognize Identify Detect Observe *Recognize Identify Digital Zoom 1655m(\$430ft) 827m(2713ft) 413m(13573ft) 1655m(\$430ft) 827m(2713ft) 413m(13573ft) 757estes Pan: 0.1* ~240f* /s; Tilt: 0.1* ~100f* /s Presets Pan: 0.1* ~240f* /s; Tilt: 0.1* ~100f* /s Presets Pan: 240f* /s; Tilt: 0.1* ~100f* /s Presets Pan: 240f* /s; Tilt: 0.1* ~100f* /s Presets Pan: 300 Presets Speed Setup Human-criented focal Length/ speed adaptation Power up Action Power up Action Protocol DH-SD, Pelco-P/D (Auto recognition) Auto restore to previous PTZ and lens status after power failure Auto Tracking Support Max. User Access Support Max. User Access Auxo, ATW, Indoor, Outdoor, Manual Mitte Balance Auto, ATW, Indoor, Outdoor, Manual Mitte Balance Auto, ATW, Indoor, Outdoor, Manual Auto, ATW, Indoor, Outdoor, Manual Mitte Balance Auto, ATW, Indoor, Outdoor, Manual Motion Detection Support Motion Detection Support Motion Detection Support Support Population Support Privacy Masking Up to 24 areas Privacy Masking Priva	Angle of View		H: 41.3° ~ 1.1°; V: 23.6° ~0.6	°; D: 47.4° ~1.3°		·
Figure Southor Auto/Manual	Optical Zoom		50x		Day/Night	Auto(ICR) / Color / B/W
Close Focus Distance DORI Distance 100mm* 1000mm	Focus Control		Auto/Manual		Backlight Compensation	BLC / HLC / WDR(120dB)
DORI Distance *Note: The DORI distance is a "general proximity" of distance which makes it easy to period in 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. Detect Observe, Recognize and Identify respectively. Detect Observe, Recognize and Identify respectively. Detect Observe, Recognize and Identify respectively. Digital Zoom Support ### Digital Zoom Su	Iris Control		Auto/Manual		White Balance	Auto, ATW, Indoor, Outdoor, Manual
Note: The DDRI 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 6276-4 which defines the criteria for Detect, Observe, Recognize and identify respectively. Detect Observe Recognize definity respectively. Detect Observe Recognize definity respectively. PTZ Pan/Tilt Range Pan: 0" ~ 360" endless; Tilt: -30" ~ 90", auto flip 180" Pan/Tilt Range Pan: 0.1" ~ 240" /s; Tilt: 0.1" ~ 100" /s Preset Speed Pan: 0.1" ~ 240" /s; Tilt: 0.1" ~ 100" /s Preset Speed Pan: 0.1" ~ 240" /s; Tilt: 120" /s Preset Speed Pan: 0.1" ~ 240" /s; Tilt: 120" /s PTZ Mode Pan, 5 Auto Scan Speed Setup Human-oriented focal Length / speed adaptation Pany Fordillare Power up Action Pany Fordillare Power up Action Pany Fordillare Power failure Protocol Ph-SD, Pelco-P/D (Auto recognition) Artificial Intelligence Auto Tracking Support Motion Detection Support Region of Interest Support	Close Focus Distance		100mm~ 1000mm		Gain Control	Auto / Manual
Prince	DORI Distance		Noise Reduction	Ultra DNR (2D/3D)		
Sensor specification and lab test result according to EN 62576-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively. Detect Observe Recognize ledntify respectively. Detect Observe Recognize ledntify respectively. Optical Image Stabilization (OIS) Support 16x Pari 1655m(5430ft) 827m(2713ft) 413m(1355ft) Optical Defog Support 16x Pilip 180° Pani 16v° 360° endless; Tilt: 30° 90°, auto flip 180° Privacy Masking Privacy Masking Privacy Masking Up to 24 areas Audio Preset Speed Pani: 240° /s; Tilt: 120° /s Presets Presets Pani: 240° /s; Tilt: 120° /s Presets Presets Pani: 240° /s; Tilt: 120° /s Presets P					Motion Detection	Support
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Protocol Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period Protocol DH-SD, Pelco-P/D (Auto recognition) Attificial Intelligence Auto Tracking Support Support Protocol Protocol DH-SD, Pelco-P/D (Auto recognition) Max. User Access Edge Storage ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE, DDNS,FTP, IP Filter, QoS, Bonjour, 802.1x ONVIF Profile S&G, API Unicast / Multicast Valuer Access Unicast / Multicast NAS (Network Attached Storage), Local PC for instant recording, Micro SD card 256GB	Speed Setup				Ethernet	RJ-45 (10Base-T/100Base-TX)
Idle Motion Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period Protocol DH-SD, Pelco-P/D (Auto recognition) Artificial Intelligence Auto Tracking Support Support Edge Storage RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DNS, PTP, PTP, DHCP, DNS, PTP, DNS, PTP	Power up Action		•	Z and lens status after	Protocol	
Artificial Intelligence Auto Tracking Support Support Max. User Access Edge Storage NAS (Network Attached Storage), Local PC for instant recording, Micro SD card 256GB	Idle Motion		Activate Preset/ Scan/ Tour/ Pattern if there is no		FIULUCUI	RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Auto Tracking Support Max. User Access 20 users Face Recogntion Support Edge Storage NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB	Protocol		DH-SD, Pelco-P/D (Auto recognition)		Interoperability	ONVIF Profile S&G, API
Face Recogntion Support Edge Storage NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB	Artificial Intelligence				Streaming Method	Unicast / Multicast
Face Recognition Support Edge Storage instant recording, Micro SD card 256GB	Auto Tracking		Support		Max. User Access	20 users
	Face Recogntion		Support		Edge Storage	
Tripwire, Intrusion. Web Viewer IE, Chrome, Firefox, Safari					Web Viewer	IE, Chrome, Firefox, Safari
Support alarm triggering by target types(human Perimeter Protection and vehicle) Management Software Smart PSS, DSS, DMSS Filtering out false alarms caused by animals rustling	Perimeter Protection	n			Management Software	Smart PSS, DSS, DMSS
leaves, bright lights, etc Smart Phone IOS, Android			_	ased by diliffidis, rustling	Smart Phone	IOS, Android

Ultra Al Series | DH-SD8A250WA-HNF

Certifications

Certifications	CE: EN55032/EN55024/EN50130-4
Certifications	FCC: Part15 subpartB,ANSI C63.4- 2014

Interface

Video Interface	1 port(BNC, 1.0V[p-p], 75Ω)
R\$485	1
Audio I/O	1/1
Alarm I/O	7/2

Electrical

Power Supply	AC24V/3A(±25%), Hi-PoE
Power Consumption	16W, 38W (Heater on, IR on)

Environmental

Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP67
Vandal Resistance	N/A

Construction

Casing	Metal
Dimensions	Ф262(mm) x 415.6 (mm)
Net Weight	8.5kg(18.74lb)
Gross Weight	13.5kg(29.76lb)

Ordering Information

Ordering information			
Туре	Part Number	Description	
	DH-SD8A240WA-HNF	2MP 40x Starlight IR PTZ AI Network Camera, WDR, PAL	
2MP PTZ	DH-SD8A240WAN-HNF	2MP 40x Starlight IR PTZ AI Network Camera, WDR, NTSC	
Camera	SD8A240WA-HNF	2MP 40x Starlight IR PTZ AI Network Camera, WDR, PAL	
	SD8A240WAN-HNF	2MP 40x Starlight IR PTZ AI Network Camera, WDR, NTSC	
	PFB306W	Wall Mount	
	AC24V/3A	Power Adapter	
Accession	PFA118	Mount Adapter	
Accessories	PFB710C	Ceiling Mount	
	PFA150	Pole Mount	
	PFB301S-E	Plane Mount	
	SD8A240WA-HNF SD8A240WAN-HNF PFB306W AC24V/3A PFA118 PFB710C PFA150	Network Camera, WDR, NTSC 2MP 40x Starlight IR PTZ AI Network Camera, WDR, PAL 2MP 40x Starlight IR PTZ AI Network Camera, WDR, NTSC Wall Mount Power Adapter Mount Adapter Ceiling Mount Pole Mount	

Accessories

Included:







AC24V/3A Power Adapter

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Optional:



PFA118 Mount Adapter



PFB710C Ceiling Mount



PFA150 Pole Mount



PFB301S-E Plane Mount

Wall Mount	Ceiling Mount
PFB306W	PFA118+PFB710C
Pole Mount	Plane Mount
PFB306W+PFA150	PFB301S-E

Dimensions (mm)







