SD8A840XA-HNP-WP

8MP 40x Network PTZ Camera

Perimeter Protection | Face Detection | WDR | Starlight | Auto Tracking

ONVIF

PFA Technology

PFA technology has introduced new methods of judgment that ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms that ensure image clarity when zooming and that shorten focus time. This makes the camera highly advanced in its functions, substantially improving the quality of your experience.

Environment

Developed to operate in extreme conditions, camera can function in temperatures ranging from –40 °C to +70 °C (–40 °F to +158 °F) at 95% humidity. It was subjected to rigorous dust and water immersion tests, gaining its IP67 Ingress Protection certification, making it suitable for demanding outdoor applications.

Wide Dynamic Range

The camera produces vivid images, even in high-contrast lighting conditions, by using industry-leading wide dynamic range (WDR) technology. For scenes that quickly alternate between bright and low lighting, WDR (120 dB) adjusts to fully capture both the bright and dark areas of a scene, producing superior quality videos.

Overview

With its powerful optical zoom, and accurate pan and tilt capabilities, the PTZ camera provides an all-in-one solution for long distance video surveillance of outdoor scenes. Together with infrared illumination and Starlight Technology, the camera is a great solution for dark, low light conditions. The series combines a day and night mechanical IR cut filter to produce high quality images in variable lighting conditions during the day.

Features

- 1/1.8" 8Megapixel STARVIS™ CMOS
- Powerful 40x optical zoom
- IR distance up to 250 m
- Max. 25/30 fps@4K
- Water level marker detection and calibration
- Water level marker joining
- Boat detection
- Tripwire, Intrusion, Stay detection
- IP67 Rating

Functions

Hydrological Monitoring

Recognizes standard and virtual water level markers. Triggers an alarm when the water level exceeds any of the limits. It also detects floating debris, and sends push notifications with data on the water level.

Starlight Technology

For challenging low-light conditions, Starlight Ultra-low Light Technology offers the best in light sensitivity, capturing color in vivid detail, even in lighting as low as 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, producing clear images in dark environments.

Technical Specification

Camera

Image Sensor	1/1.8" CMOS
Pixel	8 MP
Max. Resolution	3840 (H) × 2160 (V)
ROM	4 GB
RAM	1 GB
Electronic Shutter Speed	1/1 s–1/300,000 s
Scanning System	Progressive
Min. Illumination	Color: 0.005 lux@F1.4 B/W: 0.0005 lux@F1.4 0 lux (IR on)
Illumination Distance	250 m (820.21 ft) (IR)
Illuminator On/Off Control	Zoom Prio; Manual; Off
Illuminator Number	10 (IR)
Wiper	Smart Wiper

Lens

Focal Length	5.5 mm–220 mm
Max. Aperture	F1.4–F4.5
Field of View	H: 63.9°–2.0°; V: 37.3°–1.1°; D: 71.2°–2.3°
Optical Zoom	40×
Focus Control	Auto; semi-auto; manual
Close Focus Distance	1.5 m–8 m (4.92 ft–26.25 ft)
Iris Control	Auto

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	Detect	Observe	Recognize	Identify
DORI Distance	4,166 m (13,667.98 ft)	1,666.4 m (5,467.19 ft)	833.2 m (2,733.60 ft)	416.6 m (1,366.80 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: −30° to +90°
Manual Control Speed	Pan: 0.1°/s–240°/s Tilt: 0.1°/s–100°/s
Preset Speed	Pan: 240°/s; Tilt: 120°/s
Preset	300
Tour	8 (up to 32 preset per tour)
Power-off Memory	Yes
Idle Motion	Preset; Tour; Pattern; Scanning
PTZ Protocol	DH-SD Pelco-P/D (auto recognition)

Intelligence

Hydrological Monitoring	Recognizes standard and virtual water level markers. Triggers an alarm when the water level exceeds any of the limits. It also detects floating debris and boats, and sends push notifications with data on the water level.

Video

Video Compression	H.265; Smart H.265+; Smart H.264+; H.264; MJPEG (Sub Stream 1)
Streaming Capability	3 Streams
Video Frame Rate	Main stream: 4K/4M/3M/1080p/1.3M/720p (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080p/1.3M/720p/CIF (1–25/30 fps)
Bit Rate Control	CBR; VBR
Day/Night	Auto (ICR); Color; B/W
BLC	Yes
WDR	Yes
HLC	Yes
White Balance	Auto; indoor; outdoor; tracking; manual; sodium lamp; natural light; street lamp
Gain Control	Auto; Manual
Noise Reduction	2D NR; 3D NR

Motion Detection	Yes
Region of Interest (RoI)	Yes
Image Stabilization	Electronic (EIS)
Defog	Optical
Digital Zoom	16x
Image Rotation	180°
Privacy Masking	Up to 24 areas can be set, with up to 8 areas in the same view
S/N Ratio	≥ 55 dB

Audio

Audio Compression	G.711a; G.711Mu; G726; MPEG2-Layer2; G722.1; G729; G723; PCM

Network

Network Port	RJ-45 (10/100 Base-T)
Network Protocol	HTTP; HTTPS; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; IPv6; 802.1x; QoS; FTP; UPnP; ICMP; SNMP; SNMP v1/v2c/v3 (MIB-2); IGMP; ARP; RTCP; RTP; PPPoE; TCP
Interoperability	ONVIF Profile S&G&T; GB/T28181; CGI; SDK
Streaming Method	Unicast; Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (256 GB)

Port

Analog Output	1 channel (CVBS output, BNC)
RS-485	1 (baud rate: 1200 bps–9600 bps)
Audio Input	1 channel (LINE IN, bare wire)
Audio Output	1 channel (LINE OUT, bare wire)
Alarm I/O	7/2
Two-way Audio	Yes
Alarm Linkage	Capture; preset; tour; pattern; recordings on SD card; alarm digital input; send email; client E–map
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; illegal access

Power

Power Supply	36 VDC, 2.23 A (± 25%) Hi-PoE (IEEE 802.3at)
Power Consumption	Basic: 18 W Max.: 22 W (illuminator + PTZ working)

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Environment

Operating Temperature	−40 °C to +70 °C (−40 °F to +158 °F)
Operating Humidity	≤ 95% RH
Protection	IP67; TVS 8000 V lightning proof; surge protection; voltage transient protection

Structure

Casing	ADC12, PC + 20% GF
Product Dimensions	415.9 mm × Φ262.0 mm (16.37" × Φ10.31")
Net Weight	8.5 kg (18.74 lb)
Gross Weight	13.57 kg (29.92 lb)

Diamensions