



V Series

SD9394-EHL

8MP Outdoor AI PTZ Camera



Technical Specifications

System Information

CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	2 GB

Camera Specifications

Image Sensor	1/1.8" Progressive CMOS
Max. Resolution	3840x2160 (8M)
Lens Type	32x Optical Zoom, Auto Focus
Focal Length	6.5~212mm (32x zoom)
Aperture	F1.4~4.9
Iris Type	P-Iris
Field of View	63.5° ~ 2.0° (Horizontal) 37.4° ~ 1.1° (Vertical) 70.7° ~ 2.3° (Diagonal)
Shutter Time	1 sec. to 1/100,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut filter	Yes
Illuminators	Built-in IR illuminators up to 250 meters with Smart IR, IR LED*8
Minimum Illumination	0.02 lux @ F1.4 (Color)(30IRE) 0.06 lux @ F1.4 (Color)(50IRE) <0.005 lux @ F1.4 (B/W) 0 lux with IR illumination on
Pan Speed	0.05° ~ 450°/sec
Pan Range	360° endless
Tilt Speed	0.05° ~ 450°/sec

Tilt Range	-20° ~ +90° Effective tilt coverage 220° via auto flip
Preset Location	256 preset locations 128 presets per tour
Pan/Tilt/Zoom Functionalities	8x digital zoom Auto Pan mode Auto Patrol mode Mechanical Auto flip
Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1TB capacity supported) and recording to network-attached storage (NAS)
Built-in Installation Aids	Remote focus, remote zoom

Video	
Compression	H265, H264, MJPEG
Maximum Frame Rate	30 fps @ 3840x2160 (WDR on)
Maximum Streams	3 video streams (Up to 8 configurable profiles)
S/N Ratio	67 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control, Smart Stream III
Image Settings	General settings video settings, video orientation (flip, mirror), day/night settings Overlay settings Illuminators illuminators, anti-overexposure Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM, EIS(built-in gyro sensor), scene mode (auto) Exposure exposure strategy (measurement window, metering mode) exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR Focus zoom, focus Privacy mask Pixel calculator Scheduled profile settings

Audio	
Audio Capability	Two-Way Audio (full duplex)
Compression	MPEG-2 AAC-LC, G.711, G.726
Interface	External line input External line output

Network	
Users	Live viewing for up to 10 clients
Security	Access list, Account block, Audit log, Configurable password strength protection, CSRF protection, Digest authentication, Dos Protection, HTTPS, IEEE 802.1x, Secure boot, Session timeout, Signed firmware, Trend Micro IoT Security (brute force attack event, cyberattack event, quarantine event), User access log, User account management

Protocols	802.1X, ARP, Bonjour, CIFS/SMB, DDNS, DHCP, DNS, FTP/SFTP, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2/1.3, UDP, UPnP
Interface	10 Base-T/100 Base-TX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S, T, M supported, specification available at www.onvif.org

AI Analytics

Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection People, Vehicle (4-wheeled, 2-wheeled), Human / Vehicle Bestshot, Path Extraction Attribute Extraction People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color) Human face Bestshot, Re-Search Extraction
Application	Deep Learning VCA (Smart Tracking Advanced) Smart VCA - Group 1 Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, face detection) Smart VCA - Group 2 Unattended object detection, Missing object detection
Application available with license	Smart VCA - Group 3 Parking Violation Detection, Restricted Zone Detection *Support for more analytic applications and free trial, please visit VIVOTEK website.

Solution Integration

VADP Package	Trend Micro IoT Security (3-year free trial), Event action through Http/Https
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Alarm and Event

Event Trigger	Audio detection*, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), digital input*, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, smart tracking advanced trigger, system boot, preset reached *Requires AO-008 cable
Event Action	Event notification via audio clip*, camera link, digital output*, email, HTTP, FTP/SFTP, NAS server, SD card, push notification File upload via email, HTTP, FTP/SFTP, NAS server, SD card *Requires AO-008 cable

General

Connectors	RJ-45 cable connector for 10/100Mbps Network/PoE connection Audio line input* Audio line output* DC 48V power input AC 24V power input Digital input*2* Digital output*1* RS-485*1* * Requires AO-008 cable
LED Indicator	System power and status indicator
Power Input	AC 24V, DC48V, IEEE 802.3 bt Class 6 PoE (Simultaneous Power Redundancy Supported)

Power Consumption	PoE Max: 51W/26W (IR on/off) DC 48V Max: 51W/26W (IR on/off) AC 24V Max: 51W/26W (IR on/off) IR ON: 51W/45W Heater and fan on/off IR OFF: 26/20W Heater and fan on/off
Dimensions	256 x 336 mm
Weight	7.3 kg
Certifications	EMC CE (EN 55032 Class A, EN55035, EN50121-4), UKCA (BS EN 55032: 2015 +A11: 2020 , BS EN 55035: 2017), FCC (FCC Part 15 Subpart B Class A), IC (ICES-003:2020 Issue7, Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A) Safety UKCA (BS EN 62368-1:2014+A11:2017), UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22, IEC/EN 62471) Environment IK10 (IEC 62262), IP66 (IEC 60529), NEMA (NEMA 250 Type 4X) IA BIS (IS 13252), BSMI
Operating Temperature	Starting Temperature: -40°C ~ 55°C (-40°F ~ 131°F) Working Temperature: -40°C ~ 55°C (-40°F ~ 131°F) (IR off) -40°C ~ 50°C (-40°F ~ 122°F) (IR on)
Humidity	98% RH (non-condensing)

System Requirements

Operating System	Microsoft Windows 10/8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above
Other Players	VLC: 1.1.11 or above

Included Accessories

Packing Contents	Wall mount bracket, Screw pack, Screws and anchors, T10 and T25 L-wrench, Waterproof round cap, Quick installation guide, Terminal blocks (for DI/DO audio, AC/DC/GND wires, RS485), Ground wire.
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DORI (EN 62676-4 Standard)

Detection (25PPM/ 8PPF)	Wide: 130.2 m (427.2 ft) Tele: 4774.6 m (15664.7 ft)
Observation (63PPM/ 19PPF)	Wide: 51.8 m (170.1ft) Tele: 1527.9 m (5012.7ft)
Recognition (125PPM/ 38PPF)	Wide: 25.9m (85ft) Tele: 848.8 m (2784.8ft)
Identification (250PPM/ 76PPF)	Wide: 12.9 m (42.4 ft) Tele: 424.4 m (1392.4 ft)