![VIVOTEK - A Delta Group Company]

S SERIES

MS9321-EHV-V2

Multi-Sensor Panoramic Network Camera
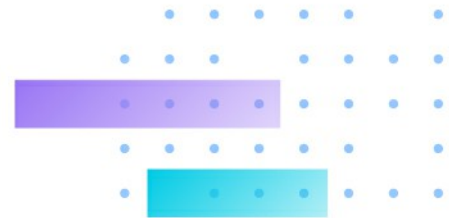
18MP 30fps • 180° View • 30M IR • WDR Pro • Smart VCA
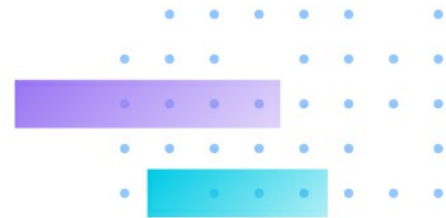
Technical Specifications

System Information

Model	MS9321-EHV-V2
CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	8 GB

Camera Features

Image Sensor	1/2.8" Progressive CMOS in 2560*1920 x 4
Max. Resolution	6912x2624 (18MP)
Lens Type	Fixed-focal
Focal Length	f = 3.5 mm
Aperture	F2.0
Iris Type	Fixed iris
Field of View	180° (Horizontal) 62.5° (Vertical) 180° (Diagonal)
Shutter Time	1/30 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut Filter	Yes
IR Illuminators	Built-in IR Illuminators up to 30 meters with Smart IR , IR LED*4
Minimum Illumination	0.055 lux @ F2.0 (Color) 0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on
Pan Range	±90°
Tilt Range	90°

Storage	Seamless Recording to MicroSD/SDHC/SDXC card slot and recording to network-attached storage (NAS)

Video

Video Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 6912x2624 (Deep Learning VCA off) 20 fps @ 6912x2624 (Deep Learning VCA on)
Maximum Streams	4 video streams (Up to 9 configurable profiles)
S/N Ratio	54 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control, Smart Stream III
Image Settings	General settings: video title and time stamp overlay, day/night settings; Illuminators: illuminators, anti-overexposure; Image settings: white balance (auto, fixed current, manual, panorama, snow-auto, snow-panorama), image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, highlight mask, 3DNR, scene mode (auto, delbur); Exposure: BLC, HLC, exposure control (exposure level, exposure time, gain control), AE speed adjustment, WDR; Privacy mask; Pixel calculator; Lens alignment (auto alignment); Scheduled profile settings

Audio

Audio Capability	Two-way audio (Full duplex)
Audio Compression	G.711, G.726, MPEG-2 AAC-LC
Audio Interface	Built-in microphone External microphone Input External line output
Effective Range	5 meters (internal mic)

Network

Users	Live viewing for up to 10 clients
Security	Access list, Account block , Audit log, Configurable password strength protection, CSRF protection, Digest authentication, 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, 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 BaseTX/1000 Base-T 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 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); Attribute Extraction: People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color); Re-Search Extraction; Path Extraction
Application	Deep Learning VCA (Smart Motion Detection, Smart VCA) Smart Motion Detection (Five-window video motion detection, People detection, Vehicle detection, Time filter), Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, Unattended object detection, Missing object detection, Face detection, Crowd detection
Application available with license	Running detection, Parking Violation Detection, Restricted Zone Detection Support for more analytic applications and free trial, please visit vivotek.com/video-analytics

Solution Integration

Applications	Trend Micro IoT Security (3-year free trial)

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, PIR detection, recording notification, SD card life expectancy, shock detection, system boot, video loss, video restoration
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

General

Connectors	RJ-45 cable connector for 10/100/1000 Mbps PoE network connection Audio input Audio output Digital input Digital output (DO+: 12V, 50mA; DO-: 30V, Open Drain, 1A) AC 24V power input
LED Indicator	System power and status indicator
Power Input	AC 24V, IEEE 802.3at PoE Class 4 (Simultaneous Power Redundancy Supported)
Power Consumption	PoE: Max. 18.81 W AC 24V: Max. 26.4 W
Dimensions	308 x 167 x 130 mm
Weight	2.4 kg
Certifications	EMC: CE (EN 55032 Class A, EN 55035), UKCA (BS EN 55032: 2015 +A11: 2020, BS EN 55035: 2017 +A11: 2020), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A), ICES-003 Issue 7; Safety: UL (UL 62368-1), CB (IEC/EN 62368-1 including annex Y, IEC/EN 62471); Environment: IK10 (IEC 60529), IP66 (IEC 60529), IP6K9K (ISO 20653); IA: BIS (IS 13252), BSMI (EMC: CNS 15936, Safety: CNS 15598-1)
Operating Temperature	Starting Temperature: -30°C ~ 55°C (-22°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 Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above

Included Accessories

Packing Contents	Quick installation guide, alignment sticker, screw pack, junction box

DORI (EN 62676-4 Standard)

Detect (25PPM/ 8PPF)	73.3 m (240.5 ft)
Observe (63PPM/ 19PPF)	29.3 m (96.2 ft)
Recognize (125PPM/ 38PPF)	14.7 m (48.1 ft)
Identify (250PPM/ 76PPF)	7.3 m (24 ft)

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