



S Series

MS9321-EHV

20MP Multi-sensor Panoramic
Network Camera



Technical Specifications

System Information

CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	4 GB

Camera Specifications

Image Sensor	1/2.7" Progressive CMOS
Max. Resolution	7680x2560 (20MP)
Lens Type	Fixed-focal
Focal Length	f = 3.8mm
Aperture	F1.8
Iris Type	Fixed iris
Field of View	180° (Horizontal) 65° (Vertical) 180° (Diagonal)
Shutter Time	1/5 sec. to 1/32,000
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut filter	Yes
Illuminators	Built-in IR illuminators up to 30 meters with Smart IR II, IR LED*4
Minimum Illumination	0.095 lux @ F1.8 (Color) 0.005 lux @ F1.8 (B/W) 0 lux with IR illumination on
Pan Range	±90°
Tilt Range	90°
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)

Storage	Seamless Recording to MicroSD/SDHC/SDXC card (256GB capacity supported)
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Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 7680x2560
Maximum Streams	4 Simultaneous Streams
S/N Ratio	61.5 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, video orientation (flip, mirror), day/night settings
	Illuminators illuminators, anti-overexposure
	Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM, DIS, scene mode (auto, deblur)
	Exposure BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control, iris mode), AE speed adjustment, WDR
	Privacy mask Scheduled profile settings

Audio	
Audio Capability	Two-way Audio
Compression	G.726, G.711
Interface	External microphone input External line output

Network	
Users	Live viewing for up to 10 clients
Security	Access list, digest authentication, HTTPS, IEEE 802.1x, password protection, 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, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2, 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

Solution Integration	
VADP Package	Deep Learning VCA (Smart Motion Detection, Smart VCA);, Stratocast, Trend Micro IoT Security (3-year free trial)
Smart Motion Detection	Five-window video motion detection, people detection
Smart VCA	Smart VCA (Default, license embedded) Intrusion detection, loitering detection, line crossing detection, unattended object detection, missing object detection, face detection, crowd detection, running detection

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, system boot
Event Action	Event notification via digital output, email, HTTP, FTP, NAS server, SD card, push notification File upload via email, HTTP, FTP, NAS server, SD card

General	
Connectors	RJ-45 cable connector for 10/100/1000 Mbps Network/PoE connection Audio input Audio output AC 24V power input Digital input Digital output
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. 24.65W AC 24V: Max. 24 W
Dimensions	308 x 167 x 130 mm
Weight	2.4 kg
Certifications	EMC CE (EN55032, EN55024 Class A), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A) Safety UL (UL60950-1), CB (IEC 60950-1) Environment IK10 (IEC 62262), IP66 (IEC 60529) IA BIS (IS 13252)
Operating Temperature	Start Temperature: -30°C ~ 60°C (-22°F ~ 140°F) Working temperature: -40°C ~ 65°C (-40°F ~ 149°F) (IR off) -40°C ~ 60°C (-40°F ~ 140°F) (IR on)
Humidity	90% 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