



V Series

MS9390-HV

8MP Multi-sensor Panoramic
Network Camera



Technical Specifications

System Information

CPU	Multimedia SoC (System-on-Chip)
Flash	128 MB
RAM	1 GB

Camera Specifications

Image Sensor	1/2.7" Progressive CMOS
Max. Resolution	4512x1728 (8MP)
Lens Type	Fixed-focal
Focal Length	f = 2.8 mm
Aperture	F1.2
Iris Type	Fixed iris
Field of View	180° (Horizontal) 50° (Vertical) 180° (Diagonal)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut filter	Yes
Illuminators	Built-in IR illuminators up to 20 meters with Smart IR , IR LED*8
Minimum Illumination	0.05 lux @ F1.2 (Color) 0.01 lux @ F1.6 (B/W) 0 lux with IR illumination on
Tilt Range	20°
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1TB capacity supported) and recording to network-attached storage (NAS)

Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 4512x1728
Maximum Streams	4 video streams (Up to 9 configurable profiles)
S/N Ratio	46 dB
Dynamic Range	120dB
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	One-way Audio
Compression	G.711, G.726
Interface	Built-in microphone
Effective Range	5 meters

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 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 required) Intrusion detection, loitering detection, line crossing detection, unattended object detection, missing object detection, face detection, crowd detection, running detection *Please access https://license.vivotek.com/ to get the free trial license.

Alarm and Event

Event Trigger	Audio detection, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, shock detection, system boot
Event Action	Event notification via 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 Mbps Network/PoE connection
LED Indicator	System power and status indicator
Power Input	IEEE 802.3at PoE Class 4
Power Consumption	Max: 15.2 W/6.9 W (IR on/off)
Dimensions	165 x 112 x 119 mm
Weight	1.2 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)
Operating Temperature	Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -20°C ~ 55°C (-4°F ~ 131°F) (IR off) -20°C ~ 50°C (-4°F ~ 122°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, desiccant bag, screw driver, screws pack, sunshield
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