V series MS9390-HV
Multi-Sensor Dome Network Camera

The MS9390-HV is the latest and most efficient panoramic network camera offered in surveillance. Through the use of two wide angle lenses, electronic image stitching*, and high-resolution sensors, the 8MP 180° MS9390-HV is in a new class all by itself. With its unique dual-sensor design, the MS9390-HV is able to maintain a higher vertical FOV than most traditional multi-sensor panoramic cameras using 4 sensors. This higher vertical FOV enables users to have more video coverage, thereby enabling them to capture more evidence below the point of camera installation. The MS9390-HV goes even further with WDR Pro technology for high contrast environments, 30fps at full resolution, and 180° IR illuminators up to 20 meters, ensuring users with 24/7 comprehensive panoramic video surveillance.

In addition to its panoramic image quality, the MS9390-HV is also simple to install. It has been designed to be directly wall mounted, including 20° of internal tilt adjustment on the lenses to get the exact angle desired. With an IP66 weather proof and IK10 vandal proof housing, the MS9390-HV can be installed both indoors and outdoors, and handle most of what mother nature has to offer. The only accessory available for MS9390-HV is a sunshield, which is included with the camera.

To top it all off, the MS9390-HV utilizes H.265 compression and Smart Stream III technology. This combination enables users to greatly save on storage and bandwidth consumption usually associated with high resolution surveillance.

*Electronic image stitching is best at 3~20m distances. Seamless stitching is improbable below 3m.

Key Features

- 8-Megapixel Resolution
- H.265 Compression Technology
- 180° Panoramic View
- 30 fps @ 4512x1728
- Video Alignment For a Seamless Image
- Smart Stream III to Optimize Bandwidth Efficiency
- Built-in IR Illuminators, Effective up to 20 Meters
- SNV (Supreme Night Visibility)
- WDR Pro for Unparalleled Visibility in High Contrast Environments
- Built-in Microphone
- Built-in MicroSD/SDHC/SDXC Card Slot
- Weather-proof IP66-rated and Vandal-proof IK10-rated Housing
- Trend Micro IoT Security within Standard Warranty Period

8MP Panoramic View

Panoramic IR Illumination

Technical Specifications

Model	MS9390-HV

System Information

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

Camera Features

Image Sensor	1/2.7" Progressive CMOS
Maximum Resolution	4512x1728
Lens Type	Fixed-focal
Focal Length	f = 2.8 mm
Aperture	F1.2
Field of View	180° (Horizontal) 68° (Vertical)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.05 Lux @ F1.2 (Color) 0.01 Lux @ F1.2 (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)
IR Illuminators	Built-in IR illuminators, effective up to 20 meters with Smart IR
On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording

Video

Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 4512x1728
Maximum Streams	4 simultaneous streams
S/N Ratio	46 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and bitrate, Configurable video cropping for bandwidth saving; Smart Stream III
Image Settings	Time stamp, text overlay, flip & mirror, scheduled profile settings, configurable brightness/contrast/saturation/sharpness, white balance, exposure control, gain, backlight compensation, privacy masks

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
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, ARP, SSL, TLS, CIFS/SMB
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	Supported, specification available at www.onvif.org

Intelligent Video

Video Motion Detection	Five-window video motion detection

Alarm and Event

Alarm Triggers	Motion detection, manual trigger, periodical trigger, system boot, recording notification, camera tampering detection, audio detection, MicroSD card life expectancy
Alarm Events	Event notification using HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server and MicroSD card

General

Connectors	RJ-45 for Network/PoE connection
LED Indicator	System power and status indicator
Power Input	IEEE 802.3at PoE Class 4
Power Consumption	Max. 15.2 W
Dimensions	165 x 112 x 97 mm (w/o sunshield) 165 x 119 x 100 mm (w/ sunshield)
Weight	1,207 g
Casing	IP66, IK10
Safety Certifications	CE, LVD, FCC Class A, VCCI, C-Tick, UL
Operating Temperature	Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -20°C ~ 50°C (-4°F ~ 122°F)
Humidity	90%
Warranty	36 months

System Requirements

Operating System	Microsoft Windows 8/7
Web Browser	Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above Quicktime: 7 or above

Technical Specifications

Included Packaging

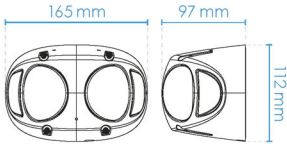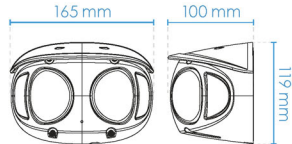|	
Others	Quick installation guide, warranty card, alignment sticker, desiccant bag, screw driver, screws pack, sunshield

Dimensions

• w/o sunshield

165 mm 97 mm 112 mm

• w/ sunshield

165 mm 100 mm 119 mm

Compatible Accessories

Mounting Kits

AM-312
Pole Mount