







8MP • 180° Panoramic View • 20M IR • WDR Pro •

SNV • Smart Stream III • IP66 • IK10

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. Under 3m is too close to the camera, and seemless stitching is unlikely.

### **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)
- $\cdot$  3D Noise Reduction for Low-light Conditions
- · Built-in Microphone
- · Built-in MicroSD/SDHC/SDXC Card Slot
- Weather-proof IP66-rated and Vandal-proof IK10-rated Housing



8MP Panoramic View



Panoramic IR Illumination

# **Technical Specifications**

Model	MS9390-HV	Interface	Built-in Microphone
System Information		Effective Range	5 meters
CPU	Multimedia SoC (System-on-Chip)	Network	
Flash	128MB	Users	Live viewing for up to 10 clients
RAM	1GB	De la colo	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPP0E, CoS, QoS, SNMP, 802.1X, NTCIP, ARP, SSL, TLS, CIFS/SMB
Camera Features		Protocols	
Image Sensor	1/2.7" Progressive CMOS	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.
Maximum Resolution	4512x1728		
Lens Type	Fixed-focal	ONVIF	Supported, specification available at
Focal Length	f = 2.8 mm		www.onvif.org
Aperture	F1.2	Intelligent Video	
Field of View	180° (Horizontal) 68° (Vertical)	Video Motion Detection	Five-window video motion detection
Shutter Time	1/5 sec. to 1/32,000 sec.	Alarm and Event	
WDR Technology	WDR Pro	Alarm Triggers	Motion detection, manual trigger, periodical trigger, system boot, recording notification, camera tampering detection, audio detection, MicroSD card life expectancy
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	Alarm Events	Event notification using HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server and MicroSD card
Tilt Range	20°	General	
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in,12x built in)	Connectors	RJ-45 for Network/PoE connection
IR Illuminators	Built-in IR illuminators, effective up to 20 meters with Smart IR	LED Indicator	System power and status indicator
	Slot type: MicroSD/SDHC/SDXC card slot	Power Input  Power Consumption	IEEE 802.3at PoE Class 4
On-board Storage	Seamless Recording		Max. 15.2 W
Video		Dimensions	165 x 112 x 97 mm (w/o sunshield) 165 x 119 x 100 mm (w/ sunshield)
Compression	H.265, H.264, MJPEG	Weight	1,207 g
Maximum Frame Rate	30 fps @ 4512x1728	Casing	IP66, IK10
Maximum Streams	4 simultaneous streams	Safety Certifications	CE, LVD, FCC Class A, VCCI, C-Tick, UL
S/N Ratio	46 dB		Starting Temperature:
Dynamic Range	91 dB	Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F) Working Temperature: -20°C ~ 50°C (-4°F ~ 122°F)
Video Streaming	Adjustable resolution, quality and bitrate, Configurable video cropping for bandwidth saving; Smart Stream III	Humidity	90%
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	Warranty	36 months
		System Requirements	
		Operating System	Microsoft Windows 8/7
Audio		Web Browser	Internet Explorer 10/11
Audio Capability	One-way Audio	Other Players	VLC: 1.1.11 or above Quicktime: 7 or above
Compression	G.711, G.726		

## **Technical Specifications**

### **Included Packaging**

Others

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

#### **Dimensions**

• w/o sunshield

w/ sunshield





