





# 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 highresolution 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.

## **Key Features**

- 8-Megapixel Resolution
- H.265 Compression Technology
- 180° Panoramic View
- · 30 fps @ 4512x1728
- $\cdot\,$  Video Alignment For a Seamless Image
- $\cdot\,$  Smart Stream III to Optimize Bandwidth Efficiency
- $\cdot\,$  Built-in IR Illuminators, Effective up to 20 Meters
- · SNV (Supreme Night Visibility)
- 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



MP Panoramic View



Panoramic IR Illumination

# Technical Specifications

Model	M\$9390-HV
System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	128MB
RAM	lGB
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	91 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

Network       Users       Li       Protocols       N	we viewing for up to 10 clients 2v4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ TP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DNS, PPPOE, CoS, QoS, SNMP, 802.1X, TCIP, ARP, SSL, TLS, CIFS/SMB 0 Base-T/100 BaseTX Ethernet (RJ-45) t is highly recommended to use standard AT5e & CAT6 cables which are compliant vith the 3P/ETL standard.
Users Li Protocols D N	2v4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ TP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, IDNS, PPPOE, CoS, QoS, SNMP, 802.1X, TCIP, ARP, SSL, TLS, CIFS/SMB 0 Base-T/100 BaseTX Ethernet (RJ-45) t is highly recommended to use standard CATSe & CAT6 cables which are compliant
Protocols D N	2v4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ TP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, IDNS, PPPoE, CoS, QoS, SNMP, 802.1X, TCIP, ARP, SSL, TLS, CIFS/SMB 0 Base-T/100 BaseTX Ethernet (RJ-45) t is highly recommended to use standard CATSe & CAT6 cables which are compliant
Protocols R D N	TP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, IDNS, PPPOE, CoS, QoS, SNMP, 802.1X, ITCIP, ARP, SSL, TLS, CIFS/SMB 0 Base-T/100 BaseTX Ethernet (RJ-45) t is highly recommended to use standard CAT5e & CAT6 cables which are compliant
10	t is highly recommended to use standard CAT5e & CAT6 cables which are compliant
Interface C	
	upported, specification available at www.onvif.org
Intelligent Video	
Video Motion Detection Fi	ve-window video motion detection
Alarm and Event	
Alarm Triggers na	Notion detection, manual trigger, eriodical trigger, system boot, recording otification, camera tampering detection, udio detection, MicroSD card life xpectancy
Alarm Events Fi	vent notification using HTTP, SMTP, FTP, NAS erver and MicroSD card ile upload via HTTP, SMTP, FTP, NAS server nd MicroSD card
General	
Connectors R.	J-45 for Network/PoE connection
LED Indicator Sy	ystem power and status indicator
Power Input IE	EE 802.3at PoE Class 4
Power Consumption	1ax. 15.2 W
	65 x 112 x 97 mm (w/o sunshield) 65 x 119 x 100 mm (w/ sunshield)
Weight 1,	207 g
Casing IP	266, IK10
Safety Certifications C	E, LVD, FCC Class A, VCCI, C-Tick, UL
Operating Temperature	tarting Temperature: 0°C ~ 50°C (14°F ~ 122°F) /orking Temperature: 20°C ~ 50°C (-4°F ~ 122°F)
Humidity 90	0%
System Requirements	
Operating System N	licrosoft Windows 8/7
Web Browser In	ternet Explorer 10/11
()thar Playars	LC: 1.1.11 or above Quicktime: 7 or above

## **Technical Specifications**

### Included Packaging

Others

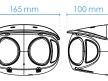
Quick installation guide, warranty card, alignment sticker, desiccant bag, screw driver, screws pack, sunshield

#### **Dimensions**

• w/o sunshield

w/ sunshield







All specifications are subject to change without notice. Copyright © VIVOTEK INC. All rights reserved. Ver. 5