



**V Series**

# MA9322-EHTVL

20MP Multi-Directional Panoramic Camera



## Technical Specifications

System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	1GB
RAM	4 GB

Camera Specifications	
Image Sensor	1/2.7" Progressive CMOS
Max. Resolution	2688x1920 (5MP) x 4
Lens Type	Motorized, Vari-focal, Remote Focus
Focal Length	f = 3.7 ~ 7.7mm
Aperture	F1.9 ~ F2.9
Iris Type	Fixed Iris
Field of View	88.6° ~ 40.1° (Horizontal) 61.2° ~ 28.6° (Vertical) 115.5° ~ 49.5° (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 illuminator up to 30 meters with Smart IR, IR LED*8
Minimum Illumination	0.035 lux @ F1.9 (Color) 0.005 lux @ F1.9 (B/W) 0 lux with IR illumination on
Tilt Range	0° ~ 105° each lens
Rotation Range	±90° each lens
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)

Storage	Seamless Recording to MicroSD/SDHC/SDXC card (1T capacity supported) and recording to network-attached storage (NAS)
Built-in Installation Aids	Remote Focus, Remote Zoom, pixel calculator

Video	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	15 fps @ (2688x1920) x 4 30 fps @ (2560x1440) x 4
Maximum Streams	2 streams each channel (up to total 13 profiles)
S/N Ratio	60 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control
Image Settings	<p>General settings video title and time stamp overlay, video orientation (flip, mirror), day/night settings</p> <p>Illuminators illuminators, anti-overexposure</p> <p>Image settings white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM</p> <p>Exposure BLC, HLC, exposure control (exposure level, iris adjustment, exposure time, gain control), AE speed adjustment, WDR</p> <p>Privacy mask pixel calculator Scheduled profile settings</p>

Audio	
Audio Capability	Two-Way Audio (full duplex)
Compression	G.711, G.726
Interface	Built-in microphone External microphone input* External line output* * Requires AO-006 cable.
Effective Range	5 meters

Network	
Users	Live viewing for up to 20 clients
Security	Access list, digest authentication, HTTPS, IEEE 802.1x, Password protection, user access log, user account management
Protocols	802.1X, ARP, CIFS/SMB, DDNS, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IGMP, IPv4, IPv6, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS, 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.

Solution Integration	
Video Motion Detection	Motion Detection (Five-window video motion detection)

Alarm and Event	
Event Trigger	Audio detection*, camera tampering detection, digital input*, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, system boot * Requires AO-006 cable.
Event Action	Event notification via audio clip*, camera link, digital output, email, HTTP, FTP, NAS server, SD card File upload via email, HTTP, FTP, NAS server, SD card * Requires AO-006 cable.

General	
Connectors	RJ-45 cable connector for 10/100/1000 Mbps network/PoE connection Audio line input* Audio line output* AC 24V power input* Digital input* Digital output (DO+: 12V, 50mA; DO-: 30V, Open Drain, 1A)* * Requires AO-006 cable.
LED Indicator	System power and status indicator
Power Input	AC 24V*, IEEE 802.3 at PoE Class 4 * Requires AO-006 cable.
Power Consumption	Max 25W
Dimensions	ø 275 x 118 mm
Weight	2.7 kg
Certifications	EMC CE (EN 55032 Class A, EN 55024), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A)  UKCA, ICES-003 issue 7 Safety UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22, IEC/EN 62471)
Operating Temperature	Environment IK10 (IEC 62262), IP66 (IEC 60529), NEMA (NEMA 250 Type 4X)  Start Temperature: -30°C ~ 50°C (-22°F ~ 122°F) Working temperature: -40°C ~ 50°C (-40°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

DORI (EN 62676-4 Standard)	
Detection (25PPM/ 8PPF)	Wide: 74.0 m (242.6 ft) Tele: 153.9 m (505.0 ft)
Observation (63PPM/ 19PPF)	Wide: 29.3 m (96.3 ft) Tele: 61.1m (200.4 ft)

Recognition (125PPM/ 38PPF)

Wide: 14.8 m (48.5 ft)  
Tele: 30.8m (101.0 ft)

Identification (250PPM/ 76PPF)

Wide: 7.4 m (24.2 ft)  
Tele: 15.4m (50.5 ft)