



CC9390-HV

180° Panoramic Network Camera

8MP • WDR Pro • $\pm 20^\circ$ Tilt Lens • IP66 • IK10

Technical Specifications

System Information

Model	CC9390-HV
CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	2 GB

Camera Features

Image Sensor	1/1.8" Progressive CMOS
Max. Resolution	3840x2160 (8MP)
Lens Type	Fixed-focal
Focal Length	f = 2.53mm
Aperture	F2.4
Iris Type	Fixed Iris
Field of View	180° (Horizontal) 103° (Vertical) 180° (Diagonal)
Shutter Time	1 sec. to 1/100,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut Filter	Yes
Minimum Illumination	0.08 lux (Color, 30IRE) 0.005 lux (B/W 30IRE)
Tilt Range	$\pm 20^\circ$
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
Storage	Seamless Recording to MicroSD/SDHC/SDXC card and recording to network-attached storage (NAS)
Built-in Installation Aids	Pixel calculator



Video

Video Compression	H.265/H.264/MJPEG
Maximum Frame Rate	30 fps @ 3840x2160
Maximum Streams	3 video streams (Up to 8 configurable profiles)
S/N Ratio	62 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constrained bit rate control, Smart Stream III
Image Settings	General settings: video settings, video orientation (flip, mirror, rotation), day/night settings, smart image; Overlay settings; Illuminators: illuminators, anti-overexposure; Image settings: white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR, HLM, scene mode (auto); Exposure: exposure strategy (measurement window, metering mode); exposure control (exposure level, exposure time, gain control), image sharpener for motion blur, AE speed adjustment, WDR; Privacy mask; Pixel calculator; Scheduled profile settings

Audio

Audio Capability	One-way Audio
Audio Compression	MPEG-2 AAC-LC, G.711, G.726
Audio Interface	Built-in microphone
Effective Range	5 meters

Network

Users	Live viewing for up to 10 clients
Security	Access list, Account block, Audit log, Configurable password strength protection, CSRF protection, Digest authentication, HTTPS, IEEE 802.1x, Secure boot, Session timeout, 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/SFTP, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTCIP, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2/1.3, UDP, UPnP
Interface	10Base-T/100 BaseTX Ethernet (RJ-45) *It is highly recommended to use standard Cat. 5e & Cat. 6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S, T supported, specification available at www.onvif.org

AI Analytics

Compute Capability	SoC with built-in hardware deep learning accelerator
Vision Object Analytics	Object Detection: People, Vehicle (4-wheeled, 2-wheeled); Attribute Extraction: People (gender, clothing color, bag, hat), Vehicle (bike, bus, car, motorcycle, truck, color); Re-Search Extraction; Path Extraction
Application	Deep Learning VCA (Smart Motion Detection, Smart VCA) Smart Motion Detection (Five-window video motion detection, People detection, Vehicle detection, Time filter), Smart VCA (Intrusion detection, Loitering detection, Line crossing detection, Unattended object detection, Missing object detection, Face detection, Crowd detection)
Application available with license	Running detection, Parking Violation Detection, Restricted Zone Detection Support for more analytic applications and free trial, please visit vivotek.com/video-analytics

Solution Integration

Applications	Trend Micro IoT Security (3-year free trial)
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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, video loss, video restoration
Event Action	Event notification via audio clip, camera link, email, HTTP, FTP/SFTP, NAS server, SD card File upload via email, HTTP, FTP/SFTP, 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 802.3af PoE Class 0
Power Consumption	MAX. 9.96W



Dimensions	115 x 65 x 59 mm
Weight	338 g
Certifications	EMC: CE (EN 55032 Class A, EN 55035), UKCA (BS EN 55032: 2015 +A11: 2020, BS EN 55035: 2017 +A11: 2020), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A), ICES-003 Issue 7; Safety: UL (UL 62368-1), CB (IEC/EN 62368-1 including annex Y, IEC/EN 62471); Environment: IK10 (IEC 60529), IP66 (IEC 60529); IA: BIS (IS 13252), BSMI (EMC: CNS 15936, Safety: CNS 15598-1)
Operating Temperature	Starting Temperature: -10°C ~ 55°C (14°F ~ 131°F) Working Temperature: -30°C ~ 55°C (-22°F ~ 131°F)
Humidity	98% 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, mounting bracket, tilt bracket, screw pack
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DORI (EN 62676-4 Standard)

Detect (25PPM/ 8PPF)	51.5 m (168.9 ft)
Observe (63PPM/ 19PPF)	20.6 m (67.5 ft)
Recognize (125PPM/ 38PPF)	10.3 m (33.7 ft)
Identify (250PPM/ 76PPF)	5.1 m (16.7 ft)

