



# FE9391-EHV-v2

## Fisheye Network Camera

12MP • H.265 • 360° Panomorph View • 20M IR • Smart IR II • Smart Stream III • WDR Pro • IP66 • IK10 • NEMA 4X

### Technical Specifications

#### System Information

Model	FE9391-EHV-v2
CPU	Multimedia SoC (System-on-Chip)
Flash	8 GB
RAM	2 GB

#### Camera Features

Image Sensor	1/2.3" Progressive CMOS in 4056x3040
Max. Resolution	2944x2944
Lens Type	Fixed-focal
Focal Length	f = 1.22 mm
Aperture	F2.0
Iris Type	Fixed Iris
Field of View	180° (Horizontal) 180° (Vertical) 180° (Diagonal)
Shutter Time	1/5 sec. to 1/32,000 sec.
WDR Technology	WDR Pro
Day/Night	Yes
Removable IR-cut Filter	Yes
IR Illuminators	Built-in IR illuminators, effective up to 20 meters with Smart IR II, IR LED*4
Minimum Illumination	0.1 lux @ F2.0 (Color) <0.005 lux @ F2.0 (B/W) 0 lux with IR illumination on
Pan/Tilt/Zoom Functionalities	ePTZ: 12x digital zoom (12x on IE plug-in)
Storage	Seamless Recording to MicroSD/SDHC/SDXC card and recording to network-attached storage (NAS)



Built-in Installation Aids	Pixel calculator
<b>Video</b>	
Video Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 2944x2944 (WDR off) 20 fps @ 2944x2944 (WDR on)
Maximum Streams	3 video streams (up to 8 configurable profiles)
S/N Ratio	56.9 dB
Dynamic Range	120 dB
Video Streaming	Adjustable resolution, quality and constant bit rate control, Smart Stream III
Image Settings	General settings: video title and time stamp overlay, video orientation (flip, mirror), day / night settings; anti-overexposure; Image settings: white balance, image adjustment (brightness, contrast, saturation, sharpness, gamma curve), defog, 3DNR; Exposure: BLC, exposure control, AE speed adjustment, WDR; Privacy mask; Scheduled profile settings; Pixel calculator
Display Mode	Client Dewarping Ceiling mounted: 1O Fisheye, 1P Panoramic, 2P Two Panoramics, 1R One Region, 4R Four Regions, 1O3R One Fisheye Three Regions, 1O8R One Fisheye Eight Regions Wall mounted: 1O Fisheye, 1P Panoramic, 1R One Region, 4R Four Regions, 1P2R One Panoramic Two Regions, 1P3R One Panoramic Three Regions, 1O3R, One Fisheye Three Regions Local Dewarping Ceiling mounted: 1O Fisheye, 1P Panoramic, 2P Two Panoramics, 1R One Region, 4R Four Regions Wall mounted: 1O Fisheye, 1P Panoramic, 1R One Region, 4R Four Regions
<b>Audio</b>	
Audio Capability	Two-way audio (Full duplex)
Audio Compression	G.711, G.726, MPEG-2 AAC-LC
Audio Interface	Built-in microphone External microphone input (FE9391-EHV-v2 (IO Cable), P/N 100273700G version only) External line output (FE9391-EHV-v2 (IO Cable), P/N 100273700G version only)
Effective Range	5 meters
<b>Network</b>	
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, HTTP, HTTPS, ICMP, IGMPv3, IPv4, IPv6, NTP, PPPoE, QoS (CoS/DSCP), RTSP/RTP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2, UDP, UPnP
Interface	10 Base-T/100 Base-TX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Profile G, S, T supported, specification available at <a href="http://www.onvif.org">www.onvif.org</a>
<b>AI Analytics</b>	
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, 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 <a href="http://vivotek.com/video-analytics">vivotek.com/video-analytics</a>
AI-powered Image Enhancement	Smart IR III
<b>Solution Integration</b>	
Applications	Stratocast, Trend Micro IoT Security (3-year free trial)
<b>Alarm and Event</b>	



Event Trigger	Audio detection, camera tampering detection, cybersecurity events (brute force attack event, cyberattack event, quarantine event), digital input, manual trigger, motion detection, periodical trigger, recording notification, SD card life expectancy, shock detection, system boot
Event Action	Event notification via audio clip*, digital output, email, HTTP, FTP, NAS server, SD card File upload via email, HTTP, FTP, NAS server, SD card

### General

Connectors	RJ-45 cable connector for 10/100 Mbps PoE network connection *FE9391-EHV-v 2 (IO Cable), p/n 100273700G version (DC 12V power input, audio line input, audio line output, digital input*1, digital output*1)
LED Indicator	System power and status indicator
Power Input	IEEE 802.3at PoE Class 4
Power Consumption	Max. 22.5 W/9.55 W (IR on/off)
Dimensions	ø 150 x 68.2 mm
Weight	701 g
Certifications	EMC: CE (EN 55032 Class A, EN 55024), FCC (FCC Part 15 Subpart B Class A), VCCI (VCCI-CISPR 32 Class A); Safety: UL (UL 62368-1), CB (IEC/EN 62368-1, IEC/EN 60950-22); Environment: IK10 (IEC 62262), IP66 (IEC 60529), NEMA (NEMA 250 Type 4X); IA: BIS (IS 13252)
Operating Temperature	Starting Temperature: -20°C ~ 50°C (-4°F ~ 122°F) Working Temperature: -40°C ~ 55°C (-40°F ~ 131°F) (IR off) -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, screw pack
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### DORI (EN 62676-4 Standard)

Detect (25PPM/ 8PPF)	31.5 m (103.3 ft)
Observe (63PPM/ 19PPF)	12.5 m (41 ft)
Recognize (125PPM/ 38PPF)	6.3 m (20.7 ft)
Identify (250PPM/ 76PPF)	3.1 m (10.2 ft)

