



FE9191



FE9391-EV

Fisheye Network Camera



IMMERVISION
enables®

H.265 • 12MP • 360° Panomorph View • WDR Pro • PPTZ •
360° 20M IR • Smart IR II • Smart Stream III • IP66 • IK10 • EN50155

VIVOTEK's FE9191 and FE9391-EV are the next generation of market-leading 12-Megapixel 360° panomorph network cameras, both featuring a detailed 12-Megapixel CMOS sensor which guarantees superb image quality. Utilizing the latest in panomorph lens technology for 180° panoramic view (wall mount) or 360° surround view (ceiling/wall mount) with zero blind spots, these cameras are able to provide comprehensive coverage of open areas such as airports, shopping malls, parking lots, retail stores, offices and more.

The FE9191 and FE9391-EV (IP66, IK10 rated) are the successors to FE8191 and FE8391-V in the VIVOTEK 360° surround view family. Both new models are equipped with a removable IR-cut filter and WDR Pro technology, allowing the cameras to maintain optimal image quality around the clock for unparalleled visibility under high-contrast lighting environments. 3D Noise Reduction technology enables the cameras to capture clear, polished video under low-light conditions. The FE9191 and FE9391-EV's

use of the latest in panomorph lens technology has led to much improved image quality with a huge drop in edge distortion. The FE9391-EV is also updated with the latest in IR illumination, VIVOTEK's Smart IR II technology with Adaptive IR. Adaptive IR enables the FE9391-EV's IR illuminators to adjust to the scene together or individually to provide the best possible IR image, reducing glaring hotspots and/or underexposed dark spots.

The FE9191 and FE9391-EV also now include a new wave of advanced Video Content Analyses (VCA) - Smart VCA, including intrusion detection, crowd detection, and loitering detection. These features are the next steps in elevating surveillance cameras from image capturing devices to advanced notification instruments, allowing users to see more in smarter ways.

Key Features

- 12-Megapixel CMOS Sensor
- Real-time H.265, H.264 and MJPEG Compression (Triple Codec)
- 30 fps @ 2816x2816
- 1.29 mm Panomorph Lens for 180° Panoramic View and 360° Surround View
- Removable IR-cut Filter for Day & Night Function
- 360° 20M IR with Smart IR II (FE9391-EV)
- WDR Pro (120dB) to Provide Extreme Visibility in High Light Contrast Scenes
- Panoramic PTZ Function with Speed Dome Camera for Monitoring Detailed Regional View
- Trend Micro IoT Security within Standard Warranty Period
- Smart Motion Detection to Reduce False Alarms
- Smart VCA (Intrusion Detection, Crowd Detection, Loitering Detection)
- ePTZ for Data Efficiency
- Support Client Side Dewarping
- Pixel Calculator for Image Clarity Measurement
- Vandal-proof IK10-rated and Weather-proof IP66-rated Housing (FE9391-EV)



With Smart IR



With Smart IR II (FE9391-EV)

Technical Specifications

Model	FE9191: 12MP 360° Panomorph Camera FE9391-EV: 12MP 360° Panomorph Camera, 360° 20M IR, IP66, IK10, EN50155		
System Information			
CPU	Multimedia SoC (System-on-Chip)		
Flash	256 MB		
RAM	1 GB		
Camera Features			
Image Sensor	1/1.7" Progressive CMOS in 4000x3000		
Maximum Resolution	2816x2816		
Lens Type	Fixed-focal		
Focal Length	f = 1.29 mm		
Aperture	F2.2		
Field of View	180° (Horizontal) 180° (Vertical) 180° (Diagonal)		
Shutter Time	1/5 sec. to 1/16,000 sec.		
WDR Technology	WDR Pro		
Day/Night	Removable IR-cut filter for day & night function		
Minimum Illumination	0.18 Lux @ F2.2 (Color) <0.001 Lux @ F2.2 (B/W)		
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		
Video			
Compression	H.265, H.264, MJPEG		
Maximum Frame Rate	30 fps @ 2816x2816		
Maximum Streams	4 simultaneous streams		
S/N Ratio	42.9 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; Illuminators: illuminators, 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		
		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	
Display Mode		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	
Audio			
Audio Capability	Two-way Audio (full duplex)		
Compression	G.711, G.726		
Interface	Built-in microphone External microphone input External line output		
Effective Range	5 meters		
Network			
Users	Live viewing for up to 10 clients		
Security	Access list, digest authentication, HTTPS, IEEE 802.1x, password protection, 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/RTMP/RTCP, SMTP, SNMP, SSL, TCP/IP, TLS 1.2, UDP, UPnP		
Interface	10 Base-T/100 Base-TX/1000 Base-T 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 www.onvif.org		
Intelligent Video			
Smart Motion Detection	Five-window video motion detection, people detection, time filter		
Smart VCA	Intrusion detection, loitering detection, line crossing detection, unattended object detection, missing object detection, crowd detection, running detection		
VADP Package	Deep Learning VCA (Smart Motion Detection, Smart VCA), Trend Micro IoT Security (3-year free trial)		
Alarm and Event			
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		

Technical Specifications

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 10/100/1000 Mbps PoE network connection Audio input Audio output DC 12V power input Digital input Digital output
LED Indicator	System power and status indicator
Power Input	FE9191: PoE 802.3af Class 2, DC 12V FE9391-EV: PoE 802.3af Class 4, DC 12V
Power Consumption	FE9191: Max. 6.49 W FE9391-EV: Max. 25 W
Dimensions	FE9191: Ø 139 x 39 mm FE9391-EV: Ø 160 x mm
Weight	FE9191: 345 g FE9391-EV: 846 g
Certifications	FE9191: EMC: CE (EN55032, EN55024 Class B), FCC (FCC Part 15 Subpart B Class B), RCM (AS/NZS CISPR 32 Class B), VCCI (VCCI-CISPR 32 Class B); Safety: UL (UL 60950-1) FE9391-EV: EMC: CE (EN55032, EN55024 Class A, EN50121-4, EN50155), FCC (FCC Part 15 Subpart B Class A), RCM (AS/NZS CISPR 32 Class A), VCCI (VCCI-CISPR 32 Class A); Safety: UL (UL 60950-1); Environment: IK10 (IEC 62262), IP66 (IEC 60529)
Operating Temperature	FE9191: Starting Temperature: 0°C ~ 50°C (32°F ~ 122°F) Working Temperature: -10°C ~ 50°C (14°F ~ 122°F) FE9391-EV: Starting Temperature: -25°C ~ 50°C (-13°F ~ 122°F) Working Temperature: -40°C ~ 55°C (-40°F ~ 131°F) (IR off) Working Temperature: -40°C ~ 50°C (-40°F ~ 122°F) (IR on)

Humidity	90%
Warranty	36 months

System Requirements

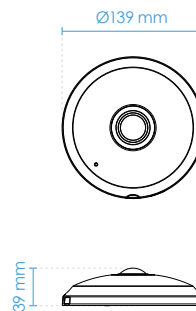
Operating System	Microsoft Windows 10/8/7 Mac 10.12 (Chrome only)
Web Browser	Chrome 58.0 or above Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above

Included Accessories

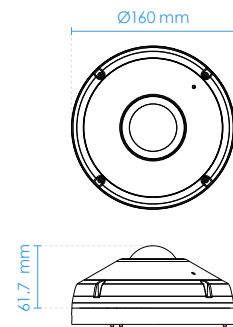
Packing Contents	Quick installation guide, alignment sticker, desiccant bag, screw driver, screws pack, mounting bracket, I/O cable * For USA and Canada markets, the I/O cable is not included.
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Dimensions

• FE9191



• FE9391-EV



Compatible Accessories

Mounting Kits

<p>AM-114 Pendant Head (Outdoor)</p>	<p>AM-118 Pendant Head (Indoor)</p>	<p>AM-116/AM-117 Pendant pipe (20cm/40cm)</p>	<p>AM-514 Adapting Plate for 4" Electrical Box & Single Gang Box (for FE9191)</p>
<p>AM-520 Mounting Adapter (3/4" NPT Female Connector & 1-1/2" PS Male Connector)</p>			