



Fisheye Network Camera





H.265 • 12MP • 360° Panomorph View • PPTZ • 360° 20M IR • Smart IR II • 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/floor 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 IRcut filter and WDR Enhancement 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 will also be the first to include a new wave of advanced Video Content Analyses (VCA). Available in 4Q 2017, these will include better object detection in order to reduce false alarms. Through advanced human detection and crowd detection features the FE9191 and FE9391-EV 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)
- · 20 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 Enhancement for Improved Visibility in Extremely Bright and Dark Environments
- · 3D Noise Reduction for Low-light Conditions
- · ePTZ for Data Efficiency
- · Support Client Side Dewarping
- · Pixel Calculator for Image Clarity Measurement
- · 802.3at PoE Compliant

- Vandal-proof IK10-rated and Weather-proof IP66-rated Housing (FE9391-EV)
- · Built-in MicroSD/SDHC/SDXC Card Slot for On-board Storage





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	Interface
System Information		Effective Range
CPU	Multimedia SoC (System-on-Chip)	Network
Flash	256MB	Users
RAM	1GB	
Camera Features		Protocols
Image Sensor	1/1.7" Progressive CMOS in 4000x3000	
Maximum Resolution	2816x2816	Interface
Lens Type	Fixed-focal	
Focal Length	f = 1.29 mm	ONVIF
Aperture	F2.2	Intelligent Video
Field of View	180° (horizontal) 180° (vertical)	Video Motion Detection
Ch. Ha Tina	180° (diagonal)	Alarm and Event
Shutter Time	1/5 sec. to 1/32,000 sec.	Alarm Triggers
WDR Technology	WDR Enhanced	
Day/Night	Removable IR-cut filter for day & night function	Alarm Events
Minimum Illumination	0.18 Lux @ F2.2 (Color) <0.001 Lux @ F2.2 (B/W)	
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)	General
IR Illuminators	FE9391-EV: Built-in IR illuminators, effective up to 20 meters with Smart IR II	Connectors
On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording	1551 11 1
Video		LED Indicator
Compression	H.265, H.264, MJPEG	Power Input
Maximum Frame Rate	20 fps @ 2816x2816	Power Consumption
Maximum Streams	4 Simultaneous Streams	
S/N Ratio	42.9 dB	Dimensions
Dynamic Range	61.8 dB	Weight
Video Streaming	Adjustable resolution, quality and bitrate, configurable video cropping for bandwidth saving, Smart Stream II	Casing
Image Settings	Adjustable image size, quality and bit rate, time stamp, text overlay, flip & mirror, scheduled profile settings, configurable brightness/contrast/saturation/sharpness, pixel calculator, 3D-Noise reduction, white balance, exposure control, gain, backlight compensation, privacy masks, defog, pixel calculator	Safety Certifications
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
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPOE, CoS, QoS, SNMP, 802.1X ,SSL/ TLS, ARP, NTCIP, CIFS/SMB
Interface	10 Base-T/100 BaseTX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
ONVIF	Supported, specification available at www. onvif.org
Intelligent Video	
Video Motion Detection	Five-window video motion detection
Alarm and Event	
Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection, audio detection
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server and MicroSD card
General	
Connectors	RJ-45 for Network/PoE connection Audio input *1 Audio output *1 DC 12V Power input Digital input *1 Digital ouput *1
LED Indicator	System power and status indicator
Power Input	FE9191: DC12V, PoE 802.3af Class 2 FE9391-EV: DC12V, PoE 802.3at Class 4
Power Consumption	FE9191: Max. 6.49 W FE9391-EV: Max. 25 W
Dimensions	FE9191: Ø 139 x 39 mm FE9391-EV: Ø 160 x 61.7 mm
Weight	FE9191: 345 g FE9391-EV: 846 g
Casing	FE9391-EV: IP66, IK10
Safety Certifications	FE9191: CE, LVD, VCCI, C-Tick, UL, FCC Class B FE9391-EV: CE, LVD, VCCI, C-Tick, UL, FCC Class A, EN50155

## **Technical Specifications**

FF9191·

Starting Temperature: 0°C ~ 50°C (32°F ~ 122°F) Working Temperature: -10°C ~ 50°C (14°F ~ 122°F) FE9391-EV (DC12V): Starting Temperature:

Operating Temperature

Starting Temperature:  $-25^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-13^{\circ}\text{F} \sim 122^{\circ}\text{F})$  Working Temperature:  $-40^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-40^{\circ}\text{F} \sim 122^{\circ}\text{F})$  FE9391-EV (PoE): Starting Temperature:  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-4^{\circ}\text{F} \sim 122^{\circ}\text{F})$  Working Temperature:  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C} \ (-4^{\circ}\text{F} \sim 122^{\circ}\text{F})$ 

Humidity 90%

Warranty 36 months

#### **System Requirements**

Operating System Microsoft Windows 8/7

Web Browser Internet Explorer 10/11

Other Players VLC: 1.1.11 or above Quicktime: 7 or above

#### **Included Accessories**

Others

Quick installation guide, warranty card, alignment sticker, desiccant bag, screw driver, screw pack, mounting bracket, I/ O cable (Cable not included in North America)

#### **Dimensions**

• FE9191

• FE9391-EV





### **Compatible Accessories**

#### **Mounting Kits**



AM-520 Dome adapter



AM-116/AM-117 Pendant pipe (20cm/40cm)







AM-514 Adapter ring (for FE9191)

