



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 early 2018, these will include better object detection in order to reduce false alarms. Through advanced Video Content Analyses functions including 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	Built-in microphone External microphone input External line output
System Information		Effective Range	5 meters
CPU	Multimedia SoC (System-on-Chip)	Network	
Flash	256MB	Users	Live viewing for up to 10 clients
RAM	1GB	Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/ RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPP0E, CoS, QoS, SNMP, 802.1X ,SSL/ TLS, ARP, NTCIP, CIFS/SMB
Camera Features			
Image Sensor	1/1.7" Progressive CMOS in 4000x3000	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.
Maximum Resolution	2816x2816		
Lens Type	Fixed-focal		
Focal Length	f = 1.29 mm	ONVIF	Supported, specification available at www. onvif.org
Aperture	F2.2	Intelligent Video	
Field of View	180° (horizontal) 180° (vertical) 180° (diagonal)	Video Motion Detection	Five-window video motion detection
Shutter Time	1/5 sec. to 1/16.000 sec.	Alarm and Event	
WDR Technology	WDR Enhanced	Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection, audio detection, MicroSD card life expectancy
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)	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server
Pan/Tilt/Zoom Functionalities	ePTZ: 12x digital zoom (12x on IE plug-in)		and MicroSD card
	FE9391-EV:	General	
IR Illuminators	Built-in IR illuminators, effective up to 20 meters with Smart IR II	Connectors	RJ-45 for Network/PoE connection Audio input *1 Audio output *1 DC 12V Power input Digital input *1 Digital ouput *1
On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording		
Video		LED Indicator	System power and status indicator
Compression	H.265, H.264, MJPEG	Power Input	FE9191: DC12V, PoE 802.3af Class 2
Maximum Frame Rate	20 fps @ 2816x2816	Tower impor	FE9391-EV: DC12V, PoE 802.3at Class 4
Maximum Streams	4 Simultaneous Streams	Power Consumption	FE9191: Max. 6.49 W FE9391-EV: Max. 25 W
S/N Ratio	42.9 dB	Dimensions	FE9191: Ø 139 x 37 mm FE9391-EV: Ø 160 x 62 mm
Dynamic Range	61.8 dB		
Video Streaming	Adjustable resolution, quality and bitrate, configurable video cropping for bandwidth saving, Smart Stream II	Weight	FE9191: 345 g FE9391-EV: 846 g
		Casing	FE9391-EV: IP66, IK10
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	Safety Certifications	FE9191: CE, LVD, VCCI, C-Tick, UL, FCC Class B FE9391-EV: CE, LVD, VCCI, C-Tick, UL, FCC Class A, EN50155
		Operating Temperature	FE9191: Starting Temperature: 0°C ~ 50°C (32°F ~ 122°F)
Audio			Working Temperature: -10°C ~ 50°C (14°F ~ 122°F) FE9391-EV:
Audio Capability	Two-way audio		Starting Temperature: -25°C ~ 50°C (-13°F ~ 122°F) Working Temperature: -40°C ~ 50°C (-40°F ~ 122°F)
Compression	G.711, G.726		

Technical Specifications

Humidity	90%	Dimensions	
Warranty	36 months		
System Requirements	6	• FE9191	• FE9391-EV
Operating System	Microsoft Windows 8/7	Ø139 mm	Ø160 mm
Web Browser	Internet Explorer 10/11		
Other Players	VLC: 1.1.11 or above Quicktime: 7 or above		
Included Accessories	s		
Others	Quick installation guide, warranty card, alignment sticker, desiccant bag, screw driver, screws pack, mounting bracket, I/ O cable (Cable not included in North America)	33 98	28 mm

Compatible Accessories

