





2MP · 30 fps · Stylish Design · Easy Installation · Smart Stream II · SNV · 3DNR · WDR Enhanced · Defog · VIVOCloud

VIVOTEK's FD8166A is an ultra-mini fixed dome network camera with a tiny diameter of only 90 mm. Due to its compact and intelligent design and affordable price, the FD8166A is an ideal indoor surveillance solution that suits a wide variety of applications, such as retail, office, or boutiques, or to monitor elevators or other public areas.

Equipped with a 2 megapixel Full HD sensor enabling viewing resolution of 1920x1080 at 30 fps, the FD8166A is capable of capturing high-definition images whether in high contrast or low light environments by deploying WDR and SNV technology. When combined with VIVOTEK's Smart Stream II technology, the FD8166A can reduce both bandwidth and storage consumption by up to 50%* while retaining the same superb image quality as a Full HD camera.

As an all-in-one camera, the FD8166A is designed for easy installation and equipped with Power over Ethernet (PoE) functionality, making setup both quick and simple. The FD8166A is also completely compatible with VIVOTEK's free 32-channel recording software. With all of these benefits and more, the FD8166A is a sure bet to fulfill your surveillance needs.

* Depending on scene being monitored.









- · 2-Megapixel CMOS Sensor
- · 30 fps @ 1920x1080
- · Real-time H.264, MJPEG Compression (Dual Codec)
- · SNV (Supreme Night Visibility) for Low Light Conditions
- · Smart Stream II to Optimize Bandwidth Efficiency
- · WDR Enhancement for Unparalleled Visibility in Extremely Bright and Dark Environments
- · 3D Noise Reduction
- · Built-in IEEE 802.3af Compliant PoE
- · Built-in MicroSD/SDHC/SDXC Card Slot for On-board Storage
- Defog
- · Compact and Stylish Design
- · Easy Installation
- · VIVOCloud Mobile App





Ultra-mini Size

brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defo	Model	FD8166A
1/2.8" Progressive CMOS 1920x1080 (2MP) Fixed-focal f = 2.8 mm F1.8 113" (Horizontal) 63" (Vertical) 136" (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45" 33" ~ 90" ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defi	System Information	
256MB 1/2.8" Progressive CMOS 1920x1080 (2MP) Fixed-focal f = 2.8 mm F1.8 113" (Horizontal) 63" (Vertical) 136" (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45" 33" ~ 90" ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined	CPU	Multimedia SoC (System-on-Chip)
1/2.8" Progressive CMOS 1920x1080 (2MP) Fixed-focal f = 2.8 mm F1.8 113" (Horizontal) 63" (Vertical) 136" (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45" 33" ~ 90" ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deform	Flash	128MB
1920x1080 (2MP) Fixed-focal f = 2.8 mm F1.8 113' (Horizontal) 63' (Vertical) 136' (Olagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45' 33' ~ 90' ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configur. brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined.	RAM	256MB
1920x1080 (2MP) Fixed-focal f = 2.8 mm F1.8 113' (Horizontal) 63' (Vertical) 136' (Olagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45' 33' ~ 90' ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configur. brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined.	Camera Features	
Fixed-focal f = 2.8 mm F1.8 113' (Horizontal) 63' (Vertical) 136' (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45' 33' ~ 90' ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configuring brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined.	Image Sensor	1/2.8" Progressive CMOS
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F1.8 113' (Horizontal) 63' (Vertical) 136' (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45' 33' ~ 90' ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deform	Lens Type	Fixed-focal
113° (Horizontal) 63° (Vertical) 136° (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45° 33° ~ 90° ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, definitions of the state of the stat	Focal Length	f = 2.8 mm
63° (Vertical) 136' (Diagonal) 1/5 sec. to 1/32000 sec. WDR Enhanced 0.05 Lux @ F1.8 45° 33° ~ 90° ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined	Aperture	F1.8
WDR Enhanced 0.05 Lux @ F1.8 45° 33' ~ 90' ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configur. brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined	Field of View	63° (Vertical)
0.05 Lux @ F1.8 45° 33° ~ 90° ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configur- brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defe	Shutter Time	1/5 sec. to 1/32000 sec.
45° 33° ~ 90° ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deformations.	WDR Technology	WDR Enhanced
93° ~ 90° ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deformations.	Minimum Illumination	0.05 Lux @ F1.8
ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defined	Pan Range	45°
48x digital zoom (4x on IE plug-in, 12x built-in) Slot type: MicroSD/SDHC/SDXC card slot Seamless Recording H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, definitions and the settings of the setting of the settin	Tilt Range	33° ~ 90°
H.264 & MJPEG 30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, definitions and the state of the settings of the setting of the settin	Pan/Tilt/Zoom Functionalities	
30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configurabifightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defer	On-board Storage	
30 fps @ 1920x1080 In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configurabifightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defer	Video	
In both compression 4 simultaneous streams 47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defe	Compression	H.264 & MJPEG
47 dB 70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configure brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defe	Maximum Frame Rate	
70 dB Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configurabifghtness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deformance of the settings.	Maximum Streams	4 simultaneous streams
Adjustable resolution, quality and bitrate Smart Stream II Time stamp, text overlay, flip & mirror; Configurabightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deformance of the settings.	S/N Ratio	
Smart Stream II Time stamp, text overlay, flip & mirror; Configuring brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, deformation, deformat	Dynamic Range	70 dB
brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defo	Video Streaming	
One was and in	Image Settings	Time stamp, text overlay, flip & mirror; Configura brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, 3D noise reduction, video rotation, defo
0	Audio	
One-way audio	Audio Capability	One-way audio
G.711, G		One-way
Built-in microphone		

5 meters

standard.

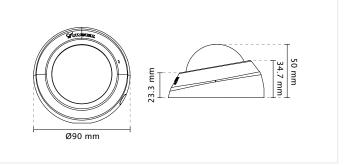
Live viewing for up to 10 clients

IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, SSL, TLS, CIFS/SMB

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

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 HTTP, SMTP, FTP, NAS server and MicroSD card File upload via HTTP, SMTP, FTP, NAS server and MicroSD card
General	
Connectors	RJ-45 cable connector for 10/100Mpbs Network/PoE connection Digital input*1
LED Indicator	System power and status indicator
Power Input	IEEE 802.3af PoE Class 1
Power Consumption	Max. 3 W
Dimensions	Ø 90 x 50 mm
Weight	144 g
Safety Certifications	CE, LVD, FCC Class B, VCCI, C-Tick
Operating Temperature	Starting Temperature: 0°C ~ 50°C (32°F ~ 122°F) Working Temperature: -10°C ~ 50°C (14°F ~ 122°F)
Humidity	90%
Warranty	24 months
System Requirements	
Operating System	Microsoft Windows 8/7
Web Browser	Mozilla Firefox 7~10 (streaming only) Internet Explorer 10/11
Other Players	VLC: 1.1.11 or above Quicktime: 7 or above
Included Accessories	
Others	Quick installation guide, warranty card, screws pack, focus kit

Dimensions



Cloud-based Solution

Effective Range

Network Users

Protocols

Interface

