





## People Counting · 3D Depth Technology · High Accuracy · Bi-Directional

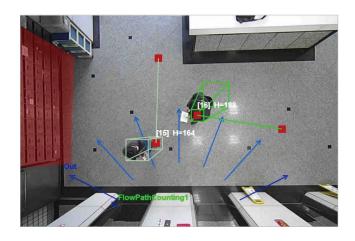
VIVOTEK's SC8131 is a stereo counting camera, armed with VIVOTEK's 3D Depth Technology and video surveillance functionality, providing 2-Megapixel real-time precise tracking video and high accuracy counting up to 98%. The stereo camera generates data information such as people counting, flow path tracking that applied to in store layout improvement, promotional evaluation, staff planning, and the control of service times, providing business owners key metrics to effectively make operating decisions and increase ROI.

Mounted over a store entrance, the dual-lens camera enables the stereo vision to accurately track the 3D positions of objects moving across the field of view. Adults or children, single individuals or groups, can be distinguished from non-human objects such as shopping carts and strollers, providing accurate counting analytics even at the busiest and most congested times.

Furthermore, seamless integration with VCA (video content analysis) reports in VIVOTEK's VAST, the metadata is displayed in comprehensive graphs and line charts, making the SC8131 ideal for retail analytics. The computation of height disparity data is embedded in the stereo camera, instead of sending video streams to a dedicated computer running a separate analytics software. The counting solution saves bandwidth and reduces the risk of data loss in the event of network or power disruption.

### **Features**

- · VIVOTEK's 3D Depth Technology
- · High Accuracy Rate up to 98%
- · Local Storage Data for Counting Report
- · Easy Installation and Configuration
- · Seamless Counting with VAST CMS



### **Benefits**

### **Precision**

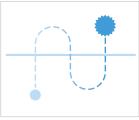
- · VIVOTEK's 3D Depth Technology
- $\cdot$  Up to 98% counting accuracy rate
- Real-time data (system/counting/daily reports; time/region reports)



### **Efficiency**

- · Object tracking path
- · Filter carts, children and strollers
- $\cdot$  Bi-directional counting on definable flow
- · Detection of U-turns to avoid double counting
- $\cdot$  Not Influenced by shadows, reflections or glare conditions





Counting: 0

Counting: 1

### **Video Security**

- · Video surveillance (viewing and recording)
- · Multiple video streaming
- · Remote management
- $\cdot$  Seamless integration with VAST CMS

### **Easy Installation**

- · Discreet ceiling mount
- $\cdot$  Compatible with 4"x2" electrical box

Model	SC8131(F2): f = 2 mm SC8131(F4): f = 4 mm
	SC8131(F6): f = 6 mm
System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	256 MB
RAM	512 MB
Camera Features	
Image Sensor	1/3" Progressive CMOS
Maximum Frame Rate	15 fps @ 2560x960
On-board Storage	MicroSD/SDHC/SDXC card slot
Video	
Compression	H.264 & MJPEG
Maximum Streams	3 simultaneous streams
Report Format	JSON/XML/CSV
General	
Connectors	RJ-45 for Network/PoE connection DI/DO USB 2.0 (Only as a power bank, not for data transmission) MicroSD Slot
LED Indicator	System power and status indicator
Power Input	IEEE 802.3af PoE Class 3
Power Consumption	PoE: Max.12.95W USB: Max. 300mA
Dimensions	160 (D) x 70 (W) x 38 (H) mm
Weight	396 g

Safety Certifications	CE, LVD, FCC Class B, VCCI, C-Tick, UL		
Operating Temperature	Starting Temperature:  0°C ~ 40°C (32°F ~ 104°F)  Working Temperature:  -10°C ~ 40°C (14°F ~ 104°F)		
Warranty	36 months		
Installation			
Installation Height	SC8131(F2): 240~500 cm (7.9~16.4') SC8131(F4): 500~800 cm (16.4~26.2') SC8131(F6): 800~1000 cm (26.2~32.8')		
<b>System Requirements</b>			
Operating System	Microsoft Windows 8/7/Vista/XP/2000		
Web Browser	Mozilla Firefox 7~43 (streaming only) Internet Explorer 9/10/11		
Other Players	VLC: 1.1.11 or above QuickTime: 7 or above		
<b>Included Accessories</b>			
Others	Quick installation guide, mounting bracket, screw pack		
Dimensions			
38 mm	160 mm		





# **ND9312**

# H.265 8CH Embedded NVR

# H.265 • 4K Display • Fisheye Dewarp • Web Plugin Free • VIVOCloud • Trend Micro IoT Security • ONVIF

- · H.265 Compression Technology
- · Up to 8 Channel IP Camera Input
- · HDMI Video Output up to 4K Resolution
- · 1 x 3.5" SATA HDD
- · Up to 8MP Camera Live View and Playback
- · Trend Micro IoT Security
- · Multiple Browsers Supported: IE, Chrome, and Firefox on both Windows & macOS
- · Live and Playback Fisheye Dewarp
- · VIVOCloud App & Portal for 24/7 Viewing
- · Compact Size with Fanless Design





## **Highlight Features**

### **Better Video Quality with Lower Bandwidth**

With H.265 standard and VIVOTEK's Smart Stream technology, VIVOTEK NVR is not only able to provide the high quality video, also save the usage of network bandwidth and recording capacity more than regular H.264 standard.



### 4K IP Camera Video Input and 4K Local Video Output

Supporting 4K IP camera video input and 4K local video output, VI-VOTEK's NVR can provide users extra high definition video resolution ensuring they will never miss a single detail in both video monitoring and recording.



4K Resolution

### **Fisheye Dewarp**

VIVOTEK's NVR offers both LiveView and Playback modes for one fisheye network camera simultaneously. They also provide multiple fisheye de-warp display modes, including 10, 1P, 1R, 103R, 108R, allowing users to monitor any angle, or to enjoy precise detailed images for a total surveillance experience.



### **Chrome & Firefox Now Supported**

Support for plug-in free web browsers enables users with direct web viewing/setting on IE, and now also on Chrome and Firefox web browsers, for both Windows and macOS.







### **Highlight Features**

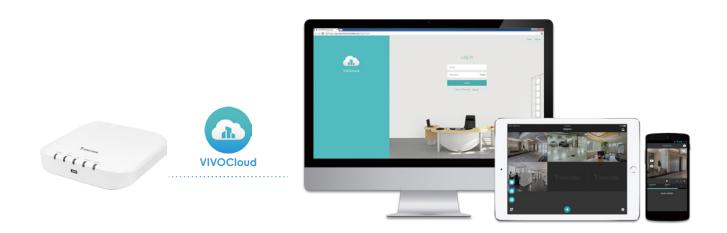
### **Trend Micro IoT Security**

In collaboration with industry-leading cybersecurity software partners, VIVOTEK focuses on making network security products and software that meet industry protocols as well as constantly developing shields to increase your protection from various cyberattacks. By choosing VIVOTEK solutions, users can experience not only high-quality products, but also safer network environments.



### VIVOCIoud App & Portal for 24/7 Viewing

The free VIVOCloud app makes surveillance lightweight and portable, ensuring efficient operation. The latest P2P technology makes remote access even more convenient, by simply scanning the QR-code and installing the app, users can view live streams and play recorded clips with the intuitive interface anytime, anywhere. Armed with the Push Notification function, users will directly get an alert message on their Android/iOS mobile device and directly playback the video to check forany suspicious activity.



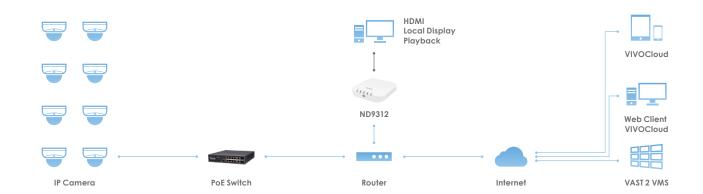
# **Highlight Features**

### Easy Connection with IP Cameras and Quick Auto Setup

In order to provide users a highly intuitive experience, it allows for the IP cameras' positions and connects to the NVR without entering long passphrases. Auto Setup Wizard then conveniently sets up a centralized configuration to reduce connection times to within 2 minutes.



# **System Structure**



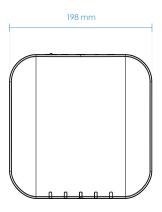
Model	ND9312
Device	
os	Embedded Linux
CPU	ARM Processor
Flash	256 MB
RAM	1GB
Watchdog	Hardware + Software
Power Restoration	System restart automatically after power recovery
Local Display	
Live View Display	8 Channels Multi-layout display: 1x1, 3V, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6

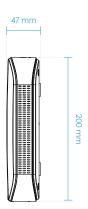
Video Output	HDMI x1
Display Resolution	3840x2160,1920x1080, 1280x720
Camera Position	Change the viewcell position on the live view screens
Stream Application	Constant\Auto adaptive stream
Monitor Enhancement	OSD display (NVR), OSD display (camera), camera information, remote I/O control, event notification, aspect ratio
Fisheye Dewarp	10, 1P, 1R, 103R, 108R
PTZ Operation	Direction control, home, iris, preset, patrol (group), PiP control
Video	
Video Format	H.265, H.264, MJPEG
Graphic Decoder	Hardware decoding
Decoding Resolution	Up to 3840x2160
Decoding Capability	3840x2160 @ 30 fps (1CH) 1920x1080 @ 120 fps (4CH) 1280x720 @ 240 fps (8CH)
Audio	
Audio Format	G.711, G.726
Audio In/Out	HDMI with audio out
Record	
Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)
Recording Stream	Single
Recording Throughput	48 Mbps
Recording Mode	Continuous, schedule, manual, event, activity adaptive streaming
Recording Setting	Recycle (unit: day)
Watermark	Supported
Storage & Backup	
HDD Devices	Internal x1 (3.5")
HDD Max. Capacity	* Please refer to HDD supported list on the VIVOTEK website.
Disk Management	Create, format and remove disk HDD S.M.A.R.T.
Video Clip Export	USB dongle (FAT format)
Schedule Backup	FTP
Playback	
Playback Display	4 Channels Multi-layout display: 1x1,2x2,1P+3,1V+3
Playback Control	Regular (play, pause, stop), rewind, next /previous frame, speed control, calendar, event, timeline, timeline scale, thumbnail (storyboard)

Video Search	By calendar, date/time, alarm
Thumbnail Explorer (Storyboard)	Listing the thumbnail of recorded video (Max. 2 CH)
Snapshot	JPEG
Video Clip Export	EXE
Network	
Ethernet	10/100Mbps Ethernet (RJ-45) x 1
Video Throughput for Remote Client	40 Mbps
Protocols	IPv4, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, SMTP, FTP, DHCP, NTP, DNS, DDNS, IP Filter
External Interface	
USB	USB 2.0 x 2 (front x1, back x1)
Audio	HDMI with audio out
System	
Camera Integration	ONVIF Profile S
Event	Motion detection, PIR detection, tampering detection, camera DI/DO, camera disconnected, disk failure, disk full
Event Action	Record, email (text/snapshot), FTP, buzzer, ePTZ control (go to preset), camera DO, send to CMS, VIVOCloud APP notification
User Management	User level: administrator, regular user
Log	System, recording, user, error
Date&Time	Time zone, manual, automatic sync NTP, daylight saving time
Language	Czech, English, French, German, Italian, Japanese, Korean, Portuguese, Polish, Russian, Spanish, Simplified Chinese, Traditional Chinese
Advance Features	
Trend Micro IoT Security	Supported
Remote Client	
Software AP	Shepherd, VAST 2
Mobile/Tablet App	iViewer (Android & iOS)
Web Browser	Internet Explorer 10 (32 bit) or later / Windows Chrome v68.0.3 & Firefox v61.02 or later / Windows & macOS
VIVOCloud	Supported
General	
Power Input	DC 12V 3A
Power Consumption	Max. 15W
Dimensions	198 (W) x 200 (D) x 47(H) mm
Weight	530 g (Without HDD)
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)

Humidity	0~95%	
Safety Certifications	CE, LVD, FCC, VCCI, C-Tick, UL	
Warranty	12 months	

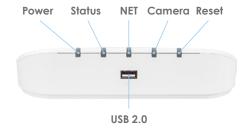
# **Dimensions**





# **Mechanical Information**





### **Back View**



# **Ordering Information**

Model	Description	P/N
		100218100G, US
ND9312		100218110G, EU
	H.265, 8CH, 1HDD NVR	100218120G, UK
		100218130G, AU
		100218140G, JP







# AW-FET-060C-065/100C-120 AW-FGT-100C-120/180C-250 AW-FGT-260C-380

FE Unmanaged PoE Switch



# Extend PoE up to 200M at 10 Mbps • Surge Protection

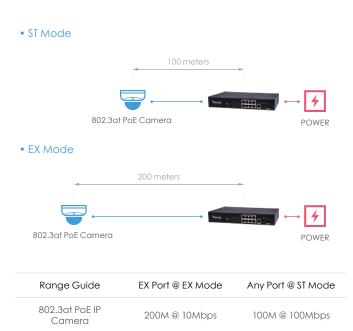
VIVOTEK's FE unmanaged PoE switches quipped with DIP switch provides ST STandard and EX EXtend operational modes. They are specially designed for IP Surveillance applications. Besides standard 802.3af/at PoE functions in ST mode, the EX mode also transmits data & power on one single cable up to 200 meters at 10 Mbps via specific EX ports for long reach PoE IP cameras. VIVOTEK's FE unmanaged PoE switches also feature adding an additional 10% range of input voltage tolerance (280VAC 4hr, 300VAC 1min), lightning surge protection of AC power & PoE

surge protection to prevent damage caused by outside unstable AC power, lightning strikes and power spikes. These unique features help to reduce the costs of replacing damaged units.

VIVOTEK's FE unmanaged PoE switches provide five sub models consisting of 6, 10, 10,18 and 26 ports with a range of power budgets from 60W to 370W for IP surveillance applications.

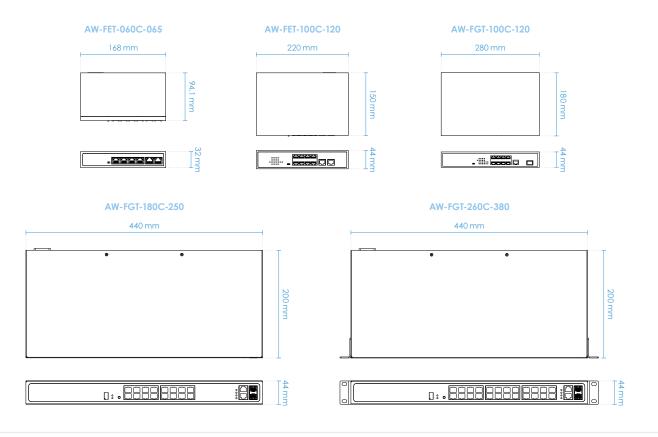
### **Key Features**

- · 15.4W/30W 802.3af/802.3at compliant
- 4KV PoE surge protection each port(AW-FET-060C-065/AW-FET-100C-120/AW-FGT-100C-120)
- 12KV PoE surge protection each port(AW-FGT-180C-250/AW-FGT-260C-380)
- 4KV AC surge protection
- 20% range of input voltage tolerance (280VAC 4Hr, 300VAC 1min)
- · Circuit protection prevents power interference between ports
- · Detects PoE PD (power device) automatically
- ST mode reaches PoE camera up to 100M @ 100Mbps via any PoE port
- EX mode reaches 802.3at camera up to 200M @ 10Mbps via EX PoE ports



Model	AW-FET-060C-065	AW-FET-100C-120	AW-FGT-100C-120	AW-FGT-180C-250	AW-FGT-260C-380
		ton Property			
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short Highlight	4xFE PoE + 2xFE UTP	8xFE PoE + 2xFE UTP	8xFE PoE + 1xGE UTP + 1xGE SFP	16xFE PoE + 2xGE Combo	24xFE PoE + 2xGE Combo
Networking Specficati	ions				
10/100 Mbps RJ45 PoE Port	4	8	8	16	24
10/100 Mbps RJ45 Port	2	2	-	-	-
10/100/1000 Mbps RJ45 Port	-	-	1	-	-
Gigabit SFP Slot	-	-	1	-	-
Gigabit RJ45/SFP Combo Ports	-	-	-	2	2
EX Mode PoE (200M@10Mbps)*	2	2	2	8	8
VLAN Mode	-	Supported	Supported	-	-
Ethernet Performance					
Switching Capacity	1.2 Gbps	2 Gbps	5.6 Gbps	7.2 Gbps	8.8 Gbps
Mac Table	2 K	2 K	4 K	16 K	16 K
Jumbo Frame			1536 Bytes		
Auto-MDI/MDI-X, Auto-Negotiation			Supported		
Power Specifications					
Power Input Voltage			100VAC ~ 240VAC		
Max. PoE Output Power			Per Port 54VDC, Max. 30W		
Total PoE Power Budget	60W	120W	120W	240W	370W
EEE 802.3af/at			Supported		
Power Pin Assignment			1/2(+), 3/6(-)		
PoE PD Auto Detection			Supported		
Surge Protection/Each PoE Port	4 KV	4 KV	4 KV	12 KV	12 KV
Surge Protection for AC Power			4 KV		
General					
Operating Temperature			0°C ~ 50°C (32°F ~ 122°F)		
Storage Temperature			-20°C ~ 70°C (-4°F ~ 158°F)		
Operating Humidity		1	0% ~ 90% non-condensing		
Dimensions	168 (L) x 94.1 (W) x 32 (H) mm	220 (L) x 150 (W) x 44 (H) mm	280 (L) x 180 (W) x 44 (H) mm	440 (L) x 200 (W) x 44 (H) mm	440 (L) × 200 (W) × 4- (H) mm
Weight	0.5 KG	1.2 KG	1.54 KG		





- \* EX Mode:
- 1. CAT.6 or better UTP/STP cable is highly recommended.
  2. Low quality cables will seriously limit the cabling distance.
  3. Ex mode doesn't support with the FE8391-V model.









2MP • SNV • WDR Pro • Smart IR • 30M IR • Smart Stream III • IP66

VIVOTEK's FD9360-H is a H.265 outdoor dome network camera equipped with a 2-Megapixel sensor, enabling resolution of 1920x1080 at 30 fps. Featuring VIVOTEK SNV and WDR Pro technology, the FD9360-H is capable of capturing high-quality imagery in both high contrast and low light environments.

The FD9360-H deploys a 2.8mm/3.6mm lens and is equipped with IR illuminators with a 30-meter effective range for better night visibility. Further, to provide reliable coverage in harsh outdoor environments, the FD9360-H is encased in IP66 and IK10 housing.

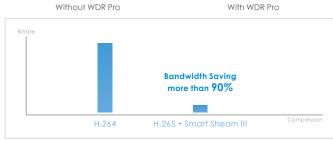
By employing VIVOTEK's Smart Stream III technology and H.265 codec support, the FD9360-H is able to reduce bandwidth usage by up to 90%\* while maintaining supreme image quality. Additionally, the VADP (VIVOTEK Application Development Platform) allows users to customize applications for the everexpanding number of user scenarios in a diversifying surveillance market.

\* Depending on scenes

### **Key Features**

- · H.265 Compression Technology
- · 30 fps @ 1920x1080 (WDR Pro on)
- $\cdot$  SNV (Supreme Night Visibility) for Low Light Conditions
- WDR Pro for Unparalleled Visibility in Extremely Bright and Dark Environments
- $\cdot$  Smart Stream III to Optimize Bandwidth Efficiency
- · Built-in IR Illuminators, Effective up to 30 Meters
- · Trend Micro IoT Security
- Weather-proof IP66-rated and Vandal-proof IK10-rated Housing
- · Built-in MicroSD/SDHC/SDXC Card Slot for On-board Storage



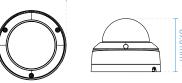


H.265 + Smart Stream III, Ultra-low Bandwidth

Model	FD9360-H (2.8mm) FD9360-H (3.6mm)	Video Streaming	Adjustable resolution, quality and bitrate, Smart Stream III	
System Information			Time stamp, text overlay, flip & mirror;	
CPU	Multimedia SoC (System-on-Chip)	Image Settings	Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight	
Flash	128MB		compensation, privacy masks; Scheduled profile settings, HLC, defog, 3DNR, video rotation	
RAM	256MB	Network		
Camera Features				
Image Sensor	1/2.9" Progressive CMOS	Users	Live viewing for up to 10 clients	
Max. Resolution	1920x1080 (2MP)	Protocols	802.1X, ARP, CIFS/SMB, CoS, DDNS, DHCP, DNS, FTP, HTTP, HTTPS, ICMP, IGMP, IPv4, IPv6, NTP, PPPOE, QoS, RTSP/RTP/RTCP, SMTP,	
Lens Type	Fixed-focal		SNMP, SSL, TCP/IP, TLS, UDP, UPnP	
Focal Length	FD9360-H(2.8mm): f = 2.8 mm FD9360-H(3.6mm): f = 3.6 mm	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.	
Aperture	F2.0		Supported, specification available at	
Iris type	Fixed-iris	ONVIF	www.onvif.org	
	FD9360-H(2.8mm):	Intelligent Video		
Field of View	109° (Horizontal) 59° (Vertical) 129° (Diagonal)	Video Motion Detection	Five-window video motion detectinon	
rield of view	FD9360-H(3.6mm): 81° (Horizontal)	VADP Package	Trend Micro IoT Security, Stratocast	
	44° (Vertical) 95° (Diagonal)	Alarm and Event		
Shutter Time	1/5 sec. to 1/32,000 sec.		Motion detection, periodical trigger, system boot, recording notification, camera tampering detection, manual trigger, SD card life expectancy, cybersecurity events (brute force attack event, cyberattack event, quarantine event)	
WDR Technology	WDR Pro	Alarm Triggers		
Day/Night	Yes			
Removable IR-cut filter	Yes		Event notification via email, HTTP, FTP, NAS server, SD card File upload via email, HTTP, FTP, NAS server, SD card	
IR Illuminators	Built-in IR Illuminators up to 30 meters with Smart IR, IR LED*2	Alarm Events		
Adiation was III, was to add an	0.065 lux @ F2.0 (Color)	General		
Minimum Illumination	<0.005 lux @ F2.0 (B/W) 0 Lux with IR illumination on	Connectors	RJ-45 cable connector for Network 10/100 Mbps PoE connection*1	
Pan Range	350°		•	
Tilt Range	75°	LED Indicator	System power and status indicator	
Rotation Range	350°	Power Input	IEEE 802.3af PoE Class 2	
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)	Power Consumption	Max. 6.49 W (IR on) Max. 3.69 W (IR off)	
	Slot type: MicroSD/SDHC/SDXC card slot	Dimensions	Ø 117.2 x 89.6 mm	
On-board Storage	Seamless Recording	Weight	540 g	
Video		Casing	IP66, IK10(Housing)	
Compression	H.265, H.264, MJPEG	Safety Certifications	CE, FCC Class B, UL, LVD, VCCI, C-Tick	
Maximum Frame Rate	30 fps @ 1920x1080		Starting Temperature:	
Maximum Streams	3 simultaneous streams	Operating Temperature	-10°C ~ 60°C (14°F ~ 140°F) Working Temperature: -30°C ~ 60°C (-22°F ~ 140°F)	
S/N Ratio	FD9360-H(2.8mm): 68dB FD9360-H(3.6mm): 68dB	Humidity	90%	
Dynamic Range	120 dB	Warranty	24 months	

System Requirements		
Operating System	Microsoft Windows 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 QuickTime: 7 or above	
Included Accessories		
Others	Quick installation guide, alignment sticker, screw pack, cable gland	

# Dimensions Ø 117.2 mm



# **Compatible Accessories**

# AM-21A (V02) L-shape Bracket AM-51G Adapting Plate AM-52E Mounting Adapter AM-71B Outdoor Conduit Box