



# NV9311P NV9411P

H.265 8/16-CH Embedded  
Plug & Play Mobile NVR



H.265/H.264 • 8/16CH • 8x PoE • 4K Display • Built-in  
GNSS Receiver • Built-in G-sensor • WiFi & LTE Options

VIVOTEK's NV9311P/NV9411P is a mobile NVR designed for transportation surveillance and provides 1080p 8-CH or 16-CH real-time live display with recording efficiency using advanced H.265 video compression technology. The 8x 802.3at/af PoE ports provide network connections and power to the network cameras. With a rugged EN50155 and MIL-STD-810G compliant design, these mobile NVRs will provide durable and robust protection for all types of vehicle movement.

The NV9311P/NV9411P supports built-in G-sensor and GNSS module to provide information such as G-sensor events and speed events, as well as offering multiple network interfaces such as LAN, WiFi and LTE for different Network connection

requirements. By implementing VIVOTEK's VAST 2 software, GPS tracking locations are instantly displayed on Google Maps. Live videos can also be displayed remotely, allowing for instant access for complete safety control.

When installed in vehicles, the mobile NVR supports system power delay on/off and low voltage protection for better system reliability. The NVR also features a wide range of power inputs, an aluminum die-case chassis, a built-in heater, surge protection, and protection from shock and vibration. With an easy-to-install design as well as simple operation and rich features, the NV9311P/NV9411P provides more possibilities for tomorrow's in-vehicle security applications.

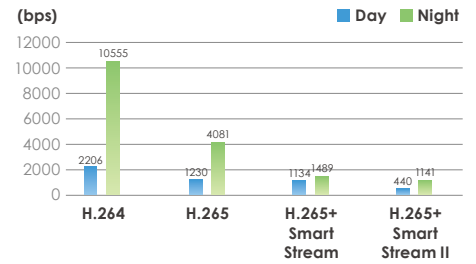
## Key Features

- H.265 1080p 8/16-CH Real-time Live Display
- VIVOTEK's Smart Stream II to Optimize Bandwidth Efficiency
- 4K Display for Clear and Detailed Monitoring
- LAN/Wi-Fi/LTE Multiple Network Connections
- 802.3at/af Compliant PoE port x8 with Management Efficiency
- Built-in G-sensor for Vehicle Vibration Alerts
- GPS Tracking on Google Maps with VAST 2 VMS
- Delay Power Startup/Shutdown and Low Voltage Protection
- Built-in Heater for Extreme Temperatures (-40°C ~ 55°C)
- EN50155/MIL-STD-810G certified to Ensure Reliability during Vehicle Travel

## Highlight Features

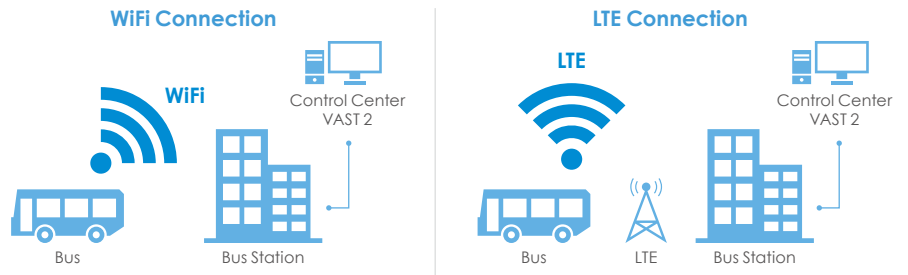
### H.265 1080P Real-time Live Display

Featuring a powerful multi-core SoC to provide 1080p (1920x1080) real-time live display so that users will not miss any information during monitoring, the NVRs also provide H.265 and VIVOTEK's Smart Stream technology to help greatly save recording capacity than regular H.264 systems.



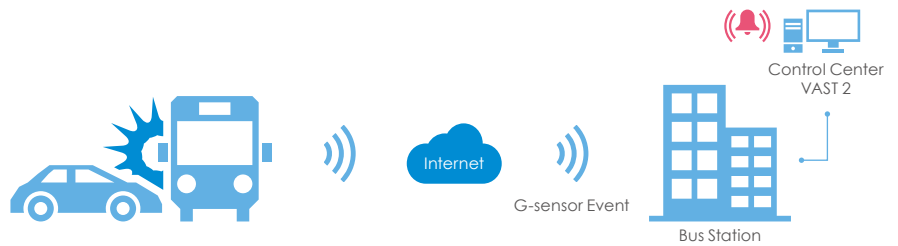
### WiFi and LTE Connection Options

The video stream and data of the Mobile NVRs will be transmitted to the control center remotely for monitoring via WiFi 802.11a/b/g/n/ac or LTE connection.



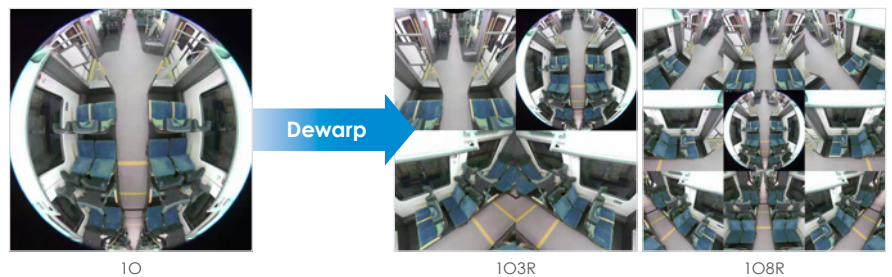
### Built-in G-sensor

Built-in G-sensor for drive safety control. Users can set the sensitivity level and the G-sensor will be triggered in the event of an accident or when extreme vibrations happen.



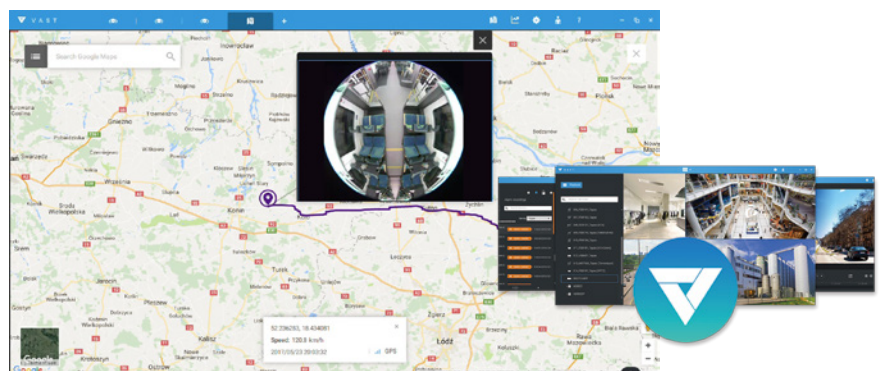
### Fisheye Dewarp

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 1O, 1P, 1R, 1O3R, 1O8R, allowing users to monitor any angle, or to enjoy precise detailed images for a total surveillance experience.



### GPS Tracking on Google Maps

The embedded GNSS receiver supports GPS, GALILEO and GLONASS systems for different area applications. By remotely using VAST 2 VMS, it allows users to have both live video display and GPS tracking from Google Maps.



## Highlight Features

### Rugged Design for Mobile Surveillance

Compliance with transportation standards EN50155 and MIL-STD-810G, which ensures meeting anti-vibration and anti-shock requirements, and operable in tough conditions such as extreme low temperatures, high humidity, and even surge protection.



EN50155



Extreme Weather Proof



MIL-STD 810G

## System Diagram



\*1: Available when Mobile NVR in static IP address.

\*2: Available when Mobile NVR in static IP address or VAST 2 in static IP address (VPN mode).

## Technical Specifications

Model	<b>NV9311P(RJ45)</b> <b>NV9311P(M12)</b> H.265 8-CH Mobile NVR	<b>NV9411P(RJ45)</b> <b>NV9411P(M12)</b> H.265 16-CH Mobile NVR
<b>System</b>		
OS	Embedded Linux	
CPU	ARM processor	
Flash	256MB	
RAM	2GB	
Watchdog	Hardware + Software	
Power Restoration	System restart automatically after power recovery	
<b>Local Display</b>		
Live View Display	8 Channels Multi-layout display: 1x1, 3V, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6	16 Channels Multi-layout display: 1x1, 2x2, 3x3, 1P+3, 2P+3, 1M+5, 1P+6, 3V, 1M+12, 4x4
Video Output	HDMI x1, VGA x1	
Display Resolution	3840x2160, 1920x1080, 1280x720	
Camera Position	Change the view cell position on the Live View screens	
Stream Application	Constant/Auto adaptive stream	

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Monitor Enhancement	OSD display (NVR), OSD display (camera), camera information, remote I/O control, event notification, aspect ratio	
Fisheye Dewarp	1O, 1P, 1R, 1O3R, 1O8R	
PTZ Operation	Direction control, home, iris, preset, patrol (group), PiP control	
<b>Video</b>		
Video Format	H.265, H.264, MJPEG	
Graphics Decoder	Hardware decoding	
Decoding Resolution	H.265: up to 4096x4096 H.264: up to 8192x8192	
Decoding Capability	H.265/H.264: 3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)	
<b>Audio</b>		
Audio Format	G.711, G.726	
Audio In/Out	Mic in (reserved)/Line out x 1	
<b>Record</b>		
Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)	
Recording Stream	Single	
Recording Throughput	64Mbps	
Recording Mode	Continuous, schedule, manual, event, activity adaptive streaming	
Recording Setting	Recycle (unit: day)	
Watermark	Supported	
<b>Storage</b>		
HDD Devices	Internal x1 (2.5" HDD/SSD)	
HDD Max. Capacity	2TB	
Disk Management	Create, format, remove disk HDD S.M.A.R.T.	
SD Card	SD card slot x1 (reserved)	
Backup	Schedule backup to FTP server	
<b>Playback</b>		
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	
<b>Network</b>		

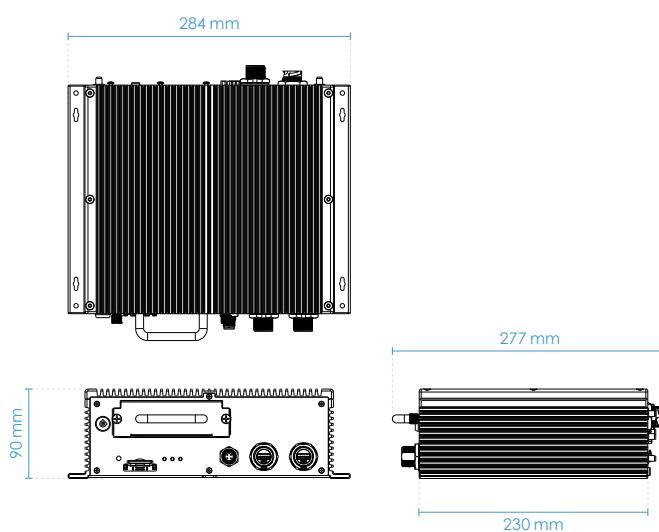
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Ethernet	NV9311P(RJ45)/NV9411P(RJ45): 10/100/1000Mbps Ethernet (RJ-45) x 1 NV9311P(M12)/NV9411P(M12): 10/100/1000Mbps Ethernet (M12) x 1	
Video Throughput for Remote Client	96Mbps	
WiFi	IEEE802.11a/b/g/n/ac 2T2R (optional)	
Mobile Network	LTE (optional)	
PoE	Total Max. 64W NV9311P(RJ45)/NV9411P(RJ45): 802.3at/af compliant PoE ports x 8 (RJ45) NV9311P(M12)/NV9411P(M12): 802.3at/af compliant PoE ports x 8 (M12) * DO NOT suggest connecting any non-PD device with this Mobile NVR PoE port in order to avoid potential risk.	
PoE Management	Supported	
Protocols	IPv4, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, SMTP, FTP, DHCP, NTP, DNS, DDNS, IP Filter	
<b>External Interface</b>		
USB	Front x2 (USB 2.0) Back x1 (USB 2.0)	
Alarm In	8	
Alarm Out	4	
Audio	Mic in (reserved)/Line out x 1	
Antenna Interface	GPS x1, WiFi x2, LTE x2	
RS232	1 port (reserved)	
<b>System</b>		
Camera Integration	ONVIF core spec 2.2 or above (request by project)	
GNSS	GPS/GALILEO/GLONASS supported	
G-sensor	Supported	
Event	Camera: motion detection, PIR detection, tampering detection, DI/DO, disconnection System: storage abnormal, storage full, DI/DO, GPS disconnected, GPS speed, G-sensor	
Event Action	Video recording, email with snapshot, buzzer, PTZ, FTP, DO (camera, system), full screen, send to CMS	
User Management	User level: administrator, regular user	
Log	System, recording, user, error	
Date & Time	Time zone, manual, automatic sync NTP, daylight saving time	
<b>Remote Client</b>		
Software AP	Shepherd, VAST 2	
Mobile/Tablet App	iViewer (Android & iOS)	
Web Browser	Internet Explorer 10 (32 bit) or later/Windows	
<b>General</b>		
Power Input	DC 12V~48V ±10%	
Power Management	Programmable delay on/off relative to ignition or other switched voltage	
Surge Protection	Supported	
Power Consumption	Max. 149 W Without HDD/SSD and PoE: Max. 15 W (Heater off), Max. 60 W (Heater on)	

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Dimensions	284 (W) x 230 (D) x 90 (H) mm	
Weight	4.06 kg (without HDD)	
Operating Temperature	-40°C ~ 55°C (-40°F ~ 131°F)	
Humidity	0 ~ 95%	
Safety Certifications	CE, FCC, VCCI, C-Tick, EN50155, EN61373, UL, CB, EN45545, EN50121-3-2/EN50121-4, MIL-STD-810G	
Warranty	36 months	

### Dimensions



### Rear View



## Ordering Information

Model	Description	P/N
NV9311P (RJ45)	H.265, 8CH, 8 PoE, Mobile NVR, RJ45	100191400G
NV9311P (M12)	H.265, 8CH, 8 PoE, Mobile NVR, M12	100201800G
NV9411P (RJ45)	H.265, 16CH, 8 PoE, Mobile NVR, RJ45	100191500G
NV9411P (M12)	H.265, 16CH, 8 PoE, Mobile NVR, M12	100201900G