ND9441P
ND9541P

H.265 16-CH/32-CH
Embedded Plug & Play NVR

core+ 3.0

H.265/H.264 • 4K Display • 16x PoE Port • 4x HDD • PoE Management • RAID •
Fisheye Dewarp • Cybersecurity • Web Plugin Free

VIVOTEK's ND9441P and ND9541P are H.265 Linux-based standalone NVRs with embedded PoE. Equipped for up to 16-CH/32-CH network cameras, the NVRs both support 16x 802.3 at/af PoE ports which feature PoE Management function to help users troubleshoot the physical layer structure. Both also display the PoE power information, providing for a more convenient and smarter installation.

The ND9441P/ND9541P also supports remote and mobile access via VIVOCloud and iViewer apps for both iOS and Android handheld devices. The VIVOCloud app provides instant push notification and direct video playback functions when triggered by an alarm notification, providing users with a flexible and intelligent NVR for seamless use in small to medium sized video surveillance applications.

With H.265 compression technology and embedded with 4 HDD's providing up to 32TB, the ND9441P/ND9541P offers greater than 30% more recording capacity than H.264 systems. This advancement provides users with more storage space for longer durations of video recording. In addition, the RAID 0/1/5 configurations provide further data security in the rare event of a hard drive failure.

For high-quality and detailed images, the ND9441P/ND9541P supports a maximum network camera resolution of 12-Megapixels. To intelligently manage bandwidth while maintaining this high-quality, the "Auto Adaptive Stream" function will adjust the display resolution automatically for each different layout type. Furthermore, the NVR supports VIVOTEK's fisheye network camera "Fisheye Dewarp" function, which provides multiple de-warping modes in live view and playback, ensuring the correct angle of video view and detailed information for flexible usage. Lastly, to quickly and intuitively find any target event, the ND9441P/ND9541P is equipped with the "Story-Board Search" function, which provides a glimpse of past recordings over an intuitive timeline.

The ND9441P/ND9541P supports HDMI and VGA local video output, so users can control the GUI OSD interface via mouse & keyboard, eliminating the need for a separate PC to search video or playback from the NVR. Additionally, the intuitive and friendly VIVOTEK GUI design gives users a smoother control experience than ever before.

Key Features

- H.265/H.264 Compression Technology
- 4K Display for Clear Monitoring
- Up to 1080p 16CH Decoding Ability
- Smart Search II
- Smart VCA Event Search
- Cybersecurity Management
- Trend Micro IoT Security within Standard Warranty Period

- 802.3at/af Compliant PoE port x 16
- PoE Management
- RAID 0, 1, 5 Supported to Prevent from Recording Data Loss
- Multiple Browsers Supported: IE, Chrome and Firefox on both Windows & macOS
- Supports VCA Counting Solution

Highlight Features

Core+ 3.0

VIVOTEK Core+ 3.0 is the new generation ND series Network Video Recorder firmware, embedded with VIVOTEK's latest technology that including smart search function and cybersecurity management, etc. To upgraded network video recorders ability, be smarter and safer. Core+ 3.0 provides ideal usability and a smoother user experience.

Trend Micro IoT Security & Cybersecurity Management

In collaboration with Trend Micro, VIVOTEK's video recorder is embedded with anti-intrusion software with multi-layer protection, including brute force attack detection, intrusion detection & prevention, and instant damage control. Furthermore, VIVOTEK's video recorder provides cybersecurity management solution. Once event notifications in video recorders have been set up, it will be immediately alerted when cyber attacks occur. Allowing users to receive notifications either automatically or manually, and real-time Cyber Risk Dashboard (VAST 2) to easily identify common types of cyber attacks.

1 Brute Force /
Attack Detection

2 Intrusion Detection
and Prevention

3 Instant Damage Control

VIVOTEK NVRs

Smart Search II

Based on the camera metadata recorded in the Hard Disk Drive, the Network Video Recorder is able to carry out a video analysis search on playback. Users can quickly sort through large amounts of evidence to find precisely what is needed.
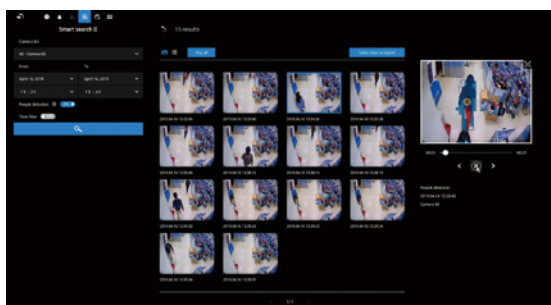
Smart VCA Event Search

VIVOTEK Core+ 3.0 supports alarm management and event search of VIVOTEK's deep-learning video analytic technology, which are Smart VCA, Smart 360 VCA and Smart Motion Detection.
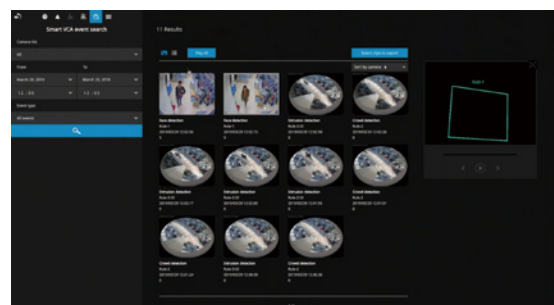
VCA Counting Solution

The NVR supports VIVOTEK's counting cameras and counting data storage. In local display mode, it can display the counting rule and the detected object information, as well as send that data to VIVOTEK's backend system for counting results analysis.

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.

Chart:
(bps) — Day ■ Night ■

	H.264	H.265
Day	2206	1230
Night	10555	4081
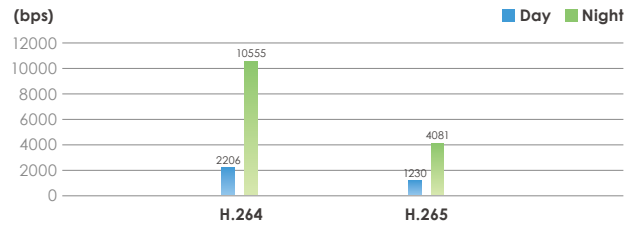
4K IP Camera Video Input and 4K Local Video Output

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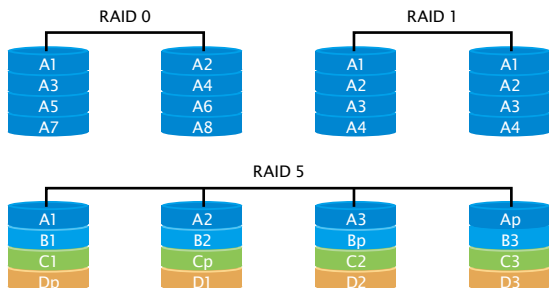

4K Resolution

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.


RAID

The RAID 0, 1, 5 configuration provides further data security and reliable video storage. (RAID Max. Volume: 16TB)

PoE Management

Both NVRs support 16 x 802.3at/af PoE ports which feature PoE management functions, allowing users to easily troubleshoot problems, control power budget for better operation, and set port priority settings to ensure the most important cameras are always on. When system power is overloaded, the PoE ports will auto-reboot for power supply recovery.
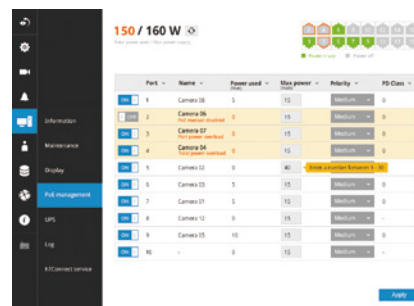
Highlight Features

Story Board Event Search

To quickly and intuitively find any target event, we provide a glimpse of past recording over an intuitive timeline, allowing users to direct playback and archive their video within 10 seconds.
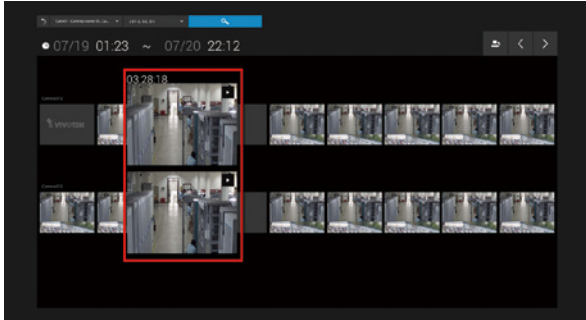
Fisheye Dewarp

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.
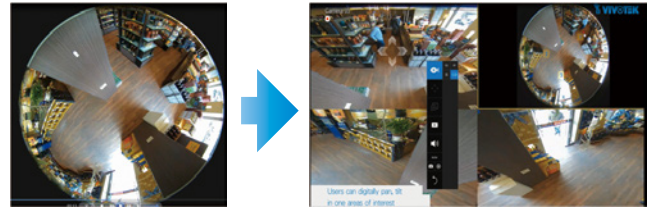
*Support LiveView and Playback modes

Product - Order Information

Model	Description	Part Number
ND9441P	H.265, 16CH, 16 PoE, 4HDD NVR	100150900G, US
		100150910G, EU
		100150920G, UK
		100150930G, AU
ND9541P	H.265, 32CH, 16 PoE, 4HDD NVR	100150800G, US
		100150810G, EU
		100150820G, UK
		100150840G, AU

Accessory - Order Information

Model	Part Number
AM-612: Rack Mount Slide Rails	900030000G

Mechanical Information

Front View
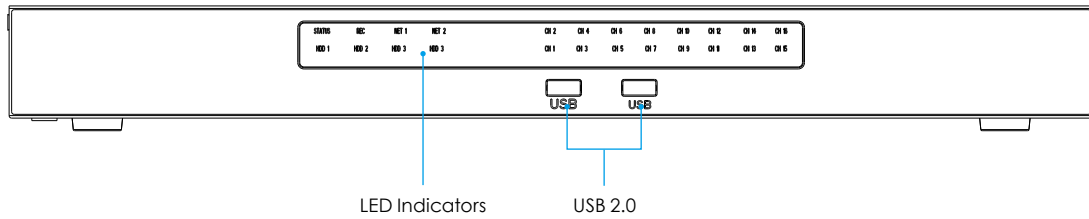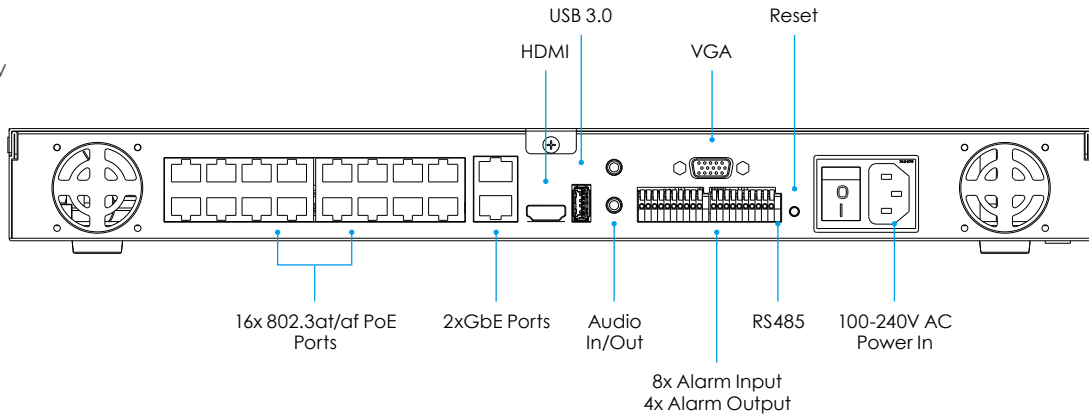
LED Indicators   USB 2.0

Back View

USB 3.0   Reset
HDMI   VGA

16x 802.3at/af PoE Ports   2xGbE Ports   Audio In/Out   RS485   100-240V AC Power In

8x Alarm Input
4x Alarm Output

Technical Specifications

Model	ND9441P H.265 16-CH Embedded Plug & Play NVR	ND9541P H.265 32-CH Embedded Plug & Play NVR
Device		
OS	Embedded Linux	
CPU	ARM Processor	
Flash	256 MB	
RAM	2 GB	4 GB
Watchdog	Hardware + Software	
Power Restoration	System Restart Automatically after Power Recovery	
Local Display		
LiveView Display	16 Channels Multi Layout Display: 1x1, 2x2, 3x3, 1P+3,2P+3,1M+5, 1P+6, 3V,1M+12, 4x4	32 Channels Multi Layout Display: 1x1, 2x2, 3x3, 1P+3,2P+3,1M+5, 1P+6, 3V,1M+12, 4x4, 1M+31
Video Output	HDMI x1, VGA 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	1O,1P,1R,1O3R,1O8R	
PTZ Operation	Direction Control, Home, Iris, Preset, Patrol (Group), PiP Control	
Video		
Video Format	MJPEG, H.264, H.265	
Graphic Decoder	Hardware decoding	
Decoding Resolution	Up to 4096x4096 (H.265) 8192x8192 (H.264)	

Technical Specifications

	ND9441P H.265 16-CH Embedded Plug & Play NVR	ND9541P H.265 32-CH Embedded Plug & Play NVR
Model		
Decoding Capability	H.265/H.264: 3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH)	

Audio

Audio Format	G.711, G.726
Audio In/Out	3.5 Phone Jack Audio Output x1 3.5 Phone Jack Audio Input (Reserved) x1

Record

Recording Time (sec.)	Pre-Record: 5 (Max. 10) Post-Record: 20 (Max. 300)
Recording Stream	Single
Recording Throughput	192 Mbps
Recording Mode	Continuous, Schedule, Manual, Event, Activity Adaptive Streaming
Recording Setting	Recycle (unit: Day)
Watermark	Supported

Storage & Backup

HDD Devices	Internal x4 (3.5")
HDD Max. Capacity	8 TB
RAID	RAID 0, 1, 5
Disk Management	Create, Format and Remove Disk HDD S.M.A.R.T
External Storage	USB Storage (USB 3.0)
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, and Alarm
Thumbnail Explorer (Storyboard)	Listing the thumbnail of recorded video (Max. 2 CH)
Snapshot	JPEG
Video Clip Export	EXE

Network

Ethernet	10/100/1000Mbps Ethernet (RJ-45) x 2
Video Throughput for Remote Client	96 Mbps
PoE*	802.3at/af Compliant PoE Ports x 16 (Total Max. 160W)

*DO NOT suggest connecting any non-PD device with this 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

External Interface

USB	Front: 2 (USB 2.0) Back: 1 (USB 3.0)
Alarm In	8
Alarm Out	4
Audio	3.5 Phone Jack Audio Output x1 3.5 Phone Jack Audio Input (Reserved) x1
RS485	1 Port (Reserved)

Technical Specifications

Model	ND9441P H.265 16-CH Embedded Plug & Play NVR	ND9541P H.265 32-CH Embedded Plug & Play NVR
System		
POS Integration	Supported (*by project)	
UPS Integration	Supported (*by project)	
Camera Integration	ONVIF Profile S	
Event	Motion Detection, Smart VCA Event, Cyber Attack, PIR Detection, Tampering Detection, Camera DI/DO, Camera Disconnected, Disk Failure, Disk Full, NVR DI/DO	
Event Action	Record, Email (Text), Email (Snapshot), FTP, Buzzer, ePTZ Control (Go to Preset), NVR DO, Camera DO,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		
VCA Counting Solution	Supported	
Smart VCA Event	Supported	
Smart Search II	Supported	
Trend Micro IoT Security	Supported	
Cybersecurity Management	Supported	
Remote Client		
Software AP	Shepherd ,VAST 2	
Mobile/Tablet App	iViewer (Android & iOS)	
Web Browser	Internet Explorer 10 (32 bit) or above/ Windows Chrome v68.0.3 & Firefox v61.02 or above/ Windows & macOS	
VIVOCloud	Supported	
General		
Power Input	100-240V AC, 50/60Hz	
Power Consumption	Max. 260 W	
Dimensions	430 (W) x 400 (D) x 44.5 (H) mm	
Weight	4.5 kg (without HDD)	
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	
Humidity	0 ~ 95%	
Safety Certifications	CE, LVD, FCC, VCCI, C-Tick, UL	

Dimensions

430 mm   45 mm   400 mm