



ND9441

H,265 16-CH Embedded NVR

H.265/H.264 • 1080p Real-time • 4K Display • Dual LAN • 4x HDD • RAID • Fisheye Dewarp • Cybersecurity • Web Plugin Free

- 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
- Customer Support
- 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





Technical Specifications

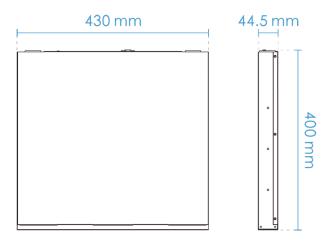
			_	_
ш	e١	٧I	U	u

Modes Modes of Linux Vacandog Hardware * Software Power Restoration System Restart Automatically after Power Recovery Local Display ************************************	Device		
Marchidog	Model	ND9441	
Power Restoration System Restart Automatically after Power Recovery	OS	Embedded Linux	
DiveView Display	Watchdog	Hardware + Software	
16 Chammels	Power Restoration	System Restart Automatically after Power Recovery	
Multi-Layout Displays: xt1, 2x2, 3x3, 1P-3, 2P-13, 1M-15, 1P-6, 3V, 1M-12, 4x4 Video Output HDM xt, VGA xt Satean Application Satean Application Change the viewcell position on the Live View screens Stream Application Constant/Auto Adaptive Stream Monitor Enhancement Pisheye Dewarp 10, 1P, 1R, 103R, 103R, 103R, 103R Pitz Operation Video Video Video Format H. 285, H. 284, MJPEG Carphic Decoder Hardware decoding Decoding Resolution Satean Application Decoding Resolution Besolution Besolution Besolution Cartin (Adoes Application) Audio Format Audio In/Out Satean Application G. 711, G. 728 Audio In/Out Recording Time (sec.) Pre-Record: 5 (Max. 10) Recording Time (sec.) Pre-Record: 5 (Max. 10) Pre-Record: 5	Local Display		
Display Resolution S440x2160, 1920x1080, 1280x720 Camera Position Change the viewcell position on the Live View screens Stream Application Constant/Luto Adaptive Stream Monitor Enhancement S050 display (NM), ScD display (Camera), camera information, remote I/O control, event notification, uspect ratio Fisheye Dewarp 10.1, IR, 103R, 103R 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 4096x4096 (H.265) Baddy 180 (R.265) Baddy 180 (R.2	LiveView Display		
Camera Position Change the viewcell position on the Live View screens Stream Application Constant! Auto Adaptive Stream Monitor Enhancement even notification aspect ratio provided in the Live View screens and provided in the Control, personal plant of the Control of the Con	Video Output	HDMI x1, VGA x1	
Stream Application Constant/Auto Adaptive Stream Monitor Enhancement OSD display (NNR), OSD display (camera), camera information, remote I/O control, event notification, aspect ratio 10, 1P, 1R, 103R, 103R PTZ Operation Direction Control, Home, Iris, Preset, Patrol (Group), PIP Control Video Video Format H.265, H.264, MUPEG Graphic Decoder Hardware decoding Decoding Resolution Up to 406ex4096 (H.265) 8192x8192 (H.264) 8192x8192 (H.264) Decoding Capability Audio 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.) Peo-Record: 5 (Max. 10) Post-Record: 20 (Max. 300) Recording Mode Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Record	Display Resolution	3840x2160, 1920x1080, 1280x720	
Monitor Enhancement over the first person of the person of	Camera Position	Change the viewcell position on the Live View screens	
event notification, aspect ratio Fisheye Dewarp 10, 1P, 1R, 103R, 106R PTZ Operation Video Video Format 12, 265, 12,524, MUPEG Graphic Decoder Hardware decoding Decoding Resolution B192x8192 (H, 264) B192x8192 (H, 264) B20x1092 (H, 264) B20x1093 (B, 264) Audio Capability Audio Format G, 711, G, 726 Audio In/Out 3, 5 Phone jack audio input (reserved) x1 Recording Time (sec.) Pres-Record: 5 (Max. 10) Post-Record: 20 (Max. 300) Recording Time (sec.) Pres-Record: 30 (Max. 300) Recording Timoughput 192 Mbps Recording Notige (unit: Day) Watermark Supported Storage & Backup HDD Devices Internal x4 (3.5°) **Ploase refer to the HDD supported list on the VIVOTEK website. RAID (N, 1, 5 (single volume up to 16TB) Disk Management External Storage USB Storage (USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	Stream Application	Constant\Auto Adaptive Stream	
PTZ Operation Direction Control, Home, Iris, Preset, Patrol (Group), PIP Control Video	Monitor Enhancement		
Video Video Format H.265, H.264, MIPEG Graphic Decoder Hardware decoding Decoding Resolution Up to 4096x4096 (H.265) servers of 12.65 (H.265) servers of 12.65 (H.264). Decoding Capability \$192.8192 (H.264). Becording Capability \$1.265/H.264. 3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH) Audio \$3.5 Phone jack audio output x1 3.5 Phone jack audio output x1 3.5 Phone jack audio input (reserved) x1 Record Pre-Racord: 5 (Max. 10) Poet-Record: 20 (Max. 300) Recording Time (sec.) Pre-Racord: 5 (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 is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) Disk Management Create, Format and Remove Disk HDD S MAR T. External Storage USB Storage (USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup	Fisheye Dewarp	10, 1P, 1R, 103R, 108R	
H.265, H.264, MJPEG	PTZ Operation	Direction Control, Home, Iris, Preset, Patrol (Group), PiP Control	
Graphic Decoder Decoding Resolution Decoding Resolution Decoding Resolution Decoding Capability Decoding Capability Audio Audio Format Audio In/Out Audio In/Out Record Recording Time (sec.) Pes-Record: 5 (Max. 10) Post-Record: 20 (Max. 300) Recording Note Recording Stream Single Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Setting Recording Setting Recording Setting Recording Note Recording Setting Recording Setting Record Record Setting Record Sett	Video		
Decoding Resolution Decoding Capability H.265/H.264: 3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH) Audio Audio Format Audio 1n/Out 3.5 Phone jack audio output x1 3.5 Phone jack audio input (reserved) x1 Record Recording Time (sec.) Recording Stream Single Recording Stream Single Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Stetting Stetend Steting Stetend St	Video Format	H.265, H.264, MJPEG	
Becoding Resolution 8192x8192 (H.264) H.265/H.264: 3840x2160 @ 120 fps (4-CH) 1920x1080 @ 480 fps (16-CH) Audio Audio Format Audio Format Audio In/Out 8.5 Phone jack audio output x1 3.5 Phone jack audio input (reserved) x1 Record Recording Time (sec.) Pre-Record: 5 (Mex. 10) Post-Record: 20 (Mex. 300) Recording Throughput 192 Mbps Recording Throughput 192 Mbps Recording Stream Recording Stetting Recycle (unit: Day) Watermark Supported Storage & Backup HDD Devices Internal x4 (3.5") "HDD is purchased by separately. HDD Max. Capacity Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) Disk Management Freenal Storage USB Storage (USB 3.0) Video Clip Export Video Clip Expo	Graphic Decoder	Hardware decoding	
Decoding Capability Audio Audio Format Audio Format Audio Format Audio In/Out 3.5 Phone jack audio output x1 3.5 Phone jack audio input (reserved) x1 Record Record Recording Time (sec.) Recording Stream Recording Throughput 192 Mbps Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Setting Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Seting Recording Setting Recording Setting Recording Setting Recording Setting Recording Setting Recording Setting Recording	Decoding Resolution		
Audio Format Audio In/Out 3.5 Phone jack audio output x1 3.5 Phone jack audio input (reserved) x1 Record 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 Recording Setting Recycle (unit: Day) Watermark Supported Storage & Backup HDD Devices Internal x4 (3.5") *HDD is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID RAID RAID RAID 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	Decoding Capability	3840x2160 @ 120 fps (4-CH)	
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 is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID RAID (1, 5 (single volume up to 16TB) 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	Audio		
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 is purchased by separately. HDD Max. Capacity Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Audio Format	G.711, G.726	
Recording Time (sec.) Recording Stream Single Recording Throughput 192 Mbps Recording Mode Recording Mode Recording Setting Recording Mode R	Audio In/Out		
Recording Stream Single Recording Throughput 192 Mbps Recording Mode Continuous, Schedule, Manual, Event, Activity Adaptive Streaming Recording Setting Recording Mode Recording	Record		
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 is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) Disk Management Create, Format and Remove Disk HDD S.M.A.R.T. External Storage USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	Recording Time (sec.)		
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 is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Recording Stream	Single	
Recording Setting Recy cle (unit: Day) Watermark Supported Storage & Backup HDD Devices Internal x4 (3.5") *HDD is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Recording Throughput	192 Mbps	
Watermark Storage & Backup HDD Devices Internal x4 (3.5") *HDD is purchased by separately. *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Recording Mode	Continuous, Schedule, Manual, Event, Activity Adaptive Streaming	
Storage & Backup HDD Devices Internal x4 (3.5") *HDD is purchased by separately. *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Recording Setting	Recycle (unit: Day)	
HDD Devices Internal x4 (3.5") *HDD is purchased by separately. *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) Disk Management Create, Format and Remove Disk HDD S.M.A.R.T. External Storage USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	Watermark	Supported	
*HDD is purchased by separately. HDD Max. Capacity *Please refer to the HDD supported list on the VIVOTEK website. RAID RAID 0, 1, 5 (single volume up to 16TB) 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	Storage & Backup		
RAID 0, 1, 5 (single volume up to 16TB) Disk Management Create, Format and Remove Disk HDD S.M.A.R.T. External Storage USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	HDD Devices		
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	HDD Max. Capacity	*Please refer to the HDD supported list on the VIVOTEK website.	
External Storage USB Storage (USB 3.0) Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	RAID	RAID 0, 1, 5 (single volume up to 16TB)	
Video Clip Export USB Dongle (FAT Format) Schedule Backup FTP	Disk Management		
Schedule Backup FTP	External Storage	USB Storage (USB 3.0)	
· · · · · · · · · · · · · · · · · · ·	Video Clip Export	USB Dongle (FAT Format)	
Playback	Schedule Backup	FTP	
	Playback		
Playback Display 4 Channels Multi-Layout display: 1x1, 2x2, 1P+3, 1V+3	Playback Display		

Playback Control	Regular (play, pause, stop), rewind, next/previous frame, speed control, calendar, event, timeline, timeline scale, thumbnail (story board)
Video Search	By calendar, date/time, and alarm
Thumbnail Explorer (Story board)	Listing the thumbnail of recorded video (Max. 2-CH)
Snapshot	JPEG
Video Clip Export	EXE
Network	
Ethernet	10/100/1000Mbps Ethernet (RJ-45) x2
Video Throughput for Remote Client	96 Mbps
Protocols	IPv4, IPv6, 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 x13.5 Phone Jack Audio Input (Reserved) x1
RS485	1 Port (Reserved)
System	
POS Integration	Supported (by project request)
UPS Integration	Supported (by project request)
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 Network disconnected
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
Advanced Features	
VCA Counting Solution	Supported
VCA Event Search	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 (The new web interface is only supported by Chrome)
VIVOCloud	Supported
General	
Power Input	DC 56V 1.34A
Power Consumption	Max. 120 W
Dimensions	430 (W) x 400 (D) x 44.5 (H) mm
Weight	3.87 kg (without HDD)
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Operating lemperature	0 0 140 0 (02 1 1 104 1)

Humidity	0 ~ 95%
Safety Certifications	CE, LVD, FCC, VCCI, C-Tick, UL
Warranty	36 months

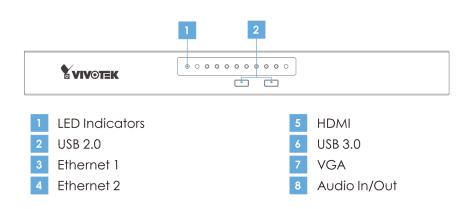
Dimensions

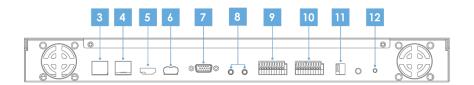


Ordering Information

Model	Description	P/N
ND9441		100141300G, US
	H.265, 16-CH, 4HDD NVR	100141310G, EU
	H.200, 10-CH, 4HDD NVK	100141320G, UK
		100141330G, AU

Mechanical Information





- 9 8 x Alarm In
- 10 4 x Alarm Out RS485(reserved)
- 11 12V DC Power Input
- 12 Reset

