

NH16V2 NVR Hybrid

16 Channel Network Video Recorder with Hybrid Technology

Record up to 16 IP channels or mix with High-Definition analog or standard resolution cameras.

Meet today's coverage demands with high quality images and valuable extras such as built-in GPS with antenna, automatic capture of speed, acceleration, and geo-fencing alarm events, and remote health monitoring via hardware and software options.



Highest Resolution with Full Frame Rate

Supports resolutions up to 3Mpx at 30 FPS on each IP camera channel and uplift to 4K resolution on up to 4 channels.

Flexible Hybrid Technology

Supports IP plus full high-definition (1080p), high-definition (720p), and standard definition analog cameras.

Remote Diagnostics

Remote diagnostic indicator provides DVR status (includes video loss) to the vehicle operator and advanced DVR health diagnostics are available on VMS software.

Media Options

Up to 8TB SSD primary storage (4TB HDD) with optional solid state backup storage options up to 1TB.

Companion Network Switch

16-Port PoE switch auto-assigns addresses, manages power, detects wire faults, and reports status to recorder.

Tested Tough for Road & Rail Vehicles

SAE-J1455, MIL-STD-810, EN50155, & EN50121 tested for electronics used in heavy duty road and rail vehicles (includes shock, vibration, voltage fluctuations, and more).

Recommended Cameras:

Analog Options:					
	HD2Q Interior Dome	HD3Q Interior Dome	HD3U Interior Camera	HD3W Outdoor Wedge	
	IP Options:				
		C5Q1 Interior Mini Dome	C5W1 Outdoor Wedge	C8Q2 4K	C12F2 360°

Accessories:

			
Event/Diagnostic Button	Hard Drive Dock III	GPS	G-Force Sensor

Optional Add-ons:

-  Wi-Fi Auto-download & Video Management
-  Live GPS Tracking
-  Live Video Streaming

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Video	
Recording Channels	16 Active Channels Max, 16 IP via Switch, 8 Analog Hi-Def Built-In, One audio per active video channel
Analog Video	Main: Up to 720p at 30 FPS Main: Up to 1080p at 30 FPS (120 FPS Max, Shared) Second: Up to 5 FPS all channels
IP Video	Up to 2048x1536 (3Mpx) at 30 FPS on each channel
4K Support	Up to 4 IP channels at 3840x2160 (8Mpx)
Quality Settings	Adjustable, 4 levels
Codec	H.264
Auto Overwrite	Selectable On/Off
Display Modes	1UP, 9UP, or 16UP
User Interface	Web UI: Config & Live View Local UI: Config, Live View, Playback, Export, Search
Delay On/Off	Record On Delay ≤1 hr., Record Off Delay ≤1 hr., Power Off Delay ≤4 hr.
On-Screen Display	Main title, time & date, record & system status
Dual Stream Transmission	Transmit main or second stream live video with audio over optional broadband (cellular) network
Storage	
Primary	Removable Single or Dual Drive Storage Cartridge Capacity up to 8TB SSD (4TB HDD)
Backup	Up to 1TB SD Card (Optional)
Inputs & Outputs	
Network Ports	Front: 1 at 1Gbps, unpowered Rear: 3 at 100Mbps, 48V PoE (802.3af) Rear: 1 at 1Gbps, 48V PoE (802.3af) Rear: 2 at 1Gbps, unpowered
Monitored Inputs	11 (7 Signals + 1 Wake + 3 Alarm)
Video Out	1 Front with Audio, 1 Rear Video Only
Status Indicators	3 LED on DVR + Optional Diagnostic Indicator
Signal Out	1 at 12V, 100ma max
Wireless	
GPS	GPS module built-in with RF antenna included
Wi-Fi	Optional, external wireless device connects to dedicated 1Gbps network port
Smart Features	
Smart-Temp™	Ensures the DVR stays at its optimal operational temperature
Smart-Start™	Vehicle startup voltage protection safeguards DVR from electrical spikes
Smart Stop™	Shuts down DVR if download activity is complete (requires Commander)
Temp Power	Turns on DVR for short duration maintenance activities
Inertia Sensor	3 axis external G-sensor option
Electrical	
Voltage Range	9 to 36 VDC Operating
Transient Protection	600 W for power input, 400 W per signal input
Configuration Backup	Time & programmed info (retained up to 7 years)

Mechanical/General	
Dimensions	(H x W x D) 2.8x 11.6x 10.5 in (72 x 294 x 267 mm)
DVR Weight	6.6 lbs. (3 Kg) with front door and rear shroud
Locking Front Door	Restricts access to user interface ports and media
Rear Shroud	Added protection for rear ports and connectors
Primary Storage Lock	Restricts access to media removal
Electrical	
Voltage Range	9 to 36 VDC Operating (20A Max draw)
Standby Power	60mW
PoE Port Rating	802.3at (12.95W at powered device) 30W shared across all PoE ports
Environmental	
Operating Temperature	HDD: -30 to 50°C (-22 to 122°F) SSD: -40 to 60°C (-40 to 140°F)
Approvals	
Emissions	FCC (Title 47, Part 15, 47 CFR 15) and EN50155
Shock, Vibration, & Electrical	SAE-J1455, MIL-STD-810G, EN50155 for Heavy Duty and Rail Vehicles
Environmental	RoHS, WEEE
Specifications – Plus System	
Signals	7 external signal inputs + 3 internal signals
Alarms	4 actions triggered by a signal or alarm input
Wake	Starts DVR directly into record mode
Diagnostic Indicator	Remote DVR status display
Event Button	2 alarm inputs, each adds an event mark to video
Location, Speed, Time	Sync time and record vehicle location and speed (GPS antenna required)
Geo-fencing	Trigger alarm if vehicle exits geo-boundary
SuperCaps	Protects against video loss in case of sudden power loss

Network Switch Specifications

Ethernet	
Ports	2 Gbps Uplink Ports, unpowered 16 100Mbps Ports, 48V PoE, 802.3at (subject to output power limits)
Technology & Protocol	Store and Forward, CSMA/CD
Switch Capacity	16 Port @ 100Mbps + 2 Port @ 1Gbps
Electrical	
Voltage Range	9 to 36 VDC Operating (12A Max draw)
PoE Port Rating	802.3at (12.95W at powered device)
Output Power Limits	86W with 12V Source, 112W with 24V Source
Control Input	0 - 4VDC = OFF / 4.1V - 33.6VDC = ON
Mechanical/General	
Dimensions	(H x W x D) 2.8x 11.6x 10.5 in (72 x 294 x 267 mm)
Weight	5.1 lbs. (2.3 kg)
Environmental	
Operating Temperature	HDD: -30°C to 50°C (-22°F to 122°F) SSD: -40°C to 60°C (-40°F to 140°F)
Approvals	
Emissions	FCC (Title 47, Part 15, 47 CFR 15) and EN50155
Shock & Vibration	SAE-J1455, MIL-STD-810G, EN50155 for Heavy Duty and Rail Vehicles
Environmental	RoHS, WEEE

Information is subject to change at any time without notice.

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