

# Advantech Video Solution Safety & Security

Empowering Next-Generation  
Surveillance

- ✓ NVS NVIDIA Platform
- ✓ NVS Intel Platform
- ✓ PoE Switch



**ADVANTECH**

*Enabling an Intelligent Planet*

[www.advantech.com](http://www.advantech.com)

# Overall Summary

Advantech's NVS series aims to provide customers with robust and customizable solutions to meet their specific surveillance requirements, whether it's for basic monitoring and recording or for more advanced security and analytics applications.

Advantech's NVS series features high-definition video recording, remote access, intelligent video analytics, and compatibility with third-party systems and devices.

Advantech's NVS series caters to a wide range of industries and applications, including retail, transportation, banking, healthcare, and critical infrastructure.

## Retail and Marketing

- Shoplifting Prevention
- Employee Fraud
- Store Optimization
- Customer Behavior Analysis



## Industrial Automation

- Production Line Monitoring
- Defect Identification
- Worker Safety

## Traffic and Transportation

- Traffic Monitoring and Management
- Traffic Violation Detection
- Traffic Signal Timing Optimization
- License Plate Identification



## Security and Surveillance

- Facial Recognition
- Object Detection & Tracking
- Perimeter Monitoring

# Unleashing the Power of AI with Advantech

## NVS-9600X



8 PoE Ports



TPM 2.0 Built In



4G LTE Support



Power Isolation



The NVS-960 offers a full set of high-performance I/O ports, from USB ports to PoE+ ports, to boost user productivity without worrying if there are enough ports. With the Antenna connection, users can install LTE modules to deploy AI services.

Model		NVS-9600X4-8P	NVS-9600X3-8P
Processor System	CPU Model	Jetson Orin NX 16GB	Jetson Orin NX 8GB
	AI Performance	100 TOPS	70 TOPS
	GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
	CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU
	Memory Capacity	2MB L2 + 4MB L3 16GB 128-bit LPDDR5 102.4 GB/s	1.5MB L2 + 4MB L3 8GB 128-bit LPDDR5 102.4 GB/s
I/O	Ethernet	2 x 10/100/1000 Mbps	
	Display	HDMI (max. resolution 3840 x 2160 @ 60 Hz)	
	USB	1 x USB 3.0 (Internally used for recovery mode) 2 x USB 2.0	
	Digital I/O	4-ch DI, 4-ch DO	
	PoE+ Ports	8 x RJ-45 (10/100 Mbps + PoE / total power: 123.2 W)	
Expansion	M.2	1 x M.2 3042 (B-Key, signal: USB)	
	SIM	1 x Nano SIM slot	
	TPM	1 x TPM 2.0	
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, signal: PCIe x4)	
	HDD/SSD	1 x 3.5" HDD or 1 x 2.5" SSD	
Power	Power Input	54 V DC, 4.26 A	
	Power Supply	Adapter (external)	
Environmental	Operating Temperature*	0 to 50°C (32 to 122°F)	
	Operating Humidity	95% relative humidity @ 40°C (104°F), non-condensing	
	Vibration	1 Grms @ 5 to 500 Hz, random, 1 hr/axis	
	Shock	10G / 11ms	
Mechanical	Dimensions (W x D x H)	254.5 x 195.0 x 44.45 mm (10.0 x 7.67 x 1.75 in)	
	Weight	1.14 kg (2.5 lb)	
	Installation	Desktop / Wallmount	
BSP	Jetpack	Above 5.1	
Certifications		CE/FCC	

# Harnessing the Power of Advantech

## NVS Solutions



8 PoE Ports



TPM 2.0 Built In



Low-Profile PCIe Card Support



Multiple Ports



The NVS-800RL series, powered by 14th Gen Intel® Core™ processors, is a professional NVR server, network switch, and camera power supply (802.3bt) all in one system. It comes equipped with 16 to 24 PoE LAN ports for camera links, with a high power budget. It also supports eight 3.5-inch HDD drives for abundant storage capability. The NVS-800RL series is ideal for a wide range of use cases such as banking, retail, healthcare, building surveillance, as well as medium-to-large hypermarkets.

Model		NVS-801RL (Preliminary)		NVS-811RL		NVS-821RL		
System	Processor	14th Gen Intel® Desktop series		14th Gen Intel® Desktop series		14th Gen Intel® Desktop series		
	Chipset	H610		Q670		Q670		
	Base Frequency	Up to 2.1GHz		Up to 2.1GHz		Up to 2.1GHz		
	Turbo Frequency	Up to 5.4GHz		Up to 5.4GHz		Up to 5.4GHz		
	Cache	Up to 32MB		Up to 32MB		Up to 32MB		
	Memory	Up to 64GB DDR4-2666 SODIMM		Up to 64GB DDR4-3200 SODIMM		Up to 64GB DDR4-3200 SODIMM		
Storage	SATA HDD SATA SSD	3.5" HDD x 1 (Up to 32TB)		3.5" HDD x 4 (Up to 32TB)		3.5" HDD x 8 (Up to 32TB)		
		M.2 2280 SSD x 1 (for OS storage)		M.2 2280 SSD x 1 (for OS storage)		M.2 2280 SSD x 1 (for OS storage)		
Expansion Slot	PCIe x16	Low Profile 1		MXM Type A 1		MXM Type A 1		
	PCIe x4	N/A		Low Profile 1		Low Profile 1		
	PCIe x4	N/A		M.2 2280 1		M.2 2280 1		
Front Panel	USB 2.0	0		2		2		
	Reset button	0		1		1		
	LED Indicators	Power	1		Power 1		Power 1	
		Alert	1		Alert 1		Alert 1	
		HDD	1		HDD 1		HDD 1	
		WAN	1		WAN 1		WAN 1	
		Uplink	1		Uplink 1		Uplink 1	
		PoE Power	8		N/A		N/A	
PoE Data	8		PoE Error 24		PoE Error 24			
Rear I/O Panel	USB 3.0	2		4		4		
	PoE Port	802.3bt (10/100)	8		802.3bt (10/100) 2		802.3at (10/100) 2	
		802.3at (10/100)	8		802.3at (10/100) 22		802.3at (10/100) 22	
		Total Power	150W		Total Power 360W		Total Power 360W	
	Combo Uplink	Gigabit Ethernet 2		Gigabit Ethernet 2		Gigabit Ethernet 2		
	BMC Ethernet	N/A		1		1		
	Display	HDMI	2		HDMI 2		HDMI 2	
		VGA	0		VGA 0		VGA 1	
	Serial	RS-232/422/485		N/A		N/A		
	DIO	4 in 4 out		4 in 4 out		4 in 4 out		
Line-In	1		1		1			
Mic-In	1		0		0			
Line-Out	1		1		1			
Mechanical	Dimensions (W x L x H)	205 x 320.7 x 86.5 mm		438 x 500 x 43.9 mm (1U)		438 x 500 x 88 mm (2U)		
	Input	100-240 V <sub>AC</sub>		100-240 V <sub>AC</sub>		100-240 V <sub>AC</sub>		
Power Management	Output	54 V	270W		54 V	400W		
				12 V	400W		12 V	400W

# PoE+/PoE++ Switch NVS-113



Preliminary

### High PoE Power Support

- Supports 2 x PoE++ ports with 90W power
- Supports 22/14 x PoE+ ports with 30W power
- Up to 510W PoE power budget

### Compact Size

- 1U rack mount to save space

### Extendable Switch Solution

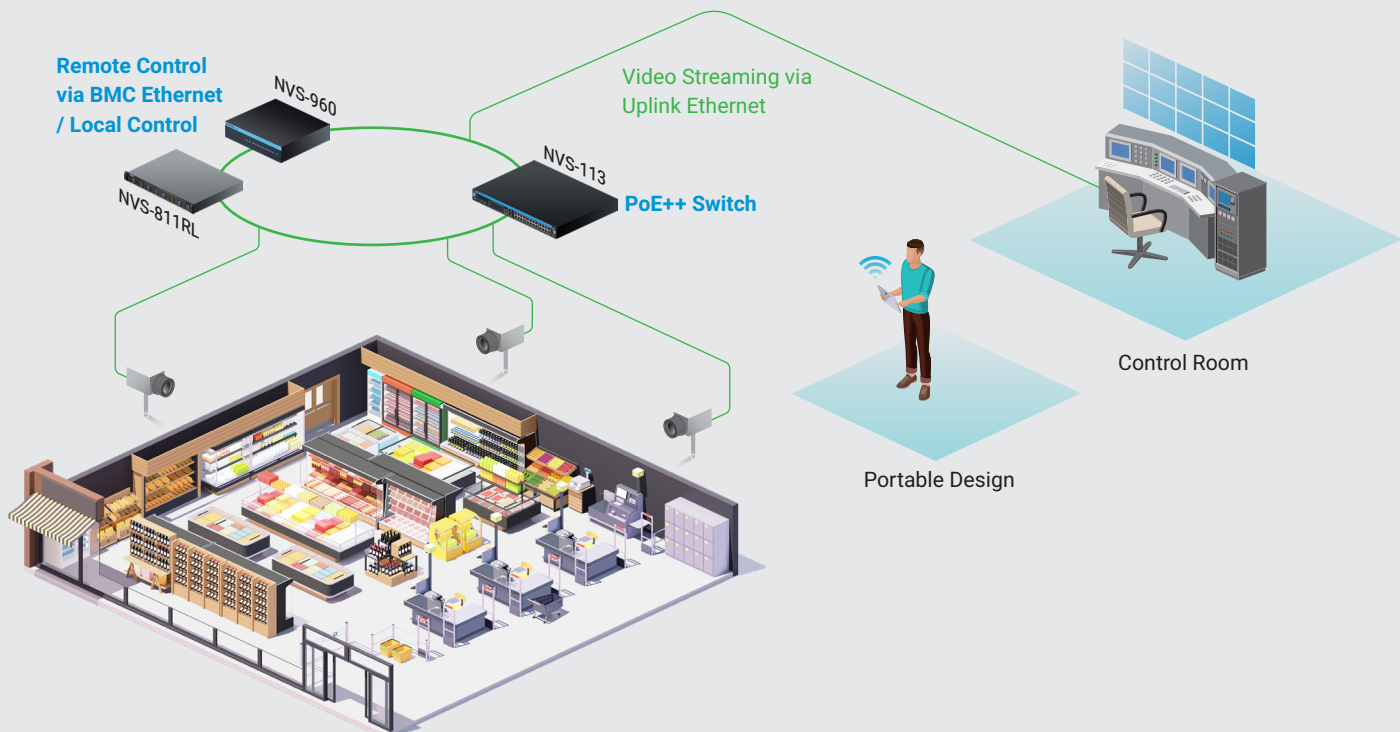
- Supports 1 x 1GbE RJ-45 to connect another PoE switch
- Supports 2 x 1GbE RJ-45 to transmit video data to NVR

### Easy PoE Management

- Manage PoE function by WEBGUI or CLI
- LED indicates PoE status on front panel

The Advantech PoE+/PoE++ switch is designed according to the IEEE 802.3af / IEEE 802.3at / IEEE 802.3bt standard. The system supports up to 90 watts per port and 510 watts total PoE to accommodate various PoE devices. The PoE port supports up to 100 Mbps of bandwidth and customers can easily transmit 4K video from the camera. The NVS-113 has features to simplify PoE network deployment and maintenance. Customers can choose between the WEB GUI, CLI commands, or a PoE driver to manage PoE functions.

Model	Part Number	NVS-113	
Front Panel	Reset button	1	
	LED Indicator	Power	1
		Alert	1
		WAN Active	3
		WAN Speed	3
		PoE Active	24
		PoE Data	24
	PoE Ports	802.3bt (10/100)	2
802.3at (10/100)		22	
Total PoE Power		550W	
Mechanical	Dimensions (W x L x H)	438 x 200 x 42.8 mm (1U)	
Power Management	Input	100-240 VAC	



## Regional Service & Customization Centers

<b>China</b>	Kunshan 86-512-5777-5666	<b>Taiwan</b>	Taipei 886-2-7732-3399	<b>Netherlands</b>	Eindhoven 31-40-267-7000	<b>Poland</b>	Warsaw 00800-2426-8080	<b>USA</b>	Milpitas, CA 1-408-519-3800
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## Worldwide Offices

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Toll Free	0800-777-111
Taipei	886-2-7732-3399
Taichung	886-4-2372-5058
Kaohsiung	886-7-392-3600
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Kunshan	86-512-5777-5666
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Toronto	1-800-866-6008
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