

# Nuvo-3616VR

Intel® 3rd-Gen Core™ i7/i5 Fanless Surveillance System with 16x 802.3at PoE+ ports and 4x HDD RAID



- Intel® 3rd-Gen i7 Quad-core superb performance
- Up to 16x IEEE 802.3at (25.5W) PoE+ ports
- Rugged, -25 °C to 60 °C fanless operation
- Four 2.5" SATA HDDs with RAID 0/1/5/10 support
- Patent easy-swap trays for HDD replacement
- 8~35V wide-range DC input with built-in ignition power control
- Per-port power on/off control for each PoE+ port

## Introduction

Nuvo-3616VR is world's first surveillance platform integrates 16 PoE+ ports, i7 CPU and RAID in a compact, fanless chassis. It is designed to meet requirements of a stationary or mobile surveillance system, and is capable for not only video recording but also high-end video analytics.

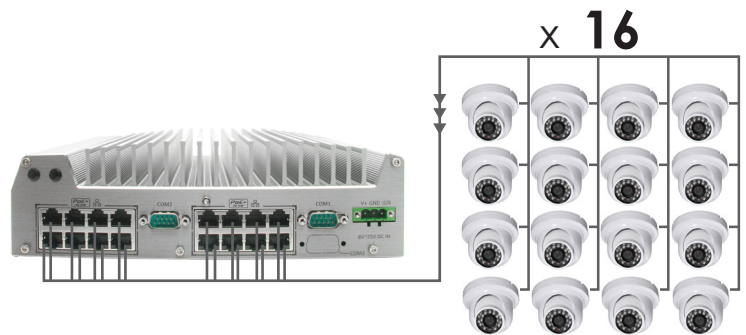
A typical surveillance system uses a NVR to connect IP cameras and record video streams on its disk array. Similar to a NVR, Nuvo-3616VR features 16 PoE+ ports and built-in disk array for video recording. Each of its 802.3at PoE+ ports can supply 25.5W to power a bullet, dome or PTZ camera. Nuvo-3616VR also incorporates built-in 4-drives RAID for up to 8TB storage capacity. More than the off-the-shelf NVR, Nuvo-3616VR comes with a quad-core i7 CPU, which delivers extraordinary computing performance to facilitate advanced video analytics algorithms.

Nuvo-3616VR inherits Neousys' proven fanless architecture to ensure true wide-temperature operation. Two of its four 2.5" drives come with Neousys' patent easy-swap trays for simple HDD/SSD replacement. Nuvo-3616VR also features 8~35V wide-range DC input and ignition control for stationary or in-vehicle usage. Combining numerous PoE+ ports, RAID storage and superb computing power, Nuvo-3616VR ignites a new era for surveillance applications!

## Product Highlights

### 16x 802.3at PoE+ Ports

Connecting cameras for video capture is the fundamental of a surveillance system. Nuvo-3616VR features 16x 802.3at PoE+ ports for connecting IP cameras. Each port can supply 25.5W power, capable of powering a high-watt PTZ (Pan-Tilt-Zoom) camera. As electrical power is passed along with data on a single CAT5/6 cable, Nuvo-3616VR significantly reduces the cost of deployment for a surveillance system supporting up to 16 cameras.



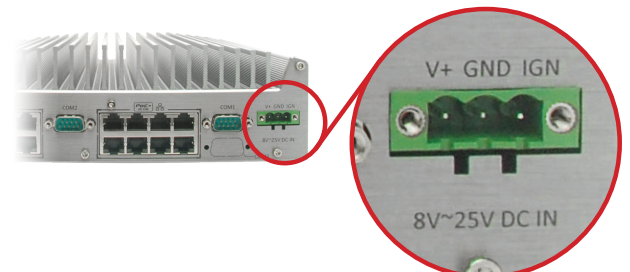
### Built-in 4-Drives RAID

Storing video streams from 16x cameras requires a reliable storage with high throughput and high capacity. Thus Nuvo-3616VR incorporates a 4-drives RAID 0/1/5/10 storage system to offer up to 1GB/s disk access and 8TB capacity. Moreover, two of four drives are installed with easy-swap HDD trays so you can replace the HDD/SSD in just few seconds.



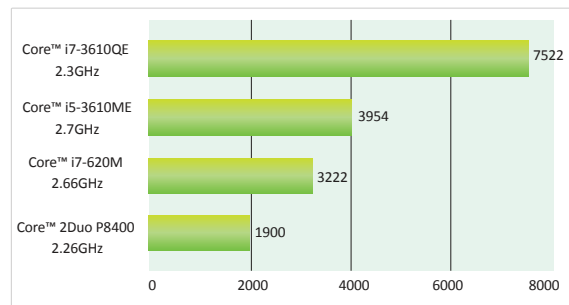
### 8~35V DC-in and Ignition Control

Nuvo-3616VR is designed for both stationary and mobile surveillance applications. Some notable features, such as 8~35V wide-range input, ignition control, input surge protection and damping bracket, are integrated into Nuvo-3616VR to make it feasible not only for fixed deployment but also for in-vehicle usage



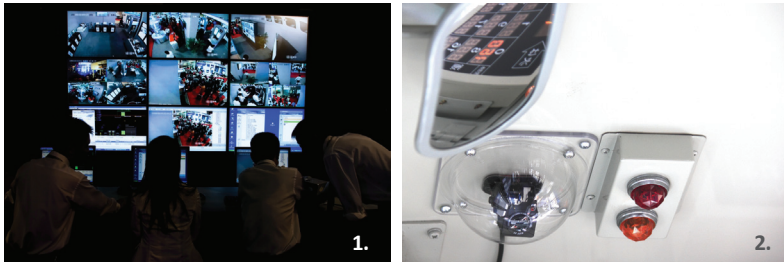
## Quad-core i7 CPU for Video Analytics

Video analytics is an emerging requirement for modern surveillance systems to facilitate real-time analyzing/ alarming. In addition to PoE+ and RAID, Nuvo-3616VR equips Intel® 3rd-Gen i7 quad-core processor to offer extraordinary computing power for performing complicated video analytics algorithms (e.g. face detection). This makes Nuvo-3616VR a versatile surveillance system combing video capture/streaming and advanced video analytics.



\* The CPU benchmark is performed using Passmark PerformanceTest 7 based on Win7 64bit OS.

## Applications



1. Stationary Surveillance System
2. Mobile Surveillance System

## Specifications

	Nuvo-3616VR	Nuvo-3608VR		Nuvo-3616VR	Nuvo-3608VR
<b>System Core</b>			<b>Expansion Bus</b>		
Processor	Intel® Core™ i7-3610QE (2.3/3.3 GHz, 6 MB cache) Intel® Core™ i5-3610ME (2.7/3.3 GHz, 3 MB cache)		Mini PCI-E	1x internal mini PCI Express socket with USIM socket 1x internal mini PCI Express socket	
Chipset	Intel® QM77 Platform Controller Hub with AMT & RAID support		<b>Power Supply &amp; Ignition Control</b>		
Graphics	Integrated Intel® HD Graphics 4000 Controller		DC Input	1x 3-pin pluggable terminal block for 8~35V DC input (for direct DC wiring)	
Memory	2x 204-pin SO-DIMM sockets, up to 16 GB DDR3 1333/1600 MHz SDRAM		Ignition Control	Ignition power control with configurable on/off delay (V+/GND/IGN)	
<b>I/O Interface</b>			Remote Ctrl. & Status Output	1x 10-pin (2x5) wafer connector for remote on/off control and status LED output	
Ethernet	1x Gigabit Ethernet ports by Intel® 82579LM		<b>Mechanical</b>		
PoE	16x IEEE 802.3at (25.5W) PoE+ Ports with per-port power on/off control 160W total power budget	8x IEEE 802.3at (25.5W) PoE+ Ports with per-port power on/off control 80W total power budget	Dimension	240 mm (W) x 255 mm (D) x 70 mm (H)	
Video Port	1x DB-15 connector for analog RGB, supporting 2048x1536 resolution 2x DVI-D connectors for DVI/HDMI outputs, supporting 1920x1080 resolution		Weight	3.8 kg	
USB	2x USB 3.0 ports and 2x USB 2.0 ports		Mounting	Wall-mounting (Standard) or DIN-Rail mounting (optional)	
Serial Port	2x software-programmable RS-232/422/485 (COM1 & COM2)		<b>Environmental</b>		
KB/MS	1x 6-pin mini-DIN connector for PS/2 keyboard/mouse		Operating Temperature	-25°C ~ 60°C**	
Audio	1x mic-in and 1x speaker-out		Storage Temperature	-40°C ~ 85°C**	
<b>Storage Interface</b>			Humidity	10%~90%, non-condensing	
SATA HDD	4x Internal SATA ports for 2.5" HDD/SSD installation with RAID 0/1/5/10		Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)	
CFast	1x CFast socket		Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)	
			EMC	CE/FCC Class A, according to EN 55022 & EN 55024	

\* 100% CPU loading is applied using Intel® Thermal Analysis Tool. For detail testing criteria, please contact Neousys Technology.

\*\* For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

## Order Information

### Nuvo-3616VR-I7QC

Intel® Core™ i7-3610QE fanless surveillance system with 16x PoE+ Ports and 4-drives RAID

### Nuvo-3616VR-I5DC

Intel® Core™ i5-3610ME fanless surveillance system with 16x PoE+ Ports and 4-drives RAID

### Nuvo-3608VR-I7QC

Intel® Core™ i7-3610QE fanless surveillance system with 8x PoE+ Ports and 4-drives RAID

### Nuvo-3608VR-I5DC

Intel® Core™ i5-3610ME fanless surveillance system with 8x PoE+ Ports and 4-drives RAID

**220W AC/DC power adapter**

## Packing List

1x Nuvo-3616VR/3608VR Unit

1x Accessory Box

1x Driver CD