

Rugged Embedded



# Nuvo-7531 Series

Intel® 9th/ 8th -Gen Core™ i7/ i5/ i3 Compact Fanless Computer with 4x GbE , 4x USB3.1 and 1X hot-swappable HDD tray



CE FC

## Key Features

- 212 x 165 x 63 mm low-profile design
- Intel® 9th/ 8th-Gen Core™ 35W/ 65W LGA1151 CPU
- Rugged, -25°C to 60°C fanless operation
- 4x GbE and 4x USB3.1 Gen1 with screw-lock
- 1x hot-swappable HDD tray and 1x M.2 2280 socket for storage
- 4-CH isolated DI and 4-CH isolated DO
- DVI-I + DP dual display outputs
- Optional ignition power control

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## Introduction

Nuvo-7531 is one of the most compact fanless embedded controller supporting Intel® 9th/ 8th-Gen Core™ CPUs. Measuring just 212 x 165 x 63 mm, it comfortably fits into confined spaces. Despite its compact size, Nuvo-7531 does not compromise on performance. Based on Intel® 9th/ 8th-Gen Core™ 65W/ 35W CPUs, it can deliver more than 50% extra performance compared to the previous generation. Nuvo-7531 is a compact and powerful fanless embedded controller for a variety of industrial applications.

The Nuvo-7531 has abundant I/O functions. It features four GbE ports and four USB3.1 ports for multiple GbE and USB cameras. There is a hot-swappable HDD tray for you to hot-swap the storage drive without turning off the system or dismantle the chassis. There are three mPCIe slots to install WIFI or 3G/ 4G for wireless communication needs. In addition, Nuvo-7531 is also equipped with 8x DIO, 2x COM ports and dual display outputs for your application needs.

For a compact embedded controller, Nuvo-7531 delivers amazing computing power and provides rich I/O functions. It is suitable for a variety of industrial applications, especially when space is limited. Nuvo-7531 is a little giant in the world of rugged embedded controllers.

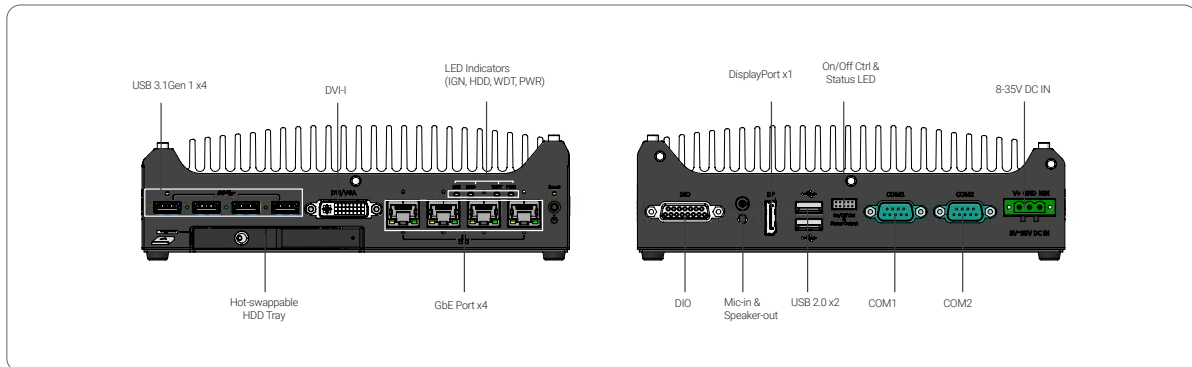
## Specifications

System Core		Power Supply	
<b>Processor</b>	Supporting Intel® 9th/ 8th-Gen Core™ CPU (LGA1151 socket) - Intel® Core™ i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T - Intel® Core™ i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T - Intel® Core™ i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T	<b>DC Input</b>	1x 3-pin pluggable terminal block for 8~35V DC input with optional ignition power control
<b>Chipset</b>	Intel® H310 platform controller hub	<b>Remote Ctrl. &amp; LED Output</b>	1x 10-pin (2x5) pin header for remote on/off control and status LED output
<b>Graphics</b>	Integrated Intel® UHD graphics 630	<b>Mechanical</b>	
<b>Memory</b>	Up to 32 GB DDR4 2666/ 2400 SDRAM (one SODIMM slot)	<b>Dimension</b>	212 mm (W) x 165 mm (D) x 63 mm (H)
<b>I/O Interface</b>		<b>Weight</b>	2.5 kg
<b>Ethernet</b>	4x Gigabit Ethernet ports by I219 and 3x I210	<b>Mounting</b>	Wall-mount (standard) or DIN-rail mount (optional)
<b>USB 3.1</b>	4x USB 3.1 Gen1 (5 Gbps) ports	<b>Environmental</b>	
<b>USB 2.0</b>	2x USB 2.0 ports	<b>Operating Temperature</b>	with 35W CPU -25°C ~ 60°C */** with 65W CPU, optional fan kit is required -25°C ~ 60°C */**
<b>Video Port (Integrated Graphics)</b>	1x DVI-I for DVI/VGA output, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution	<b>Storage Temperature</b>	-40°C ~ 85°C
<b>Serial Port</b>	2x software-programmable RS-232/ 422/ 485 ports (COM1/ COM2)	<b>Humidity</b>	10%~90% , non-condensing
<b>Audio</b>	1x 3.5 mm jack for mic-in and speaker-out	<b>Vibration</b>	Operating, MIL-STD-810G, Method 514.6, Category 4
<b>Isolated DIO</b>	4-CH isolated DI and 4-CH isolated DO	<b>Shock</b>	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
<b>Storage Interface</b>		<b>EMC</b>	CE/FCC Class A, according to EN 55032 & EN 55024
<b>SATA HDD</b>	1x hot-swappable 2.5" HDD/ SSD tray	* For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required. ** For i7 CPUs, thermal throttling may occur when sustained full-loading applied at 60°C ambient temperature.	
<b>M.2</b>	1x M.2 2280 SATA interface		
<b>Internal Expansion Bus</b>			
<b>Mini PCI Express</b>	3x full-size mini PCI Express sockets with internal SIM sockets		

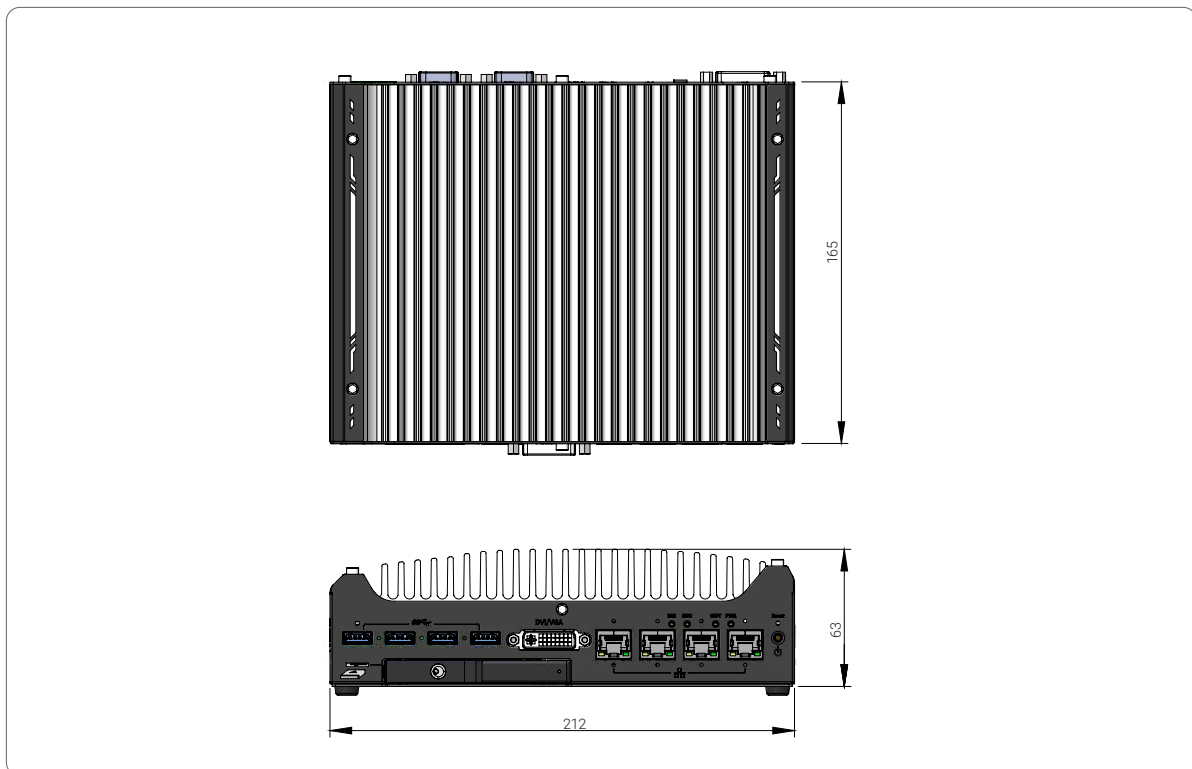
Nuvo-7531 Series



## Appearance



## Dimensions



## Ordering Information

Model No.	Product Description
Nuvo-7531	Intel® 9th/ 8th -Gen Core™ i7/ i5/ i3 compact fanless computer with 4x GbE , 4x USB 3.1 and a hot-swappable HDD tray
	<i>Optional ignition power control</i>

## Optional Accessories

PA-120W-OW	120W AC/ DC power adapter 20V/ 6A; 18AWG/ 120cm; cord end terminals for terminal block, operating temperature : -30°C to 70 °C
DINRAIL-31	DIN-rail mount assembly for Nuvo-7531 series
Fan kit	Fan kit with 92mm x 92mm fan for Nuvo-7531 series

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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