



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

### **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
- $\cdot$  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





#### Introduction

Nuvo-7531 is one of the most compact fanless embedded controller supporting Intel<sup>®</sup> 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<sup>®</sup> 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	
Processor	Supporting Intel <sup>®</sup> 9th/8th-Gen Core™ CPU (LGA1151 socket)  - Intel <sup>®</sup> Core™ i7-9700E/i7-9700TE/i7-8700/i7-8700T  - Intel <sup>®</sup> Core™ i5-9500E/i5-9500TE/i5-8500/i5-8500T  - Intel <sup>®</sup> Core™ i3-9100E/i3-9100TE/i3-8100/i3-8100T
Chipset	Intel® H310 platform controller hub
Graphics	Integrated Intel® UHD graphics 630
Memory	Up to 32 GB DDR4 2666/ 2400 SDRAM (one SODIMM slot)
I/O Interface	
Ethernet	4x Gigabit Ethernet ports by I219 and 3x I210
USB 3.1	4x USB 3.1 Gen1 (5 Gbps) ports
USB 2.0	2x USB 2.0 ports
Video Port (Integrated Graphics)	1x DVI-I for DVI/VGA output, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2304 resolution
Serial Port	2x software-programmable RS-232/ 422/ 485 ports (COM1/ COM2)
Audio	1x 3.5 mm jack for mic-in and speaker-out
Isolated DIO	4-CH isolated DI and 4-CH isolated DO
Storage Interface	
SATA HDD	1x hot-swappable 2.5" HDD/ SSD tray
M.2	1x M.2 2280 SATA interface
Internal Expansion	n Bus
Mini PCI Express	3x full-size mini PCI Express sockets with internal SIM sockets

Power Supply	
DC Input	1x 3-pin pluggable terminal block for 8~35V DC input with optional ignition power control
Remote Ctrl. & LED Output	1x 10-pin (2x5) pin header for remote on/off control and status LED output
Mechanical	
Dimension	212 mm (W) x 165 mm (D) x 63 mm (H)
Weight	2.5 kg
Mounting	Wall-mount (standard) or DIN-rail mount (optional)
Environmental	
Operating Temperature	with 35W CPU -25°C ~ 60°C */** with 65W CPU, optional fan kit is required -25°C ~ 60°C */**
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90%, non-condensing
/ibration	Operating, MIL-STD-810G, Method 514.6, Category 4
Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
EMC	CE/FCC Class A, according to EN 55032 & EN 55024

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

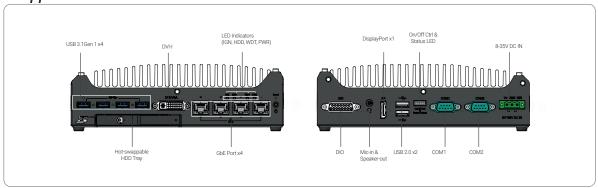
\*\* For i7 CPUs, thermal throttling may occur when sustained full-loading applied at 60°C ambient temperature.

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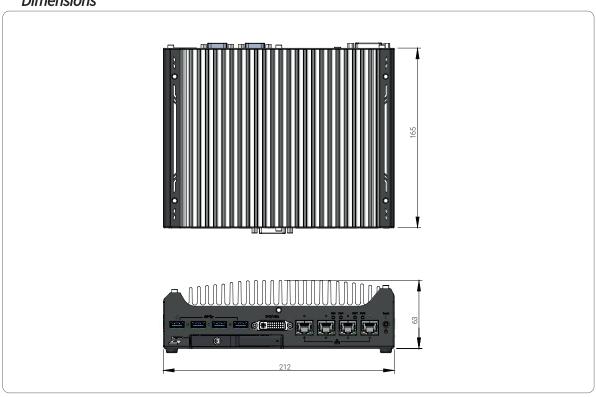




## **Appearance**



#### **Dimensions**



#### **Ordering Information**

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

# 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

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