

# Nuvo-5501 Series

Intel® 6th-Gen Core™ i7/ i5/ i3 Compact Fanless Embedded Controller with 3x GbE



CE FC

## Key Features

- Compact 221 x 173 x 76.2 mm footprint
- Supports Intel® 6th-Gen Core™ i7/ i5/ i3 LGA 1151 socket CPU
- Rugged, -25°C to 70°C wide temperature fanless operation
- 3x GbE and 4x USB 3.1 ports
- 2x RS-232/ 422/ 485 ports and 2x RS-232 ports
- VGA + DVI dual display outputs
- Accommodates one 3.5" HDD or 2.5" HDD/ SSD
- Optional 8-CH isolated DI and 8-CH isolated DO

## Introduction

Nuvo-5501 series features compact fanless embedded controllers for the cost and space conscious. Based on Intel® Skylake platform, it is designed to provide cutting-edge performance and reliable operation in extreme environment. Its LGA 1151 socket offers users the flexibility to select a 35W CPU from Intel® 6th-Gen Core™ i to Celeron® lineup to suit application needs.

Nuvo-5501 is the most compact fanless embedded controller supporting Skylake LGA 1151 socket CPUs, measuring just 221 x 173 x 76.2 mm, it is easy to deploy in restricted spaces. In its compact enclosure, Nuvo-5501 features rich, front-accessible I/Os including 3x GbE, 4x USB 3.1 and 4x COM ports. There is even enough room for a 3.5" HDD, compatible with the latest storage capacities.

The compact Nuvo-5501 is a cost-effective solution that does not compromise on performance and reliability, making it the ideal embedded controller for various industrial applications.

## Specifications

### System Core

Processor	- Intel® Core™ i7-6700TE (8M Cache, 2.4/ 3.4 GHz, 35W TDP)
	- Intel® Core™ i5-6500TE (6M Cache, 2.3/ 3.3 GHz, 35W TDP)
	- Intel® Core™ i3-6100TE (4M Cache, 2.7 GHz, 35W TDP)
	- Intel® Pentium® G4400TE (3M Cache, 2.4 GHz, 35W TDP)

Chipset Intel® H110 platform controller hub

Graphics Integrated Intel® HD 530/ 510 controller

Memory Up to 16GB DDR4-2133 (single SODIMM slot)

### I/O Interface

Ethernet port 1x Gigabit Ethernet port (via Intel® I219-LM)  
2x Gigabit Ethernet port (via Intel® I210-IT)

USB 3.1 4x USB 3.1 Gen1 (5 Gbps) ports

USB 2.0 2x USB 2.0 ports

Video port 1x VGA  
1x DVI-D

Serial Port 2x software-programmable RS-232/ 422/ 485 ports  
2x RS-232 ports

Isolated DIO 8-CH isolated DI and 8-CH isolated DO (optional)

### Storage Interface

SATA HDD 1x internal SATA port for 3.5" HDD or 2.5" HDD/ SSD

mSATA 1x full-size mSATA socket

### Expansion Bus/ Internal I/O Interface

mini-PCIe 1x full-size mini PCI Express socket

M.2 1x M.2 B key socket for 3G/ 4G options with SIM socket

USB 1x internal USB 2.0 port

Remote Ctrl. & Status Output 1x 2x6-pin 2.0mm pin-header connector for remote on/off control and status LED output

### Power Supply

DC Input 1x 3-pin pluggable terminal block for 8~35 VDC power input

### Mechanical

Dimension 221 mm (W) x 173 mm (D) x 76 mm (H)

Weight 2.8 Kg

Mounting Wall-mount (standard) or DIN-rail mount (optional)

### Environmental

Operating Temperature -25°C ~ 70°C \*/\*\*

Storage Temperature -40°C ~ 85°C

Humidity 10%~90%, non-condensing

Vibration Operating, 5 Grms, 5-500 Hz, 3 Axes  
(w/ SSD, according to IEC60068-2-64)

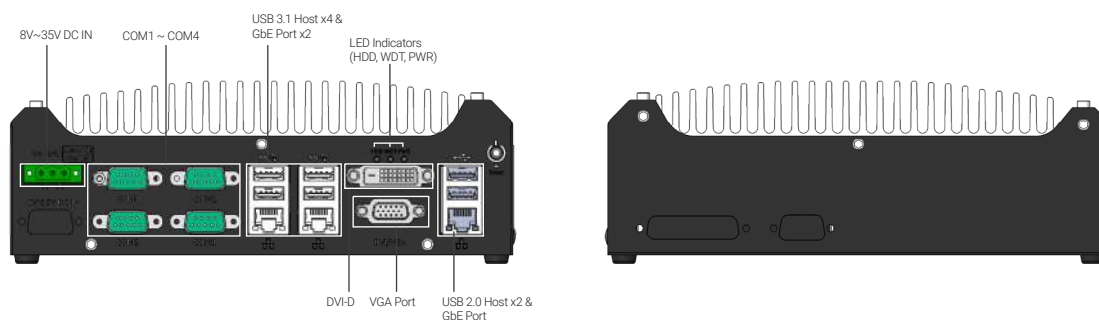
Shock Operating, 50 Grms, half-sine 11 ms duration  
(w/ SSD, according to IEC60068-2-27)

EMC CE/ FCC Class A, according to EN 55022, EN 55024 & EN 55032

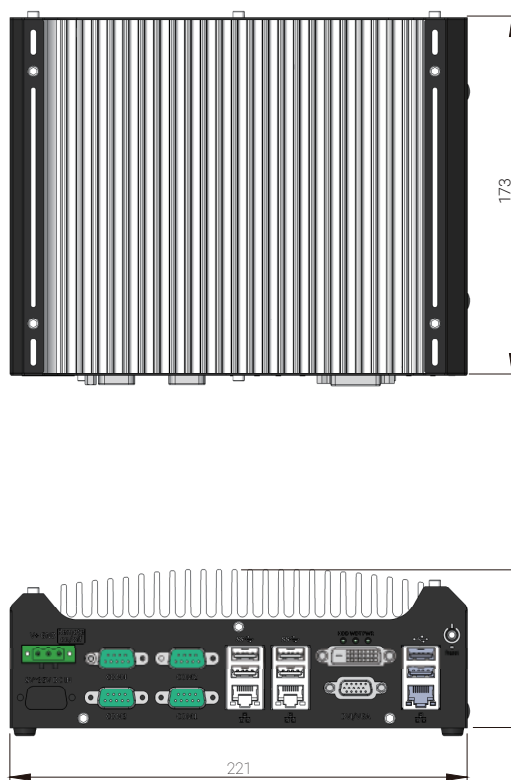
\* For i7-6700 running at 65W mode, the highest operating temperature shall be limited to 50°C and thermal throttling may occur when sustained full-loading applied. Users can configure CPU power in BIOS to obtain higher operating temperature.

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

## Appearance



## Dimensions



Unit: mm

## Ordering Information

Model No.	Product Description
Nuvo-5501	Intel® 6th-Gen Core™ compact fanless embedded controller with 3x GbE
Nuvo-5501-DIO	Intel® 6th-Gen Core™ compact fanless embedded controller with isolated DIO & 3x GbE

## Optional Accessories

DINRAIL-31	DIN-rail mount assembly for Nuvo-5501 series
PA-120W-OW	120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature : -30 to 70 °C.