

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 USB3.0 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 USB3.0 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

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|-----------|--|
| Processor | Supports following CPUs - 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) - Intel® Celeron® G3900TE (2M Cache, 2.3 GHz, 35W TDP) |
|-----------|--|

Chipset Intel® H110 platform controller hub

Graphics Integrated Intel® HD 530/ 510 controller

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

I/O Interface

| | |
|---------------|--|
| Ethernet port | 1x Gigabit Ethernet port (via Intel® I219-LM) 2x Gigabit Ethernet port (via Intel® I210-IT) |
| USB | 4x USB3.0 ports 2x USB2.0 ports |
| Video port | 1x VGA connector 1x DVI-D connector |
| 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 USB2.0 port |
| Remote Ctrl. & Status Output | 1x 2x6-pin 2.0mm pin-header connector for remote on/off control and status LED output |

Power Supply

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

Mechanical

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|-----------|--|
| Dimension | 221 mm (W) x 173 mm (D) x 76 mm (H) |
| Weight | 2.8 Kg (incl. CPU, memory and HDD) |
| Mounting | Wall-mount (standard) or DIN-rail mount (optional) |

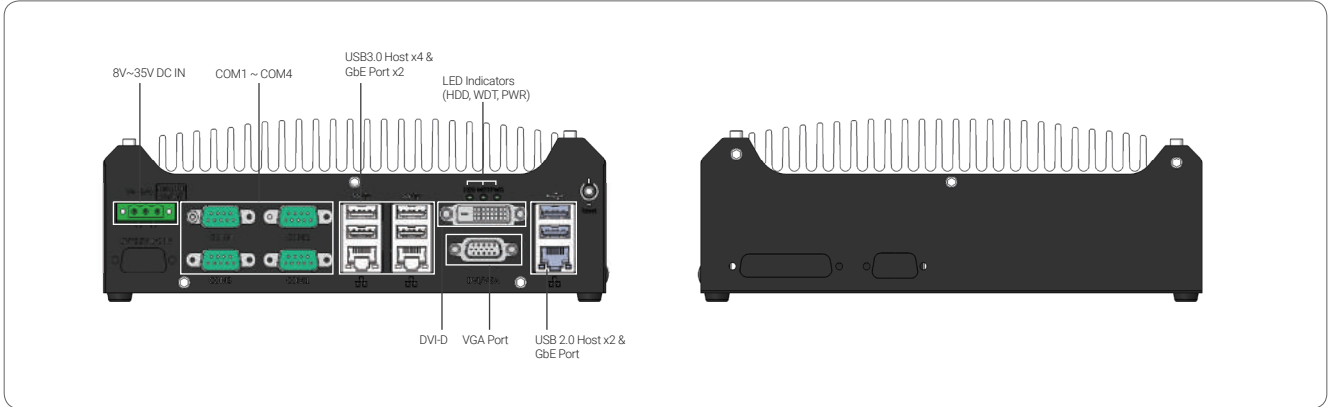
Environmental

| | |
|-----------------------|---|
| 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 |

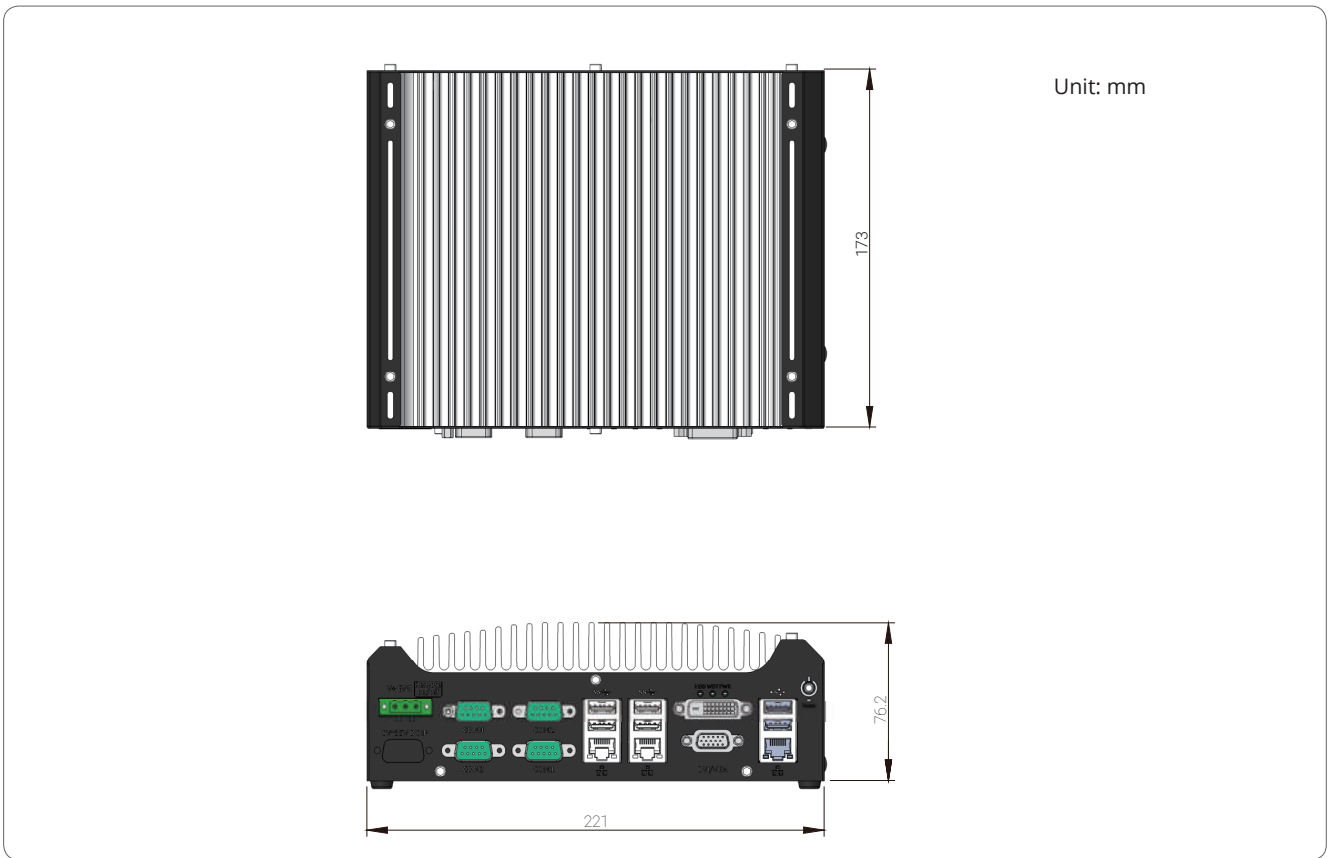
* The 100% CPU loading is applied using Passmark® BurnInTest 8.1. For detail testing criteria, please contact Neosys Technology

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

Appearance



Dimensions



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 mounting 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. |