

Nuvo-2500E/P Series

Intel® Celeron® Bay Trail Fanless Computer with Expansion Cassette



*R.O.C Patent No. M456527

Key Features

- Intel® Celeron® Bay Trail J1900 quad-core processor
- Compact 1x PCI/ PCIe expansion
- Rugged, -25°C to 70°C fanless operation
- Dual storage with 1x mSATA and 1x SATA
- Dual independent display via VGA and DVI connectors
- 2x RS-232/ 422/ 485 + 2x RS-232
- Optional MAIO for DI/O, PWM and encoder signals
- 8 to 35V DC wide-range DC input

Introduction

Nuvo-2500 series are general purpose fanless computers with Intel® Bay Trail processor. Powered by the quad-core Bay Trail processor, Nuvo-2500 shows outstanding computing power and is more power efficient compared to its predecessors. Nuvo-2500 supports dual independent display, dual storage for isolating system and data, 2x Gigabit Ethernet ports, 4x COM ports and 4x USB ports.

With one PCI or PCIe expansion slot, Nuvo-2500 still retains its compact dimensions measuring just 205mm (W) x 146mm (D) x 76mm (H). The PCI or PCIe expansion slot is situated in Neosys Patented expansion Cassette. The patented design significantly reduces thermal impact from the installed add-on card thus making Nuvo-2500 extremely reliable and stable under harsh environments.

Wireless communication such as 3G, LTE, Wi-Fi and BT are supported by internal Mini PCIe socket with USIM socket. As an option, Nuvo-2500 can be equipped with an Auxiliary I/O that includes 4x isolated digital inputs, 8x isolated digital outputs, 6x PWM outputs, 1x quadrature encoder input and 2x ADC. The Auxiliary I/O facilitates simple sequence and speed control for various types of motors making Nuvo-2500 the perfect controller for your versatile applications.

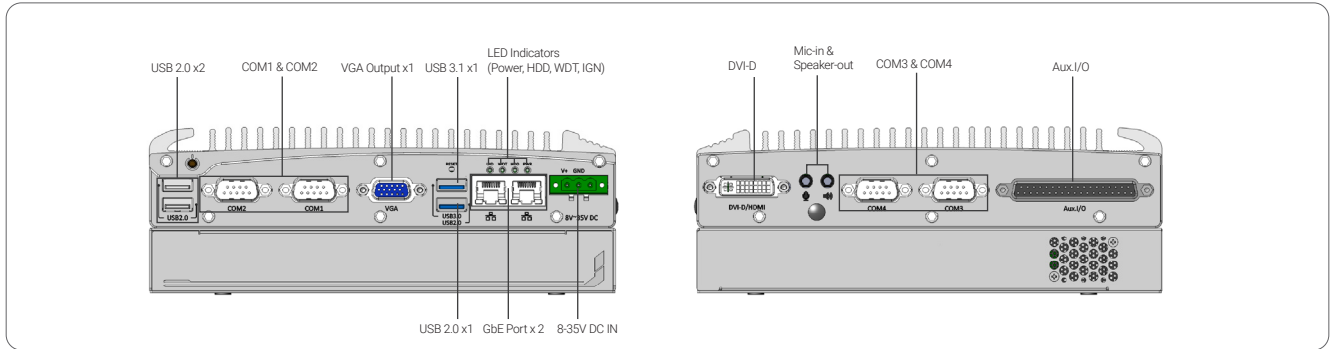
Specifications

| System Core | | Expansion Bus | |
|---------------------------|--|-----------------------|---|
| Processor | Intel® Celeron® Bay Trail J1900 quad-core processor (2.42 GHz, 2M cache) | Mini PCI-E | 1x full-size mini PCI Express socket with USIM holder (PCIe x1 Gen2 and USB2 signal) 1x full-size mini PCI Express socket (USB signal) |
| Graphics | Integrated Intel® HD graphics | PCIe (Nuvo-2500E) | 1x PCI Express x4 slot with 1-lane Gen2 PCI Express Signal, supporting max. card size up to 173mm (W) x 121mm (H) |
| Memory | Up to 8GB DDR3L 1333MHz SDRAM (single SODIMM slot) | PCI (Nuvo-2500P) | 1x PCI Slot with 33MHz/33-bit PCI, supporting max. card size up to 173mm (W) x 121mm (H) |
| Front Panel I/O Interface | | Power Supply | |
| Ethernet | 2x Gigabit Ethernet by Intel® Ethernet controller I210 | DC Input | 8-35V DC |
| Video Port | 1x VGA output, supporting resolution up to 2560 x 1600 | Mechanical | |
| Serial Port | 2x BIOS-configurable RS-232/ 422/ 485 (COM1 & COM2) | Dimension | 205 mm (W) x 145 mm (D) x 73 mm (H) |
| USB 3.1 | 1x USB 3.1 Gen1 (5 Gbps) port | Weight | 2.3 kg |
| USB 2.0 | 3x USB 2.0 ports | Mounting | Wall-mount (standard) or DIN-rail mount (optional) |
| Power Input | 1x 3-pin pluggable terminal block for DC input | Environmental | |
| Back Panel I/O Interface | | Operating Temperature | -25°C ~ 70°C with SSD, 100% CPU loading */** |
| Video Port | 1x DVI-D output via DVI-I, supporting resolution up to 2560 x 1600 | Storage Temperature | -40°C ~85°C** |
| Serial Port | 2x RS-232 (COM3 & COM4) | Humidity | 10%~90% , non-condensing |
| Audio | 1x Mic-in and 1x speaker-out | Vibration | Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64) |
| Aux I/O Port | 1x DB37 connector 1x DB-37 female connector 4x DI and 8x DO, 6x PWM, 1x encoder and 2x voltage inputs are available as an option of MAIO | Shock | Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27) |
| Back Panel I/O Interface | | EMC | CE/FCC Class A, according to EN 55022 & EN 55024 |
| SATA 2.0 | 1x Internal SATA port for 2.5" HDD/ SSD installation | | |
| mSATA | 1x internal half-sized mSATA (SATA + USB) | | |

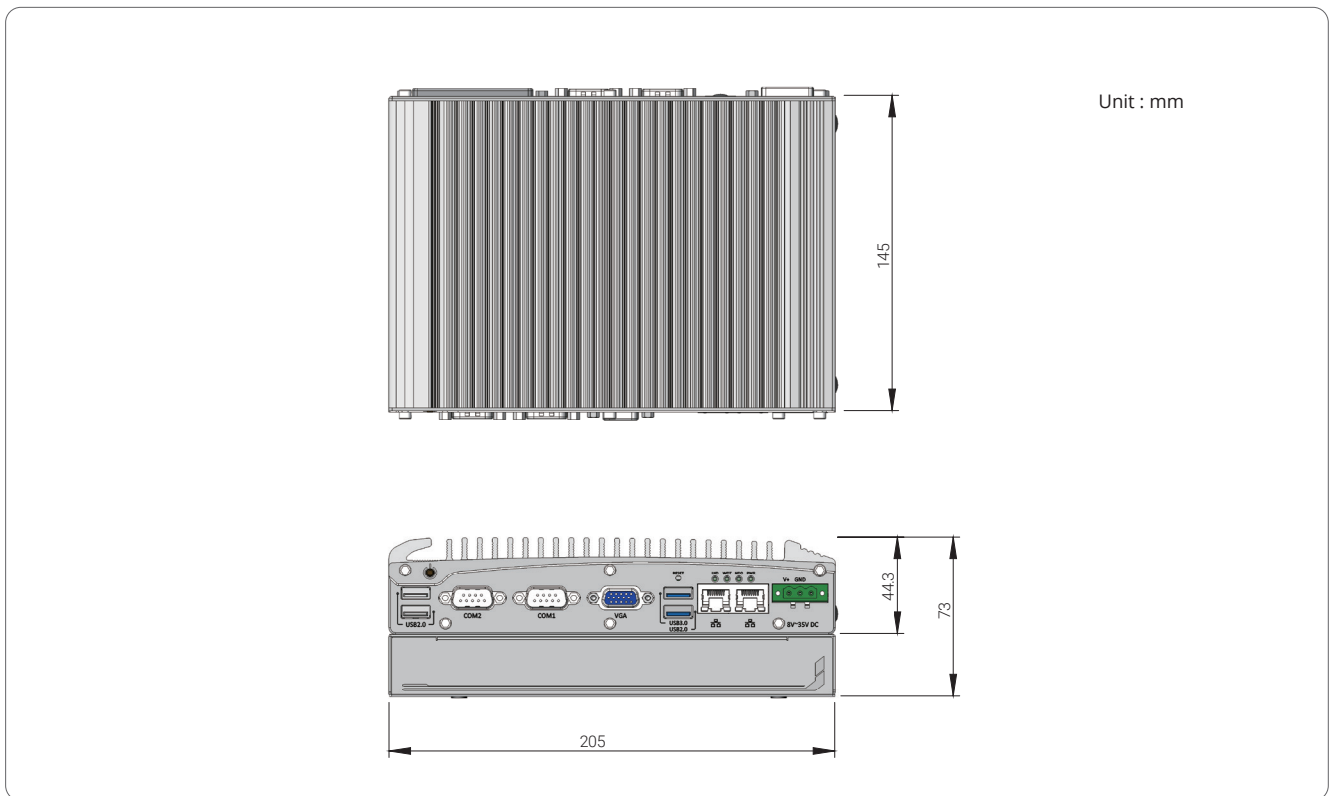
* The 100% CPU loading is applied using Passmark® BurnInTest™ v7.0. For detail testing criteria, please contact Neosys Technology

** 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 |
|---|---|
| <i>Nuvo-2500P</i> | Intel® Bay Trail Celeron® J1900 fanless embedded controller with 1x PCI slot in Neosys patented Cassette |
| <i>Nuvo-2500E</i> | Intel® Bay Trail Celeron® J1900 fanless embedded controller with 1x PCIe x4 slot (@ x1 signals) in Neosys patented Cassette |
| <i>Optional IEEE 802.3af PoE for 2 GbE</i> | |
| <i>Optional MAIO (4x DI, 8x DO, 6xPWM, 1x encoder and 2x voltage input)</i> | |

Optional Accessories

| | |
|-----------------------|--|
| <i>Fankit-25</i> | Fan assembly for 1-slot Cassette, 25x25x10 mm |
| <i>DINRAIL-25</i> | DIN-rail mount assembly for Nuvo-2500 series |
| <i>PA-60W-OW</i> | 60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. operating temperature : -30 to 60 °C. |
| <i>ETHY-100-2008S</i> | Ethernet I/O expansion module with 8 isolated digital inputs and outputs |
| <i>ETHY-100-2604S</i> | Ethernet I/O expansion module with 8 isolated digital inputs and 4 relays outputs (coming soon) |

Cassette Modules

| | |
|-------------------|--|
| <i>CSM-PoE354</i> | Cassette module with PCIe-PoE354at and pre-installed passive heat-spreader |
| <i>CSM-PoE352</i> | Cassette module with PCIe-PoE352at and pre-installed passive heat-spreader |
| <i>CSM-USB380</i> | Cassette module with PCIe-USB380 and pre-installed passive heat-spreader |
| <i>CSM-USB340</i> | Cassette module with PCIe-USB340 and pre-installed passive heat-spreader |