

# Nuvo-2400 Series

## Intel® Celeron® Bay Trail Fanless Shoe-Box IPC with Dual Display, Dual GbE and Triple PCI/PCIe Slots



### Features

- Intel® Celeron® Bay Trail J1900 quad-core processor
- 3x PCI slots or 1x PCIe x4 + 2x PCI slots
- Rugged, -25°C to 70°C fanless operation
- Dual independent display via DVI-I connector
- 2x SATA ports for 2.5" HDD/SSD
- 2x RS-232/422/485 and 2x RS-232
- Optional isolated 8-ch DI and 8-ch DO
- 8 to 25 VDC wide-range DC input

### Introduction

Nuvo-2400 is a fanless shoe-box IPC with 3 PCI/PCIe expansion slots. The expansion slots are provided for add-on cards, such as COM port cards and frame grabbers. Nuvo-2430 provides 3 PCI slots, while Nuvo-2421 provides one PCIe x4 slot with 1-lane PCI Express 2.0 signal and two PCI slots.

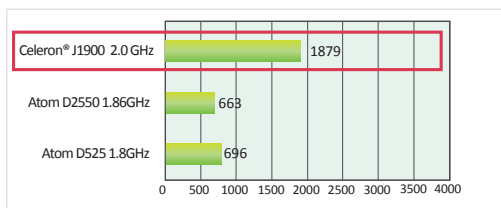
A convenient design of Nuvo-2400 facilitates the integration of both remote on/off switch and the system status indicators. Corresponding signals are reserved for buttons and LEDs outside of Nuvo-2400. And users can power on/off Nuvo-2400 externally. Furthermore, 8-channel digital input and 8-channel digital outputs are provided as an option of Nuvo-2400. All inputs and outputs are isolated and 24VDC-rated. This makes the DI/O compatible with many industrial sensors, indicators, coils and actuators.

Powered by Intel® Celeron® Bay Trail J1900 quad-core processor, Nuvo-2400 shows outstanding computing power and is even more power efficient compared to those with its predecessors. Nuvo-2400 supports dual independent displays, dual 2.5" SATA bays and dual gigabit LAN ports with teaming and PXE. These features, together with the 3 expansion slots, maximize the flexibility of Nuvo-2400 for even more generic applications.

### Product Highlights

#### Adequate Performance

Powered by Intel® Celeron® Bay Trail J1900 Processor, Nuvo-2400 Series shows outstanding computing power and is even more power efficient compared to those with its predecessors. Thermal Design Power, TDP, of J1900 is only 10W and shows a score around 3 times to D525 and D2550. Performance of Nuvo-2400 can meet most industrial control applications.



\* According to CPU Benchmark by PassMark® (<http://www.passmark.com>)

#### Small and Smart Chassis Design

Nuvo-2400 has an ingenious mechanical design which gives consideration to small dimension, superior heat dissipation, flexible wall-mounting or DIN-Rail mounting, and intuitive pattern of use. Furthermore, its compact chassis can accommodate two 2.5" SATA hard drives to expand your storage capacity.

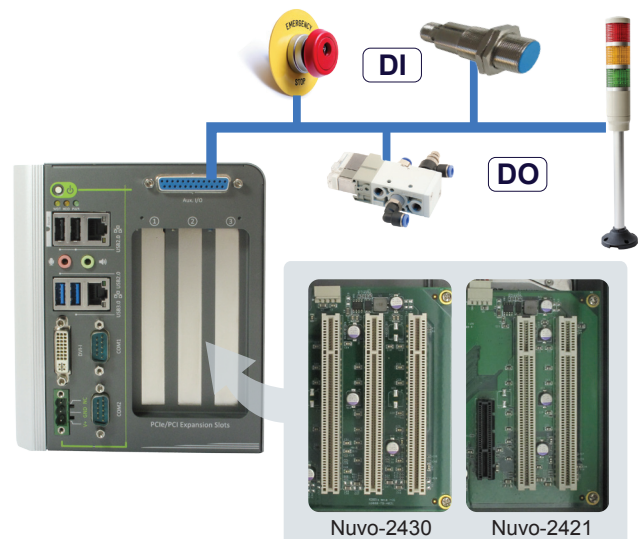


#### Dual VGA, Dual GbE and Dual Storage

Nuvo-2400 provide rich I/O configuration for industrial usage. Dual independent display is provided via a DVI-I connector. Dual GbE ports supporting PXE and Teaming provides sufficient network connectivity and bandwidth. Dual SATA ports allow to separate the system and data storage, and maximize the stability and storage space.

#### 3x Expansion Slot and Isolated DIO

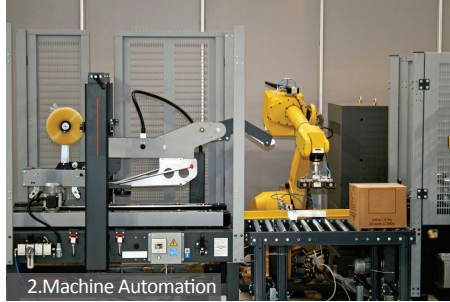
8-ch isolated DI and 8-ch isolated DO are available as an option on Nuvo-2400 without an additional add-on card. The expansion slots enable Nuvo-2400 to operate with more add-on cards and makes Nuvo-2400 suitable for various usage.



## Applications



1. Tollgate Control



2. Machine Automation



3. Factory Plant Monitoring



4. Intelligent Parcel System

## Specifications

System Core		Expansion Bus	
Processor	Intel® Celeron® Bay Trail J1900 Quad-core Processor (2.42GHz, 2MCache)	PCI	3x PCI Slot with 33MHz, 32-bit PCI signal (Nuvo-2430) 2x PCI Slot with 33MHz, 32-bit PCI signal (Nuvo-2421)
Graphics	Integrated Intel® HD graphics	PCI Express	1x PCI Express x4 slot with 1-lane Gen2 PCI Express signal (Nuvo-2421)
Memory	1x 204-pin SO-DIMM Socket up to 8GB DDR3L-1333MHz SDRAM	Power Supply	
Front Panel I/O Interface		DC Input	8~25V DC
Ethernet	2x Gigabit Ethernet by Intel® Ethernet Controller I210	Mechanical	
Video Port	1x DVI-I connector for VGA and DVI dual independent display outputs	Dimension	139 mm (W) x 160 mm (H) x 225 mm (D)
Serial Port	2x BIOS-Configurable RS-232/422/485 (COM1 & COM2)	Weight	2.2 kg
USB	1x USB3.0 and 3x USB2.0	Mounting	Wall-mount (Standard) or DIN-rail mount (Optional)
Audio	1x Speaker-out and 1x Mic-in	Environmental	
Power Input	1x 3-pinpluggable terminal block for DC input	Operating Temperature	-25°C ~ 70°C, 100% CPU loading */**
Internal I/O Interface		Storage Temperature	-40°C ~85°C
Serial Port	2x RS-232 (COM3 & COM4)	Humidity	10%~90% , non-condensing
Parallel Port	1x Parallel Port	Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, w/o add-on card, according to IEC60068-2-64)
Isolated DIO	Optional 8-CH DI and 8-CH DO (Polling Mode Only)	Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, w/o add-on card, according to IEC60068-2-27)
Remote Control & Status Output	1x 3-pin 2.0mm wafer connector for remote on/off control 1x 2x6-pin 2.0mm pin-header connector for status output	EMC	CE/FCC Class A, according to EN 55022 & EN 55024
Storage Interface			
SATA 2.0	2x internal SATA ports for 2.5" HDD/SSD installation		

\* 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.

## Order Information

### Nuvo-2430

Intel® Celeron® Bay Trail J1900 fanless shoe-box IPC with dual display, dual GbE and triple PCI Slots

### Nuvo-2421

Intel® Celeron® Bay Trail J1900 fanless shoe-box IPC with dual display, dual GbE and dual PCI and one PCIe4 slot

### 60W AD/DC power adapter 12V/5A

### Panel/cable kit for 2x COM ports

### Panel/cable kit for 1x COM + 1x LPT ports

### Option of isolated DIO for Nuvo-2400

### Option of DIN-rail mounting clip for Nuvo-2400