

Nuvo-11501

Intel® Core™ Ultra 200S Compact Fanless Computer with 2x 2.5GbE, 4x USB 3.2



Key Features

- Supports Intel® Core™ Ultra 200S series 35W/ 65W LGA1851 CPU
- Compact 212 x 165 x 80 mm footprint
- Rugged, -10°C to 60°C fanless operation
- Up to 64GB DDR5 6400 memory
- 8V to 48V wide-range DC input
- 2x 2.5GbE and 4x USB3.2 Gen1 with screw-lock
- Supports 1x M.2 2280 Gen4x4 NVMe and 1x 3.5"/2.5" SATA HDD/SSD storage
- HDMI + DP dual display outputs

Introduction

The Nuvo-11501 is a cost-effective, compact, fanless embedded AI computer powered by an Intel® Core™ Ultra 200S series processor. It is an ideal solution for machine vision or factory automation applications that demand cutting-edge CPU performance, cost efficiency, minimal I/O, and flexible storage options.

Powered by the latest Core™ Ultra 200S processors, the Nuvo-11501 delivers nearly 120% of the performance while consuming only 80% of the power compared to the previous generation, thanks to TSMC's advanced 3nm process technology. In addition to its superior CPU performance, the Core™ Ultra 200S series also features an integrated Neural Processing Unit (NPU), providing enhanced AI inference capabilities alongside rule-based algorithms to meet the demands of modern machine vision applications.

The Nuvo-11501 offers essential I/O functions for industrial application needs, including dual 2.5GbE ports, dual display ports, and four USB 3.2 ports. Additionally, it features a Gen4 x4 M.2 NVMe slot for high-speed OS read/write operations, along with an internal 2.5"/3.5" SSD/HDD bay for high-capacity storage—ideal for data logging or video recording. For internal expansion, it provides two mPCIe slots and one M.2 E-Key slot for adding COM ports, Wi-Fi, or 5G/ 4G LTE connectivity.

Combining a proven thermal design with essential I/O functionality, the Nuvo-11501 delivers a rugged, compact, and budget-friendly computing solution tailored for a wide range of industrial applications.

Specifications

System Core		Storage Interface	
Processor	Supports Intel® Core™ Ultra 200S series CPU (LGA 1851 socket), 35W and 65W TDP	SATA HDD	1x Internal SATA port for 1x 3.5" HDD or 1x 2.5" HDD/ SSD
	- Intel® Core™ Ultra 9 285/285T	M.2 M	1x M.2 2280 M key socket (PCIe Gen4x4) for NVMe SSD
	- Intel® Core™ Ultra 7 265/265T	Power Supply	
	- Intel® Core™ Ultra 5 245/245T	DC Input	1x 3-pin pluggable terminal block for 8V to 48V DC input with remote on/off control ^[1]
Chipset	Intel® H810 platform controller hub	Mechanical	
Graphics	Integrated Intel X® LPG Graphics	Dimension	212 mm (W) x 165 mm (D) x 80 mm (H)
AI Engine	Integrated neural processing unit	Weight	2.5 kg (excluding wall mount kit)
Memory	Up to 64GB DDR5 6400 memory via one SODIMM slot	Mounting	Wall-mount (optional) or DIN-rail mount (optional)
TPM	fTPM 2.0 (standard) / dTPM 2.0 (optional)	Environmental	
I/O Interface		Operating Temperature	With 35W CPU -10°C to 60°C ^[2]
Ethernet	2x 2.5GBASE-T Ethernet ports with screw-lock by Intel® i226-V GbE controllers Port 2 supports Wake-on-LAN (WOL)		With 65W CPU (installation of the optional fan kit is recommended) -10°C to 60°C ^{[2]/[3]}
USB	4x USB 3.2 Gen1 (5 Gbps) ports with screw-lock 2x USB 2.0 ports		Storage Temperature
Video Port (Integrated Graphics)	1x HDMI, supporting 3840 x 2160 resolution 1x DisplayPort, supporting 3840 x 2160 resolution (The DisplayPort does not support DP++. Use an active DP-to-HDMI adapter for HDMI output.)		-40°C to 85°C
Serial Port	1x software-programmable RS-232/422/485 port(COM1) 3x 3-wire RS-232 ports(COM2/3/4) or 1x RS-422/485 port(COM2)	Humidity	10% to 90%, non-condensing
Internal Expansion Bus		Vibration	MIL-STD-810H, Method 514.8, Category 4
Mini PCI Express	2x full-size mini PCI Express sockets with internal SIM sockets	Shock	MIL-STD-810H, Method 516.8, Procedure I
M.2 E	1x M.2 2230 E key socket for WiFi module	EMC	CE/FCC Class A, according to EN 55032 & EN 55035

[1] The maximum input current for each pin is 20A

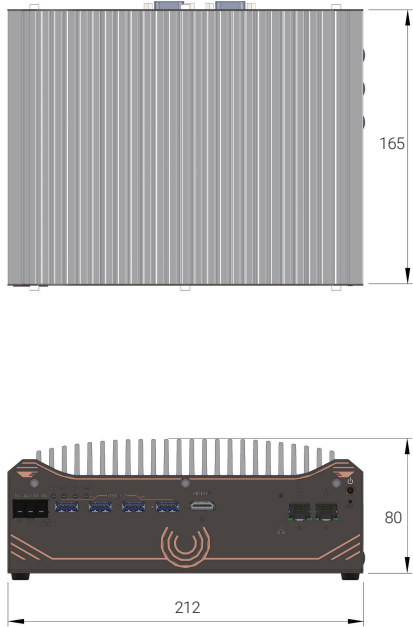
[2] For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

[3] For 65W CPUs, the optional fan kit is recommended for operating at ambient temperatures higher than 50°C.

Appearance



Dimensions



Unit : mm

Ordering Information

Model No.	Product Description
Nuvo-11501	Intel® Core™ Ultra 200S compact fanless computer featuring 2x 2.5GbE, 4x USB 3.2

Optional Accessories

DINRAIL-31	DIN-rail mounting assembly for Nuvo-11501 and Nuvo-9501 series
Wmkit-H-Nuvo9501	Wall mount assembly for Nuvo-11501 and Nuvo-9501 series
AccsyBx-FAN-Nuvo11531_11501	Fan kit with 92mm x 92mm fan for Nuvo-11588/ Nuvo-11531/ Nuvo-11501 series
PA-160W-OW	160W AC-DC power adapter 20V/8A; 18AWG/120cm; cord end terminals for terminal block, operating temperature: -30°C to 70°C.
PA-280W-ET2	280W AC/DC power adapter 24V/ 11.67A; 16AWG/ 100cm; cord end terminals for terminal block, operating temperature : -30°C to 60°C.(recommended for 65W CPU)