Nuvo-8111

AI platform with NVIDIA® 200W GPU support and Intel® Core™ 9th/8th Gen. CPU

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Features

- Intel® 9th/ 8th Gen. Core™, Pentium® or Celeron® CPU
- DDR4 2,666 SDRAM SODIMM, up to 32GB
- Intel® H310 chipset
- 2x GbE, 4x USB 3.1 Gen1 and 5x COM ports
- Operating temperature: -25 ° ~ 60 °C

Nuvo-8111 – Cost-efficient AI platform for factory automation

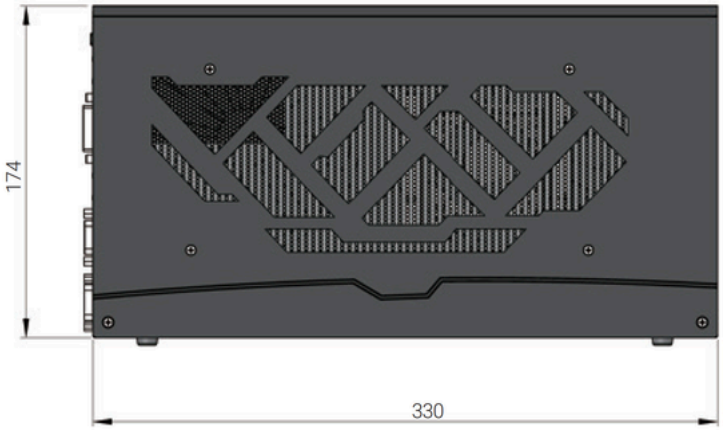
The Nuvo-8111 series is a cost-effective embedded box PC with 3 expansion slots designed specifically to support an advanced mid to high-end 200W NVIDIA® graphics card, such as an RTX 3060/ 3060 Ti, to offer stunning edge AI performance. Offering tremendous GPU power up to 20 TFLOPS in FP32 for emerging GPU-accelerated applications, they boost the performance and efficiency of factory automation, image recognition, product inspection, pick and place robots, and more.

Flexibility through expansion capabilities

Nuvo-8111 series leverages an Intel® 9th/ 8th-Gen Core™ processor with H310 chipset. It has one x16 Gen3 PCIe slot for accommodating a GPU card, and an additional x4 PCIe and a PCI slot for industrial I/O cards such as DIO, AIO, communication or motion control card. It features front-accessible I/Os including two GbE, four USB 3.1 Gen1 and five COM ports for easy access when it is rack-mounted or placed inside a cabinet. Storage-wise, the system supports two 2.5” SATA SSDs/ HDDs plus one mSATA socket to house an mSATA SSD.

As edge AI demand continues to grow for traditional production and factory automation, Nuvo-8111 seeks to fulfill this need. With mid to high-end GPU support, expansion capability, compact and rugged design that plays an important role in bringing artificial intelligence to the edge and factory floors, the Nuvo-8111 is no doubt the most cost-effective AI platform for automation in its class!

Dimensions (mm)



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Specifications	Nuvo-8111
SYSTEM	
CPU	Supporting Intel® 9th/ 8th-Gen Core™ CPU (LGA1151 socket) – Intel® Core™ i7-9700TE/ i7-8700*/ i7-8700T – Intel® Core™ i5-9500TE/ i5-8500*/ i5-8500T – Intel® Core™ i3-9100TE/ i3-8100*/ i3-8100T – Intel® Pentium® G5400T (4M Cache, 3.1GHz, 35W TDP) – Intel® Celeron® G4900T (2M Cache, 2.9GhHz, 35W TDP)
Chipset	Intel® H310 platform controller hub
Graphics	Integrated Intel® UHD graphics 630, or independent NVIDIA® RTX 3060/ 3060 Ti via x16 PEG port
RAM	Up to 32 GB DDR4 2,666 SDRAM (one SODIMM slots)
Storage	2x internal SATA ports for 2.5″ HDD/ SSD installation 1x Full-size mSATA port (SATA + USB 2.0 + USIM)
Expansion	1x PCIe x16 slot @Gen3, 16-lane (for GPU installation) 1x PCIe x4 slot @Gen2, 4-lane signal 1x 33MHz/ 32-bit 5V PCI slot
INTERFACE	
Ethernet	1x Gigabit Ethernet port by Intel® I219-LM 1x Gigabit Ethernet port by Intel® I210-IT
USB	4x USB 3.1 Gen1 (5 Gbps) ports 1x USB 2.0 port with Type-A connector (internal) 2x USB 2.0 port with 2×8 pins box header (internal)
COM	COM 1: 1x software-programmable RS-232/ 422/ 485 port COM 2: 1x software-programmable RS-422/ 485 port COM 3/4/5: 3x 3-wire RS-232 ports
Video	2x DVI-D connector, supporting 1920 x 1200 resolution
Audio	1x 3.5 mm jack for mic-in and speaker-out
Power	1x 3-pin pluggable terminal block
ENVIRONMENTAL	
Power Supply	DC input: 24V DC
Operating Temperature	-25° ~ 60°C**
Storage Temperature	-40° ~ 85°C
Vibration / Shock Resistance	Vibration: Operating, MIL-STD-810G, Method 514.6, Category 4 Shock: Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
Humidity	10 ~ 90% , non-condensing
Dimensions	174 (W) x 330 (D) x 174 (H) mm
Weight	4.5 kg
Mounting	Optional wall-mount bracket
Certifications	CE/FCC Class A, according to EN 55032 & EN 55035

* For i7-9700E and i7-8700 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 or Solid State Disk (SSD) is required.

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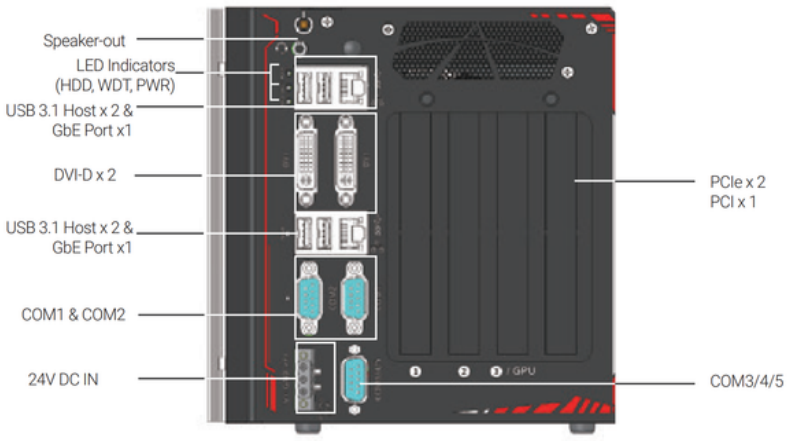

Optional Accessories	
PA-280W-ET2	280W AC/DC power adapter 24V/11.67A; 16AWG/100cm; cord end terminals for terminal block, operating temperature : -30°C to 60°C
Wmkit-H-Nuvo8111	Wall mounting assembly for Nuvo-8111 series, horizontal type