

Nuvo-3120

Compact Intel® 3rd-Gen Core™ i7/ i5 Fanless Controller with Configurable CPU Power Mode



Key Features

- 212mm x 165mm x 62mm compact size
- Intel® 3rd-Gen Core™ i7/ i5 PGA-type processor
- User-configurable CPU power mode for adaptation to various environments
- Dual GbE ports and four USB3.0 ports
- DVI/VGA + DisplayPort triple independent display outputs
- Built-in isolated digital I/O with Change-of-State (COS) interrupt
- 8 ~ 35V wide-range DC input

Introduction

It is one of the most compact fanless controllers supporting Intel® 3rd-Gen Core™ i7 /i5 PGA-type processor, Neosys Nuvo-3120's footprint measures just 212 mm x 165 mm x 62mm. While other compact fanless controllers adopt low-voltage BGA-type Core™ i7 CPU (17W), Nuvo-3120 supports standard voltage PGA-type Core™ i7/ i5 CPUs (45W/ 35W) for better computation power and flexible CPU selection. A unique feature, configurable CPU power mode, is developed to balance the trade-off between heat-sink size and operating temperature. According to ambient conditions, you can configure Nuvo-3120 to operate in Maximum Performance, reduced performance or extended temperature mode.

Regardless of its' compact dimensions, the system still has plenty of I/O functions such as Gigabit Ethernet, USB3.0, SATA, COM port, mini-PCIe and isolation DIO. It also supports triple-independent display outputs to benefit image-related applications. Compact yet powerful, Nuvo-3120 meets all your embedded controller needs.

Specifications

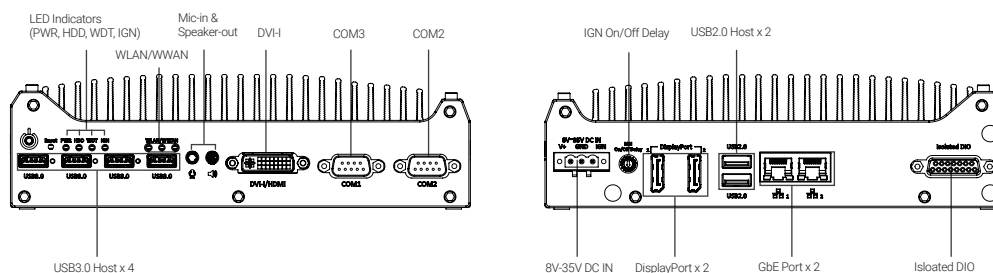
System Core	
Processor	Intel® Core™ i7-3610QE (2.3/ 3.3 GHz, 6 MB cache) Intel® Core™ i5-3610ME (2.7/ 3.3 GHz, 3 MB cache) Intel® Celeron® 1020E (2.2 GHz, 2 MB cache)
Chipset	Intel® HM76 Platform Controller Hub
Graphics	Integrated Intel® HD Graphics 4000 Controller
Memory	Up to 8GB DDR3 1333/ 1600 MHz SDRAM (single SO-DIMM slot)
I/O Interface	
Ethernet	1x Gigabit Ethernet port by Intel® 82579LM, supporting Wake-on-LAN 1x Gigabit Ethernet ports by Intel® i210
Video Port	1x DVI-I connector for VGA/DVI output, supporting 2048x1536 (VGA) or 1920x1080 (DVI) resolution 2x DisplayPort, supporting 2560x1600 resolution (triple-independent display support)
USB	4x USB3.0 ports and 2x USB2.0 ports
Serial Port	2x software-programmable RS-232/ 422/ 485 (COM1 & COM2)
Isolated DIO	4x isolated DI with COS interrupt and 4x isolated DO
Audio	1x Mic-in and 1x speaker-out
Storage Interface	
SATA HDD	1x Internal SATA port for 2.5" HDD/ SSD
mSATA	1x full-size mSATA (SATA/USB/W_DISABLE#) with USIM socket
Expansion Bus	
Mini PCI-E	1x full-size mini PCI Express socket with USIM socket 1x half-size mini PCI Express socket

Power Supply & Ignition Control				
DC Input	1x 3-pin pluggable terminal block for 8~35V DC input			
Ignition Control (Optional)	Ignition power control with user-selectable on/off delay			
Power Consumption	With i7-3610QE : 72.96W (3.84A@19V) With i5-3610ME : 48.83W (2.57A@19V)			
Mechanical				
Dimension	212mm (W) x 165mm (D) x 62mm (H)			
Weight	2.7kg (incl. CPU, memory and HDD)			
Mounting	Wall-mounting (standard) or DIN-rail mounting (optional)			
Environmental				
Operating Temperature		i7-3610QE, 100% CPU loading*	i5-3610ME, 100% CPU loading*	Celeron 1020E, 100% CPU loading*
	Maximum Performance	-25°C ~ 50°C**	-25°C ~ 60°C**	-25°C ~ 70°C**
	Reduced Performance	-25°C ~ 60°C**	-25°C ~ 70°C**	-25°C ~ 70°C**
	Extended Temperature	-25°C ~ 70°C**	-25°C ~ 70°C**	-25°C ~ 70°C**
Storage Temperature	-40°C ~ 85°C			
Humidity	10%~90% , non-condensing			
Vibration	Operating, 5Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)			
Shock	Operating, 50Grms, Half-sine 11ms Duration (w/ SSD, according to IEC60068-2-27)			
EMC	CE/FCC Class A, according to EN 55022 & EN 55024			

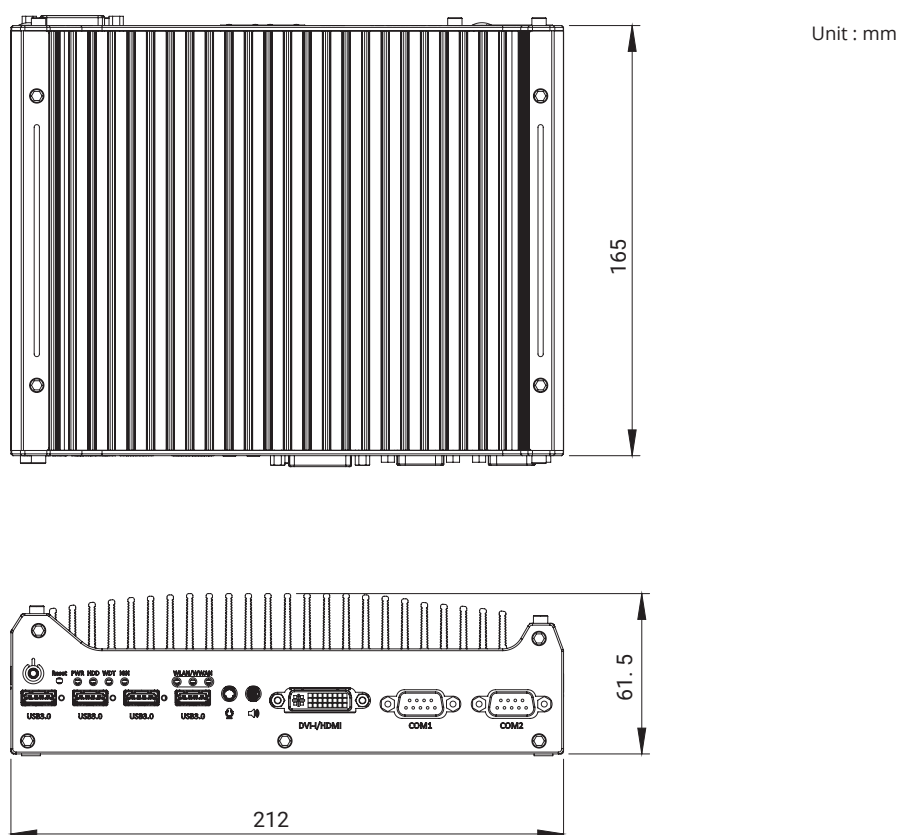
* The 100% CPU loading is applied using Passmark® BurnInTest™ v7.0. For detail testing criteria, please contact Neosys Technology

** 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
Nuvo-3120	Intel® 3rd-Gen Core™ i fanless embedded controller with 2x GbE, 4x USB3.0, compact size and configurable CPU power mode
<i>Optional ignition power control</i>	

Optional Accessories

DINRAIL-31	DIN-rail mounting assembly for Nuvo-3120 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.