



Key Features

- NVIDIA Jetson Orin NX 16GB SOM Super Mode support, up to 157 SPARSE (78 DENSE) INT8 TOPS
- NVIDIA Jetson Orin NX 8GB SOM Super Mode support, up to 117 SPARSE (58 DENSE) INT8 TOPS
- NVIDIA Jetson Orin Nano 8GB SOM Super Mode support, up to 67 SPARSE (33 DENSE) INT8 TOPS
- NVIDIA Jetson Orin Nano 4GB SOM Super Mode support, up to 34 SPARSE (17 DENSE) INT8 TOPS
- POE SKU integrates 2x POE ports. Each port supports IEEE 802.3AF
- Anti Shock and Vibration
- Wide Range Operating Temperature
- 12-36V Phoenix type DC IN support
- 2nd DC IN Interface (PD3.0 20V USB Type-C with Locking feature) for Mobile device application or Redundant power source
- Wall Mount or DIN-Rail for Vertical IPC Installation (All SKU)
- Wall Mount or VESA Mount for Horizontal IPC Installation (BASIC SKU only)
- Carrier board reserved 2pcs Four Lane MIPI-CSI2 connectors (Option for DSC-NV002-WT)

Specification

Processor	NVIDIA Jetson Orin NX SOM 16GB support (Basic SKU iEP-6010E-000, PoE SKU iEP-6010E-001, 5G SKU iEP-6010E-003)
	NVIDIA Jetson Orin NX SOM 8GB support (Basic SKU iEP-6011E-000)
	NVIDIA Jetson Orin Nano SOM 8GB support (Basic SKU iEP-6012E-000, PoE SKU iEP-6012E-001, 5G SKU iEP-6012E-003)
	NVIDIA Jetson Orin Nano SOM 4GB support (Basic sku iEP-6013E-000)
Memory	16GB 128-bit LPDDR5 (Jetson Orin NX 16GB)
	8GB 128-bit LPDDR5 (Jetson Orin NX 8GB)
	8GB 128-bit LPDDR5 (Jetson Orin Nano 8GB)
	4GB 64-bit LPDDR5 (Jetson Orin Nano 4GB)
Storage	For Jetson Nano 8G/4G SOM Super Mode and Jetson NX 16G/8G
	SOM : 1 x M.2 (Key M, 2280) for wide temperature PCIe Gen3 x 4 NVMe
	SSD module (System Operating temperature -25° C-60° C) 1 x M.2 (Key M,2280)for wide temperature PCIe Gen4 x 4 NVMe SSD module (System Operating temperature -25° C-55° C) For Jetson NX 16G/8G SOM Super Mode: TBD
	PCIe Gen4 x 4 SSD only supported by Orin NX SOM
	-1 x Micro SD Card Slot (UHS-I/SDR-50)
Front I/O Interface	2x 1G LAN (LAN1 from SOM, LAN2 from Intel I210AT)
	2x Intel I210AT ports, each port supports IEEE 802.3AF PoE (Orin NX SOM 16GB PoE SKU iEP-6010E-001,Orin Nano SOM 8GB PoE SKU iEP-6012E-001)
	1 x RS-232, 1 x RS-232/422/485 (Pin9 default is N/A,+5V or +12V/1A software programmable)
	2 x USB 3.2 Gen 2x1 (one with Locking) 2 x USB 2.0, 1 x Micro USB 2.0 (Device mode only, for OS Flash) DPR connector: 1 x DB15 for 4*DI, 4*DO, GND, Power Pin
Extensions	For PCIe Gen3 x1 / USB3.2 Gen2x1 5G module (Option)(5G SKU Only, Orin NX SOM 16GB 5G SKU iEP-6010E-003 Orin Nano SOM 8GB 5G SKU iEP-6012E-003)
	For PCIe Gen3 x1 / USB3.2 Gen2x1 4G LTE module (Option)(5G SKU Only, Orin NX SOM 16GB 5G SKU iEP-6010E-003, Orin Nano SOM 8GB 5G SKU iEP-6012E-003)
	For PCIe Gen3 x1 M.2 B Key 2280 SSD module (Option, Basic SKU Only) 1x M.2 (Key E, 2230) for PCIe Gen3 x1 Wi-Fi and USB2.0 Bluetooth module(Option)
	-1 x Nano SIM Card slot
Operating System	NVIDIA JetPack 5.1.2 for Jetson Nano 8GB/4GB SOM and NX 16GB/8GB SOM ready
Operating Temp	For Jetson Nano 8GB/4GB SOM Super Mode and Jetson NX 16GB/8GB SOM:
	-25~60° C (-13~140°F) for Basic sku, PoE sku, or 5G sku w/ 4G TLE Module when installed with WT SSD Gen3 x 4
	-25~55° C (-13~131°F) for Basic sku, PoE sku, or 5G sku w/ 4G TLE Module when installed with WT SSD Gen4 x 4
	-25~55° C (-13~131°F) for 5G sku w/ 5G Module when installed with WT SSD Gen4 x 4 or WT SSD Gen3 x 4 (w/ air flow 0.5~0.8m/s)
For Jetson NX 16GB/8GB SOM Super Mode: TBD	
Storage Temp	40°C~85°C (-40°F~185°F)
Relative Humidity	~90% @ 45°C (non-condensing)
Weight/Dimension	Basic SKU : 55(W) x 170(H) x 134(D) mm
	POE/5G SKU : 68(W) x 170(H) x 134(D) mm
Install	Horizontal Wall mounting or VESA mounting bracket (Basic SKU only)
	Vertical Wall mounting or Din Rail mounting bracket (All SKU)
Certification	Vibration, Shock, Safety, EMC

Ordering Information

iBOX-N601

Fanless Embedded PCs NVIDIA Jetson Orin NX/Nano with onboard memory options & Rich I/o ports