

SINTRONES

Edge AI Computing

IBOX-600

**NVIDIA® Jetson Orin NX / Orin Nano Fanless
Edge AI Computer**



- NVIDIA® Jetson Orin™ NX SoM with 1024 CUDA Cores
- Compact Size with Fanless Design
- 1 x CAN FD for Vehicle Connection
- 2 x Ethernet with RJ45 / M12 Connectors
- 9-60VDC Input with Built-in Smart Power Management
- -25~ 70°C Operating with Fanless Design
- Optional Backup Battery for Emergency

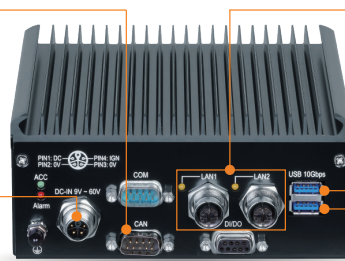
Edge AI Application



CAN FD
Enables In-Vehicle Networking



Wide Range Power Input
9~60V DC Input with Smart Power Management



Dual Ethernet
RJ45/M12 Model Available



2.5 GbE
Connect to PoE Switch



GbE
Perfect for LiDAR Connection



Dual USB 3.2
High Speed Connection for Cameras or Sensors

Specifications

System

- Module**
- NVIDIA® Jetson Orin™ NX 16GB (1024 CUDA cores + 8-core ARM Cortex-A78AE CPU + 16 GB LPDDR5)
 - NVIDIA® Jetson Orin™ NX 8GB (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)
 - NVIDIA® Jetson Orin™ Nano 8GB (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8GB LPDDR5)
 - NVIDIA® Jetson Orin™ Nano 4GB (512 CUDA cores + 6-cores ARM Cortex-A78AE CPU + 4GB LPDDR5)

Network

- Intel® Industrial 2.5GbE, soM Built-in GbE

Security

- Platform Security Controller (PSC), Security Engine (SE)

Interface

Ethernet

- 2 x RJ-45 / M12 X-coded for 1 x 2.5GbE & 1 x GbE

USB

- 2 x USB 3.2 Type-A * Two ports share 10Gbps bandwidth

Video

- 1 x HDMI Type-A output supports 4K resolution

Audio

- 1 x HD Audio output from the HDMI

Serial Port

- 1 x DB-9 for RS-232/422/485

CAN Bus

- 1 x DB-9 for CAN FD

GPIO

- 1 x DB-9 for 4 x DI / 4 x DO

Mgmt. Port

- 1 x USB Type-C for System Recovery (Device only)

SIM Card

- 1 x Nano SIM Card Slot

Antenna

- 5 x Pre-cut Holes for External SMA Antenna

Internal Expansion

M.2 Slot

- 1 x M.2 3042/52 Key B slot (USB3.0) with a Nano SIM Card Slot
- 1 x M.2 2230 Key E slot

mPCIe Slot

- 1 x mPCIe Full size slot (USB.2.0 supported)

Storage

Type

- 1 x M.2 2280 Key M slot supports NVMe SSD (Pre-installed system BSP)

Power

Supply Voltage

- 1 x DC-IN 9 ~ 60V with Smart Power Management, OCP and OVP

RTC Battery

- High-capacity coin cell battery for RTC

UPS (Option)

- Backup battery for System Power Backup

Software

Operating System / BSP

- NVIDIA® JetPack including Jetson Linux, NVIDIA® development tools

Environmental

Operating Temp.

- -25°C ~ 70°C (-13°F ~ 158°F), ambient w/ 0.6m/s airflow

* Operating temp. varies by accessories installed.

Storage Temp.

- -40°C ~ 80°C (-40°F ~ 176°F)

Relative Humidity

- 10% RH – 90% RH (non-condensing)

Vibration

- Random - IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
- MIL-STD-810G - Method 514.6, Procedure I, Category 4

Shock

- MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD

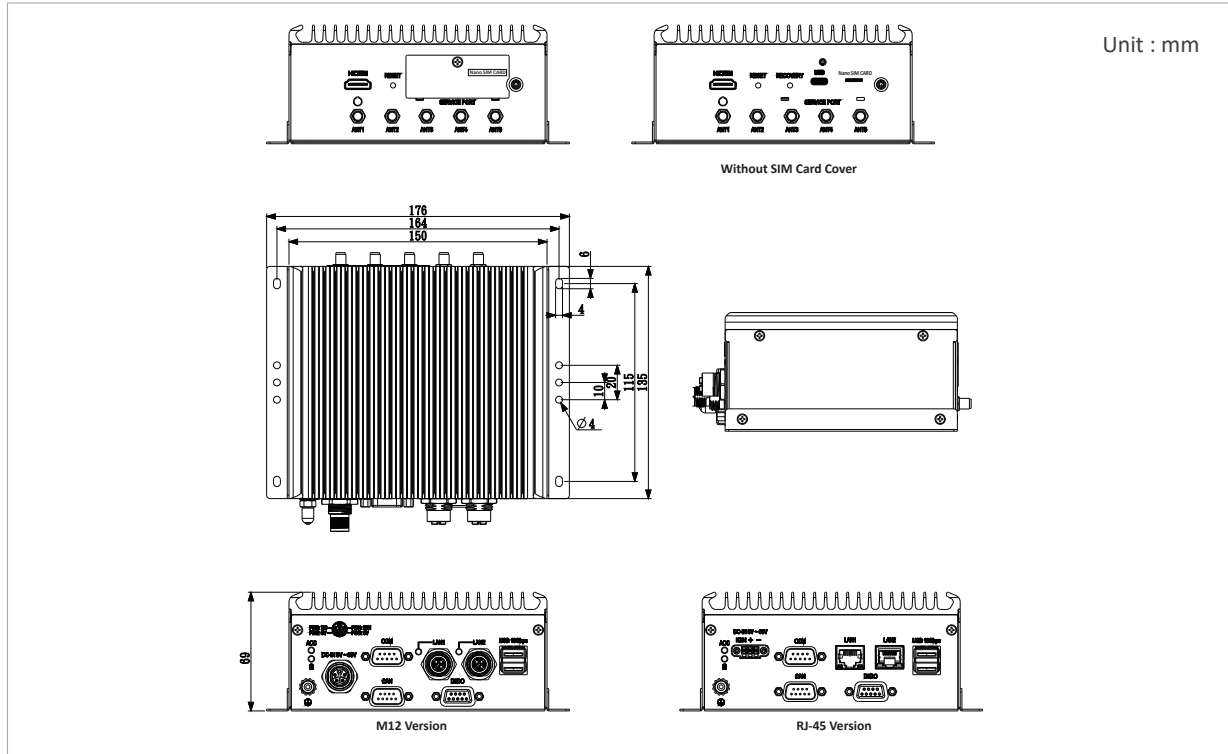
Certification / Standard

- CE, FCC Part-15 Class A, E-mark, EN 50155, EN 45545-2 (R25)

Mechanical

- Construction**
 - Aluminum Alloy
- Thermal Design**
 - Fanless Passive Cooling Design
- Mounting**
 - DIN-rail, Wall Mount
- Weight**
 - 1370 g
- Dimensions**
 - 150 mm (L) x 135 mm (W) x 69 mm (H)

Dimensions



Ordering Information

Model Number	IBOX-600-ONX16	NVIDIA® Jetson Orin™ NX 16GB
	IBOX-600-ONX8	NVIDIA® Jetson Orin™ NX 8GB
	IBOX-600-ON8	NVIDIA® Jetson Orin™ Nano 8GB
	IBOX-600-ON4	NVIDIA® Jetson Orin™ Nano 4GB
	IBOX-600-M12X-ONX16	NVIDIA® Jetson Orin™ NX 16GB / Model M12X
	IBOX-600-M12X-ONX8	NVIDIA® Jetson Orin™ NX 8GB / Model M12X
	IBOX-600-M12X-ON8	NVIDIA® Jetson Orin™ Nano 8GB / Model M12X
	IBOX-600-M12X-ON4	NVIDIA® Jetson Orin™ Nano 4GB / Model M12X
Description	NVIDIA® Jetson Orin™ NX / Nano SoM w / 2x LAN/ 1x HDMI / 1x CAN bus / DC 9-60V / Edge AI Computer	
State of Origin	Made in Taiwan	

*NVMe SSD performance could be limited according to the storage capacity
Jetson Orin SoM Lifecycle is available through January 2032.

Optional Accessories

Storage*	M.2 2280 NVMe SSD 240GB / 480GB / 960GB
Wi-Fi	M.2 2230 Wi-Fi Module
WWAN Modem	M.2 3042/52 WWAN Modem
GPS	mPCIe GPS Module
UPS	BAT-2300v2 (Operating Temp. : -20°C ~ 60°C / -4°F ~ 140°F)

*The NVMe SSD is a mandatory accessory for this product.

All specifications are subject to change without notice.

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Assured Systems

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