

IBOX-600

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

JetPack 6.2 Super Mode Support



- 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

Distributed by:



Edge AI Application

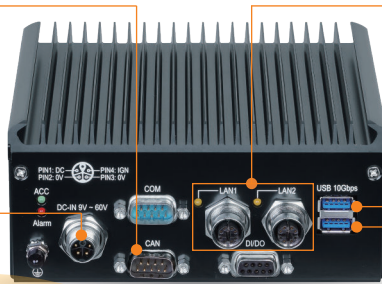


CAN FD

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-core 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

DIO

- 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

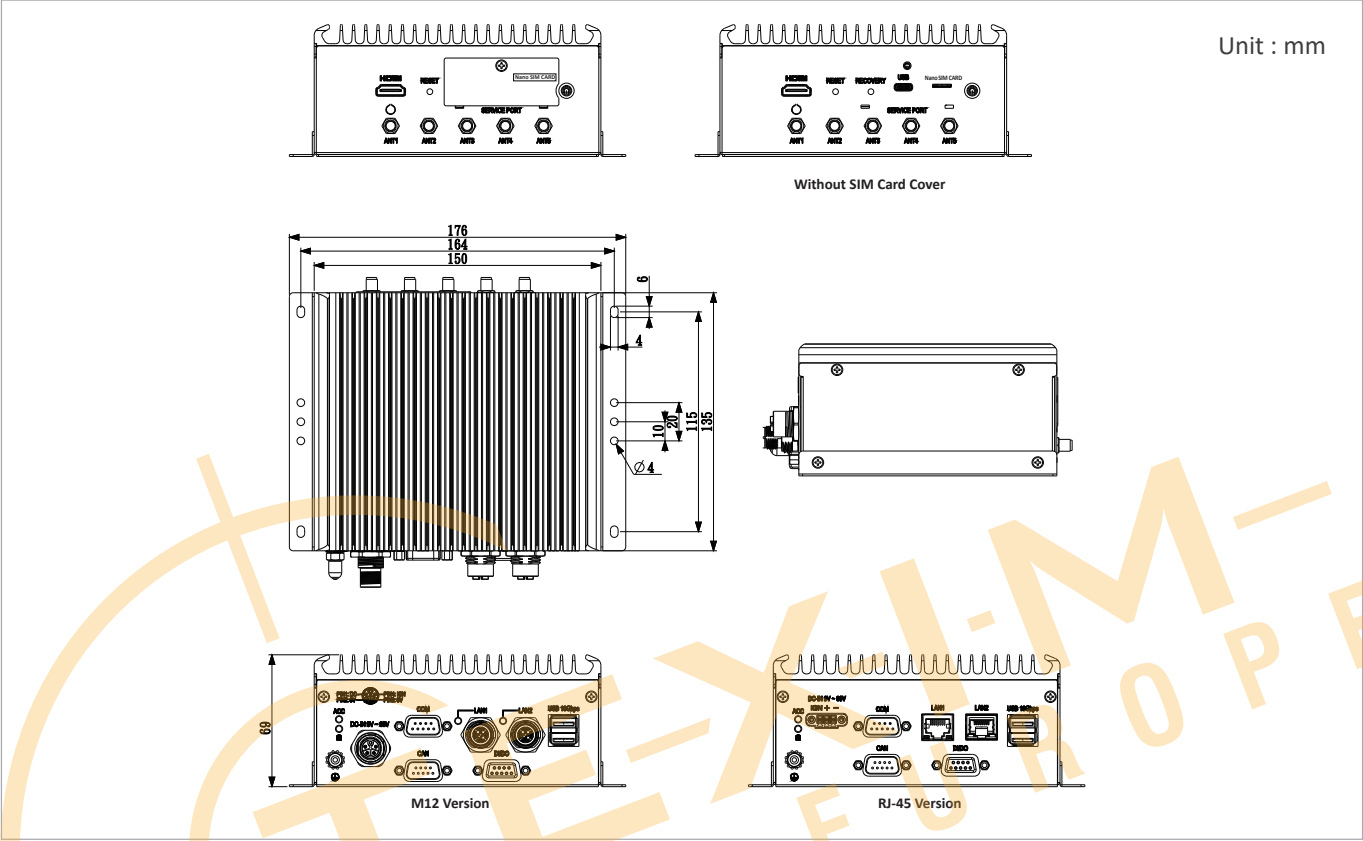
Certification / Standard

- 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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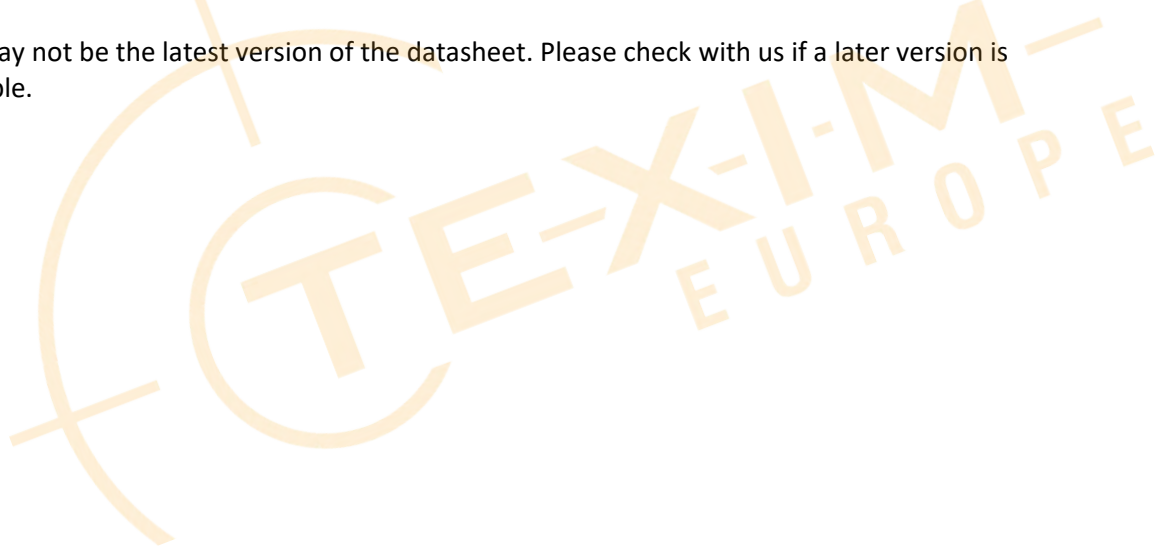
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





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