

# 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

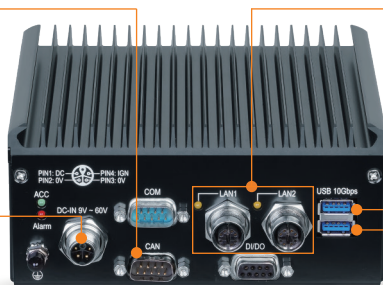
## Edge AI Application



**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

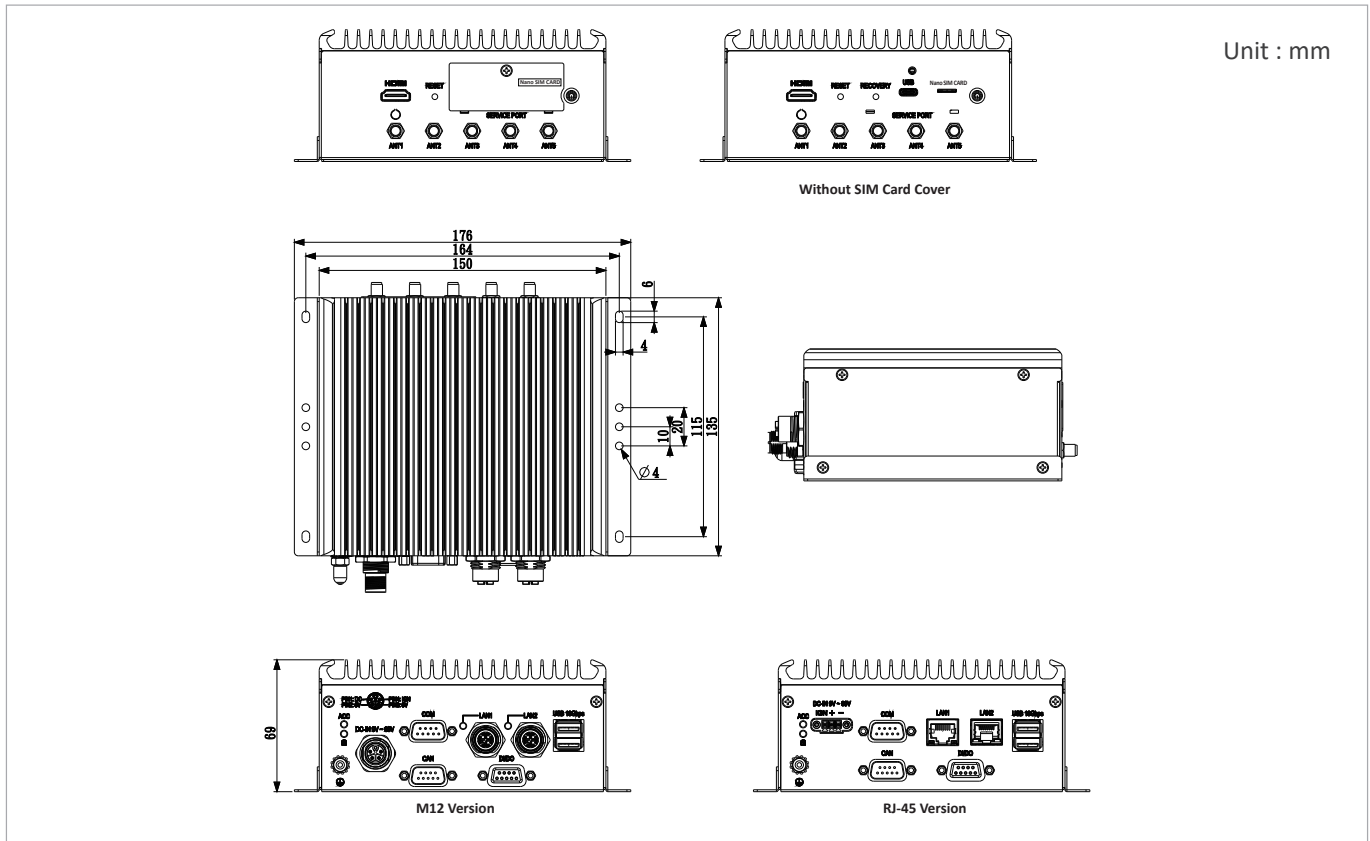
**Weight**

- 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.