

# IBOX-600

## NVIDIA® Jetson Orin NX / Orin Nano Fanless Intelligent Computer



- ARM® Cortex®-A78AE 8-core Processor (Jetson Orin NX 16GB)
- 1024 NVIDIA® CUDA® Cores, 32 Tensor Cores
- 3 x M.2 Slots for Wi-Fi / WWAN / SSD Expansion
- 1 x CAN FD for Vehicle Connection
- JetPack™ SDK Includes Development Tools
- Wide-range Power Input 9~60VDC with Smart Power Management
- Wide-range Operating Temperature -25°C~70°C

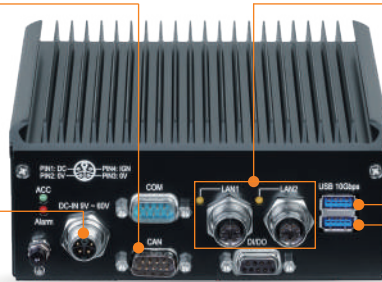
## Edge AI Application



**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 - 100 TOPS (1024 CUDA cores + 8-core ARM Cortex-A78AE CPU + 16 GB LPDDR5)
- NVIDIA® Jetson Orin™ NX 8GB - 70 TOPS (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)
- NVIDIA® Jetson Orin™ Nano 8GB - 40 TOPS (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8GB LPDDR5)
- NVIDIA® Jetson Orin™ Nano 4GB - 20 TOPS (512 CUDA cores + 6-cores ARM Cortex-A78AE CPU + 4GB LPDDR5)

#### Network

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

#### Security

- Security Boot, Arm TrustZone

### 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

#### Video

- 1 x HDMI 2.1 output Supports 3840 x 2160@30Hz

#### Audio

- 1 x HD Audio output from the HDMI

#### Serial Port

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

#### CAN Bus

- 1 x 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

#### RTC Battery

- High-capacity Coin Cell Battery for RTC

#### UPS

- UPS for System Power Backup

### Internal Expansion

- 1 x M.2 2230 Key E slot
  - 1 x M.2 3042/52 Key B slot with nano SIM Card 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)

### Power

#### Supply Voltage

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

### Software

#### Operating System / BSP

- NVIDIA® JetPack including Jetson Linux, CUDA Toolkit, TensorRT, cuDNN

### Environmental

#### Operating Temp.

- -25 ~ 70°C, ambient w/ 0.6m/s airflow \* Operating temp. varies by accessories installed.

#### Storage Temp.

- -40 ~ 80°C

#### 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, EN50155, EN45545 (R25)

**Mechanical**

**Construction**

- Aluminum Alloy

**Thermal Design**

- Fanless Passive Cooling Design

**Mounting**

- DIN-rail, Wall Mount

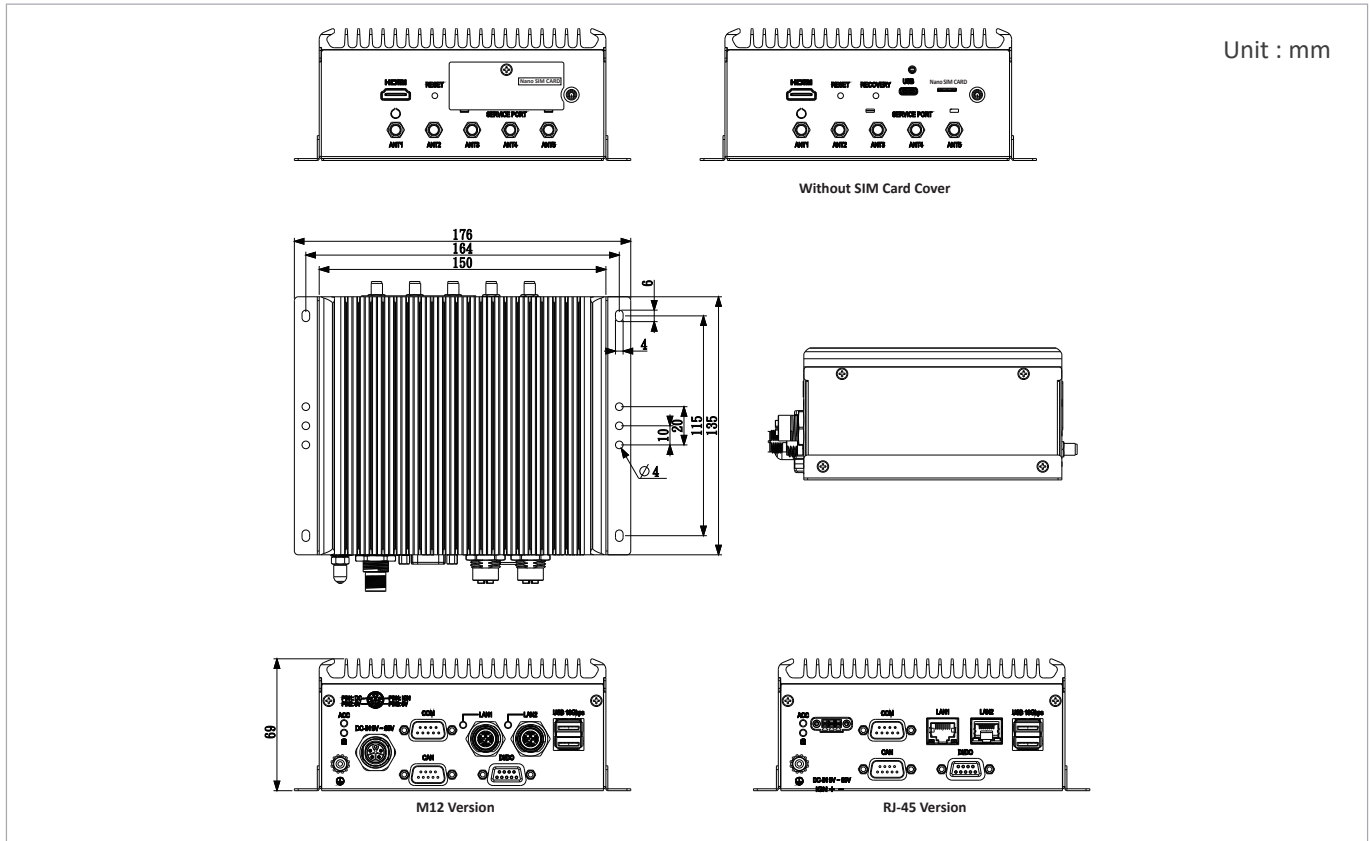
**Weight**

- 1370 g

**Dimensions**

- 150 mm (L) x 135 mm (W) x 66 mm (H)

**Dimensions**



**Ordering Information**

Model Number	IBOX-600-ONX16-S05	NVIDIA Jetson Orin NX 16GB / SSD 480GB
	IBOX-600-ONX8-S05	NVIDIA Jetson Orin NX 8GB / SSD 480GB
	IBOX-600-ON8-S05	NVIDIA Jetson Orin Nano 8GB / SSD 480GB
	IBOX-600-ON4-S05	NVIDIA Jetson Orin Nano 4GB / SSD 480GB
	IBOX-600-ON4-S02*	NVIDIA Jetson Orin Nano 4GB / SSD 240GB
	IBOX-600-M12X-ONX16-S05	NVIDIA Jetson Orin NX 16GB/SSD 480GB /Model M12X
	IBOX-600-M12X-ONX8-S05	NVIDIA Jetson Orin NX 8GB / SSD 480GB / Model M12X
	IBOX-600-M12X-ON8-S05	NVIDIA Jetson Orin Nano 8GB / SSD 480GB / Model M12X
Description	NVIDIA® Jetson Orin NX / Nano SoM w / 2x LAN/ 1x HDMI / 1x CAN bus / DC 9-60V / Intelligent 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 2030.

**Optional Accessories**

Wi-Fi	M.2 2230 Wi-Fi Module
WWAN Modem	M.2 3042/52 WWAN Modem
GPS	mPCIe GPS Module

All specifications are subject to change without notice.