

**SINTRONEX**

Edge AI Computing

**IBOX-600-IP66**

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



- NVIDIA® Jetson Orin™ NX SoM with 1024 CUDA Cores
- IP66 Design (Waterproof and Dustproof) for Harsh Environment
- 2 x Ethernet with 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**



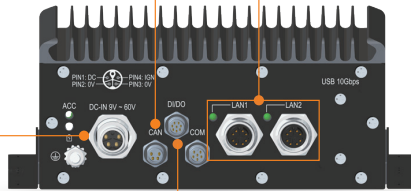
**CAN FD**

Enables In-Vehicle Networking



**Wide Range Power Input**

9~60V DC Input with Smart Power Management



**Dual Ethernet**

M12 Model Available



**2.5 GbE**

Connect to PoE Switch



**GbE**

Perfect for LiDAR Connection



**DI/DO**

Alarm System/Indicator, Air Exhaust Control

**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® 2.5GbE, SoM Built-in GbE

**Security**

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

**Interface**

**Ethernet**

- 2 x M12 X-coded connectors for 1 x 2.5GbE & 1 x GbE

**USB**

- 2 x USB 3.2 Type-A with Covers \*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 M8 A-coded connector for RS-232/422/485

**CAN Bus**

- 1 x M8 A-coded connector for CAN FD

**GPIO**

- 1 x M8 A-coded connector for 3 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 External SMA Antenna holes with covers

**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 M12 K-coded for DC-IN 9 ~ 60V
- Supports 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)

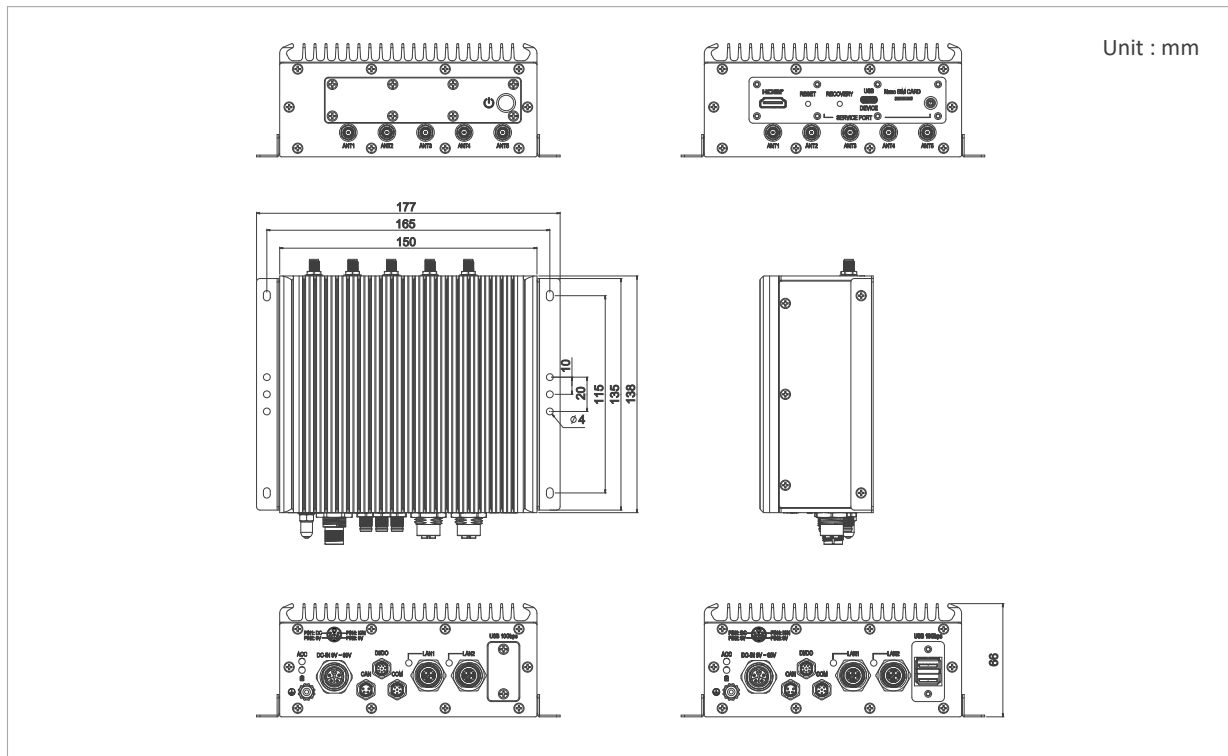
**Ingress Protection**

- IP66

**Mechanical**

- Construction**
- Aluminum alloy
- Thermal Design**
- Fanless passive cooling design
- Mounting**
- Wall-mounting
- Weight**
- 1630 g
- Dimensions**
- 150 mm (L) x 135 mm (W) x 66 mm (H)

**Dimensions**



**Ordering Information**

Model Number	IBOX-600-IP66-ONX16	NVIDIA® Jetson Orin™ NX 16GB / Model IP66
	IBOX-600-IP66-ONX8	NVIDIA® Jetson Orin™ NX 8GB / Model IP66
	IBOX-600-IP66-ON8	NVIDIA® Jetson Orin™ Nano 8GB / Model IP66
	IBOX-600-IP66-ON4	NVIDIA® Jetson Orin™ Nano 4GB / Model IP66
Description	NVIDIA® Jetson Orin™ NX / Nano SoM w/ 2x LAN/ 1x HDMI / 1x CAN bus / DC 9-60V / IP66 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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