

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



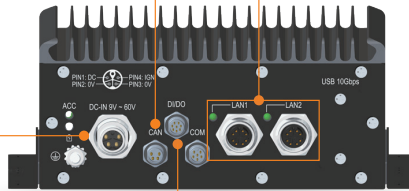
CAN FD

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

IBOX-600-IP66

Version. 2024-12-20

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

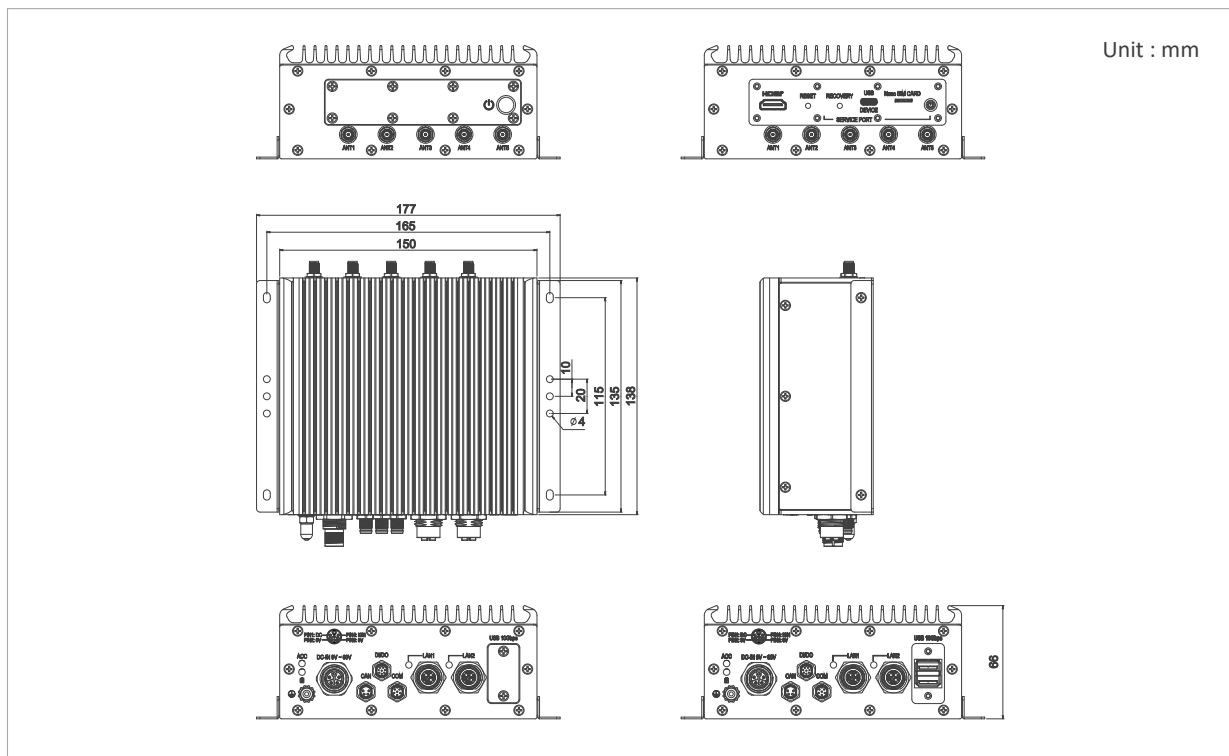
Weight

- 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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SINTRONES

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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