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)

Security
- Internal Security Subsystem with 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 Output
- 1 x HDMI 2.1 Type-A Supports 3840 x 2160@30Hz

Audio
- 1 x HD Audio 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
- 1 x mPCIe Full-size slot (USB 2.0 supported)

Storage

Internal
- 1 x 480GB NVMe SSD (Pre-Installed)

Software

Operating System / SDK
- NVIDIA® JetPack 5.1.1 SDK includes
  Jetson Linux, CUDA 11.4, TensorRT 8.5.2, cuDNN 8.6.0

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)

Certification / Standard
- CE, FCC Part-15 Class A, E-mark*, EN50155*, EN45545 (R25)* * Ongoing

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

Power

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

Mechanical

Construction
- Aluminum Alloy

Thermal Design
- Fanless Passive Cooling Design

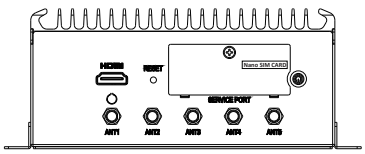
Mounting Method
- DIN-rail, Wall Mount

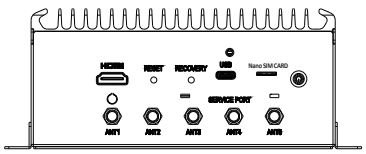
Dimensions
- 150 mm (L) x 135 mm (W) x 66 mm (H)

Weight
- 1370 g

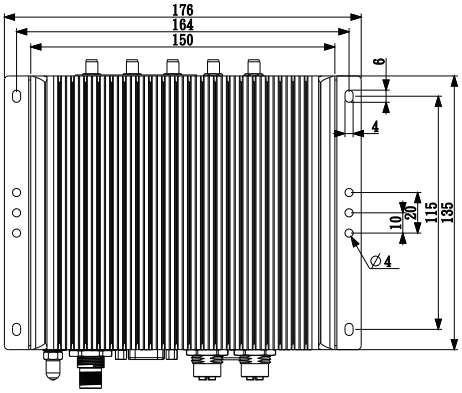
Dimensions

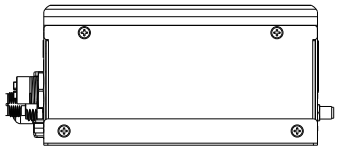
Unit : mm

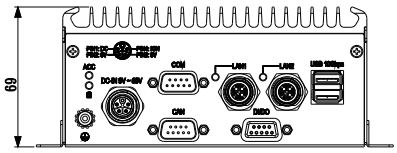




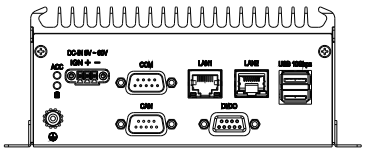
Without SIM Card Cover







M12 Version



RJ-45 Version

Ordering Information

Model Number	IBOX-600-xxxx-yyyyy (xxxx= = ETH w/ RJ-45, xxxx=M12X= ETH w/ M12 X-coded) yyyyy=ONX16=Jetson Orin NX 16GB / yyyyy=ONX8=Jetson Orin NX 8GB yyyyy=ON8=Jetson Orin Nano 8GB / yyyyy=ON4=Jetson Orin Nano 4GB *Jetson Orin SoM Lifecycle is available through January 2030.
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

Optional Accessories

Wi-Fi	M.2 Wi-Fi Module
WWAN Modem	M.2 WWAN Modem
GPS	mPCIe GPS Module
Mounting kit	DIN Rail / VESA Kit

All specifications are subject to change without notice.