IBOX-603P-IP66-DP

NVIDIA® Jetson Orin™ Rugged IP66 PoE Edge AI Computer



- NVIDIA® Jetson Orin™ NX/Nano SoM
- 4 x GbE with PoE for 15W per port
- 5 x Ethernet Ports
- IP66 for Harsh Environment Application
- Wide-range Voltage Input with Smart Power Management Support
- -25 to 70°C Fanless for Operating Environment

Preliminary

Specifications

System

Module
- NVIDIA® Jetson Orin™ NX 16GB (1024 CUDA cores + 8-core ARM Cortex-A78AE CPU + 16 GB LPDDR5)
- NVIDIA® Jetson Orin™ Nano 8GB (1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)

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

Watchdog
- Auto reset for unresponsive system

Interface

Video
- 1 x DP

*Native DisplayPort that doesn't support DP++

Audio
- 1 x HD audio output via DP

Ethernet
- 1 x GbE (NVIDIA SoM) via M12 X-code
- 4 x GbE (Marvell Switch) w/ PoE via M12 X-code

**PoE supports 15W per port with a total budget: 60W

CAN
- 1 x CAN FD via M8

USB
- 2 x USB 2.0 via M8
- 1 x USB 3.2

DIO
- Option

COM
- 1 × RS-232/422/485 via M8

Mgmt. Port
- 1x USB Type-C for system recovery only (device only)

Internal Expansion

M.2
- 1 x M.2 3042/3052 Key B for WWAN w/ dual Nano SIM support
- 1 x M.2 2230 Key E for Wi-Fi/BT

Storage

Storage Type
- 1 x M.2 2242 Key M for NVMe

Certification / Compliance
- CE, FCC Class A, UKCA, IEC 62368-1

Power

Power Input
- DC 12-48V (nominal power input 12V/24V/48V) via M12 K-code

*DC 10V - 57V for tolerane range

Power Protection
- OCP, OVP, surge protection, reversed polarity protection

Power Management
- Ignition detection, Smart Power Management

RTC Battery
- Removable tray for coin cell battery

Software

Operating System
- NVIDIA® JetPack 6.2 or above (Jetson Linux and NVIDIA® development tools included)

Environmental

Operating Temp.
- -25°C ~ 70°C (-13°F ~ 158°F) with 0.6 m/s airflow

*Operating temperature varies by accessories installed.

Storage Temp.
- -40°C ~ 80°C (-40°F ~ 176°F)

Relative Humidity
- 10% RH ~ 90% RH (non-condensing)

Vibration
- IEC 60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
- MIL-STD-810H, Method 514.8, Procedure I, Category 4

Shock
- MIL-STD-810H, Method 516.8, Procedure I, trucks and semi-trailers=15G (11ms)

Mechanical

Construction
- Aluminum alloy

Antenna
- 6 x SMA connector mounting hole

Mounting
- Wall mounting

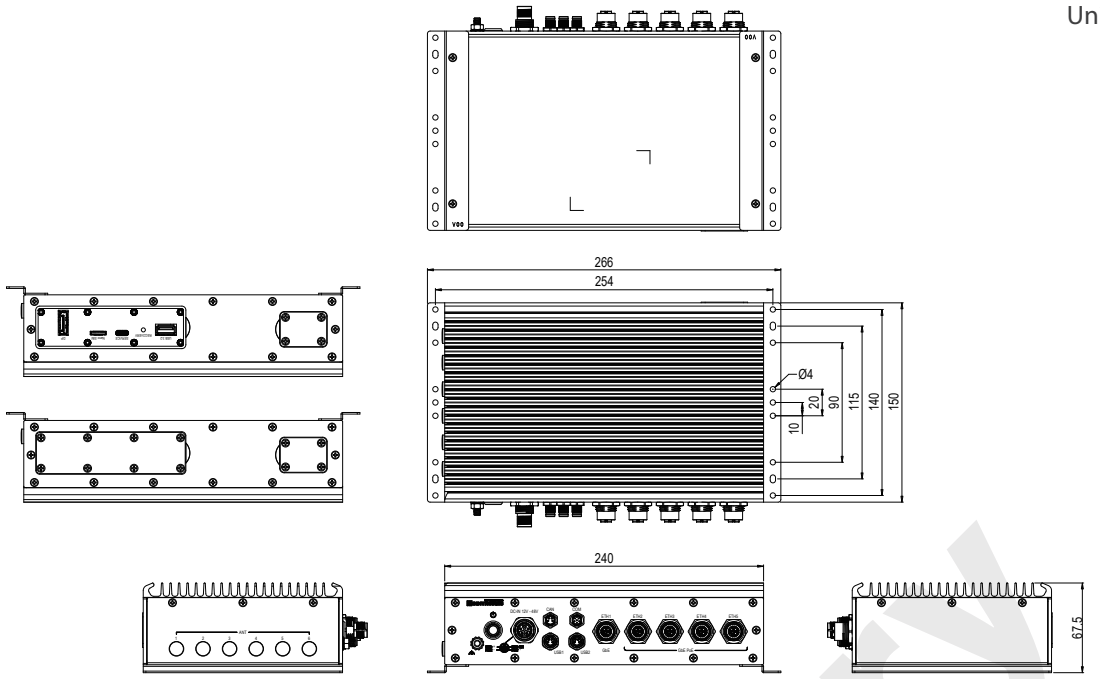
Net Weight
- 2.1 kg (4.63 lb)

Dimensions (L x W x H)
- 240 x 150 x 67.5 mm (9.45 x 5.91 x 2.66 in.)

Ingress Protection
- IP66

Dimensions

Unit : mm



Ordering Information

Model Number	IBOX-603P-IP66-DP-zzzzz (zzzzz=ONX16=Orin NX 16GB, zzzzz=ON8=Orin Nano 8GB)
Description	NVIDIA® Jetson™ Orin NX 16GB w/ 4 x PoE / 1 x DP w/ IP66 Rugged Edge AI Computer
State of Origin	Made in Taiwan

Optional Accessories

Storage	M.2 2242 Key M NVMe SSD, -40°C ~ 85°C
Wi-Fi	M.2 2230 Key A-E Wi-Fi module, -40°C ~ 85°C
WWAN	M.2 3042/3052 Key B WWAN module w/ thermal kit, -40°C ~ 85°C
GNSS	M.2 2242 Key B GNSS module, -40°C ~ 85°C M.2 2230 Key A-E GNSS module, -40°C ~ 85°C
CAN Bus	M.2 3042 Key B CAN Bus module, -40°C ~ 85°C
Power Adapter	AC/DC 100-240V/24V 160W C14 bare wire power adapter
Test Cable Kit	M12/M8 cables for testing

All specifications are subject to change without notice.

Preliminary