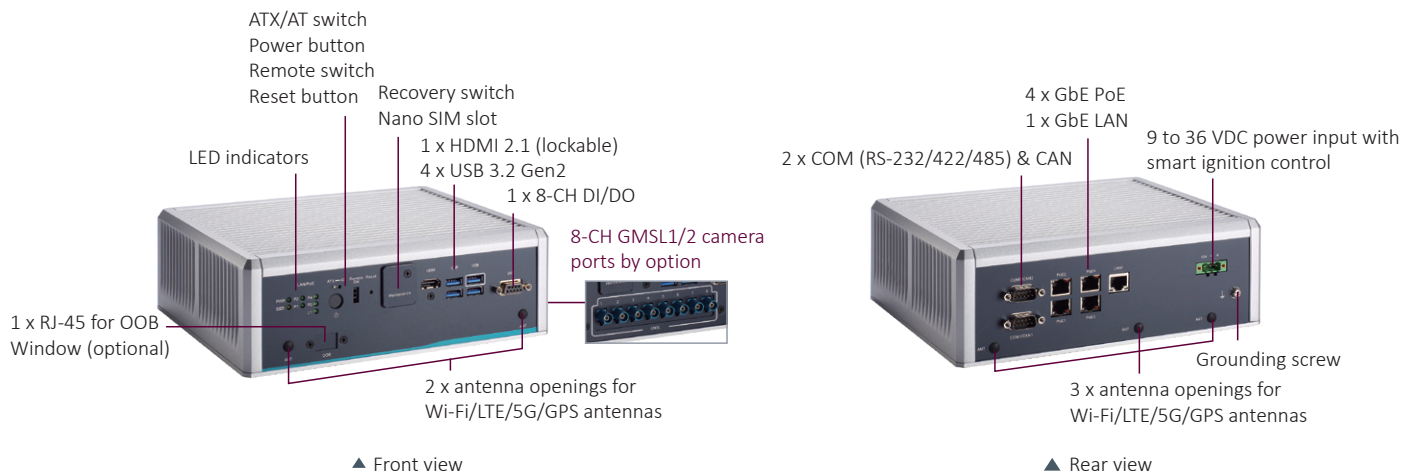# AIE900B-ONX NEW

Fanless Edge AI System with **NVIDIA® Jetson Orin™ NX Super**, 1 HDMI, 1 GbE LAN, 4 GbE PoE, 4 USB, 2 COM/CAN, 8-CH DIO, and 8-CH GMSL for AMR & Robotics

NVIDIA | Preferred Partner

ATX/AT switch
Power button
Remote switch
Reset button
Recovery switch
Nano SIM slot
1 x HDMI 2.1 (lockable)
4 x USB 3.2 Gen2
1 x 8-CH DI/DO

LED indicators

8-CH GMSL1/2 camera ports by option

4 x GbE PoE
1 x GbE LAN
2 x COM (RS-232/422/485) & CAN
9 to 36 VDC power input with smart ignition control

1 x RJ-45 for OOB Window (optional)

2 x antenna openings for Wi-Fi/LTE/5G/GPS antennas

Grounding screw

3 x antenna openings for Wi-Fi/LTE/5G/GPS antennas

▲ Front view

▲ Rear view

| IP40 | Fanless | 8-CH GMSL | Smart Ignition | LPDDR5 | 9 to 36 VDC | Jetson Orin NX | Allxon DMS |

Features

- NVIDIA® Jetson Orin™ NX Super (Up to 157 TOPS)
- Seamless connectivity with 5G, Wi-Fi, and GbE combined
- Effortless management with USB and PoE device power control
- Supports 4 USB and 4 PoE for camera and sensor connectivity
- Enables 24/7 secure remote monitoring, control, and OTA deployment, powered by Allxon
- Supports the NVIDIA Isaac™ Robot Operating System (ROS) SDK for AI-powered robot development

NVIDIA® Jetson Orin™ NX will be available until 2032*
The official end of life notice will be sent for at least 8 months before the last shipment.

Specifications

Standard Color	Silver
Construction	Aluminum extrusion and heavy-duty steel, IP40
AI Accelerator	**NVIDIA® Jetson Orin™ NX 16GB Super (Up to 157 TOPS)** *Under planning: NVIDIA® Jetson Orin™ NX 8GB Super (117 TOPS), Orin™ Nano 8GB Super (67 TOPS) or Orin™ Nano 4GB Super (34 TOPS)
CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
GPU	1024-core NVIDIA Ampere™ GPU with 32 Tensor Cores
System Memory	16GB 128-bit LPDDR5 onboard
Carrier Board	PSB908

Specifications

System I/O Outle	1 x HDMI 2.1 with 4K2K supported (lockable) 1 x 10/100/1000 Mbps (via Orin™ NX) 4 x 10/100/1000 Mbps PoE (Intel® I210-IT) *PSE, IEEE 802.3at, up to 30 watts of power 4 x USB 3.2 Gen2 (one for image update) 1 x 8-CH DI/DO 2 x DB9 for COM (RS-232/422/485) & CAN 1 x recovery switch (for image update) 1 x remote power switch 1 x AT/ATX switch 1 x reset button 1 x power button 8 x Fakra-Z connector for GMSL1/2 camera (optional) 1 x 9 to 36 VDC power input connector (with smart ignition control) 1 x grounding screw 5 x SMA-type antenna connector 1 x out-of-band (OOB) module for remote management (optional)
Watchdog Timer	Built-in Orin NX
Storage	1 x M.2 Key M 2280 with PCIe x4 NVMe SSD slot *The Orin NX no longer includes built-in eMMC and now exclusively supports an SSD as the bootable device. *The AIE900B-ONX requires an SSD for image installation. Please order an SSD if you need image installation service.
Expansion Interface	1 x full-size PCI Express Mini Card slot (USB + PCI Express signal) for Wi-Fi/LTE 1 x M.2 Key B 3042/3052 slot for LTE/5G 1 x Nano SIM slot
System Indicator	1 x green LED for system power-on 1 x yellow LED for M.2 SSD storage 1 x green LED for LAN status 4 x green LED for GbE PoE status
Power Supply	Input: 9 to 36 VDC (typical 12/24 VDC) with smart ignition control Inrush current: 1.87A/1.37A
Operating Temperature	40W power mode:-25°C to +70°C (-13°F to +158°F)
Relative Humidity	10% to 95% relative humidity, non-condensing
Vibration	IEC 60068-2-64 (with SSD: 3Grms STD, random, 5 to 500 Hz, and 1 hr/axis) MIL-STD-810H, Method 514.8, and Category 20
Shock	IEC 60068-2-27 (with SSD: 50G, half-sine, and 11 ms duration) MIL-STD-810H, Method 516.8, and Procedure I
Dimensions (W x D x H)	239 x 185.3 x 79.4 mm (9.41" x 7.3" x 3.13")
Weight (net/gross)	2.54 kg (5.6 lb)/4.59 kg (10.12 lb)
Certifications	CE, FCC Class A, and UKCA
OS Support	Linux Ubuntu 22.04 or later

Ordering Information

Standard

AIE900B-ONX-1L4P (P/N: E27H900B00)	Fanless edge AI system with NVIDIA® Jetson Orin™ NX 16GB, 1 HDMI, 1 GbE LAN, 4 GbE PoE, 4 USB, 2 COM/CAN, and 8-CH DIO

Optional

E29R150110	Wall mount kit
E29R150112	DIN-rail mount kit
E29R150111	VESA mount kit
M.2 NVMe SSD 128GB or above	
*The AIE900B-ONX requires an SSD for image installation. Please order an SSD if you need image installation service.	
LTE module kit	
Wi-Fi module kit	
5G module kit	
Out-of-band (OOB) module	
Power cord	
509000001500	24V/120W adapter

* Specifications and certifications may vary based on different requirements.

Remote Management Enrollment

Allxon Portal- Sign up for 24/7 secure service to access comprehensive remote device management features through a centralized cloud platform
*Enrollment Page: https://allxon.com/jetson/device_enroll/

Packing List

1 x 3-pin terminal block connector for power
1 x screw pack
4 x foot pad
1 x 2-pin cable for remote power switch
1 x M.2 SSD thermal kit
1 x 5G module thermal kit

Power Protection

DC Adapter
OVP (over voltage protection)
OCP (over current protection)
SCP (short circuit protection)

Dimensions

Wall-mount is an optional kit