AI@Edge Solutions

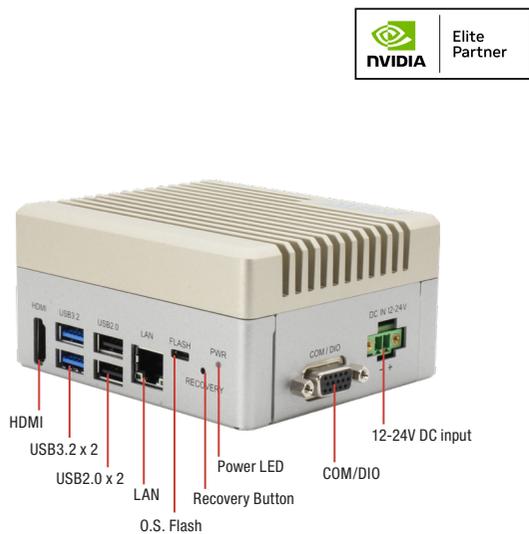# BOXER-8621AI

AI@Edge Compact Fanless Embedded AI System with NVIDIA® Jetson Orin Nano™ with Super Mode

Front View

Elite
Partner

NVIDIA

HDMI
USB3.2 x 2
USB2.0 x 2
LAN
O.S. Flash
Power LED
Recovery Button
COM/DIO
12-24V DC input

Rear View

COM/CANBus

Features

■ **NVIDIA® Jetson Orin Nano™ with Super Mode**
■ **Expansion: M.2 2230 E-Key x 1, M.2 3052 B-Key x 1**
■ **USB 3.2 Gen 2 (Type-A) x 2 & USB 2.0 (Type-A) x 2**
■ **COM, DIO, CANBus**
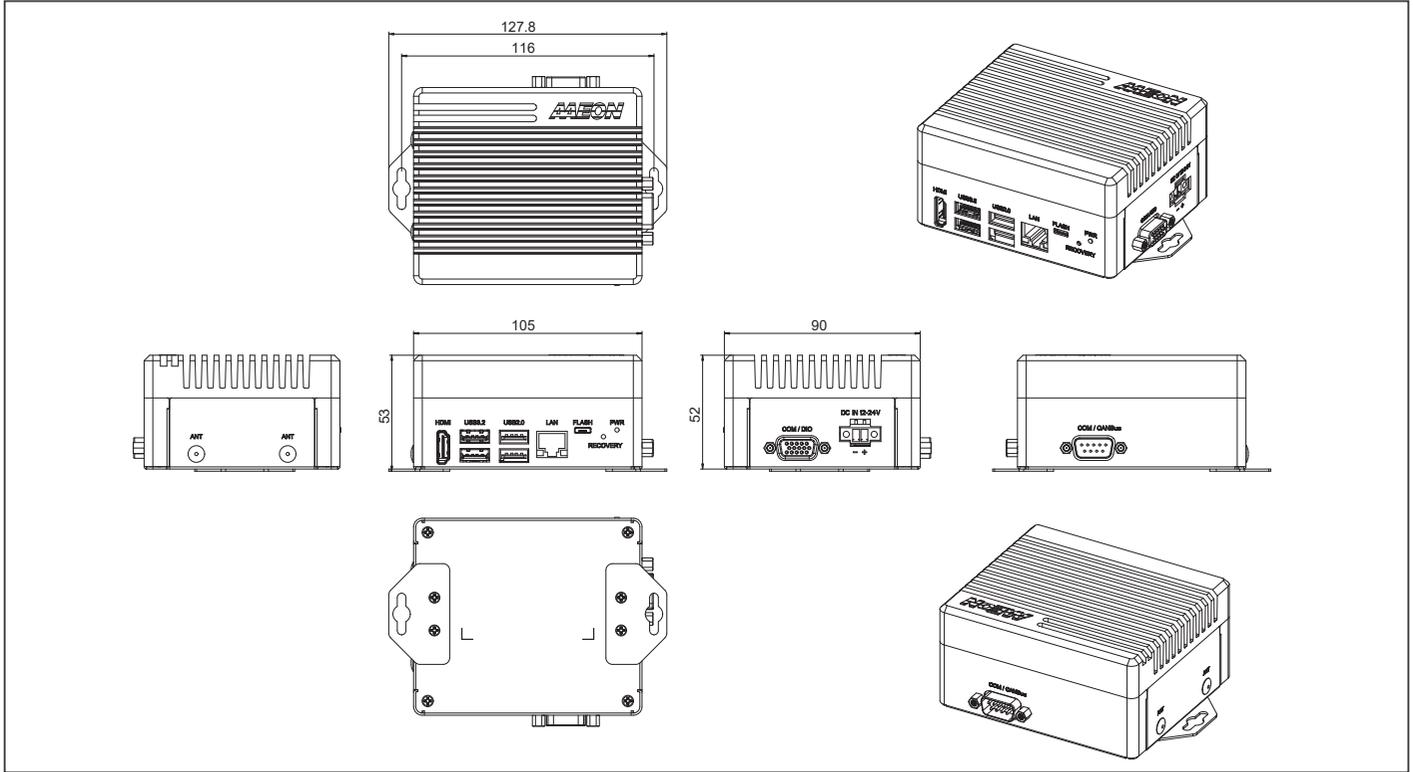■ **Operating Temperature: -5°F~ 140°F (-15°C ~ 60°C)**

LPDDR 5   SS← USB 3.2 Gen 2   HDMI   CE   FC   HDMI

Specifications

System	
AI Accelerator	NVIDIA® Jetson Orin Nano™ NVIDIA® Jetson Orin Nano™ with Super Mode
CPU	6-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU
System Memory	4GB/8GB LPDDR5
Storage Device	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default Storage) M.2 2230 E-Key x 1 (Optional)
Display Interface	HDMI 1.4 (Type-A) x 1
Ethernet	RJ-45 x 1 for GbE LAN
I/O	USB 3.2 Gen 2 (Type-A) x 2 USB 2.0 (Type-A) x 2 DB-9 for RS-232 (Rx/Tx/CTS/RTS)/485 x 1 and CANBus FD x 1 DB-15 for RS-232 (Rx/Tx)/422/485 x 1 and DIO x 8 Micro USB x 1 for OS Flash Recovery Button x 1 Antenna x 2
Expansion	M.2 3042/3052 B Key x 1 (4G/5G/M.2 2242 B+M Key storage) M.2 2230 E Key x 1 (Wifi/BT/Storage) SIM Slot x 1
Indicator	Power LED x 1
OS Support	Linux (NVIDIA Jetpack™ 5.0 up)
Power Supply	
Power Requirement	12V~24V DC in with 2 pins terminal block x 1
Mechanical	
Mounting	Wallmount
Dimensions (W x D x H)	4.13" x 3.54" x 2.05" (105mm x 90mm x 52mm), w/o bracket
Gross Weight	2.4 lb (1.1kg)
Net Weight	1.58 lb (0.7kg)
Environmental	
Operating Temperature	-5°F ~ 140°F (-15°C ~ 60°C), according to IEC60068-2 with 0.5 m/s AirFlow
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Storage Humidity	5% ~ 95% @ 40C, non-condensing
Anti-Vibration	3.5Grm / 5~500Hz / Operation
Anti-Shock	50G peak acceleration
Certification	CE/FCC class A

Note: All specifications are subject to change without notice.

Dimension

Unit: mm

127.8
116
105
53
90
52

Ordering Information

Part Number	AI Solution	LAN	USB	RS-232/422/485	CANBus	DIO	Storage	Display	Mounting	Power	Operation System
BOXER-8621AI-JP511N-A1-1010	NVIDIA® Jetson Orin Nano™ 4GB	1	3.2 Gen 2 x 2, 2.0 x 2	2	1	8	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB) M.2 2230 E-Key x 1 (Optional)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 5.0 or above)
BOXER-8621AI-JP511N-A2-1010	NVIDIA® Jetson Orin Nano™ 8GB	1	3.2 Gen 2 x 2, 2.0 x 2	2	1	8	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB) M.2 2230 E-Key x 1 (Optional)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 5.0 or above)
BOXER-8621AI-JP620N-A1-1010	NVIDIA® Jetson Orin Nano™ 4GB (Super Mode Support)	1	3.2 Gen 2 x 2, 2.0 x 2	2	1	8	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB) M.2 2230 E-Key x 1 (Optional)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 6.2)
BOXER-8621AI-JP620N-A2-1010	NVIDIA® Jetson Orin Nano™ 8GB (Super Mode Support)	1	3.2 Gen 2 x 2, 2.0 x 2	2	1	8	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB) M.2 2230 E-Key x 1 (Optional)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 6.2)
BOXER-8621AI-JP620N-A3-1010	NVIDIA® Jetson Orin Nano™ 4GB (Super Mode Support)	1	3.2 Gen 2 x 2, 2.0 x 2	2	1	8	M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB) M.2 2230 E-Key x 1 (Optional)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 6.2), MAZU Security Support

Packing List

- BOXER-8621AI x 1
- Wallmount Bracket x 2
- Power connector x 1
- Screw Package x 1

Optional Accessories

- **1255300611**
  60W Power Adapter
- **170X000799**
  Power Cord (US type)
- **170X000800**
  Power Cord (European Type)
- **170X000803**
  Power Cord (Japanese Type)

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