BOXER-8653AI

AI@Edge Compact Fanless Embedded AI System with NVIDIA® Jetson Orin™ NX

Front View

NVIDIA | Elite Partner

USB3.2 x 4

HDMI   PoE x 4

Rear View

Recovery Button

12-24V DC input

Power Button

O.S. Flash

LAN

COM/CANBus   COM/DIO
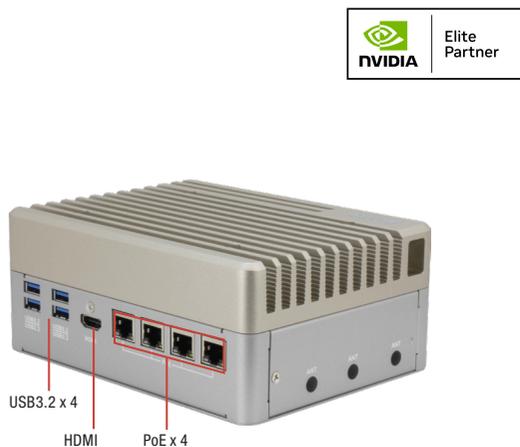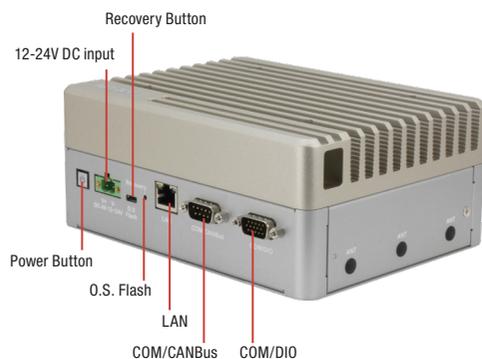
Features

- **NVIDIA® Jetson Orin™ NX**
- **GbE PoE/PSE 802.3af/at x 4 + GbE LAN x 1**
- **M.2 2230 E-Key x 1, M.2 2280 M-Key x 1, M.2 3042/3052 B-Key x 1**
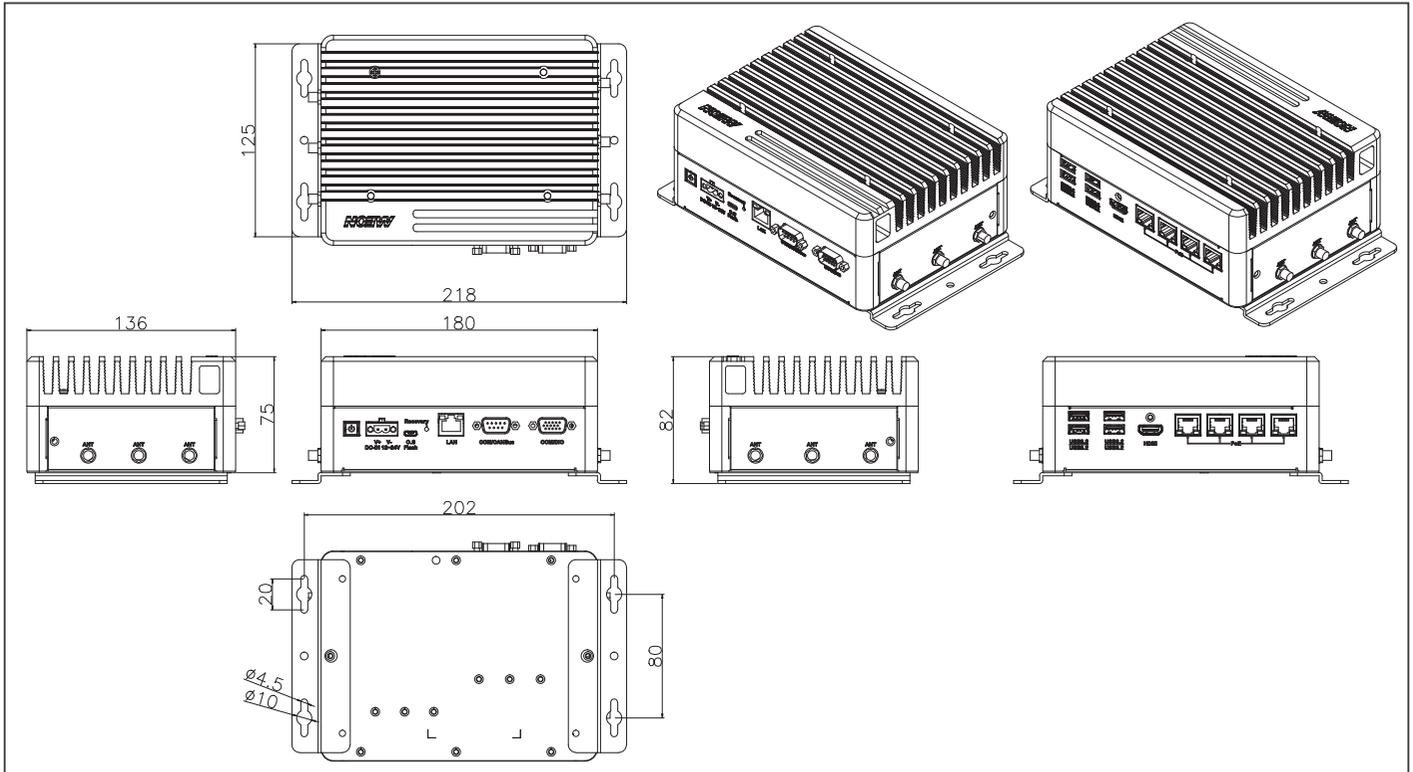- **COM/CANBus/DIO**
- **Operating Temperature: -15°C ~ 60°C**

CE FC

Specifications

System	
AI Accelerator	NVIDIA® Jetson Orin™ NX
CPU	6-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU 8-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU
System Memory	8GB/16GB LPDDR5
Storage Device	M.2 2280 M Key x 1
Display Interface	HDMI 2.0 (Type-A) x 1
Ethernet	RJ-45 x 1 for GbE LAN RJ-45 x 4 for GbE PoE/PSE 802.3af/at (Max.60W)
I/O	USB 3.2 Gen 2 (Type-A) x 4 DB-9 x 1 for RS-232 (Rx/Tx/CTS/RTS)/RS485 x 1 and CANBus FD x 1 DB-15 x 1 for RS-232(Rx/Tx)/422/485 x 1 and DIO x 8 Micro USB x 1 for OS Flash Power Button x 1 Recovery Button x 1 Antenna Hole x 6
Expansion	M.2 2280 M-Key x 1 (NVMe) M.2 3042/3052 B-Key x 1 M.2 2230 E-Key x 1 SIM Slot x 1
Indicator	Power LED x 1
OS Support	Linux (NVIDIA Jetpack™ 5.0 and up)
Power Supply	
Power Requirement	12V ~ 24V DC in with 2-pin Terminal Block x 1
Mechanical	
Mounting	Wall Mount
Dimensions (W x D x H)	7.09" x 5.35" x 2.95" (180mm x 136mm x 75mm)
Gross Weight	7.7 lb (3.5kg)
Net Weight	5.5 lb (2.5kg)
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% @ 40°C, 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

Packing List

- BOXER-8653AI x 1
- Wallmount Bracket x 2
- Power connector x 1
- Screw Package x 1

Optional Accessories

- **1255X00066**
  120W Power Adapter
- **170X000799**
  Power Cord (US type)

- **170X000800**
  Power Cord (European Type)
- **170X000803**
  Power Cord (Japanese Type)

Ordering Information

Part Number	AI Solution	LAN	POE	USB	COM	CANBus	DIO	Storage	Display	Mounting	Power	Operation System
BOXER-8653AI-JP511N-A1-1010	NVIDIA® Jetson Orin NX™ 8GB	1	4	3.2 Gen 2 x 4	2	1	8	M.2 2280 M-Key x 1 for Storage (Default: 128GB)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 5.0 or above)
BOXER-8653AI-JP511N-A2-1010	NVIDIA® Jetson Orin NX™ 16GB	1	4	3.2 Gen 2 x 4	2	1	8	M.2 2280 M-Key x 1 for Storage (Default: 128GB)	HDMI x 1	Wall mount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 5.0 or above)