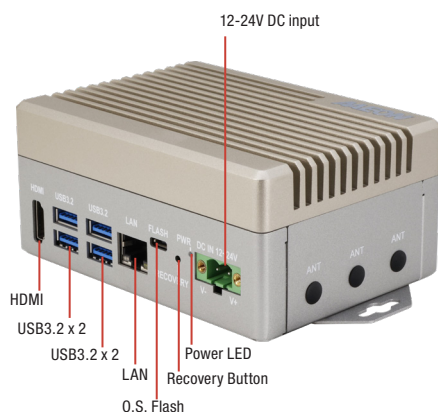


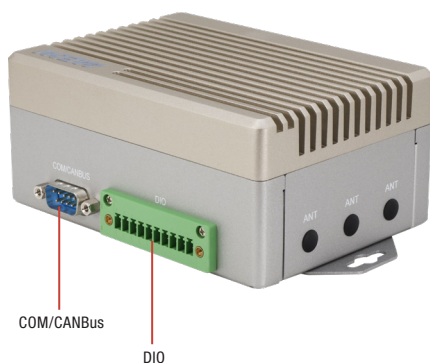
# BOXER-8651AI-PLUS

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

Front View



Rear View



## Features

- NVIDIA® Jetson Orin™ NX with Super Mode
- Supports NVIDIA JetPack™ 6.2
- USB 3.2 Gen 2 (Type-A) x 4
- DB-9 x 1 for RS-232(Rx/Tx/RTS/CTS) & CANBus
- 10-pin terminal block for DIO x 8
- Onboard TPM
- M.2 2230 E-Key, M.2 3052 B-Key
- Operating Temperature: -13°F - 131°F (-25°C - 55°C)



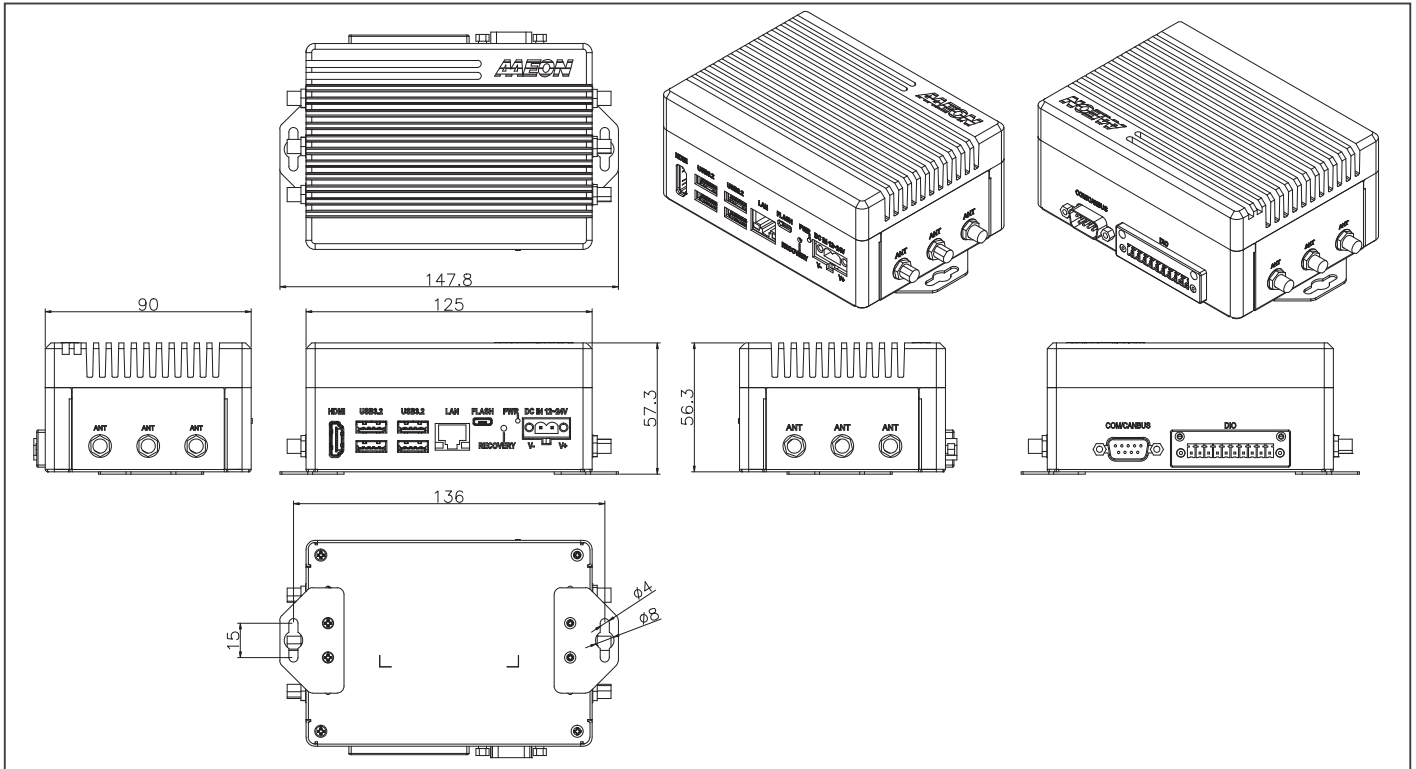
## Specifications

| System                 |                                                                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AI Accelerator         | NVIDIA® Jetson Orin™ NX                                                                                                                                                        |
| CPU                    | Orin NX 8GB: 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU<br>Orin NX 16GB: 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU                                                              |
| System Memory          | Orin NX 8GB: 8GB LPDDR5<br>Orin NX 16GB: 16GB LPDDR5                                                                                                                           |
| Storage Device         | M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default Storage)<br>M.2 2230 E-Key x 1 (Optional)                                                                                 |
| Display Interface      | HDMI 1.2 (Type-A) x 1, up to 1920 x 1080                                                                                                                                       |
| Ethernet               | RJ-45 x 1 for GbE LAN                                                                                                                                                          |
| I/O                    | USB 3.2 Gen 2 (Type-A) x 4<br>DB-9 for RS-232 (Rx/Tx/CTS/RTS) & CANBus FD x 1<br>10-Pin header for DIO x 8<br>Micro USB x 1 for OS Flash<br>Recovery Button x 1<br>Antenna x 6 |
| Expansion              | M.2 3042/3052 B Key x 1 (4G/5G/M.2 2242 B+M-Key storage)<br>M.2 2230 E Key x 1 (Wi-Fi/BT)<br>SIM Slot x 1                                                                      |
| Indicator              | Power LED x 1                                                                                                                                                                  |
| OS Support             | Linux (NVIDIA Jetpack™ 6.2 and above)                                                                                                                                          |
| Power Supply           |                                                                                                                                                                                |
| Power Requirement      | 12VDC ~ 24VDC via 2-pin Terminal Block                                                                                                                                         |
| Mechanical             |                                                                                                                                                                                |
| Mounting               | Wallmount                                                                                                                                                                      |
| Dimensions (W x D x H) | 4.92" x 3.54" x 2.2" (125mm x 90mm x 56mm)                                                                                                                                     |
| Gross Weight           | 3.13 lb. (1.42Kg)                                                                                                                                                              |
| Net Weight             | 1.85 lb. (0.84Kg)                                                                                                                                                              |
| Environmental          |                                                                                                                                                                                |
| Operating Temperature  | -13°F ~ 131°F (-25°C ~ 55°C with 0.7m/s airflow)                                                                                                                               |
| Storage Temperature    | -40°F ~ 185°F (-40°C ~ 85°C)                                                                                                                                                   |
| Storage Humidity       | 5 ~ 95% @ 40°C, non-condensing                                                                                                                                                 |
| Anti-Vibration         | 3.5 Grms, 5~500Hz with SSD                                                                                                                                                     |
| Anti-Shock             | 50G peak acceleration                                                                                                                                                          |
| Certification          | CE / FCC class A                                                                                                                                                               |



## Dimension

Unit: mm



## Ordering Information

| Part Number                 | AI SOLUTION                  | LAN | USB 3.2 Gen 2 | RS232/422/485 | CANBUS | DIO | Storage                                                                                       | Display  | Mounting  | Power                              | Operation System                                            |
|-----------------------------|------------------------------|-----|---------------|---------------|--------|-----|-----------------------------------------------------------------------------------------------|----------|-----------|------------------------------------|-------------------------------------------------------------|
| BOXER-8651AI-JP620N-B1-1010 | NVIDIA® Jetson Orin™ NX 8GB  | 1   | 4             | 1             | 1      | 8   | M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB)<br>M.2 2230 E-Key x 1 (Optional) | HDMI x 1 | Wallmount | 12 ~ 24VDC w/ 2 pin terminal block | Linux (NVIDIA Jetpack™ 6.2 or above)                        |
| BOXER-8651AI-JP620N-B2-1010 | NVIDIA® Jetson Orin™ NX 16GB | 1   | 4             | 1             | 1      | 8   | M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB)<br>M.2 2230 E-Key x 1 (Optional) | HDMI x 1 | Wallmount | 12 ~ 24VDC w/ 2 pin terminal block | Linux (NVIDIA Jetpack™ 6.2 or above)                        |
| BOXER-8651AI-JP620N-B3-1010 | NVIDIA® Jetson Orin NX™ 8GB  | 1   | 4             | 1             | 1      | 8   | M.2 3052 B-Key x 1 for M.2 2242 B+M Key SSD (Default: 128GB)<br>M.2 2230 E-Key x 1 (Optional) | HDMI x 1 | Wallmount | 12 ~ 24VDC w/ 2 pin terminal block | Linux (NVIDIA Jetpack™ 6.2 or above), MAZU Security Support |

## Packing List

- BOXER-8651AI-PLUS (BOXER-8651AI-B1)
- Wallmount Bracket x 2
- 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)