

BOXER-8653AI-PLUS PRELIMINARY

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

Front View



Rear View



Features

- NVIDIA® Jetson Orin NX
- Supports NVIDIA® JetPack 6.2.1 Super mode
- 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, NANO SIM x1
- COM/CANBus/DIO
- On board TPM as default
- Operating Temperature: -25°C ~ 65°C



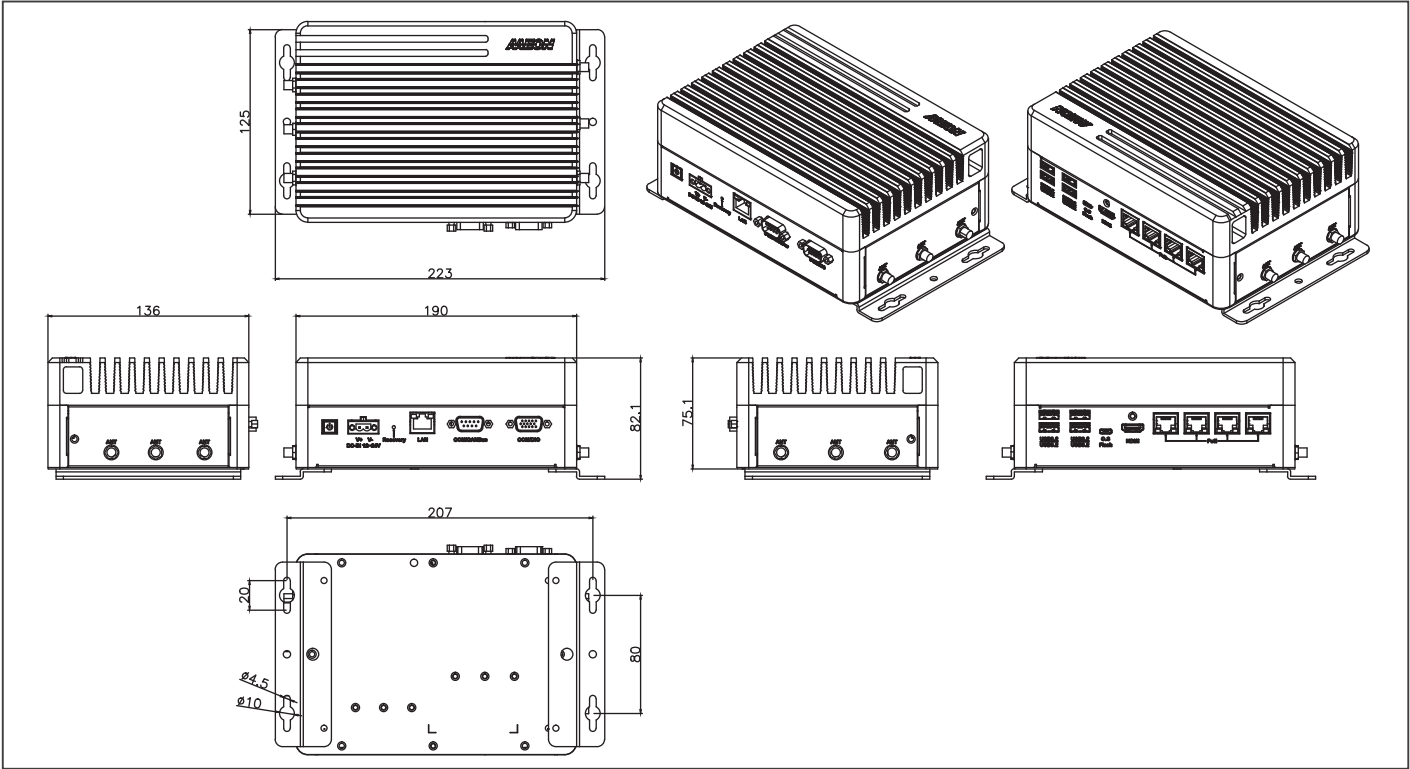
Specifications

System	
AI Accelerator	NVIDIA® Jetson Orin NX™
CPU	Orin NX 8GB: 6-core Arm® Cortex®-A78AE v8.2 64-bit CPU Orin NX 16GB: 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU
System Memory	Orin NX 8GB: 8GB LPDDR5 Orin NX 16GB: 16GB LPDDR5
Storage Device	M.2 2280 M Key (128GB built-in) M.2 3042/3052 B Key x 1 M.2 2230 E key
Display Interface	HDMI 1.2a (Type-A) x 1
Ethernet	RJ-45 x 1 for GbE LAN RJ-45 x 4 for GbE LAN PoE/PSE (IEEE 802.3af/at, total 60W)
I/O	USB 3.2 Gen 2 (Type-A) x 4 DB-9 for RS-232 (Rx/Tx/CTS/RTS) & CANBus FD x 1 DB-15 for RS422/485/232 (Rx/Tx) x 1 & DIO x 8 Micro USB x 1 for OS Flash Recovery Button x 1 Antenna x 6
Expansion	M.2 3042/3052 B Key x 1 (LTE/5G/M.2 2242 B+M Key storage) M.2 2230 E Key x 1 (Wifi/BT) M.2 2280 M Key x 1 (NVMe 128GB built-in) NANO SIM x 1 TPM x 1 (onboard) Box Header x 1 for OOB"
Indicator	Power LED x 1
OS Support	Linux (NVIDA Jetpack 6.2 and above)
Power Supply	
Power Requirement	12~24VDC 2-pin Terminal Block
Mechanical	
Mounting	Wall mount kit
Dimensions (W x D x H)	7.48" x 5.35" x 2.95" (190mm x 136mm x 75mm)
Gross Weight	7.41 lb (3.36kg)
Net Weight	5.51 lb (2.5kg)
Environmental	
Operating Temperature	-13°F ~ 149°F (-25°C ~ 65°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 with SSD
Certification	CE / FCC class A



Dimension

Unit: mm



Ordering Information

Part Number	AI Solution	LAN	POE	USB	COM	CANBus	DIO	Storage	Display	Mounting	Power	Operation System
BOXER-8653AI-JP620N-B1-1010	NVIDIA® Jetson Orin NX™ 8GB	1	4	3.2 Gen 2 x 4	2	1	8	M.2 3042/3052 B Key x 1 (LTE/5G/M.2 2242 B+M Key storage) M.2 2230 E Key x 1 (Wifi/BT) M.2 2280 M Key x 1 (NVMe 128GB built-in)	HDMI 2.0 x 1	Wallmount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 6.2.1 or above)
BOXER-8653AI-JP620N-B2-1010	NVIDIA® Jetson Orin NX™ 16GB	1	4	3.2 Gen 2 x 4	2	1	8	M.2 3042/3052 B Key x 1 (LTE/5G/M.2 2242 B+M Key storage) M.2 2230 E Key x 1 (Wifi/BT) M.2 2280 M Key x 1 (NVMe 128GB built-in)	HDMI 2.0 x 1	Wallmount	12 ~ 24VDC w/ 2 pin terminal block	Linux (NVIDIA Jetpack™ 6.2.1 or above)

Packing List

- BOXER-8653AI-B1
- Wallmount Bracket x 2
- Screw Package x 1
- Power connector x 1

Optional Accessories

- 1255X00066
120W Power Adapter
- 170X000799
Power Cord (US type)
- 170X000800
Power Cord (European Type)
- 170X000803
Power Cord (Japanese Type)