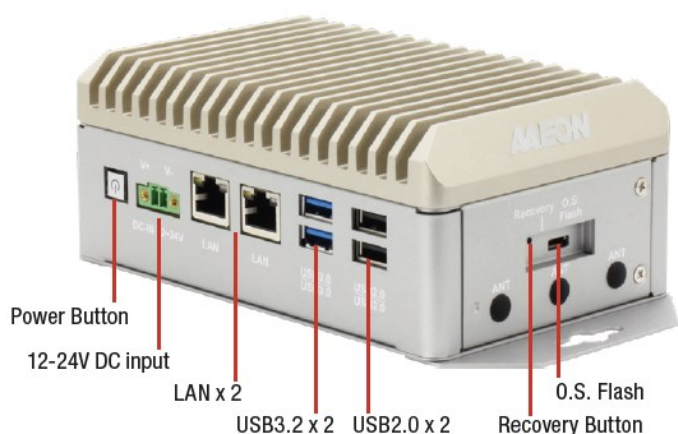# BOXER-8652AI

AI@Edge compact and fanless embedded AI system with NVIDIA® Jetson Orin™ NX

Features

BRAND-NEW

› NVIDIA® Jetson Orin™ NX AI accelerator
› 8GB LPDDR5
› Supports 1x M.2 E-Key, 1x M.2 B-Key, 1x M.2 M-Key
› Supports 1x DB-9 for CANBus
› Supports 2x GbE LAN
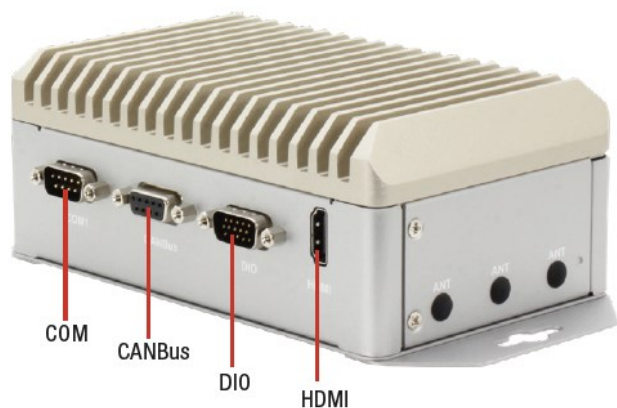› Wide temperature operation (-15°C to 60°C)

Compact and powerful box PC for AI@Edge

The fanless box PC BOXER-8652AI features the new NVIDIA® Jetson Orin™ NX and scales AI potential to a new level. The BOXER-8652AI combines the advanced performance of the NVIDIA® Jetson Orin™ NX with an incredibly rugged enclosure, unlocking the door to embedded solutions that were previously impossible. The device has a host of features that make it ideal for computer vision and speech processing applications, including high processing power, fast data transfer, and a user-friendly interface. With this embedded box PC, users can run complex algorithms and process data in real time to make faster and more accurate decisions and develop innovative AI applications.

Combining an 8-core ARM® Cortex®-A78AE v8.2 64-bit CPU and NVIDIA® Ampere architecture, the BOXER-8652AI leverages the full potential of the NVIDIA® Jetson Orin™ NX with 1792 CUDA® and 56 tensor cores for up to 100 TOPS, delivering up to 8x the AI performance of its predecessor. The BOXER-8652AI's processing speed and inference capability move the object recognition function from GPU cards directly to the edge.

The system features an extended temperature range of –15°C to 60°C and comes in a rugged metal enclosure that ensures reliable performance in demanding environments. Furthermore, the system comes with two GbE LAN and three USB 3.2 ports, as well as 8GB LPDDR5x system memory and M.2 keys that support 5G, Wi-Fi and NVMe.

BOXER-8652AI

AI@Edge compact and fanless embedded AI system with NVIDIA® Jetson Orin™ NX

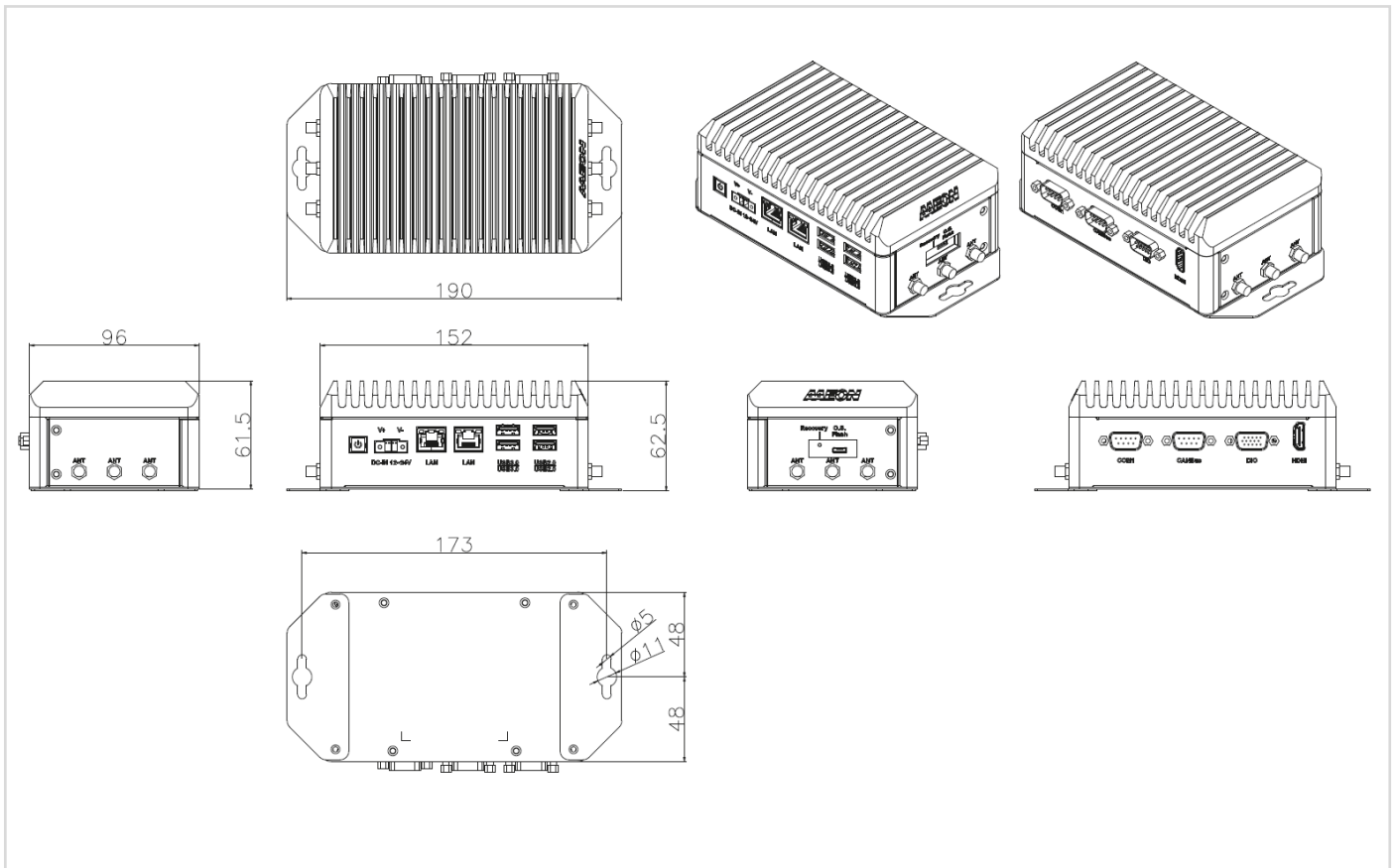| BOXER-8652AI	
SYSTEM	
Processor	6-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU
AI Accelerator	NVIDIA® Jetson Orin™ NX
Memory	8GB LPDDR5
Storage Device	1x M.2 2280 M-Key
OS support	Linux (NVIDIA Jetpack™ 5.0 up)
I/O	
Ethernet	2x RJ-45 for 10/100/1000 Base-T
USB	2x USB 3.2 Gen2 (Type-A) 2x USB 2.0 (Type-A)
Video	1x HDMI 2.0 (Type-A)
Serial port	1x DB-9 for CANbus 1x DB-9 for RS-232/422/485 1x DB-15 for 13-bit DIO 1x Micro USB for OS Flash
Other	1x Recovery Button 1x Power ON/OFF switch 1x Power LED 6x Antenna hole
Expansion	1x M.2 2230 E-Key (Wi-Fi/Bluetooth) 1x M.2 3042/3052 B-Key (4G/5G) 1x M.2 2280 M-Key
MECHANICAL	
DC Input	12V~24V DC in with 2-pin terminal block
Dimensions	152 mm (W) x 96 mm (D) x 61.5 mm (H)
Weight	1.8 kg (gross weight), 1.2 kg (net weight)
Mounting	Wall-mount kit
Operating temperature	-15°C ~ 60°C with 0.5 m/s AirFlow
Storage temperature	-40°C ~ 85°C
Humidity	5% ~ 95% @ 40˚C, non-condensing
Vibration	3.5Grm / 5~500Hz
Shock	50G peak acceleration
Certifications	CE/FCC Class A

BOXER-8652AI

AI@Edge compact and fanless embedded AI system with NVIDIA® Jetson Orin™ NX

Apperance and dimensions (mm)

BOXER-8652AI

BRESSNER
A ONE STOP SYSTEMS COMPANY

AI@Edge compact and fanless embedded AI system with NVIDIA® Jetson Orin™ NX

Ordering information

BOXER-8652AI	
MODEL NO.	
BOXER-8652AI-JP511N-A1-1010	NVIDIA® Jetson Orin™ NX, 2x LAN, 2x USB 3.2 Gen 2, 2x USB 2.0, 1x RS-232/422/485, 1x CANBus, 13x DIO, 1x M.2 2280 M-key for storage (default: 128GB), 1x HDMI, wall-mount, 12 ~ 24VDC w/ 2 pin terminal block, Linux (NVIDIA Jetpack™ 5.0 or above)
PACKING LIST	
BOXER-8652AI	2x Wall-mount bracket 1x Screw package 1x Power connector 1x BOXER-8652AI
OPTIONAL ACCESSORIES	
1255300611	60W power adapter
1702031802	Power Cord (US type)
1702031803	Power Cord (European Type)
170203180E	Power Cord (Japanese Type)