

# BOXER-8652AI

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

## Features

- NVIDIA® Jetson Orin™ NX AI accelerator
- 8GB LPDDR5
- 1x M.2 E-Key, 1x M.2 B-Key, 1x M.2 M-Key
- 2x USB 3.2 Gen 2 and 2x USB 2.0 (Type-A)
- Operating temperature: -15 °C ~ 60 °C



## BOXER-8652AI – Compact Embedded Box PC for AI@Edge Applications with NVIDIA® Jetson Orin™ Orin NX

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.

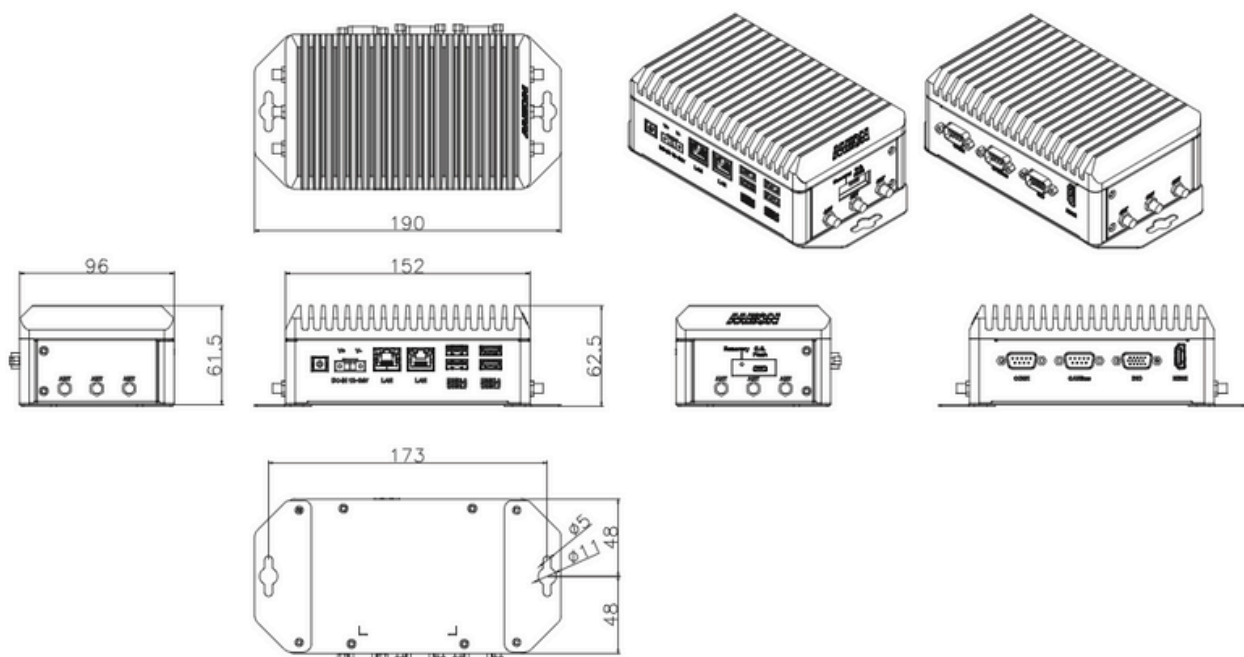
### Up to 8x AI performance with the NVIDIA® Jetson Orin™ NX

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.

### Comprehensive interfaces in a compact design

The BOXER-8652AI 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. Overall, the BOXER-8652AI is an excellent choice for running innovative AI applications. With its powerful hardware, extensive expansion capabilities, and user-friendly software interface, users can run complex algorithms and process data in real time to make faster and more accurate decisions.

## Dimensions (mm)



# BOXER-8652AI

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## Specifications

	BOXER-8652AI
<b>SYSTEM</b>	
CPU	6-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU
AI Accelerator	NVIDIA® Jetson Orin™ NX
RAM	8GB/16GB LPDDR5
Storage	1x M.2 2280 M-Key
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
Operating System	Linux (NVIDIA Jetpack™ 5.0 and up)
<b>INTERFACE</b>	
Ethernet	2x RJ-45 for 10/100/1000 Base-T
USB	2x USB 3.2 Gen2 (Type A) 2x USB 2.0 (Type A) 1x Micro-USB for OS Flash
COM	1x DB-9 for RS-232/422/485
CANbus	1x DB-9 for CANbus
Digital I/O	1x DB-15 for 13-bit DIO
Video	1x HDMI 2.0 (Type A)
Power	1x 12V~24V DC input with 2-pin terminal block
Other	6x Antenna hole
<b>ENVIRONMENTAL</b>	
Remote Control & LED	1x Power LED
Operating Temperature	-15°C ~ 60°C with 0.5 m/s airflow
Storage Temperature	-40° ~ 85°C
Vibration/Shock Resistance	Vibration: 3.5Grms / 5~500Hz / In operation Shock: 50G peak acceleration
Humidity	5 ~ 95% @ 40°C, non-condensing
Dimensions	(W x D x H): 152 x 96 x 61.5 mm
Weight	1.8 kg (Gross Weight) 1.2 kg (Net Weight)
Mounting	Wall mount
Certifications	CE/FCC Class A

## Ordering Information

Part Number	AI Solution	LAN	USB	RS-232/422/485	CANBus	DIO	Storage	Display	Mounting	Power	Operation System
BOXER-8652AI-JP511N-A1-1010	NVIDIA® Jetson Orin NX™ 8GB	2	3.2 Gen 2 x 2, 2.0 x 2	1	1	13	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-8652AI-JP511N-A2-1010	NVIDIA® Jetson Orin NX™ 16GB	2	3.2 Gen 2 x 2, 2.0 x 2	1	1	13	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)

## Packing List

1x BOXER-8652AI
2x Wallmount Bracket
1x Power Connector
1x Screw Package

## Optional Accessories

Power Cord (US)
Power Cord (Europe)
Power Cord (Japan)
60W Power Adapter