

BOXER-8240AI

Fanless Embedded PC for AI@Edge with NVIDIA® AGX Xavier Accelerator and ARM v8.2 64bit CPU

BRESSNER
A ONE STOP SYSTEMS COMPANY

JETSON
AGX Xavier

Features

- ARM v8.2 64-bit CPU, 8-core
- LPDDR4, with 32GB 256-bit
- NVIDIA® AGX Xavier AI Accelerator
- 4x GbE PoE for IP cameras
- Supports 1x DB-9 for RS-232/422/485, 1x CANBus



BOXER-8240AI – Strong computing power and robust design

The NVR-based embedded AI platform BOXER-8240AI contains the NVIDIA® Jetson AGX Xavier computing / inference engine and is optimized for high performance applications. The BOXER-8240AI combines high-performance computing, scalable functionality, versatile connectivity and industrial-grade reliability in a compact mini platform and offers reliable long-term operation for performance-critical applications in industrial automation, deep learning, machine vision, logistics and transportation. The Edge AI platform has a compact design and fits perfectly into any workstation with limited space. The system supports low-power DDR4 memory (LPDDR4) and an M.2 2280 slot.

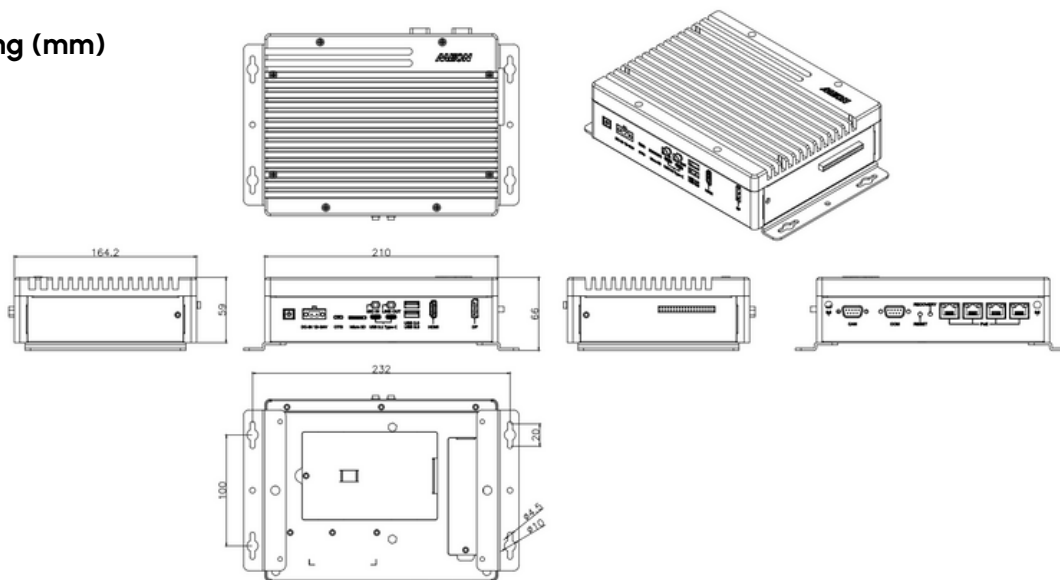
High performance through 8-core ARM processor

The Edge AI platform combines outstanding performance with extensive connectivity in an easy-to-use package. The rugged housing allows for use in harsh environments. With the use of the NVIDIA® Jetson AGX Xavier Inference Engine, the industrial system features exceptional processing power with an 8-core ARM 64-bit processor. Together with unique image and video processing and efficient remote monitoring, the BOXER-8240AI meets the requirements for use in critical applications with the highest demands on reliability. Proven applications in industrial environments include machine vision, motion sensors and system monitoring.

PoE connection options for IP cameras

The BOXER-8240AI offers besides HDMI 2.0 and Display Port especially four Gigabit Ethernet or Power-over-Ethernet ports and is therefore perfectly suited for scenarios with IP cameras. Up to 16GB LPDDR4 RAM and 32GB eMMC onboard memory are offered (additionally microSD's or M.2 2280 can be integrated via PCIe x4). The Edge AI platform withstands temperature fluctuations from -10 to +55 °C and humidity up to 95% without any problems. The series can be operated with power supplies in a voltage input of 12V to 24V, with 2-pin terminal block. Two USB Type C, one USB 3.2, one USB 2.0 and two RS-232/422/485 COM ports offer plenty of connection possibilities for additional peripherals.

Drawing (mm)



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Specifications	BOXER-8240AI
SYSTEM	
AI Accelerator	NVIDIA® Jetson AGX Xavier
CPU	ARM v8.2 64bit CPU, 8-core, 8MB L2 + 4MB L3
RAM	32GB 256-bit LPDDR4x 137GB/s
Storage	1x 32GB eMMC 1x M.2 Key M 2280 1x microSD slot 1x 2.5" SATA drive bay
Expansion	1x Expansion header 40-pin (UART + SPI + CAN + I2C + I2S + DMIC + GPIOs) 1x USB 2.0 header (Optional, circuit reserved) 1x M.2 Key E 2230 for Wi-Fi/Bluetooth (PCIe x1 + USB) 1x M.2 Key M 2280 (PCIe x4) 1x SATA 1x RS-232/422/485 pin-header
Operating System	Linux (NVIDIA Jetpack 4.5 and above)
INTERFACE	
Ethernet	4x RJ-45 GbE / PoE (15W each) with IEEE 802.3af PoE LAN
USB	2x USB Type C for USB 3.2 Gen 1 1x USB Type A for USB 3.2 Gen 1 1x USB Type A for USB 2.0 Gen 1
COM	1x RS-232/422/485
Video	1x HDMI 2.0 Type A 1x Display Port 1.4
Audio	1x Line-in and Line-out
Power	2-pin terminal block
Other	1x CANBus 1x Recovery button 1x Power button
ENVIRONMENTAL	
Cooling	Fanless
Power Supply	12 ~ 24V DC input
Remote Control & LED	1x Power LED
Operating Temperature	-10° ~ 55°C; according to IEC60068-2 with 0.5 m/s AirFlow
Storage Temperature	-40° ~ 70°C
Vibration/Shock Resistance	Vibration: Operating, 3 Grms/ 5 ~ 500Hz/ with MicroSD or eMMC
Humidity	~95% , non-condensing
Dimensions	210(W) x 164.2 (D) x 59 (H) mm
Weight	2.72kg
Mounting	Wallmount
Certifications	CE/FCC Class A

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Ordering Information	BOXER-8240AI-A3-I111	BOXER-8240AI-A4-I111	BOXER-8240AI JP46E-A1-I111	BOXER-8240AI JP46E-A2-I111
AI Accelerator	NVIDIA AGX Xavier			
PoE	4			
USB	2x USB 3.2 Gen 1 + 2 (TypeA+C)			
RS-232/422/485	1			
CANBus	Dual Canbus in one connector			
Storage	eMMC / M.2 M Key / Micro-SD / 2.5" SATA			
Expansion	M.2 E Key			
Video	1x HDMI 1x DP			
Audio	1x Mic-In 1x Line-Out	-	1x Mic-In 1x Line-Out	-
Mounting	Wallmount			
Power	12 ~ 24V DC			
Operating Temp.	-10° ~ 55°C			
Operating System	NVIDIA Jetpack 4.5	NVIDIA Jetpack 4.5	NVIDIA Jetpack 4.6	NVIDIA Jetpack 4.6

Optional Accessories	
1255X00066	120W Power Adapter
1702031802	Power Cord (US type)
1702031803	Power Cord (European Type)
170203180E	Power Cord (Japanese Type)