

01 Product Overview

Vibration

Shock

Lightning

Dust/Oil

ESD

Wide Temp.

EMI

The AXBOX-M102 is a fanless embedded industrial computer designed for industrial automation, edge computing, multi-display, and local data storage applications. Powered by Intel® 12th Gen Core™ processors and built on the FlexCore™ modular architecture, it features dual HDMI and dual DP display interfaces, supporting up to 4 independent displays. The system integrates dual Gigabit Ethernet, 4 USB 3.0 ports, RS-232/RS-485, and other industrial interfaces, with support for 2× M.2 NVMe SSDs and RAID 0/RAID 1. It is ideal for equipment monitoring, digital signage, industrial visualization, logistics and warehousing, energy management, and unattended terminal applications.



Features

FlexCore

SafeCore

Fanless

Smart Thermal

9-36V

Dual LAN

USB 3.0

USB 2.0

HDMI

RS-232

RS-485

DIN Rail

M.2 Slot

TPM 2.0

Certifications

CCC

ISO9001

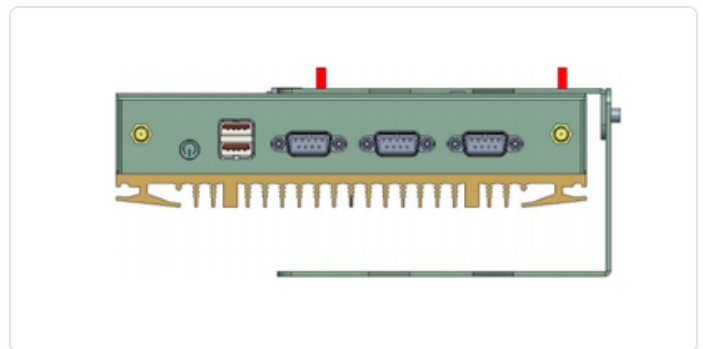
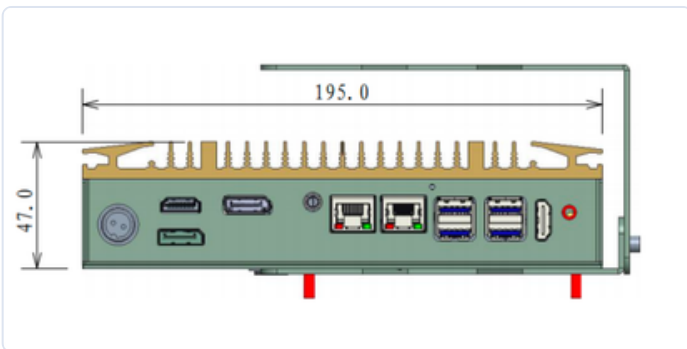
Key Features

- ★ **Processor:** Powered by Intel® 12th Gen Core™ processors, optional i3/i5/i7 platforms, balancing high performance and low power consumption;
- ★ **Modular Architecture:** Based on FlexCore™ modular design, supports functional module expansion for rapid adaptation to different project requirements;
- ★ **Multi-Display:** Dual HDMI and dual DP display outputs, supporting up to 4 independent displays, suitable for digital signage, equipment monitoring, and industrial visualization scenarios;
- ★ **EDID Support:** HDMI outputs support EDID functionality, automatically recognizing display parameters and maintaining HDMI signal output even without a monitor connected;
- ★ **Rich Interfaces:** Integrated 2× HDMI, 2× DP, 2× Gigabit Ethernet, 4× USB 3.0, RS-232/RS-485, and other industrial interfaces;
- ★ **Storage Expansion:** 2× M.2 2280 PCIe NVMe SSDs, RAID 0/RAID 1, balancing high-speed read/write and data redundancy protection based on project needs;
- ★ **Stable and Reliable:** Supports hardware watchdog, external power switch control, and industrial-grade motherboard design, suitable for long-term continuous operation;
- ★ **System Protection:** Combined with SafeCore™ power-off protection and system stability design, enhancing operational reliability in unattended scenarios.

02 Product Images



03 I/O Interface



04 Technical Specifications

● Core Hardware

Parameter	Specification
Processor	Intel® Core™ i7-1255U
Cores	10 (2P+8E)
Threads	12
Frequency	1.7~4.7 GHz
Cache	12 MB L3 Cache
TDP	15W
Graphics	Intel Iris Xe Graphics (96 EUs)
Memory	8~32GB DDR5
Storage	2× M.2 2280 PCIe NVMe SSD, supports RAID 0/RAID 1

I/O Interfaces

Parameter	Specification
USB 2.0	2 × USB 2.0
USB 3.0	4 × USB 3.0
RS-232	2 × RS232
RS-485	1 × RS485
VGA	1 × VGA
HDMI	2 × HDMI (EDID)
Gigabit Ethernet	2 × Intel I210
Audio	1 × 3.5mm TRRS
Wi-Fi (Optional)	Dual-band 2.4G/5G wireless card 2
DP	2 DP

Power Input

Parameter	Specification
Power Connector	1x 3-pin pluggable terminal, supports 9~36V DC wide-range input
ATX Switch	1× ATX power switch
Boot Mode	AT/ATX mode switch (built-in)

Product Attributes

Parameter	Specification
Product Dimensions	195 (L) × 160 (W) × 47 (H) mm
Mounting Dimensions	219 (L) × 100 (W) mm
Product Weight	1.48 KG net weight
Chassis Material	6061 high-strength aluminum alloy
Mechanical Structure	Aluminum extrusion + sheet metal
Mounting Method	structure Bracket mount / VESA standard
Reset Switch	wall mount 1× reset switch
TPM	TPM 2.0
Watchdog	Hardware watchdog supported
MTBF	60,000 hrs

● Operating Environment

Parameter	Specification
Operating Temp.	0~60°C (wide-temp. -40~80°C optional)
Storage Temp.	-10~70°C (wide-temp. -40~80°C optional)
Relative Humidity	10%~90%, non-condensing
EMC	CE, FCC (EN 55032 & EN 55035)
EMC Harmonics	EN IEC 61000-3-2

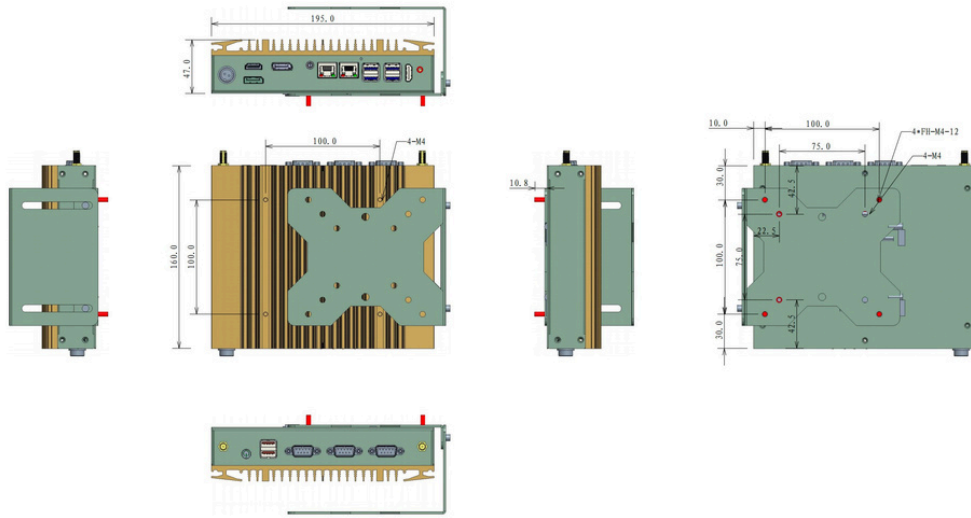
● Operating System

Parameter	Specification
Windows	Windows 10 / Windows 11
Linux	Ubuntu 16.04 / 18.04 / 20.04 / 22.04

● Certifications & Compliance

Parameter	Specification
Factory Cert.	ISO9001: 2015
BIOS Customization	BIOS / Boot LOGO / OEM

Mechanical Dimensions



06 Applications



Industrial Manufacturing



Smart Transportation



New Energy



Equipment Control

07 Ordering Information

NO.	Part No.	Processor	Memory	Storage
1	AXBOX-M102	Intel® Core™ i7-1255U	16GB DDR5	SSD 500GB/Optional

※ Note: This product supports 2× M.2 NVMe. Due to market fluctuations, CPU models, memory, storage, and other key chips may vary. Please consult our sales team for details.

※ Specifications subject to change without notice. Data measured under standard test conditions.

For customization or support, contact Distributor : 603-77731203 · info@axiomtek.com.my · www.myaxeon.com

©