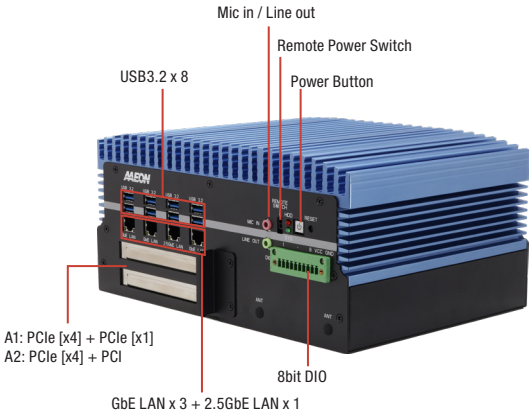
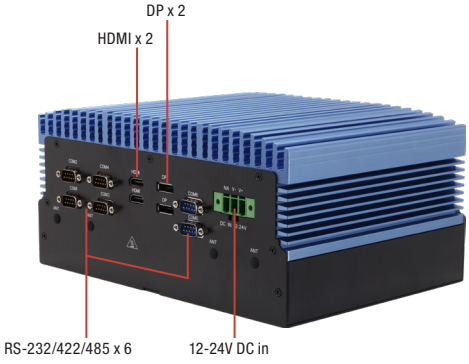
BOXER-6839-RPL

Fanless Embedded Controller with 12th, 13th, 14th Gen Intel® Core™ LGA 1700 Socket-Type Processors

Front View



Rear View



Features

- 14th Gen Intel® Core™ LGA 1700 Socket-Type Processors
- PCIe [x4] + PCIe [x1] / PCIe [x4] + PCI
- Four Simultaneous Displays: HDMI x 2 + DP x 2
- -20°C ~ 50°C Operating Temperature
- USB 3.2 Gen 2 (Type-A) x 8
- 2.5" SATA Drive Bay x 2, Support RAID 0,1

DDR 5 | USB 3.2 Gen 2 | 2.5GbE | PCI Express | HDMI | DP Port | Audio | UKCA

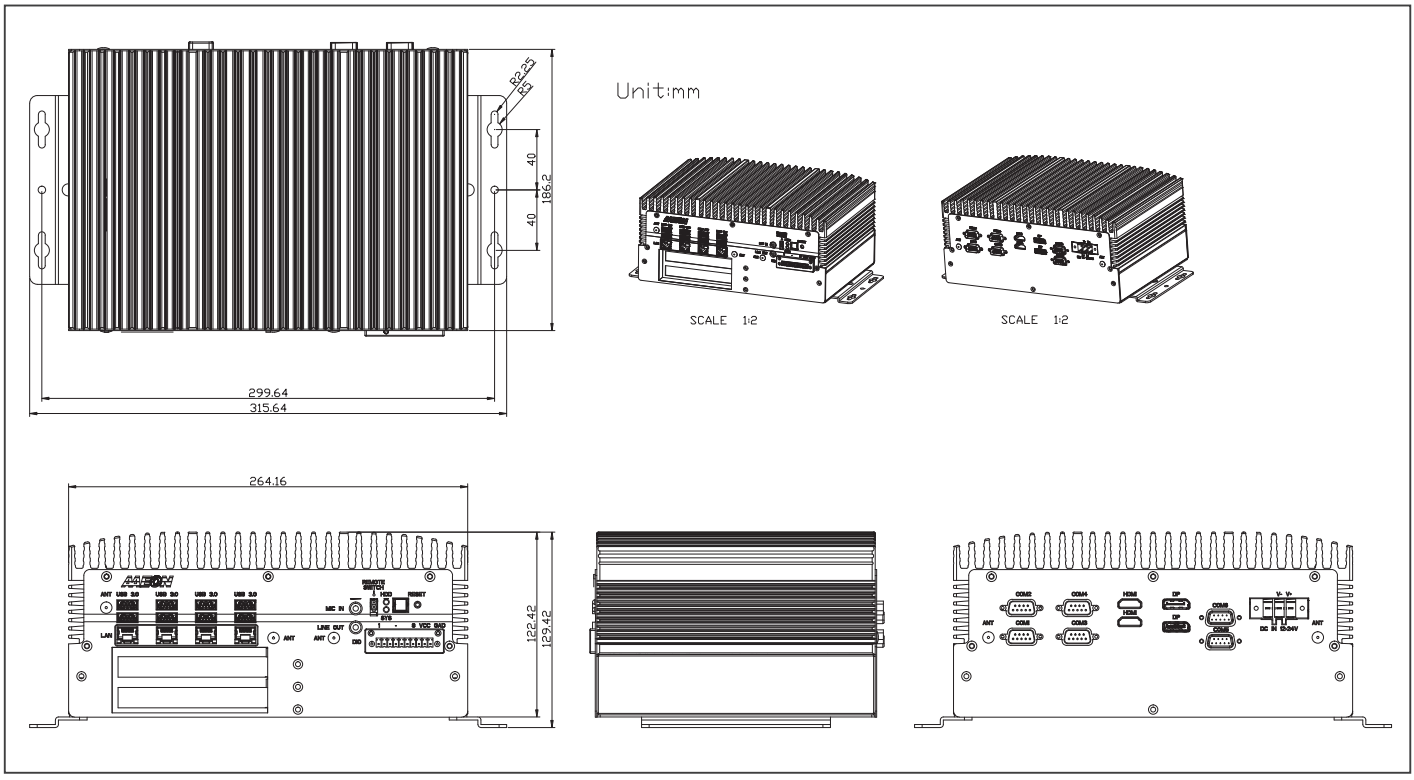
Specifications

System	
CPU	14th Generation Intel® Core™ Processors: -Intel® Core™ i9 processor 14900, Intel® Core™ i9 processor 14900T -Intel® Core™ i9 processor 14901E, Intel® Core™ i9 processor 14901TE -Intel® Core™ i7 processor 14700, Intel® Core™ i7 processor 14700T -Intel® Core™ i7 processor 14701E,Intel® Core™ i7 processor 14701TE -Intel® Core™ i5 processor 14500, Intel® Core™ i5 processor 14500T -Intel® Core™ i5 processor 14400, -Intel® Core™ i3 processor 14100, Intel® Core™ i3 processor 14100T 13th Generation Intel® Core™ Processors: -Intel® Core™ i9-13900TE, Intel® Core™ i9-13900E, -Intel® Core™ i7-13700TE, Intel® Core™ i7-13700E, -Intel® Core™ i5-13500TE, Intel® Core™ i5-13500E, -Intel® Core™ i3-13100TE, Intel® Core™ i3-13100E 12th Generation Intel® Core™/Celeron® Processors: -Intel® Core™ i9-12900E, Intel® Core™ i7-12700TE, -Intel® Core™ i7-12700E, Intel® Core™ i5-12500TE, -Intel® Core™ i5-12500E, Intel® Core™ i3-12100TE, -Intel® Core™ i3-12100E, Intel® Celeron® Processor G6900TE, -Intel® Celeron® Processor G6900E
Chipset	Intel® Q670E Chipset
System Memory	DDR5 4800, SODIMM x 2, up to 64GB
Display Interface	HDMI x 2 Display Port x 2
Storage Device	2.5" SATA Drive Bay x 2 M.2 2280 M-Key x 1 (PCIe Gen 4 [x4]) for NVMe
Ethernet	RJ-45 for 2.5GbE LAN x 1 RJ-45 for GbE LAN x 3
I/O	USB 3.2 Gen 2 (Type-A) x 8 DB-9 for RS-232/422/485 x 6 Mic-in / Line-out x 1 10-pin Terminal Block for 8-bit DIO x 1 Remote Power on/off x 1 2-pin Remote Power Switch x 1 Power Button with LED Indicator x 1
Expansion	M.2 2230 E-Key x 1 (Wi-Fi) M.2 3052 B-Key x 1 with Nano SIM (LTE/5G) M.2 2280 M-Key x 1 (NVMe) Model A1: PCIe [x4] x 1 + PCIe [x1] x 1 (Total Power Consumption: 25W) Model A2: PCIe [x4] x 1 + PCI x 1 (Total Power Consumption: 25W) Maximum Expansion Card Size: Upper slot: 160 mm × 105 mm, Lower slot: 170 mm × 105 mm
Indicator	System LED x 1 HDD LED x 1
OS Support	Windows 10 IoT LTSC 2021 Windows 11 IoT LTSC 2024 Ubuntu 24.04 and later
Power Supply	
Power Requirement	12V ~ 24V DC-in via 3-pin Terminal Block Connector with protection circuit
Mechanical	
Mounting	Wallmount
Dimensions (W x H x D)	10.3" x 7.3" x 4.8" (264mm x 186mm x 122mm) w/o Brackets
Gross Weight	16.1 lb (7.3 kg)
Net Weight	12.4 lb (5.6 kg)
Environmental	
Operating Temperature	-4°F ~ 131°F (-20°C ~ 50°C) with 0.7 m/s airflow (with wide temp. memory/ storage)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Storage Humidity	5 ~ 95% @ 40°C, non-condensing
Anti-Vibration	With SSD: Random, 3Grms, 5~500Hz
Anti-Shock	With SSD: 50G @ wallmount, half-sine, 11ms
Certification	CE/FCC class A

Note: All specifications are subject to change without notice.

Dimension

Unit: mm



Ordering Information

Part Number	CPU	PCH	LAN	USB	RS-232/422/485	Digital I/O	Audio	Storage	Display	Expansion	Mounting	Power	Operation Temp.
BOXER-6839-RPL-A1-1010	—	Q670E	2.5GbE x 1 GbE x 3	USB3.2(10Gbps) x 8	6	8 bit	Mic-in Line-out	2.5" SATA Drive Bay x 2 M.2 2280 M-Key x 1 (NVMe)	HDMI x 2 DP x 2	M.2 2230 E-Key x 1 M.2 3052 B-Key x 1 w/ SIM Slot PCIe[x4] slot x 1 & PCIe[x1] x 1	Wallmount	12~24V	4°F ~122°F (-20°C ~ 50°C), IEC68-2 with 0.7 m/s AirFlow, with wide temperature Memory / Storage & TDP 65W CPU
BOXER-6839-RPL-A2-1010	—	Q670E	2.5GbE x 1 GbE x 3	USB3.2(10Gbps) x 8	6	8 bit	Mic-in Line-out	2.5" SATA Drive Bay x 2 M.2 2280 M-Key x 1 (NVMe)	HDMI x 2 DP x 2	M.2 2230 E-Key x 1 M.2 3052 B-Key x 1 w/ SIM Slot PCIe[x4] slot x 1 & PCI x 1	Wallmount	12~24V	4°F ~122°F (-20°C ~ 50°C), IEC68-2 with 0.7 m/s AirFlow, with wide temperature Memory / Storage & TDP 65W CPU

Packing List

- **BOXER-6839-RPL**
- **Wallmount Bracket x 2**
- **3 Pin DC-In Power Connector x 1**
- **Thermal Pad Package x 1**
- **Remote ON/OFF Connector x 1**
- **Screw Package x 1**

Optional Accessories

Part Number	Description
170X001024	Power Cord (European Type)
170X000799	Power Cord (US type)
170X000803	Power Cord (Japanese Type)
1255X00070	180W AC to DC Power Adapter (for 35W CPU)
1255903300	330W AC to DC Power Adapter (for 65W CPU)