

BOXER-6645-ADS

Fanless Embedded Box PC with Socket Type 12th/13th Generation Intel® Core™ Processors

Front View



Rear View



Features

- 12th/13th Gen Intel® Core™ Desktop Processors
- Built-in high performance Intel® UHD Graphic Engine
- Dual-Channel DDR5 SODIMM, Max. 64GB
- Four Independent Displays (A2 Model)
- SuperSpeed+ USB 3.2 Gen 2 (10Gbps) x 8 (A2 Model)
- M.2 3052 B-Key for 5G Module
- Quadruple LAN (GbE x 3, 2.5GbE x 1)
- Onboard TPM 2.0
- Hailo-8™ M.2 2280 AI Accelerator Module Support (Optional)



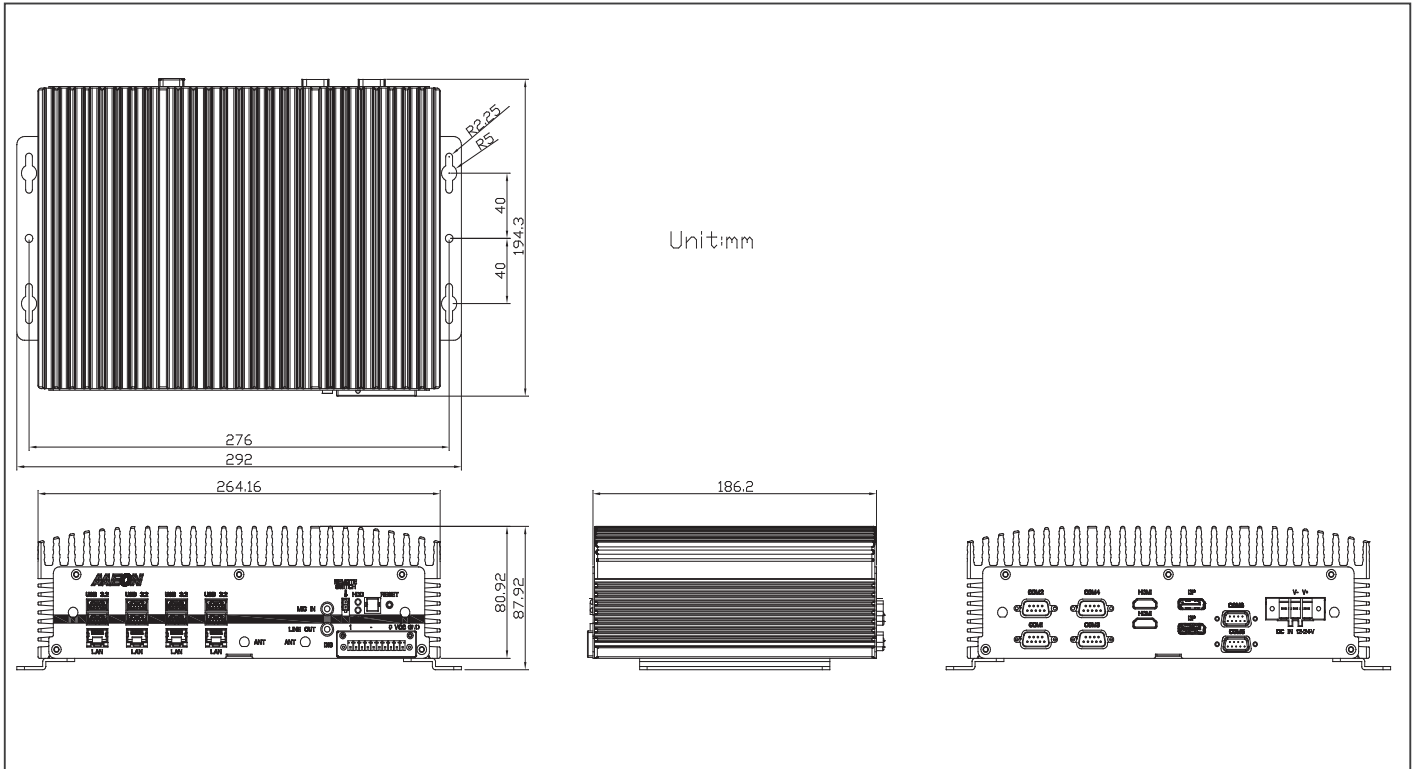
Specifications

System	
CPU	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® H610E/Q670E
System Memory	DDR5 4800MHz SODIMM x 2, up to 64GB
Display Interface	HDMI 1.4b (Type-A) x 2 DP 1.4a x 2 *A2 model supports four simultaneous display outputs *A1 model supports three simultaneous display outputs
Storage Device	2.5" SATA 6Gb/s Drive Bay x 2 (A2 SKU supports RAID 0, 1) M.2 2280 M-Key x 1 (NVMe, extra heatsink required, refer to optional accessories) (A2 Model)
Ethernet	Intel® I210-AT, 10/100/1000 Base-TX x 2 Intel® I219-LM, 10/100/1000 Base-TX x 1 Intel® I226-LM, 2.5GbE Base-TX x 1
I/O	USB 3.2 Gen 2 (5Gbps) x 4 (A1 Model) USB 3.2 Gen 2 (10Gbps) x 8 (A2 Model) USB 2.0 x 4 (A1 Model) Audio x 1 (MIC-in, Line-out) DB-9 x 6 for RS-232/422/485 SMA Antenna Hole x 6 DIO x 8
Expansion	M.2 2230 E-Key x 1 for WiFi module M.2 3052 B-Key x 1 for 4G/5G module
Indicator	System LED x 1 HDD LED x 1
OS support	Windows® 10 IoT Enterprise 64-bit Windows® 11 PRO 64-bit Linux Ubuntu 20.04 (Kernel 15.5 or above)
Power Supply	
Power Requirement	3-pin DC Input 12~24V
Mechanical	
Mounting	Wallmount
Dimensions (W x H x D)	10.39" x 3.8" x 7.33" (264mm x 80.92mm x 186.2mm)
Gross Weight	11.7 lb (5.3 kg)
Net Weight	9.5 lb (4.3 kg)
Environmental	
Operating Temperature	-4°F ~ 122°F (-20°C ~ 50°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature memory/storage (TDP 65W CPU) -4°F ~ 140°F (-20°C ~ 60°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature memory (Max. 32GB)/Storage (TDP 35W CPU)
Storage Temperature	-40 °F ~ 176°F (-40°C ~ 80°C)
Storage Humidity	5 ~ 95% @ 40°C, non-condensing
Anti-Vibration	3 Grms/ 5 ~ 500Hz/ operation – SSD 1 Grms/ 5 ~ 500Hz/ operation – HDD
Anti-Shock	50G, IEC68-2-27, half sine, 11ms duration (with SSD)
Certification	CE/FCC class A

Note: All specifications are subject to change without notice.

Dimension

Unit: mm



Ordering Information

Part Number	PCH	LAN	USB 3.0	USB 2.0	RS-232	RS-232/422/485	Digital I/O	Audio	Storage	Display	Expansion	Mounting	Power	Operation temp.
BOXER-6645-ADS-A1-1010	Intel® H610E	4	USB 3.2 (5Gbps) x 4	4	—	6	8 bit	Mic-in Line-out	2.5" SATA 6Gb/s Drive Bay x 2	HDMI x 2 DP x 2	M.2 2230 E-Key x 1 M.2 3052 B-Key x 1 w/ SIM Slot	Wallmount	12~24V	-4°F ~122°F (-20°C ~ 50°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature Memory / Storage & TDP 65W CPU. -4°F ~140°F (-20°C ~ 60°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature Memory (Max. 32G) / Storage & TDP 35W CPU
BOXER-6645-ADS-A2-1010	Intel® Q670E	4	USB 3.2 (10Gbps) x 8	—	—	6	8 bit	Mic-in Line-out	2.5" SATA 6Gb/s Drive Bay x 2 (RAID 0, 1) 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	Wallmount	12~24V	-4°F ~122°F (-20°C ~ 50°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature Memory / Storage & TDP 65W CPU. -4°F ~140°F (-20°C ~ 60°C), IEC68-2 with 0.5 m/s AirFlow, with wide temperature Memory (Max. 32G) / Storage & TDP 35W CPU

Packing List

- BOXER-6645-ADS x1
- Wallmount Bracket x 2
- 3 Pin DC-In Power Connector x 1
- Remote ON/OFF Connector x 1
- Screw Package x 1

Optional Accessories

- **1255X00070**
180W Power Adapter (Recommended for 35W CPU)
- **1702031802**
Power Cord (US Type)
- **1702031803**
Power Cord (Europe)
- **170203180E**
Power Cord (Japan)
- **1255903300**
330W Power Adapter (Recommended for 65W CPU)
- **9C3256G007**
M.2 2280 M Key 256GB, PCIe Gen4 x 4, 3D TLC ,
-40°C~85°C, Transcend TS256GMTE710T-I
- **9C3512G006**
M.2 2280 M Key 512GB, PCIe Gen4 x 4, 3D TLC ,
-40°C~85°C, Transcend TS512GMTE710T-I
- **9C2001T007**
M.2 2280 M Key 1TB, PCIe Gen4 x 4, 3D TLC ,
-40°C~85°C, Transcend TS1TMTE710T-I
- **9C3002T002**
M.2 2280 M Key 2TB, PCIe Gen4 x 4, 3D TLC ,
-40°C~85°C, Transcend TS2TMTE710T-I
- **9641664500**
Heatsink pack for above PCIe Gen4x4 M.2 2280 NVMe SSD models