

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)



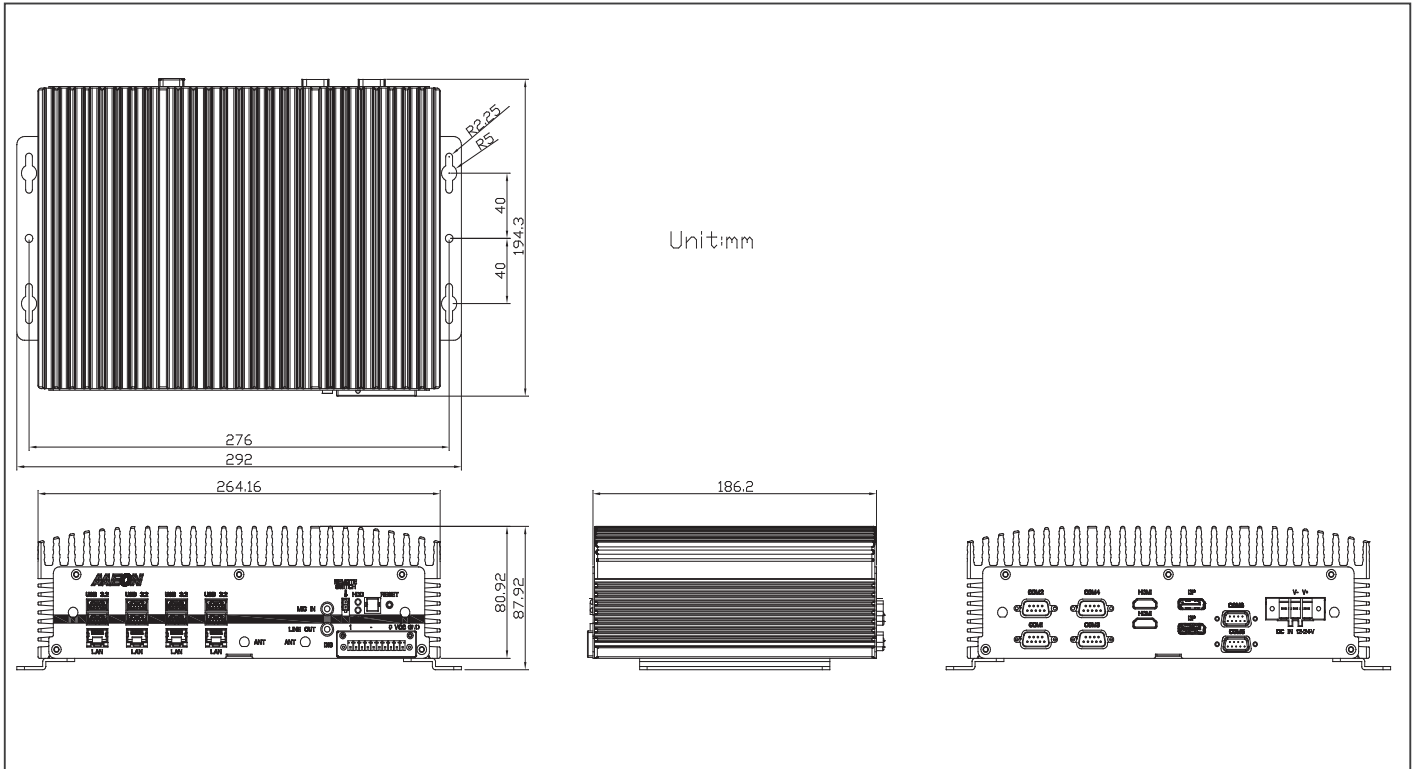
Specifications

| 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-A1-1110 | 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-A2-1110 | 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)
- **170X000799**
Power Cord (US Type)
- **170X000800**
Power Cord (Europe)
- **170X000803**
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 TS1TMTTE710T-I
- **9C3002T002**
M.2 2280 M Key 2TB, PCIe Gen4 x 4, 3D TLC ,
-40°C~85°C, Transcend TS2TMTTE710T-I
- **9641664500**
Heatsink pack for above PCIe Gen4x4 M.2 2280 NVMe SSD models