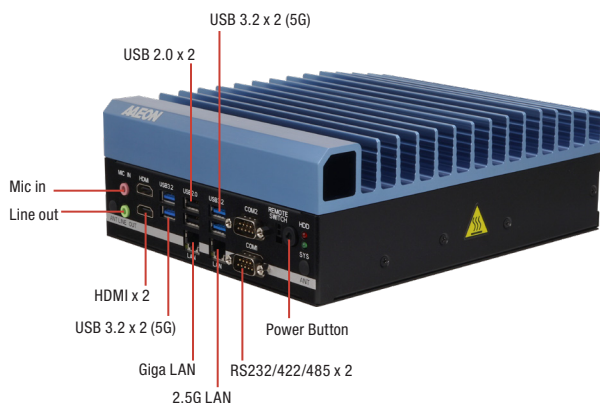


# BOXER-6645U-RPL

Fanless Embedded Box PC with Socket Type 12/13/14th Generation Intel® Core™ Processor



Front View



Rear View



## Features

- 12/13/14th Generation Intel® Core™ LGA 1700 socket-type Processor with Intel® H610E Chipset
- Wide Operating Temperature (-25°C ~ 70°C)
- HDMI output x 2
- GbE LAN x 2
- USB Type-A x 6
- RS-232/422/485 x 2, RS-232 x 4 (Optional)
- Internal 2.5" SSD bay x 2
- 10 ~ 35 VDC power input range
- TPM 2.0 onboard



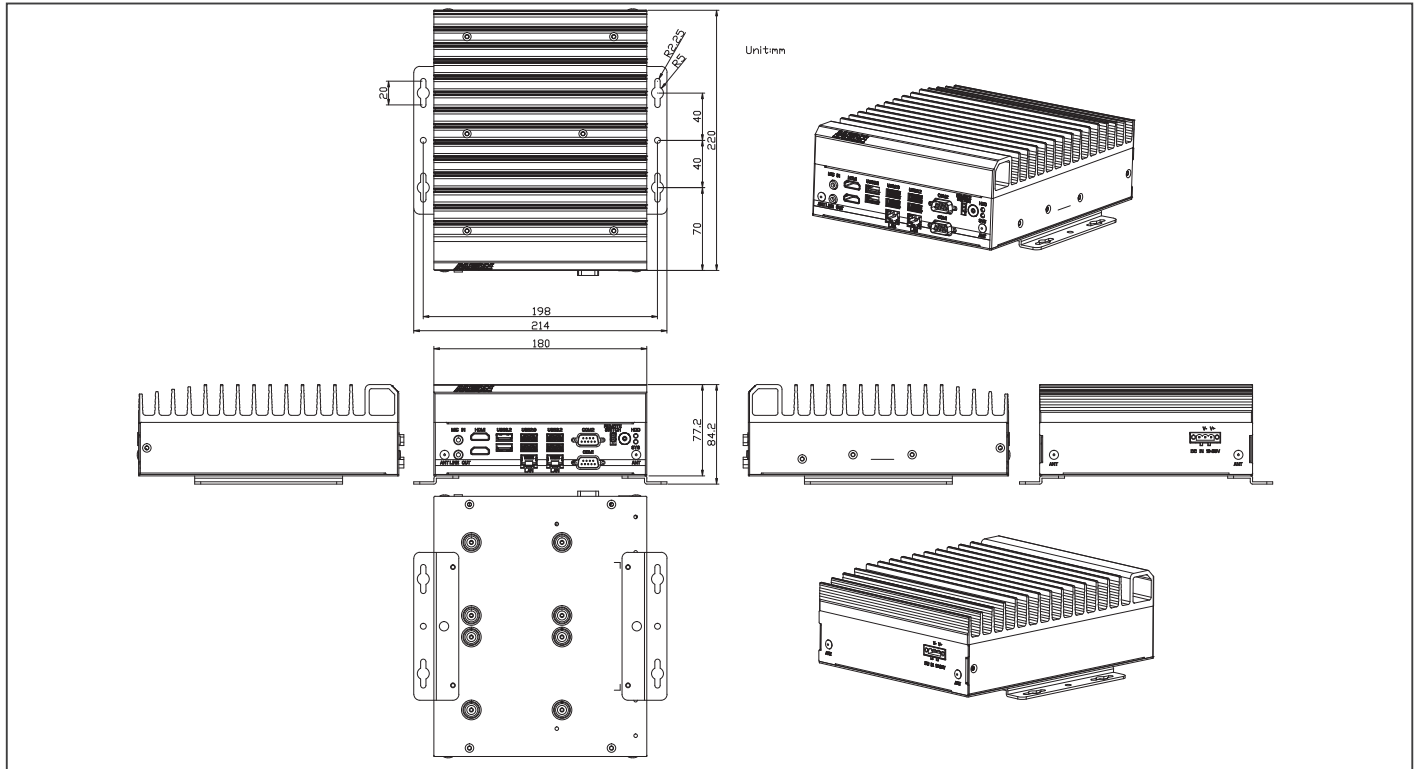
## Specifications

| System                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                    | 12/13/14th Generation Intel® Core™ LGA 1700 Socket-Type Processor, Max TDP 65W<br>13th Generation Intel® Core™ Processors:<br>Intel® Core™ i9-13900TE/13900E<br>Intel® Core™ i7-13700TE/13700E<br>Intel® Core™ i5-13500TE/13500E<br>Intel® Core™ i3-13100TE/13100E<br>14th Generation Intel® Core™ Processors:<br>Intel® Core™ i9 processor 14900/14900T<br>Intel® Core™ i7 processor 14700/14700T<br>Intel® Core™ i5 processor 14500/14500T<br>Intel® Core™ i3 processor 14100/14100T |
| Chipset                | Intel® H610E Chipset                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| System Memory          | DDR5 SODIMM x 2, up to 64GB                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Display Interface      | HDMI x 2, 4K x 2K @30Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Storage Device         | 2.5" SATA Drive Bay x 2<br>M.2 2280 M-Key x 1 (PCIe Gen 3 [x4]) for NVMe                                                                                                                                                                                                                                                                                                                                                                                                               |
| Ethernet               | Intel® Ethernet Connection I219-LM, GbE RJ-45 x 1<br>Intel® Ethernet Controller I226-LM, 2.5GbE RJ-45 x 1                                                                                                                                                                                                                                                                                                                                                                              |
| I/O                    | USB 3.2 Gen 2 x 4, USB 2.0 x 2<br>DB-9 x 2 for RS-232/422/485<br>Audio x 1 (Mic-in/Line-out)<br>Power Button with power LED x 1<br>Remote Power On/Off x 1                                                                                                                                                                                                                                                                                                                             |
| Expansion              | M.2 2280 M-Key x 1 (NVMe) *Note: Additional heatsink required, please refer to optional accessories.<br>M.2 2230 E-Key x 1 (for Wi-Fi/Bluetooth)<br>Full Size MiniPCIe x 1 (optional for mSATA)<br>Onboard TPM 2.0                                                                                                                                                                                                                                                                     |
| Indicator              | System / Storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| OS support             | Windows® 10 IoT Enterprise 64-bit<br>Windows® 11 PRO 64-bit<br>Linux Ubuntu 22.04                                                                                                                                                                                                                                                                                                                                                                                                      |
| Power Supply           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Power Requirement      | 3-pin DC Input 10~35V                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mechanical             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mounting               | Wallmount                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Dimensions (W x H x D) | 7.09" x 3.04" x 8.66" (180mm x 77.2mm x 220mm)<br>8.43" x 3.31" x 8.66" (214mm x 84.2mm x 220mm) with brackets                                                                                                                                                                                                                                                                                                                                                                         |
| Gross Weight           | 8.59 lb (3.9 Kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Net Weight             | 6.39 lb (2.9 Kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Environmental          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operating Temperature  | -13°F ~ 131°F (-25°C ~ 55°C), IEC60068-2 with 0.7 m/s AirFlow, with wide temperature memory/storage (TDP 65W CPU)<br>-13°F ~ 158°F (-25°C ~ 70°C), IEC60068-2 with 0.7 m/s AirFlow, with wide temperature memory/storage (TDP 35W CPU)                                                                                                                                                                                                                                                 |
| Storage Temperature    | -40°F ~ 176°F (-40°C ~ 80°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Storage Humidity       | 5 ~ 95% @ 40°C, non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Anti-Vibration         | IEC60068-2-64, 3 Grms/ 5 ~ 500Hz/ operation (with SSD)                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Anti-Shock             | 50G, IEC60068-2-27, half sine, 11ms duration (with SSD)                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Certification          | CE/FCC Class A                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |



## Dimension

Unit: mm



## Packing List

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

## Optional Accessories

- **1255302300**  
19V 230W Power Adapter
- **170X000799**  
Power Cord (US Type)
- **170X000800**  
Power Cord (Europe)
- **170X000803**  
Power Cord (Japan)
- **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
- **9641664501**  
Heatsink pack for PCIe Gen4x4 M.2 2280 NVMe SSD

## Ordering Information

| Part Number             | PCH          | LAN | USB 3.2 Gen2 | USB 2.0 | RS232 | RS232/422/485 | Digital I/O | Audio              | Storage                                                        | Display | Expansion                                                    | Mounting  | Power  | Operation Temp.                                                                                                                                                                                                                        |
|-------------------------|--------------|-----|--------------|---------|-------|---------------|-------------|--------------------|----------------------------------------------------------------|---------|--------------------------------------------------------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BOXER-6645U-RPL-A1-1010 | Intel® H610E | 2   | 4            | 2       | —     | 2             | —           | Mic-In<br>Line-out | M.2 2280 M Key Slot x1<br>(NVMe SSD)<br>2.5" SATA Drive Bay x2 | HDMI x2 | M.2 2230 E Key x 1<br>Full Size MiniPCle x 1<br>SIM Slot x 1 | Wallmount | 10~35V | -13°F ~ 131°F (-25°C ~ 55°C), IEC60068-2 with 0.7 m/s AirFlow, with wide temperature memory/storage (TDP 65W CPU)<br>-13°F ~ 158°F (-25°C ~ 70°C), IEC60068-2 with 0.7 m/s AirFlow, with wide temperature memory/storage (TDP 35W CPU) |