# BMX-T550-B

Mini-ITX Desktop System
With Intel® Raptor Lake-S Platform



## Features

- Intel® 13th Gen Core™ i9/i7/i5/i3 Processor (35W/65W)
- Intel® H610E PCH
- Intel® Iris® Xe/ UHD Graphics (CPU Dependent)
- 2 x Memory Socket (Capacity Max. Up to 64GB DDR5 4800)
- 3 x Display (HDMI 1.4b, 2 x DP 1.4a)
- 2 x Intel® Ethernet Controller (1GbE, 2.5GbE)
- 2 x Audio Jack (Mic-In, Line-Out)
- 2 x COM Port (2 x RSx232/422/485)
- 3 x Expansion Slot (M.2 Key-E, Key-M, PCIe x 16)
- 12 x USB Port (6 x USB3.2G Gen1, 6 x USB2.0)
- Onboard dTPM 2.0 IC

Mini PC | Smart Fan Control | Vibration/ Shock | CE FCC Class B | PCIex16 Slot

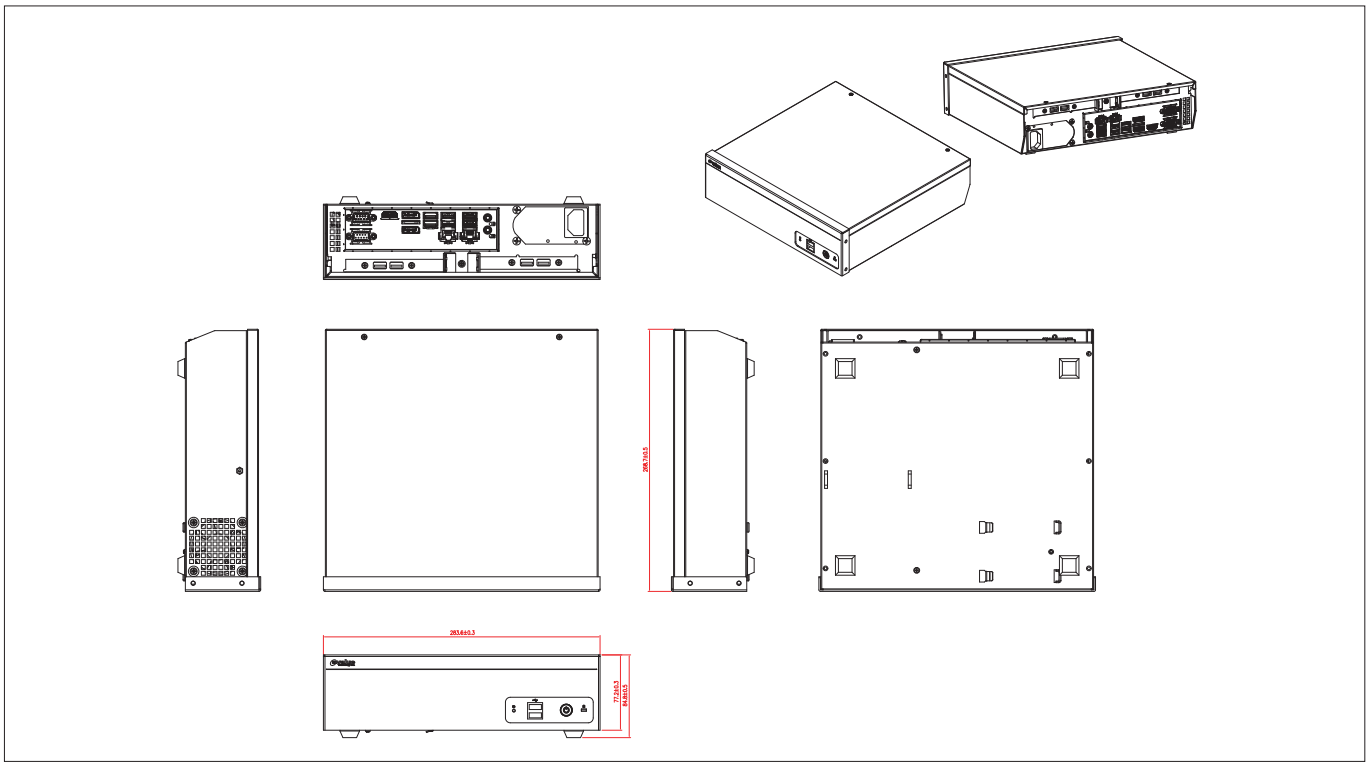
## Specifications

| | |
|---|---|
| **System Information** | |
| Processor | 13th Gen Intel® Core™ Processors, LGA 1700 (former Raptor Lake-S)<br>Intel® Core™ i9-13900TE Processor, 24C32T, 36M Cache, 1.0GHz (5.0GHz), TDP: 35W<br>Intel® Core™ i7-13700TE Processor, 16C24T, 30M Cache, 1.1GHz (4.8GHz), TDP: 35W<br>Intel® Core™ i5-13500TE Processor, 14C20T, 24M Cache, 1.3GHz (4.5GHz), TDP: 35W<br>Intel® Core™ i3-13100TE Processor, 4C8T, 12M Cache, 2.1GHz (4.1GHz), TDP: 35W<br>Intel® Core™ i9-13900E Processor, 24C32T, 36M Cache, 1.8GHz (5.2GHz), TDP: 65W<br>Intel® Core™ i7-13700E Processor, 16C24T, 30M Cache, 1.9GHz (5.1GHz), TDP: 65W<br>Intel® Core™ i5-13500E Processor, 14C20T, 24M Cache, 2.4GHz (4.6GHz), TDP: 65W<br>Intel® Core™ i3-13100E Processor, 4C8T, 12M Cache, 3.3GHz (4.4GHz), TDP: 65W |
| Platform Controller Hub | Intel® H610E Chipset |
| System Memory | 2 x SODIMM sockets support Dual Channel DDR5 4800MHz up to 64GB |
| BIOS Information | AMI uEFI BIOS, 256Mb SPI Flash ROM |
| Watchdog Timer | 1 Sec ~ 255 Sec Timer |
| TPM | dTPM 2.0 |
| SBC | MX610H |
| **Expansion** | |
| M.2 | 1 x M.2 Key-E 2230 CNVi (PCIe x 1, USB 2.0)<br>1 x M.2 Key-M 2242/2280 (PCIe x 4) |
| PCIe | 1 x PCIe x 16 (Gen 4) |
| **Storage** | |
| M.2 | 1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3) |
| 2.5 Drive Bay | 2 x Internal 2.5" Drive Bay (12.5mm) |
| **Front I/O** | |
| USB | 2 x USB 2.0 |
| Power Button | 1 x PWR BTN w/LED |
| Reset Button | 1 x RST Hidden BTN |
| LED Indicator | 1 x Data Access LED |
| **Rear I/O** | |
| USB | 2 x USB 2.0, 4 x USB 3.2 Gen1 (2 x USB 2.0, 2 x USB3.2 Gen1 by opt., via 2 x PCIe IO bracket) |
| COM Port | 2 x RS-232/422/485 |
| LAN Port | 2 x RJ45 |
| DP | 2 x DP |
| Audio | 1 x Line-Out, 1 x Mic-In |
| HDMI | 1 x HDMI |
| AC/DC Input | 1 x Vac Input |
| **Left I/O** | |
| Antenna | 1 x Smart Fan |
| **Display** | |
| Graphic Chipset | Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)<br>Intel® UHD Graphics 770 (i9/i7/i5)<br>Intel® UHD Graphics 730 (i3) |
| Resolution | HDMI 1.4b: 3840x2160 @ 30Hz<br>DP++ 1.4a: 4096x2304 @ 60Hz |
| **Audio** | |
| Audio Codec | Realtek HD Audio |
| **Ethernet** | |
| LAN Chipset | Intel® I219-LM GbE LAN PHY<br>Intel® i225-V 2.5GbE LAN |
| **Power Requirement** | |
| Power Supply Unit | 220W Flex ATX Power Supply |
| Voltage Input Spec. | 90 Vac ~ 264 Vac |
| ACPI | Single power ATX support S0, S3, S4, S5 |
| Power Mode | AT/ATX Mode (Default: ATX mode) |
| Voltage Input Connector | IEC 320 (C14) |
| **Software Support** | |
| OS | Win10, 11<br>Linux |
| **Certification** | |
| Certification Information | CE, FCC Class B, UKCA |
| **Mechanical & Environmental** | |
| Operating Temp. | 0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s air flow |
| Storage Temp. | -30°C ~ 70°C (-22°F ~ 158°F) |
| Operating Humidity | 40°C @ 95% Relative Humidity, Non-condensing |
| Dimension (W x L x H) | 280 mm x 265 mm x 75 mm |
| Weight | 4.7 Kg |
| Vibration Test | With SSD : 1.5 Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 0.5hr/axis |
| Shock Test | With SSD : 10 G, IEC 60068-2-27, Half Sine, 11ms |
| Mounting Kit | Robber foots for horizontal |

# BMX-T550-B

Mini-ITX Desktop System
With Intel® Raptor Lake-S Platform

## Mechanical Drawing



## Ordering Information

| P/N | Processor | Chipset | Memory | Storage | Adapter/PSU | Mounting Kit | Temp. |
|---|---|---|---|---|---|---|---|
| BMX-T550-B1-03R | LGA 1700 Socket Type (Optional Items) | H610E | UP to 64G DDR5 (Optional Items) | (Optional Items) | ATX 220W | Robber foots for horizontal | 0°C ~ 40°C |

Note: CPU/Memory/Storage and Operating System bundled on request. Please contact your sales representative for more information.

## Packing List

| Item | Quantity |
|---|---|
| BMX-T550 STD IMB Desktop System | 1 |
| Screws kit for M.2, HDD | 1 |

## Optional Items

| Item | P/N |
|---|---|
| Power Cord 3P(F)-3P(M) 183cm, USA type | E1702031833R |
| Power Cord SL-6+SL-3 183cm, EU type | E1702031000R |
| Power Cord 3P(F)-3P(M) 183cm, Japan w/PSE type | E1702031834R |
| Power Cord QP-026+SL-3 183cm, UK type | E170P060380R |
| Power Cord 3P(F)-3P(M) 183cm, Australia type | E1702031831R |

## I/O Overview

