

# BMX-P550

Intel® 14th Gen Core™ i7 Processor  
(35W/65W) CPU Barebone system



## Product Features

- 14th Generation Intel® Raptor Lake-S Refresh (35 W / 65 W) Processors
- 2 x Intel® i219LM, I226V Ethernet
- 1 x HDMI 1.4b 4K@30Hz, 2 x DP++ 1.4a 4K@60Hz
- 4 x USB 3.2 Gen1 x 1, 4 x USB 2.0 Type-A
- Onboard infineon SLB 9670VQ2.0 support TPM2.0
- 1 x PCIe x16 (Gen4)
- ATX power
- 2 x 262-pin DDR5 4800MHz SO-DIMM socket, supports up to 64GB Max. (non ECC only)
- RealTek ALC897 Audio Codec
- 3 x SATA III
- 1 x M.2 E-Key 2230 with CNVi Support (PCIe x1 + USB 2.0)
- 1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III)
- 2 x Audio Jacks (Mic in and Line out for Rear IO)

## Specification

System Information	
Processor	Intel® Core™ i7-14700T Processor (35W, Default) Intel® Core™ i7-14700 Processor (65W, Project Base)
Platform Controller Hub	Intel® H610E Chipset
System Memory	2 x 262-pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MT/s (non ECC only)
SBC	Mini-ITX 170mmx170mm (MX160H)
H/W Status Monitor	Monitoring CPU Temperature, Voltage with Auto Throttling Control
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step
TPM	Onboard infineon SLB 9670VQ2.0 support TPM2.0
I/O Chipset	nuvoton NCT6126D
BIOS Information	AMI 256Mb UEFI BIOS
Expansion Card	A2000 Ada for opt.

## Expansion

**M.2** 1 x M.2 E-Key 2230 with CNVi Support (PCIe x1 + USB 2.0)

**PCIe** 1 x PCIe x16 (Gen 4)

**Expansion** 2 x half-size PCIe slots, share with 1 x full-size slot.  
(supports length ≤ 130mm expansion card)

## Storage

**M.2** 1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III)

**Drive Bay** 3 x Internal 2.5" Drive Bay

## Front I/O

**Power Button** 1 x PWR

**LED Indicator** 1 x PWR LED  
1 x HDD Data Access LED

**USB** 2 x USB 2.0

## Rear I/O

**USB** 4 x USB 3.2 Gen1x1  
2 x USB 2.0

**HDMI** 1 x HDMI 1.4b 4K@30Hz

**LAN Port** 1 x Intel® I219LM Gigabit Ethernet PHY  
1 x Intel® i226V 2.5 Gigabit Ethernet

**Audio** Mic-in, Line-out

**DP** 2 x Dual Mode DisplayPort (DP++) 1.4a 4K@60Hz

**COM Port** 2 x RS-232/422/485

## Onboard I/O

**CPU/System FAN** CPU FAN: 1 x 4P CPU FAN  
System FAN: 1 x SYS FAN

## Display

**Graphic Chipset** Intel® UHD Graphics 770 (Depends on CPU)

**Resolution** HDMI 1.4b 4K@60Hz  
Dual Mode DisplayPort (DP++) 1.4a 4K@60Hz

## Audio

**Audio Codec** RealTek ALC897

## Ethernet

<b>LAN Chipset</b>	1 x Intel® I219LM Gigabit Ethernet PHY 1 x Intel® i226V 2.5 Gigabit Ethernet
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## Power Requirement

<b>ACPI</b>	Single power ATX support S0, S3, S4, S5
<b>Power Mode</b>	AT/ATX (ATX is default setting)
<b>Power Supply Unit</b>	AC to ATX PSU
<b>Voltage Input Spec.</b>	+12V/+5V/5VSB/+3.3V/-12V (ATX power)
<b>Voltage Input Connector</b>	4P ATX connector
<b>DC Output Spec.</b>	ATX power, 300W PSU

## Software Support

<b>OS</b>	Win10, Win11, Linux
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## Mechanical & Environmental

<b>Operating Temp.</b>	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s air flow
<b>Storage Temp.</b>	-30~70C° (-22°F ~ 158°F)
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Dimension (W x L x H)</b>	270 x 235 x 88mm
<b>Vibration Test</b>	With SSD : 1.5 Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 0.5hr/axis
<b>Shock Test</b>	With SSD : 10 G, IEC 60068-2-27, Half Sine, 11ms
<b>Drop Test</b>	Package drop test Reference ISTA 1G

## Packing List

<b>Items</b>	1 x BMX-P550 1 x AC 300W PSU 1 x Screws kit (For M.2, SATA 2.5" cables)
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