

BMX-T820

Desktop Chassis and Barebone system



Product Features

- MX610HD Inside
- Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
- 2 x Memory Socket (Capacity Max. Up to 64GB DDR5 4800)
- 2 x Intel® Ethernet Controller (1GbE, 2.5GbE)
- 2 x Expanslot Slot (M.2 Key-E, Key-M)
- 6 x USB Port (2xUSB 3.2, 4xUSB 2.0)
- LGA 1700 socket supports 13th Gen Intel® Processor
- Intel® H610E PCH (x4 Gen4 DMI)
- 2 x Display (HDMI 1.4b, DP 1.2a)
- 2 x Audio Jack (Mic-In, Line-Out)
- 3 x COM Port (RSx232, 2xRSx232/422/485)
- Support Table Stand, Desktop

Specification

System Information	
Processor	Intel® 13th Gen Core™ i9/i7/i5/i3 Processor (35W/65W)
Platform Controller Hub	Intel® H610E Chipset
System Memory	2 x SODIMM sockets support Dual Channel DDR5 4800MHz up to 64GB
I/O Chipset	Intel® H610E PCH
BIOS Information	AMI uEFI BIOS, 256Mb SPI Flash ROM
Watchdog Timer	H/W Reset, 5~255 seconds/5~255 minutes
H/W Status Monitor	CPU temperature monitoring, Voltage monitoring, CPU fan speed control
TPM	dTPM 2.0
SBC	MX610HD

Expansion

M.2	1 x M.2 Key-E 2230 CNVi (PCIe x 1, USB 2.0) 1 x M.2 Key-M 2242/2280 (PCIe x 4)
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Storage

M.2	1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3)
2.5 Drive Bay	1 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	2xUSB 3.2 2xUSB 2.0
COM Port	1xRS-232 2xRS-232/422/485
LAN Port	2 x RJ45
DP	1 x DP
HDMI	1 x HDMI
Audio	1 x Line-Out 1 x Mic-In
AC/DC Input	2 x Vdc Input

Left I/O

Antenna	4x Antenna w/cover
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Display

Graphic Chipset	Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
Resolution	HDMI 1.4b: 3840x2160@30Hz DP++ 1.4a: 4096x2304@60Hz

Audio

Audio Codec	Realtek HD Audio
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Ethernet

LAN Chipset	Intel® Ethernet Connection I219-V Intel® Ethernet Controller I225-LM
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Data Rate Per Port	1GbE (I219-V) 2.5GbE (I225-LM)
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Power Requirement

Voltage Input Spec.	+12/24Vdc
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ACPI	Single power ATX support S0, S3, S4, S5
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Power Mode	AT/ATX
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Voltage Input Connector	Terminal Block/DC Jack
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Software Support

OS	Win10 / 11
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Certification

Certification Information	CE FCC Class A UKCA
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Mechanical & Environmental

Operating Temp.	0°C~40°C (32°F~104°F) with 0.5m/s air flow
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Storage Temp.	-30 ~ 60C° (-22°F ~ 140°F)
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Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
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Dimension (W x L x H)	215 x 210 x 55mm
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Weight	2.2 kg
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Vibration Test	Random Vibration Operation 1. Test PSD : 0.00454G²/Hz , 1.5 Grms 2. System condition : operation mode 3. Test frequency : 5~500 Hz 4. Test axis : X,Y and Z axis 5. Test time : 30 minutes per each axis 6. IEC60068-2-64 Test Fh Sine Vibration test (Non-operation) 1. Test Acceleration : 2G 2. Test frequency : 5~500 Hz 3. Sweep: 1 Oct/ per one minute. (logarithmic) 4. Test Axis : X,Y and Z axis 5. Test time :30 min. each axis 6. System condition : Non-Operating mode 7. Reference IEC 60068-2-6 Testing procedures Package Vibration Test: 1. Test PSD : 0.026G²/Hz , 2.16 Grms 2. Test frequency : 5~500 Hz 3. Test axis : X,Y and Z axis 4. Test time : 30 minutes per each axis 5. IEC 60068-2-64 Test Fh
Shock Test	1. Wave from : Half Sine wave 2. Acceleration Rate : 10G 3. Duration Time : 11ms 4. No. of Shock: Z axis 300 times 5. Test Axis: Z axis 6. Operation mode 7. Reference IEC 60068-2-27 Testing procedures Test Eb : SSD Shock Test
Drop Test	Package drop test Reference ISTA 2A, Method : IEC-60068-2-32 Test : Ed Test Ed : Drop Test 1. Test phase : One corner, three edges, six faces 2. Test high : 96.5cm 3. Package weight : 5.4Kg 4. Test drawing
Mounting Kit	Robber foots for horizontal
Packing List	
Items	1x BMX-T820 1x Table Stand kit 4x Rubber foot 1x Screw kit (For M.2, Table Stand, Drive Bay) 1x AC/DC adapter
Ordering Information	
Ordering Information	Intel® 13th Gen Core™ i9/i7/i5/i3® Processor with CPU Cooler System (CPU 35W) BMX-T820-I9H-A1-1R (i9-13900TE) BMX-T820-I7H-A1-1R (i7-13700TE) BMX-T820-I5H-A1-1R (i5-13500TE) BMX-T820-I3H-A1-1R (i3-13100TE)