BMX-T820

Desktop Chassis and Barebone System



Features

- MX610HD Inside
- LGA 1700 socket supports 13th Gen Intel® Processor
- Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
- Intel® H610E PCH (x4 Gen4 DMI)
- 2 x Memory Socket (Capacity Max. Up to 64GB DDR5 4800)
- 2 x Display (HDMI 1.4b, DP 1.2a)
- 2 x Intel® Ethernet Controller (1GbE, 2,5GbE)
- 2 x Audio Jack (Mic-In, Line-Out)
- 2 x Expanslot Slot (M.2 Key-E, Key-M)
- 3 x COM Port (RSx232, 2xRSx232/422/485)
- 6 x USB Port (2xUSB 3.2, 4xUSB 2.0)
- Support Table Stand, Desktop

Mini PC 215x210x55mm | Smart Fan Control | Rugged Design 2G/10G | Desktop & Tower Stand | PCIex16 Slot

Specifications

System Information	
Processor	13th Gen Intel® Core™ Processors, LGA 1700 (former Raptor Lake-S) Intel® Core™ i9-13900TE Processor, 24C32T, 36M Cache, 1.0GHz (5.0GHz), TDP: 35W Intel® Core™ i7-13700TE Processor, 16C24T, 30M Cache, 1.1GHz (4.8GHz), TDP: 35W Intel® Core™ i5-13500TE Processor, 14C20T, 24M Cache, 1.3GHz (4.5GHz), TDP: 35W Intel® Core™ i3-13100TE Processor, 4C8T, 12M Cache, 2.1GHz (4.1GHz), TDP: 35W Intel® Core™ i9-13900E Processor, 24C32T, 36M Cache, 1.8GHz (5.2GHz), TDP: 65W Intel® Core™ i7-13700E Processor, 30M Cache, 16C24T, 1.9GHz (5.1GHz), TDP: 65W Intel® Core™ i5-13500E Processor, 24M Cache, 14C20T, 2.4GHz (4.6GHz), TDP: 65W 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
SBC	MX610HD
H/W Status Monitor	CPU temperature monitoring, Voltage monitoring, CPU fan speed control
Watchdog Timer	H/W Reset, 5~255 seconds/5~255 minutes
TPM	dTPM 2.0
I/O Chipset	Intel® H610E PCH
BIOS Information	AMI uEFI BIOS, 256Mb SPI Flash ROM
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)
Storage	
M.2	1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3)
Drive Bay	1 x Internal 2.5" Drive Bay (12.5mm)
Front I/O	
Power Button	1 x PWR BTN w/LED
LED Indicator	1 x Data Access LED
Reset Button	1 x RST Hidden BTN
USB	2 x USB 2.0
Rear I/O	
AC/DC Input	2 x Vdc Input
USB	2 x USB 3.2, 2 x USB 2.0
HDMI	1 x HDMI
LAN Port	2 x RJ45
Audio	1 x Line-Out, 1 x Mic-In
DP	1 x DP
COM Port	1 x RS-232, 2 x RS-232/422/485
Left I/O	
Antenna	4 x Antenna w/cover
Audio	
Audio Codec	Realtek HD Audio
Display	
Graphic Chipset	Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
Resolution	HDMI 1.4b: 3840 x 2160@30Hz DP++ 1.4a: 4096 x 2304@60Hz
Ethernet	
LAN Chipset	Intel® Ethernet Connection I219-V Intel® Ethernet Controller I225-LM
Data Rate Per Port	1GbE (I219-V) 2.5GbE (I225-LM)
Power Requirement	
ACPI	Single power ATX support S0, S3, S4, S5
Power Mode	AT/ATX
Voltage Input Spec.	+12/24Vdc
Voltage Input Connector	Terminal Block/DC Jack
Software Support	
OS	Win10 / 11
Certification	
Certification Information	CE, FCC Class A, UKCA
Mechanical & Environmental	
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s air flow
Storage Temp.	-30 ~ 60C° (-22°F ~ 140°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimension (W x L x H)	215 x 210 x 55mm
Dimension (W x L x H)	2.2 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
Drop Test	Package drop test Reference ISTA 2A, Method : IEC-60068-2-32 Test : Ed
Mounting Kit	Robber foots for horizontal

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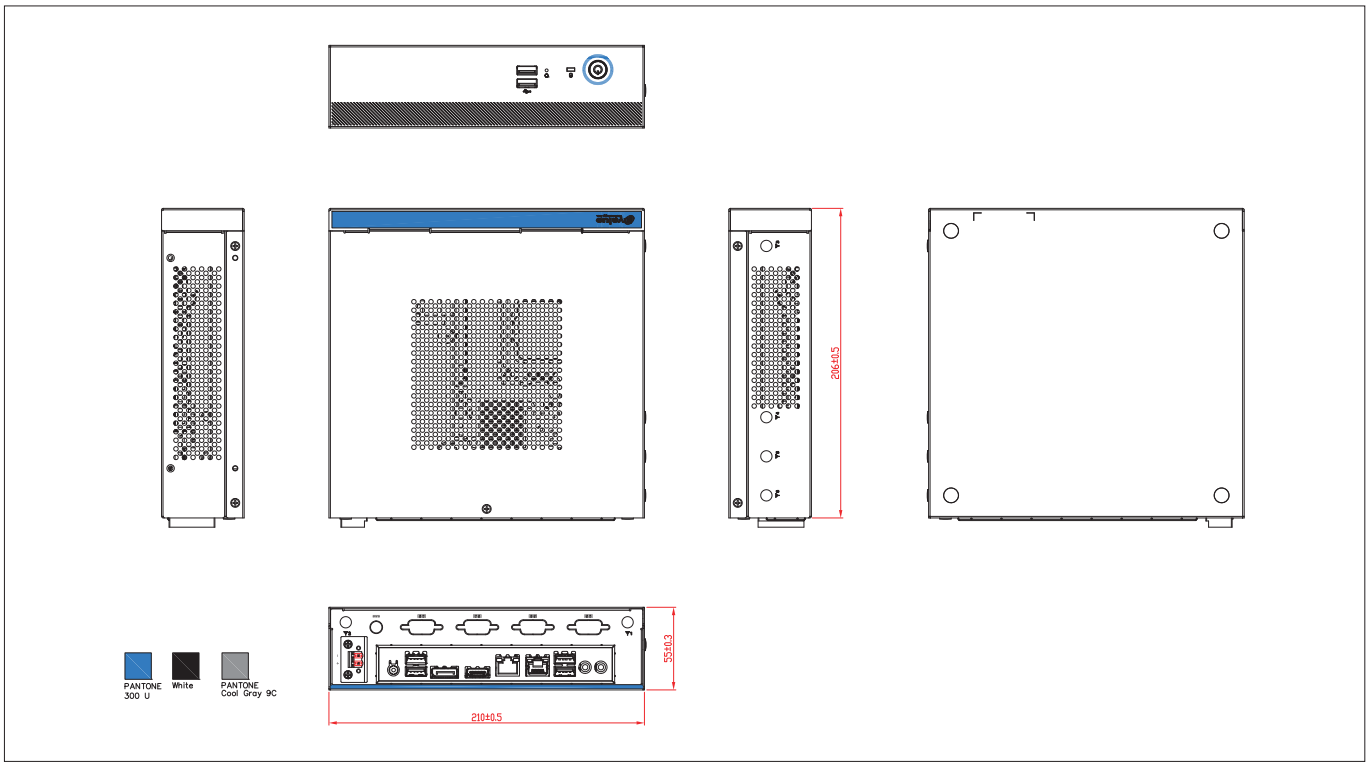
Mechanical Drawing



Ordering Information

P/N	Processor	Chipset	Memory	Storage	Adapter/PSU	Mounting Kit	Temp.
BMX-T820-A1-1R	Intel® 13th Gen Core™ i9/i7/i5/i3 Processor (35W/65W)	H610E	(Optional)	(Optional)	150W Adapter	Robber foots	0°C ~ 40°C

Packing List

Item	Quantity
Intel® 13th Gen Core™ i9/i7/i5/i3 Processor (35W/65W) Desktop Chassis and Barebone system	1
150W adapter	1
HDD shockproof Rubbers	4
Rubber foots	4
Screw Kits for Peripheral	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



