



Features

- MX610H Inside
- LGA 1700 Socket Supports 13th Gen Intel® Raptor Lake-S Processor
- Intel® H610E PCH (x4 Gen4 DMI)
- Intel® Iris® Xe/ UHD Graphics (CPU Dependent)
- 2 x Memory Socket (Capacity Max. Up to 64GB DDR5 4800)
- 3 x Display (HDMI 1.4b, 2xDP 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 Expanslot Slot (M.2 Key-E, Key-M, PCIe x 16)
- 8 x USB Port (4 x USB 3.2, 4 x USB 2.0)
- Onboard dTPM 2.0 IC



Mini PC
221x231x168mm



Smart Fan
Control



Vibration/
Shock



CE
FCC Class B



PCIe x16
Slot

Specifications

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
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) 1 x M.2 Key-M 2242/2280 (PCIe x 4) Located in the same storage share)
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	3 x Internal 2.5" Drive Bay (12.5mm) / 2 x Internal 2.5" Drive Bay (12.5mm) + 1 x Internal 3.5" Drive Bay (12.5mm) / 2 x Internal 3.5" Drive Bay

Front I/O

USB	2 x USB 2.0
Power Button	1 x PWR BTN w/LED
Reset Button	1 x RST Hidden BTN (Wire)
LED Indicator	1 x Data Access LED

Rear I/O

USB	2 x USB 2.0, 4 x USB 3.2
COM Port	2 x RSx232/422/485 Additional COM3-4 support RS-232 via optional cable
DP	2 x DP
HDMI	1 x HDMI
Audio	1 x Line-Out, 1 x Mic-In
Antenna	2 x Antenna w/cover
AC/DC Input	1 x Vac Input
LAN Port	2 x RJ45

Left I/O

System Fan	1 x Smart Fan (65W CPU only)
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Audio

Audio Codec	Realtek HD Audio
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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-LM Intel® Ethernet Controller I225-V
Data Rate Per Port	1GbE (I219-LM), 2.5GbE (I225-V)

Power Requirement

Power Supply Unit	AC to ATX PSU
Voltage Input Spec.	100Vac ~ 240Vac
ACPI	Single power ATX support S0, S3, S4, S5
Power Mode	AT/ATX (ATX is default setting)
Voltage Input Connector	IEC 320 (C14)

Software Support

OS	Win10, Win11, Linux
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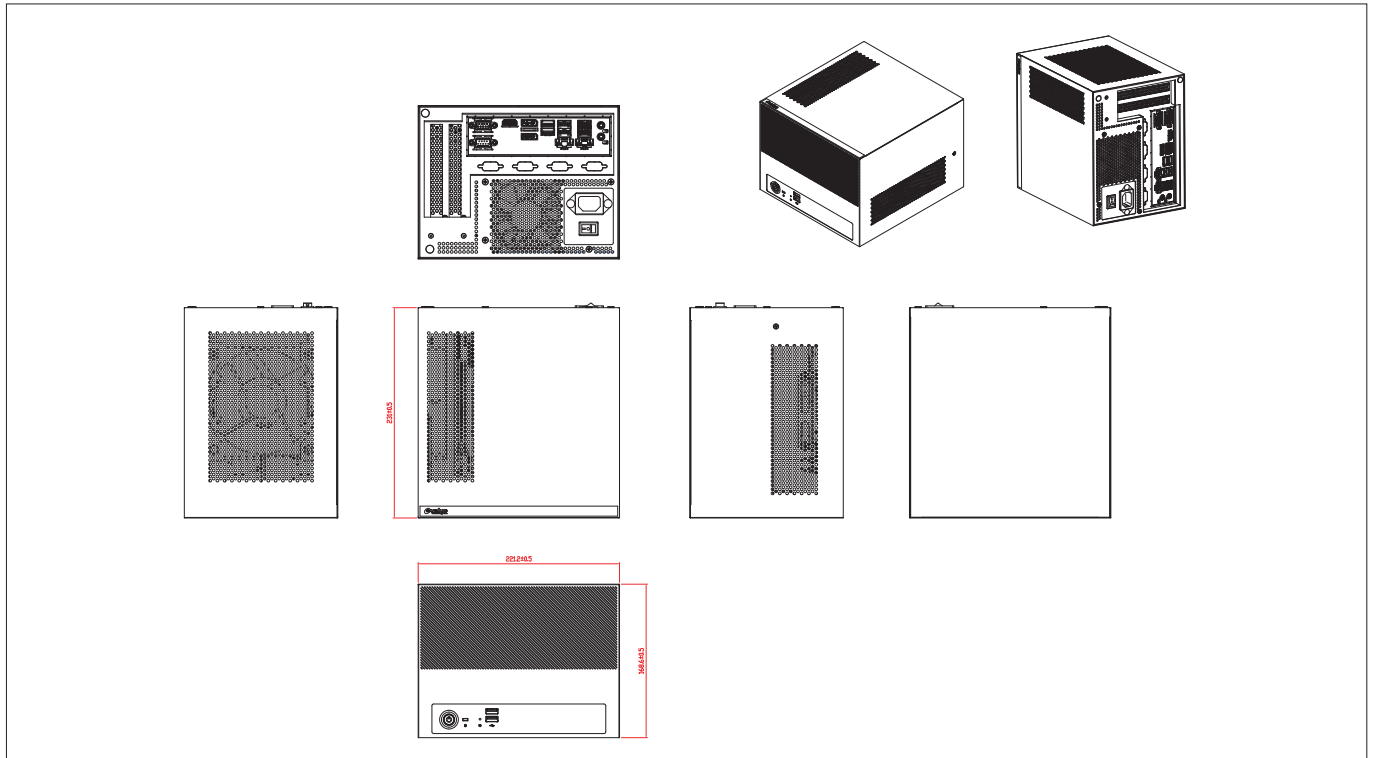
Certification

Certification Information	CE / FCC / UKCA
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Mechanical & Environmental

Operating Temp.	0°C~40°C (32°F~104°F) with 0.5m/s air flow
Storage Temp.	-30~70°C (-22°F~158°F)
Operating Humidity	40°C@95% Relative Humidity, Non-condensing
Dimension (W x L x H)	221 x 231 x 168 mm
Vibration Test	Random Vibration Operation Test PSD: 0.004546 ² /Hz, 1.5 Grms; System condition: operation mode; Test frequency: 5~500 Hz; Test axis: X,Y and Z axis; Test time : 30 minutes per each axis; IEC60068-2-64 Test Fh Sine Vibration test (Non-operation) Test Acceleration: 2G; Test frequency: 5~500 Hz Sweep: 1 Oct/ per one minute. (logarithmic) Test Axis: X,Y and Z axis; Test time: 30 min. each axis System condition: Non-Operating mode Reference IEC 60068-2-6 Testing procedures Package Vibration Test: Test PSD: 0.0263 ² /Hz, 2.16 Grms; Test frequency: 5~500 Hz Test axis: X,Y and Z axis; Test time: 30 minutes per each axis IEC 60068-2-64 Test Fh
Shock Test	10Grms, IEC 60068-2-27, Half Sine, 11ms
Drop Test	ISTA 2A, IEC-60068-2-32 Test: Ed, 1 Corner, 3 Edges, 6 faces
Mounting Kit	Robber foots for Vertical/horizontal

Mechanical Drawing



Ordering Information

P/N	Processor	Chipset	Memory	Storage	Adapter/PSU	Mounting Kit	Temp.
BMX-T840	LGA 1700 Socket Type (Optional Items)	H610E	UP to 64G DDR5 (Optional Items)	(Optional Items)	ATX 500W	Robber foots for horizontal	0°C ~ 40°C

Packing List

Item	Quantity
BMX-840 STD IMB Desktop System	1
Screws Kits for M.2, HDD	1
Rubber Foots	4
SATA PWR/signal cable	2

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

