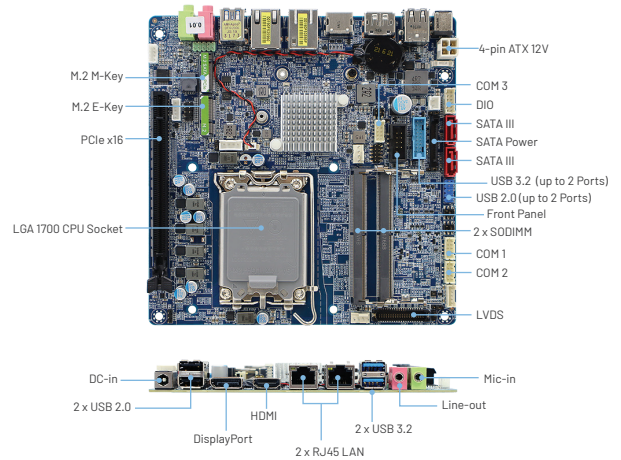


Features

- LGA 1700 socket supports 12th/13th/14th Gen Intel® Core™ i 9/7/5/3 Processor, up to 65W, codenamed Alder Lake/Raptor Lake/Raptor Lake Refresh
- Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
- 2 x SODIMM sockets support Dual Channel DDR5 5600MHz up to 64GB
- Intel® H610E PCH, x4 Gen4 DMI
- HDMI 1.4b 4K@30Hz, Dual Mode DisplayPort 1.2a 4K@60Hz, 18/24-bits Dual Channel LVDS, Optional eDP
- Gen 4 PCIe x16, M.2 E-Key CNVi support, M.2 M-Key NVMe support
- 4 x USB 3.2, 6 x USB 2.0
- 3 x COM, 2 x SATA III
- TPM 2.0
- Intel® I225-LM Ethernet Controller (2.5GbE)
- Thin Mini-ITX



Specifications

System	
CPU	LGA 1700 socket supports 12th Gen Alder Lake/ 13th Gen Raptor Lake/ 14th Gen Raptor Lake Refresh Intel® Core™ i 9/7/5/3, Pentium, Celeron Processor up to 65W. Intel® Alder Lake Processor up to 16 Cores 24 Threads Hybrid
Chipset	Intel® H610E PCH
DMI	x4 Gen4 DMI
System Memory	2 x SODIMM sockets support Dual Channel DDR5 5600MHz up to 64GB
BIOS	AMI uEFI BIOS, 256Mb SPI Flash ROM
Super I/O	Nuvoton® NCT6126D
Ethernet	Intel® I219-V Ethernet Controller (1GbE) Intel® I225-LM Ethernet Controller (2.5GbE)
Audio	Realtek HD Audio
Watchdog Timer	1 ~ 255 Sec Timer
Expansion	1 x Gen 4 PCIe x16 1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III) 1 x M.2 E-Key 2230 CNVi (PCIe x1 + USB 2.0)
TPM	TPM 2.0
Supported OS	Win 10, Win 11
Display	
Chipset	Intel® Integrated UHD Graphic with Xe Architecture (CPU Dependent)
Interface	1 x HDMI 1.4b 4K@30Hz 1 x Dual Mode DisplayPort 1.2a 4K@60Hz 18/24-bits Dual Channel LVDS, optional eDP
Multi-Display	Support 3 Independent Displays

External I/O	
Display	1 x HDMI 1 x DisplayPort
USB	2 x USB 3.2 Type A 2 x USB 2.0 Type A
LAN	2 x RJ45
Audio	Line-out, Mic-in
DC	1 x DC-in
Internal I/O	
Display	1 x LVDS Header 1 x eDP Header (Optional)
USB	1 x USB 3.2 Gen 1x1 Header (2 Ports) 1 x USB 2.0 Headers (2 Ports)
COM	2 x RS-232/422/485 Headers with Voltage Selection 1 x RS-232 Headers with Voltage Selection
SATA	2 x SATA III Connectors 1 x 15-pin SATA Power Connector (2 Devices)
GPIO	1 x 8-bits GPIO Header
Other	1 x SPI Header 1 x I ² C Header 1 x SMBus Header 1 x Front Audio Header 3W Per Channel Amplifier 1 x Front Panel Header

Mechanical & Environment

Power Requirement	12V-24V Wide Range DC-In
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F)
Storage Temp.	-20° C ~ 80° C (-4°F ~ 176°F)
Op. Humidity	5% to 90% non-condensing
Form Factor	Mini-ITX
Dimensions	6.7" x 6.7" (170mm x 170mm)
Weight	0.88 lbs (0.4 kg)
Certification	FCC Class B/CE RoHS Compliant

Ordering Info

MX610HD	Intel® H610E Mini-ITX Motherboard, DC Power
Included	1 x Full Size I/O Shield 1 x Half Size I/O Shield 1 x SATA Power Cable (for 2 Devices)
18300000006	2.00mm pitch 12" length serial cable
182437200040	2.54mm pitch 14" length dual port USB 2.0 cable w/ full height bracket
182000000073	2.00mm pitch 19.7" length dual port serial cable w/ full height bracket

* All product specifications and images are subject to change without notice. Last update: 03/12/2024



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