

EMB-H610A (iTXL-H610A)

Thin Mini-ITX with Intel® H610 Chipset, support 14th/13th/12th Generation Intel® Core™ Processor, Dual Channel DDR4 Memory, 2 x COM, 8 x USB, 2 x SATA 6Gb/s



Specifications

Form Factor	Thin Mini-ITX 170W x 170D (mm)
CPU	Support for 14th/13th/12th Generation Intel® Core™ i9/i7/i5/i3 processors, Pentium® & Celeron® processors in the LGA1700 package TDP under 65W L3 cache varies with CPU
Socket	1 x LGA 1700
Chipset	Intel® H610 Chipset
Memory	2 x DDR4 SO-DIMM sockets, Max. Capacity 64 GB Support Dual channel DDR4 3200 MHz memory modules
Ethernet	2 x GbE LAN Ports
Video	Integrated Graphics Processor - Intel® HD Graphics support: 1 x HDMI 2.0 port, supporting a maximum resolution of 4096x2160 @60Hz 1 x DP port, supporting a maximum resolution of 4096x2160 @60Hz 1 x LVDS port, supporting a maximum resolution of 1920x1200 @60Hz (3 independent display outputs)
Audio	Realtek® ALC897
Storage	2 x SATA 6Gb/s Ports
Expansion Slots	1 x 2280 M.2 M-Key (PCIe x4) 1 x 2230 M.2 E-Key

Features

- Thin Mini-ITX form factor
- Support 14th/13th/12th Generation Intel® Core™ Processors
- Intel® H610 Express chipset
- Dual Channel DDR4, 2 x SO-DIMMs
- 2 x GbE LAN Ports
- 2 x SATA 6Gb/s Ports
- HDMI, Display Port, LVDS ports for Multiple Display
- 1 x COM Port (RS-232/422/485 & RI/5V/12V)
- 1 x COM Port (RS-232)

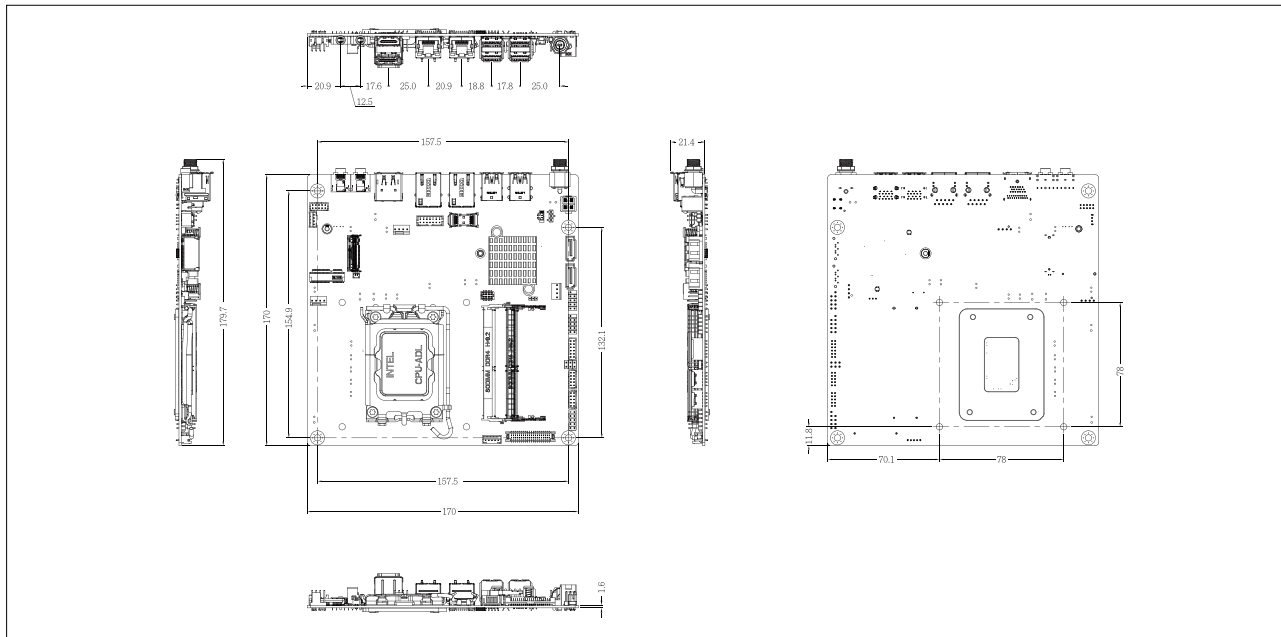
Internal I/O	1 x 4-pin ATX main power connector 1 x SATA Power connector 1 x CPU fan header 1 x System fan header 1 x Front panel header 1 x Front panel audio header 1 x 2W Speaker out header 1 x GPIO (8 bits) & SMBus header 4 x USB 2.0 headers 1 x COM header (RS-232) 1 x COM header (RS-232/422/485 & RI/5V/12V) 1 x Clear CMOS jumper 1 x Backlight Control header 1 x AT/ATX mode select jumper
Rear I/O	2 x Audio Jacks (Line out, Mic in) 1 x HDMI 1 x Display Port 2 x RJ45 LAN Ports 2 x USB 3.2 Gen 2x1 2 x USB 3.2 Gen 1 1 x DC Jack (+12V/+19V~24VDC)
TPM	1 x TPM header
OS Compatibility	Windows 10/11 (x64)
Operating Properties	Operating temperature: 0°C to 60°C Operating humidity: 0-90% (non-condensing) Non-operating temperature: -40°C to 85°C Non-operating humidity: 0%-95% (non-condensing)
Packing Content	Carton size: 465 x 351 x 217 (mm) Packing Capacity: 10pcs Single Box size: 221 x 178 x 65 (mm) Including: Standard IO Shield x 1 (P/N: 12AIO-MH610A-00R) Low-Profile IO Shield x 1 (P/N: 12AIO-MQ47EA-20R) SATA Power Cable x 1 (P/N: 25CRI-300B01-K1R)
Order Information	9MH610ATMR-SI (Box Packing)

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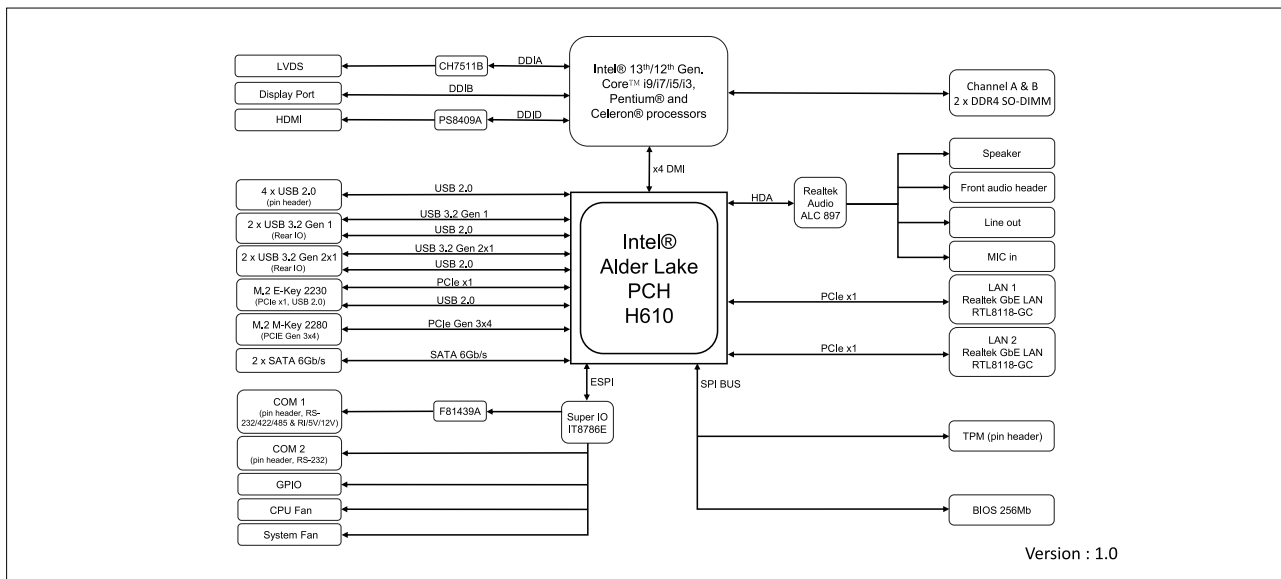
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Dimension (Unit: mm)

2025/03/26



Block Diagram



Optional Kit

Part No.	Description	Quantity
25ST0-037820-Y0R	CPU Cooler	1
12KRH-0A1700-00R	CPU Cooler Backplate	1
9CTM010NR-00	TPM 2.0 module	1
25CRZ-100600-S9R	TPM Cable	1