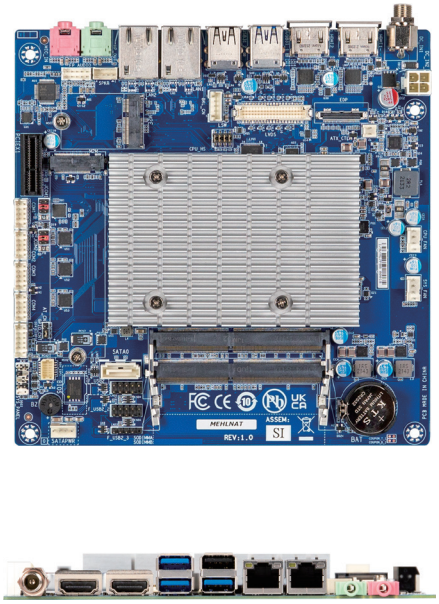
iTXL (Thin Mini-ITX) Series

iTXL-6412A (MEHLJAT-SI)

Thin Mini-ITX Embedded Motherboard with Intel® Celeron® J6412 Processor, Dual Channel DDR4 memory, 4 x COM, 1 x SATA 6Gb/s, 9 x USB



Features

- Thin Mini-ITX form factor
- Intel® Celeron® J6412 Processor
- Dual Channel DDR4, 2 x SO-DIMMs
- 2 x GbE LAN Ports
- 1 x SATA 6Gb/s Port
- HDMI, eDP/LVDS ports for Multiple Display
- 1 x COM Port (RS-232/422/485 & RI/5V/12V)
- 1 x COM Port (RS-232 & RI/5V/12V)
- 2 x COM Ports (RS-232)

Specifications

Form Factor	Thin Mini-ITX 170W x 170D (mm)
CPU	Intel® Celeron® J6412 Processor 10nm, 4 cores, 4 threads, up to 2.60 GHz TDP 10W
Socket	1 x FCBGA 1493
Memory	2 x DDR4 SO-DIMM sockets, Max. Capacity 32 GB Support Dual Channel DDR4 3200 MHz memory modules
Ethernet	2 x GbE LAN Ports
Video	Integrated Graphics Processor - Intel® UHD Graphics for 10th Gen Intel® Processors: 2 x HDMI 2.0 port, supporting a maximum resolution of 4096x2160 @60Hz 1 x LVDS port, supporting a maximum resolution of 1920x1080 @60Hz 1 x eDP port, supporting a maximum resolution of 4096x2160 @60Hz * eDP connector is alternative with LVDS port, only one can be worked at the same time (3 independent display outputs)
Audio	Realtek® ALC897
Storage	1 x SATA 6Gb/s Port
Raid	–
Expansion Slots	1 x PCIe x1 (Gen3 x1) 1 x 2280 M.2 M-Key (PCIe x2, SATA 6Gb/s) 1 x 2230 M.2 E-Key (PCIe x1, USB 2.0)
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 5 x USB 2.0 headers 1 x Buzzer 1 x COM header (RS-232/422/485 & RI/5V/12V) 1 x COM header (RS-232 & RI/5V/12V) 2 x COM headers (RS-232) 1 x GPIO (8 bits) & SMBus header 1 x Backlight Control header 1 x AT/ATX mode select jumper 1 x ATX control header
Rear I/O	2 x Audio Jacks (Line out, Mic in) 2 x HDMI 2 x RJ45 LAN Ports 3 x USB 3.2 Gen 1 1 x USB 2.0 1 x DC Jack (+12V/19~24VDC)
TPM	—
OS Compatibility	Windows 10 (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-MEHLJA-00R) Low-Profile IO Shield x 1 (P/N: 12AIO-MJPLN0-00R) SATA Power cable x 1 (P/N: 25CRI-300B01-K1R)
Order Information	9MEHLJATMR-SI (Box packing)

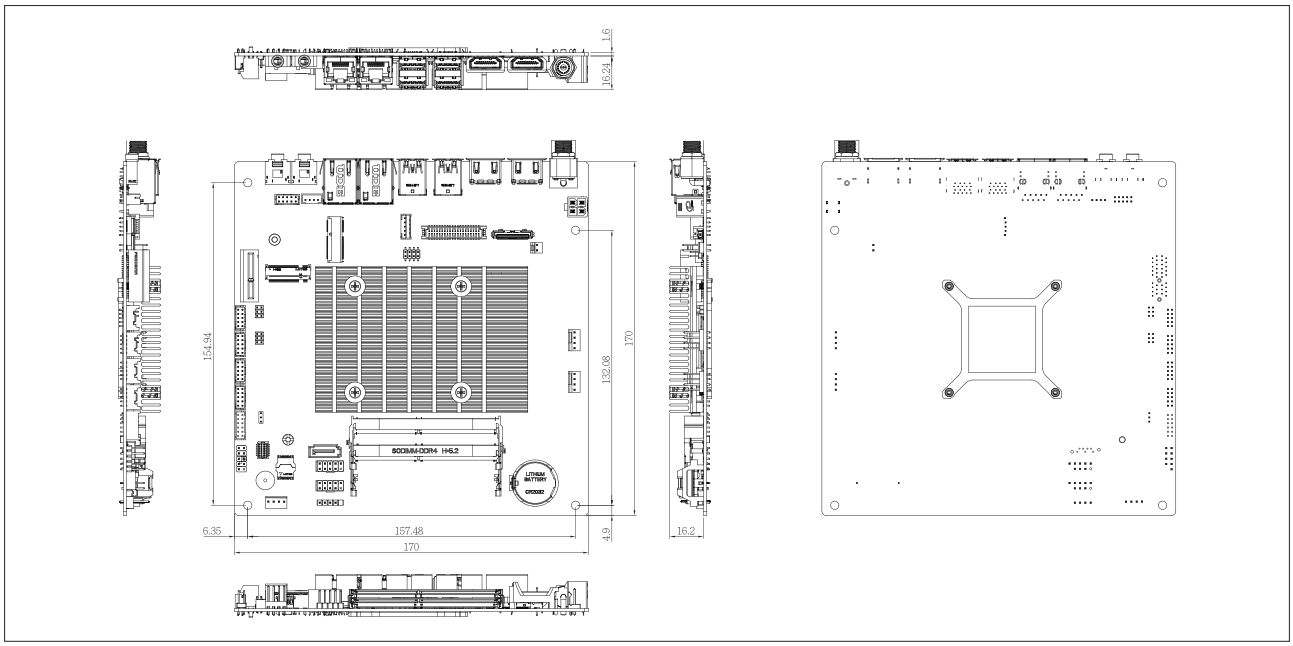
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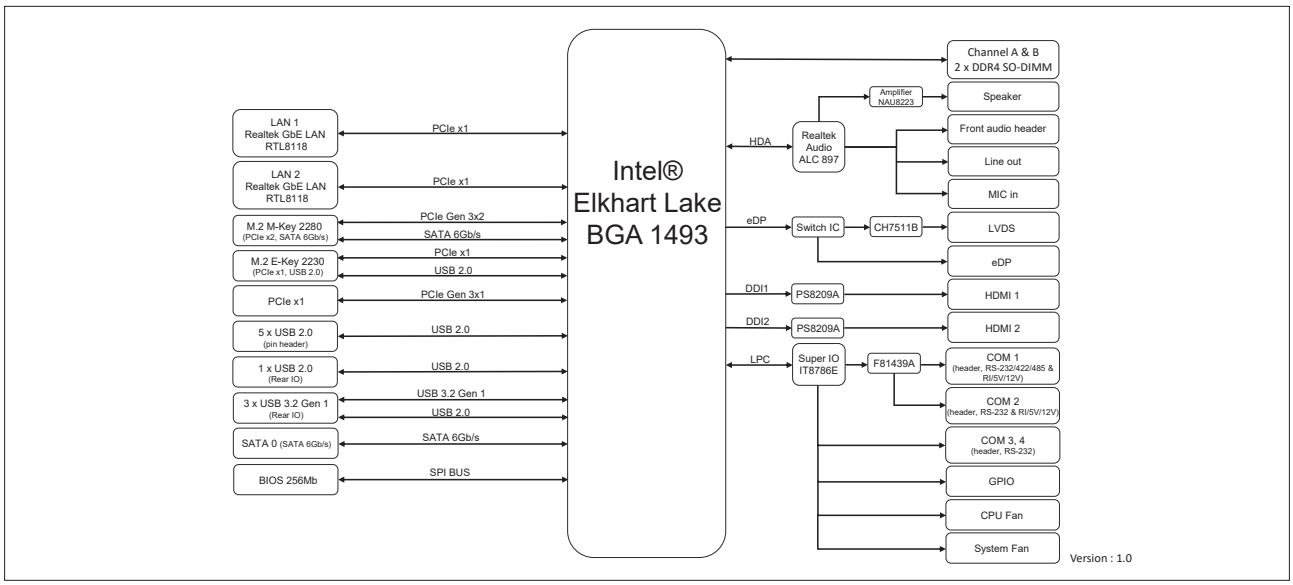
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Dimension (Unit: mm)

2025/02/19



Block Diagram



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