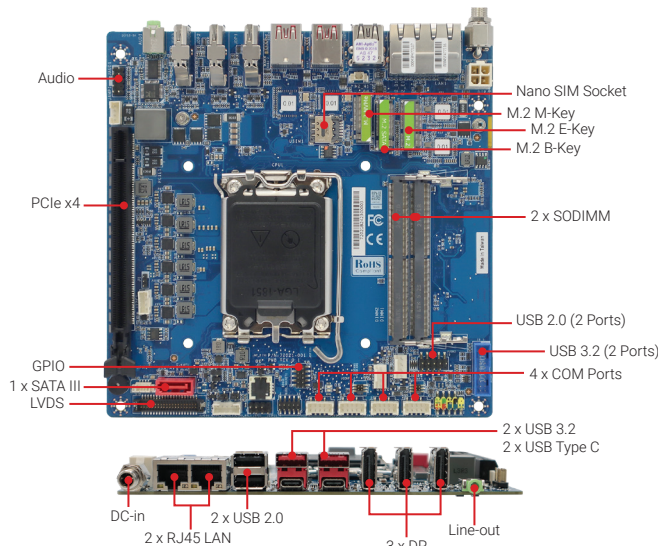


MX-MTLPS

Thin Mini ITX Motherboard with LGA 1851 socket supports the Intel® Core™ Ultra Processor



SPECIFICATIONS

System	
Processor	LGA 1851 Socket supports Intel® Core Ultra 3/5/7 Processors, formerly Meteor Lake PS Platform, 15W/45W TDP
Chipset	SoC
Memory	2 x 262-pins DDR5-5600 SO-DIMM (Non-ECC) slots, up to 64GB (32GB maximum/slot)
BIOS	256Mb SPI BIOS
I/O Chipset	Nuvoton® NCT6126D
Expansion	1 x Gen4 PCIe x4 (x16 Physical Slot) 1 x M.2 E-Key 2230 supports CNVi (PCIe Gen3 x 1, USB 2.0) 1 x M.2 M-Key 2280 Slot (PCIe Gen 4 x4) 1 x M.2 B-Key 2242 (PCIe Gen 2 x 1, SATA 3.0, USB 3.2 Gen1)
TPM	TPM 2.0
H/W Monitor	Yes
Watchdog Timer	1 Sec ~ 255 Sec
Supported OS	Win 10, Win 11, Linux Ubuntu
Graphics	
Chipset	Integrated Intel® ARC™ GPU (CPU Dependent - 45W TDP) Integrated Intel® Graphics (CPU Dependent - 15W TDP)
Interface	3 x DisplayPort 1.4a @ 60Hz 18/24-bits Dual Channel LVDS, optional eDP
Multi-Display	Supports 4 Independent Displays
Ethernet / LAN	
Controller	2 x Intel® Ethernet Controller I226-LM
Interface	2 x 10/100/1000/2.5G Base-Tx GbE Compatible
Connector	2 x RJ45 LAN
Audio	
Audio Codec	Realtek HD Audio Codec
Interface	1 x Line-out, 1 x Mic-in

Features

- LGA 1851 socket supports Intel® Core™ Ultra Processor, formerly the Meteor Lake PS (MTL-PS) Platform
- The Intel® Core™ Ultra Processors combine AI-ready CPU, GPU and NPU delivering stunning graphics and AI focused performance for an edge AI applications
- Select Intel® Core™ Ultra 7 and Core™ Ultra 5 Processor with integrated Intel® ARC™ GPU
- Select Intel® Core™ Ultra 7 and Core™ Ultra 5 Processor supports Intel® vPro
- 2 x 262-pins DDR5-5600 SO-DIMM (Non-ECC) slots, up to 64GB (32GB maximum/slot)
- 1 x Gen4 PCIe x4, 3 x M.2 (E/M/B-Key)
- Dual 2.5 GbE Ethernet LAN ports
- Supports 4 Independent Displays
- 2 x USB Type C Thunderbolt 4
- 2 x USB 3.2 Gen 2, 2 x USB 3.2 Gen 1, 4 x USB 2.0
- 4 x COM Ports
- 12 - 24V wide range DC-in



External I/O Ports

Display	3 x DisplayPorts (DP++)
USB	2 x USB 3.2 Gen 2 Type A, 2 x USB 2.0 Type A 2 x USB Type C Thunderbolt 4
LAN	2 x RJ45 LAN
Audio	Line-out
Power Input	1 x Barrel Type DC-in Connector

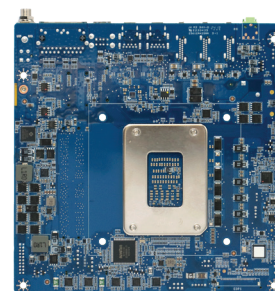
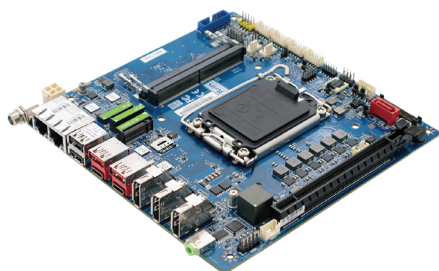
Internal I/O Connectors

Display	1 x LVDS Header 1 x eDP Header (Optional)
USB	1 x USB 3.2 Gen 1 Header (2 Ports) 1 x USB 2.0 Header (2 Ports)
COM/Serial Port	2 x RS-232/422/485 Headers 2 x RS-232 Headers
SATA	1 x SATA III
Additional I/O	1 x 8-bits GPIO Header 1 x I ² C, 4-pin DC-in Connector

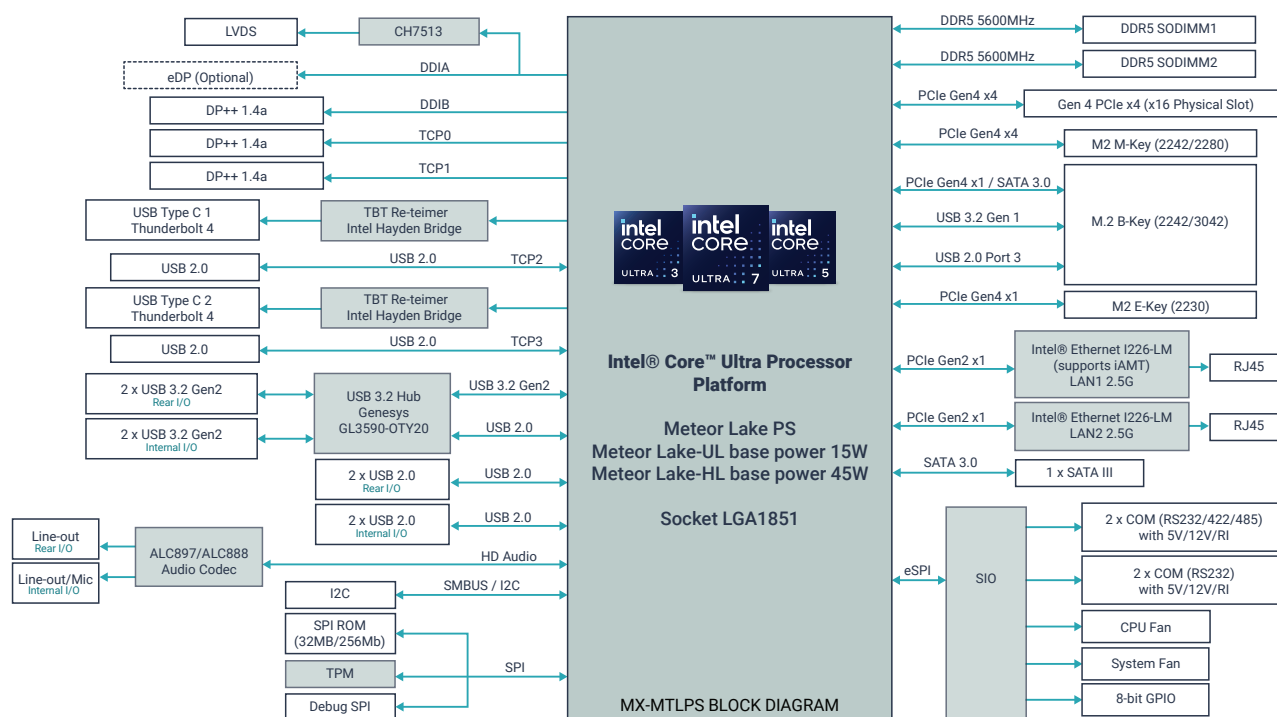
Mechanical, Power, and Environment

Power	12V-24V Wide Range DC-In
Operating Temp	0°C to 60°C (32°F ~ 140°F)
Storage Temp	-20°C ~ 80°C (-4°F ~ 176°F)
OP Humidity	5% ~ 90% Relative Humidity, Non-condensing
Cooling Design	Optional Passive Heatsink (15W CPU only)
Regulatory Compliance	FCC Class B/CE RoHS Compliant
Form Factor	Mini ITX
Dimensions	6.7" x 6.7" (170mm x 170mm)
Weight	0.88 lbs (0.4 KG)

SPECIFICATIONS / ADDITIONAL PRODUCT PHOTOS



BLOCK DIAGRAM



ORDERING INFORMATION

Model Name	CPU/CPU Socket	Memory / Storage	LAN	Low Profile I/O	Power Input
MX-MTLPS	LGA 1851	2 x SO-DIMM sockets	2 x 2.5GbE LAN	Yes	DC-in 12-24V

PACKING LIST

- ✓ 1 x MX-MTLPS Motherboard
- ✓ 1 x SATA Power Cable for Two Devices
- ✓ 1 x Full Height I/O Shield
- ✓ 1 x Low-profile I/O Shield



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