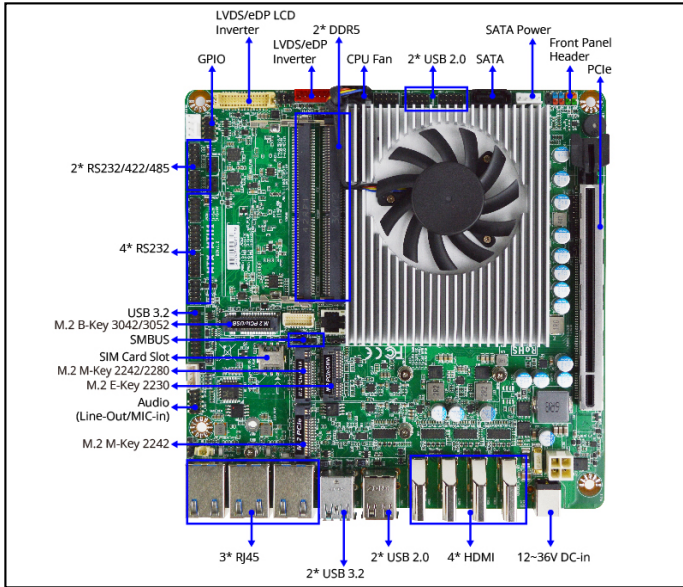


Thin Mini-ITX with Intel® Core™ Ultra 5/7 Processor Intel® SoC



Features

- **Powered by Onboard Intel® Core™ Ultra 7 Processor 155H for AI Boost**(formerly Meteor Lake, TDP 28W)
- **High-Capacity Memory: 2 x DDR5 5600MHz SO-DIMM, up to 96GB**
- **Quad Display Support: Comes with 1x LVDS/eDP, 4 x HDMI 2.1 ports, supporting 4K, 8K displays**
- **Triple LAN: 3 x 2.5GbE for high-speed, reliable networking**
- **Flexible Storage Expansion: 1 x M-Key 2242 (PCIe 4.0 x4), 1 x M-Key 2242/2280 (PCIe 4.0 x4 + SATA3), and 1 x SATA3**
- **Enhanced Expansion Options: 1 x E-Key 2230 (USB 2.0/PCIe) with CNVi support, 1 x B-Key (PCIe/USB2.0) for 4G/5G module, and 1 x PCIe x8 (Gen 5)**
- **Wide Range Power Input: DC-in 12–36V for robust industrial flexibility**
- **Support RVP, OCP and OVP**

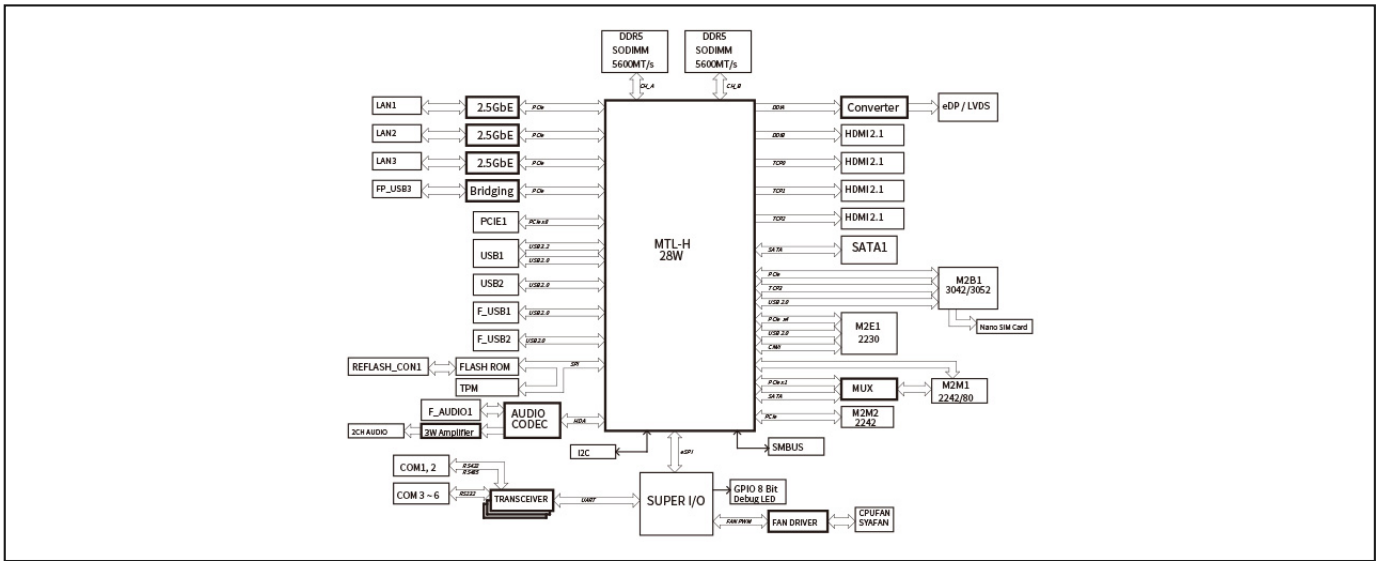
Packing List

PART NUMBER	DESCRIPTION	QTY
F04-MB-109-F	I/O Shield	1
F01-SP-A-BK-3F	Jumper	1
G01-COM-H2M22-1F	COM Cable	2
G01-PW4PS2S-322-1F	Y-Power Cable	1
G01-SATA3-BL-1F	SATA Cable	1
F05-JMTX28W-F	CPU Cooler	1

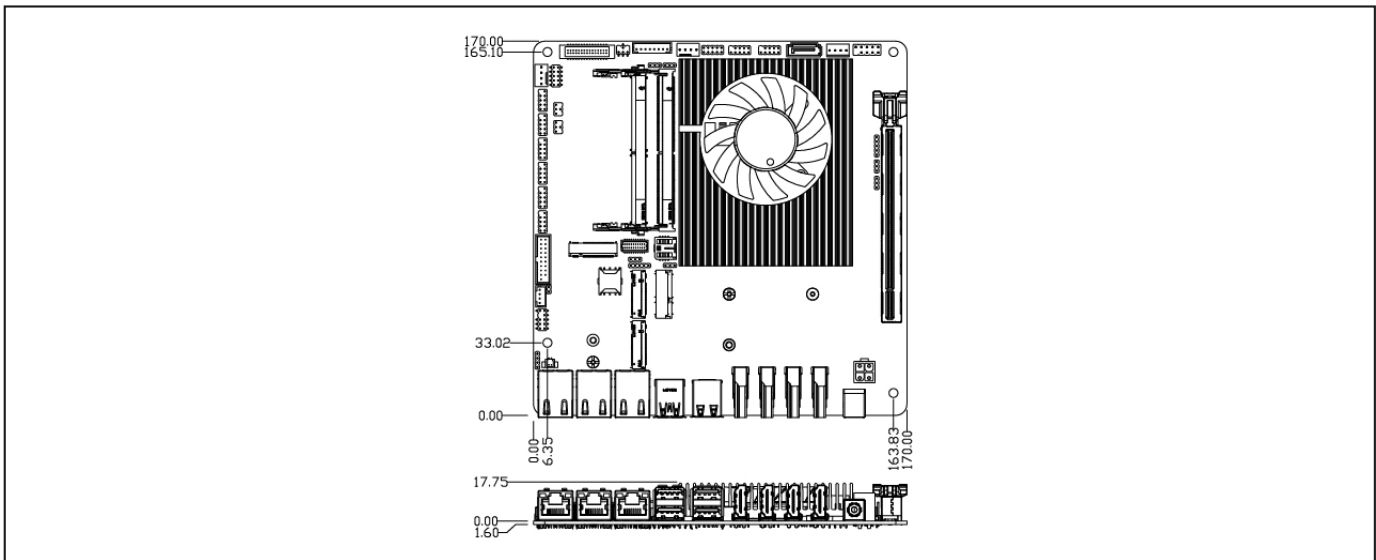
Specifications

SYSTEM	
MB FORM FACTOR	Thin Mini-ITX
CPU	Onboard Intel® Core™ Ultra 7 Processor 155H (Formerly Meteor Lake, TDP 28W) Onboard Intel® Core™ Ultra 5 Processor 125H (Formerly Meteor Lake, TDP 28W)
CHIPSET	Intel® SoC
MEMORY	2 x DDR5 5600MHz, Dual Channel SO-DIMM, up to 96GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0 (dTPM, Optional)
RTC BATTERY	Lithium Battery
DIMENSION (W X D)	170.0 (W) x 170.0 (D) mm (6.7" x 6.7")
OS SUPPORT	Windows® 11 (64bit) Windows® 10 (64bit) Linux
POWER	
POWER REQUIREMENT	DC-in 12-36V
POWER ON MODE	AT / ATX (Default) Mode
CONNECTOR	DC Jack
DISPLAY	
GPU	Intel® Arc™ Graphics
LVDS	1 x 24-bit Dual Channel LVDS (Max. Resolution: 1920 x 1200 @60Hz, Co-lay eDP)
HDMI	4 x HDMI 2.1 (3840 x 2160@60Hz, Max Resolution up to 7680 x 4320@60Hz)
MULTIPLE DISPLAY	Support 4 Displays
AUDIO	
CODEC	Realtek Audio Codec
Line-out	Internal Header for Line-Out
MIC-in	Internal Header for MIC-In
AMPLIFIER	3W
LAN	
ETHERNET	1 x RJ45 for Intel® I226-LM 2.5GbE 2 x RJ45 for Intel® I226-V 2.5GbE
USB PORT	
USB	2 x USB 3.2 Gen 2x1 (10Gbps, Formerly USB 3.1 Gen 2) 2 x USB 2.0 Internal Header for 2 x USB 3.2 Internal Header for 4 x USB 2.0
SERIAL PORT	
COM	Internal Header for 4 x RS-232 Internal Header for 2 x RS-232/422/485
INTERNAL I/O	
GPIO	8-Bit
SMBUS	Yes
I2C	Yes
FAN	1 x 4-pin Connector for System Fan (PWM Mode)
STORAGE	
ADDITIONAL	1 x Chassis intrusion 1 x AT/ATX Mode Selection
SATA	1 x SATA III 1 x SATA Power Connector
RAID	RAID 0/1
EXPANSION	
M.2	1 x M-Key 2242 (PCIe 4.0 x 4) Support NVMe 1 x M-Key 2242/2280 (PCIe 4.0 x4 / SATA III) Support NVMe 1 x B-Key 3042/3052 (PCIe Gen.3 x1/USB3.2 Gen.2/USB2.0 interface) support 4G/5G Module 1 x E-Key 2230 (USB 2.0/PCIe x1) Support CNVi
PCIe	1 x PCIe x8 (Gen.5)
SIM	1 x Nano SIM Card Slot
ENVIRONMENT & CERTIFICATION	
SHOCK	15G, 11ms duration
VIBRATION	1 Grms/ 5- 500Hz/ Operation
OPERATING TEMPERATURE	-20°C ~ 60°C (-4°F ~ 140°F)
STORAGE TEMPERATURE	-20°C ~ 85°C (-4°F ~ 185°F)
OPERATING HUMIDITY	10 ~ 90% relative humidity, non-condensing
CERTIFICATION	CE/FCC Class A
ESG DECLARATION	EU RoHS China RoHS

Block Diagram



Dimension Unit: mm



Ordering Information

PART NUMBER	MTX-MTH1-125H0010	MTX-MTH1-125H0210	MTX-MTH1-155H0010	MTX-MTH1-155H0210
CPU	Intel® Core™ Ultra 5 125H	Intel® Core™ Ultra 5 125H	Intel® Core™ Ultra 7 155H	Intel® Core™ Ultra 7 155H
SECURITY	Intel® PTI (fTPM)	TPM2.0 (dTPM)	Intel® PTI (fTPM)	TPM2.0 (dTPM)
POWER REQUIREMENT	DC-in 12-36V	DC-in 12-36V	DC-in 12-36V	DC-in 12-36V
GPU	Intel® Arc™ Graphics	Intel® Arc™ Graphics	Intel® Arc™ Graphics	Intel® Arc™ Graphics
LVDS	1 x LVDS/eDP	1 x LVDS/eDP	1 x LVDS/eDP	1 x LVDS/eDP
HDMI	4 x HDMI	4 x HDMI	4 x HDMI	4 x HDMI
MULTIPLE DISPLAY	Support 4 Displays	Support 4 Displays	Support 4 Displays	Support 4 Displays
ETHERNET	3 x 2.5GbE	3 x 2.5GbE	3 x 2.5GbE	3 x 2.5GbE
USB	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0
USB	4 x USB 3.2	4 x USB 3.2	4 x USB 3.2	4 x USB 3.2
COM	4 x RS-232	4 x RS-232	4 x RS-232	4 x RS-232
COM	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485	2 x RS-232/422/485
SATA	1 x SATA III	1 x SATA III	1 x SATA III	1 x SATA III
M.2	1 x M-Key 2242/2280	1 x M-Key 2242/2280	1 x M-Key 2242/2280	1 x M-Key 2242/2280
M.2	1 x M-Key 2242	1 x M-Key 2242	1 x M-Key 2242	1 x M-Key 2242
M.2	1 x B-key 3042/3052	1 x B-key 3042/3052	1 x B-key 3042/3052	1 x B-key 3042/3052
M.2	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230
PCI-E	1 x PCI-E x8	1 x PCI-E x8	1 x PCI-E x8	1 x PCI-E x8
SIM	1 x Nano SIM Card Slot	1 x Nano SIM Card Slot	1 x Nano SIM Card Slot	1 x Nano SIM Card Slot
OTHER	1 x Chassis intrusion	1 x Chassis intrusion	1 x Chassis intrusion	1 x Chassis intrusion
OPERATING TEMPERATURE	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)