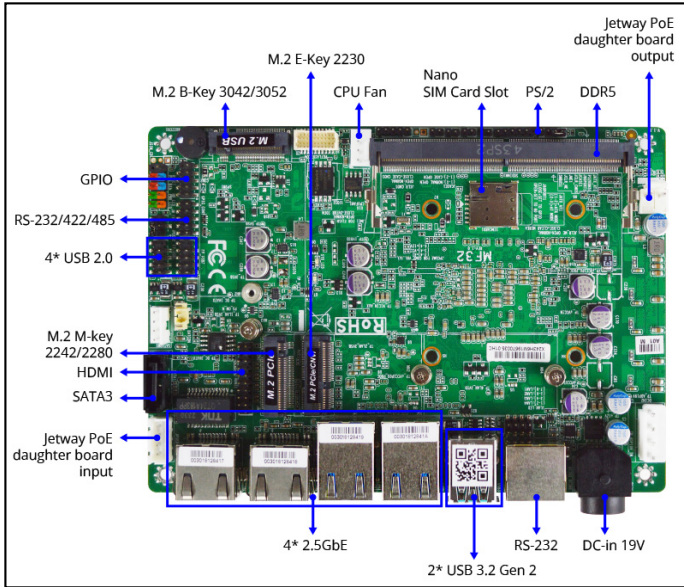


3.5" Motherboard with Intel® 13th Gen Processor, 4 LAN Ports, and Dual PoE Module Support



Specifications

SYSTEM	
MB FORM FACTOR	3.5"
CPU	Onboard Intel® 13th Gen Core™ i5-1335UE (Formerly Raptor Lake-P, TDP 15W) Onboard Intel® 13th Gen Celeron® U300 (Formerly Raptor Lake-P, TDP 15W)
CHIPSET	Intel® SoC
MEMORY	1 x DDR5 4800MHz, Single Channel SO-DIMM, up to 32GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	Intel® PTT (Integrated fTPM) TPM2.0 (dTPM, Optional)
RTC BATTERY	Lithium Battery
DIMENSION (W X D)	148.0 (W) x 102.0 (D) mm (5.8" x 4.0")
OS SUPPORT	Windows® 11 (64bit) Windows® 10 (64bit) Linux
POWER	
POWER REQUIREMENT	DC-in 19V
POWER ON MODE	AT / ATX (Default) Mode
CONNECTOR	4-pin Power Din Internal 4-pin Header
DISPLAY	
GPU	Intel® Iris® Xe Graphics
HDMI	1 x Internal Header for HDMI 1.2 (Max Resolution: 1920 x 1080@60Hz)
LAN	
ETHERNET	3 x RJ45 for Intel® I226-V 2.5GbE 1 x RJ45 for Intel® I226-LM 2.5GbE
USB PORT	
USB	2 x USB 3.2 Gen 2x1 (10Gbps, Formerly USB 3.1 Gen 2) Internal Header for 4 x USB 2.0
SERIAL PORT	
COM	Internal Header for 1 x RS-232/422/485 1 x RJ50 for RS-232
INTERNAL I/O	
GPIO	8-Bit
SMBUS	Yes
FAN	1 x 4-pin Connector for CPU Fan (PWM Mode)
FRONT PANEL	HDD Active LED Power LED Power On/Off Reset
ADDITIONAL	Onboard 1x2-pin header and 1x4-pin header for PoE Module 1 x AT/ATX Mode Selection 1 x Chassis Intrusion 1 x PS/2
STORAGE	
SATA	1 x SATA III 1 x SATA Power Connector
EXPANSION	
M.2	1 x E-Key 2230 (USB 2.0/PCIe 3.0 x1) support CNVio 1 x B-Key 3042/3052 (USB 3.2/PCIe 3.0 x1) 1 x M-Key 2242/2280 (PCIe 4.0 x4) support NVMe
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	-40°C ~ 85°C (-40°F ~ 185°F)
OPERATING HUMIDITY	10 ~ 90% Relative Humidity, Non-condensing
STORAGE HUMIDITY	10 ~ 90% @40°C, Non-condensing
CERTIFICATION	CE/FCG Class A

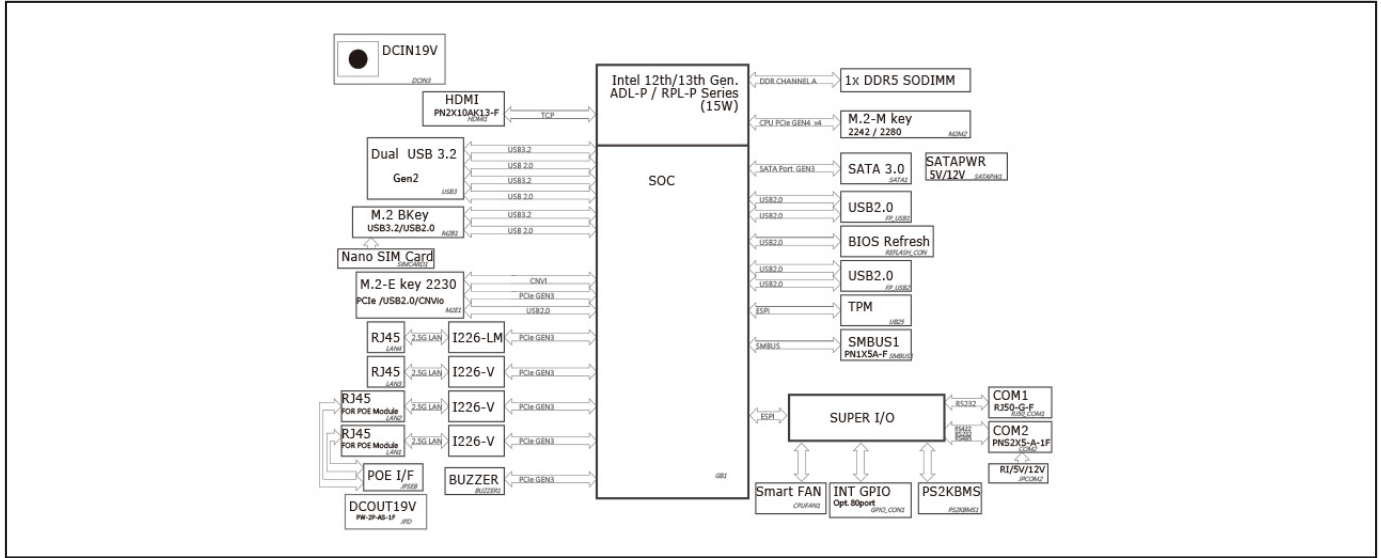
Features

- **Powered by Intel® 13th Gen Processor (Raptor Lake, 15W TDP)**
- **High-Performance Memory: Supports DDR5 4800MHz SO-DIMM**
- **High-Speed Networking: 4 x 2.5GbE LAN for reliable, fast connectivity**
- **PoE Support: Dual 802.3at PoE Output**
- **Storage & Expansion: 1 x SATA, 1 x E-key, 1 x M-key, 1 x B-key with Nano SIM card slot**
- **Comprehensive I/O: 2 x USB 3.2 Gen 2, 4 x USB 2.0, 2 x COM ports**
- **Enhanced Security: Integrated fTPM with optional discrete TPM**
- **Wide Operating Temperature: Reliable in conditions from -20°C to 60°C**

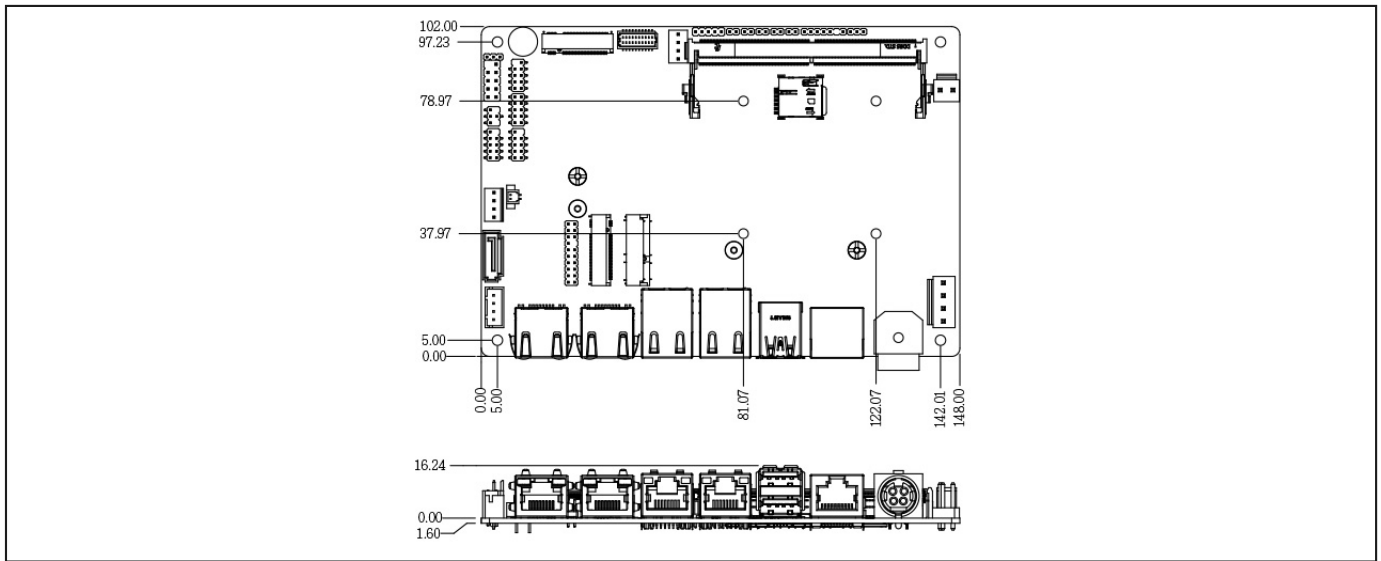
Packing List

PART NUMBER	DESCRIPTION	QTY
MF32	MF32 M/B	1
G01-2X10A-HDMI-1F	HDMI Cable, length = 250mm	1
G01-COM-H2M20-1F	COM Cable, length = 240mm	1
G01-PW4PS-2S-323F	SATA Power Cable, length = 200mm	1
G01-SATA3-BL-1F	SATA Cable, length = 500mm	1
G01-USB2X5A-28-F	USB Cable, length = 280mm	1

Block Diagram



Dimension Unit: mm



Ordering Information

PART NUMBER	MF32-133E0	MF32-133E2	MF32-300U0	MF32-300U2
CPU	Intel® Core™ i5-1335UE	Intel® Core™ i5-1335UE	Intel® Celeron® U300	Intel® Celeron® U300
SECURITY	Intel® PTT (fTPM)	Intel® PTT (fTPM) & TPM 2.0 (dTPM)	Intel® PTT (fTPM)	Intel® PTT (fTPM) & TPM 2.0 (dTPM)
POWER REQUIREMENT	DC-in 19V	DC-in 19V	DC-in 19V	DC-in 19V
GPU	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics
HDMI	1 x HDMI	1 x HDMI	1 x HDMI	1 x HDMI
ETHERNET	4 x 2.5GbE	4 x 2.5GbE	4 x 2.5GbE	4 x 2.5GbE
USB	2 x USB 3.2	2 x USB 3.2	2 x USB 3.2	2 x USB 3.2
USB	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0
COM	1 x RS-232	1 x RS-232	1 x RS-232	1 x RS-232
COM	1 x RS-232/422/485	1 x RS-232/422/485	1 x RS-232/422/485	1 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 E-key 2230	1 x E-key 2230	1 x E-key 2230	1 x E-key 2230
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
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
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)