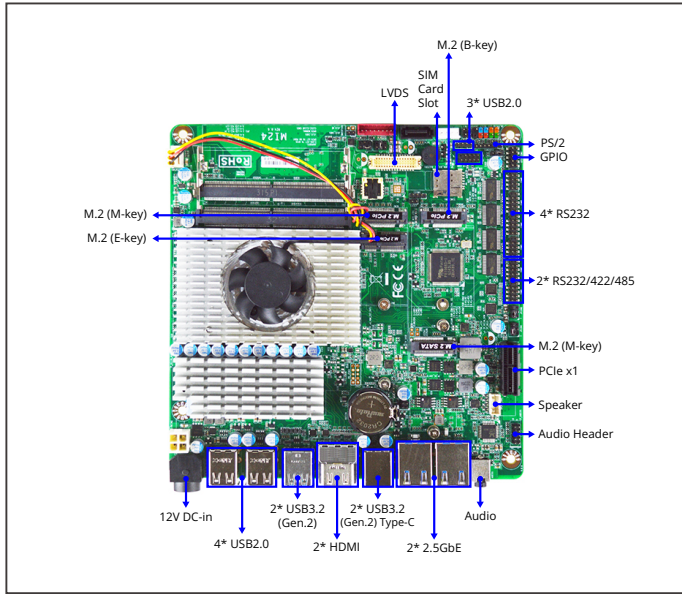


MI24

Mini-ITX with 13th Generation Intel® Core™ i5 Processors (formerly Raptor Lake)



Features

- 13th Generation Intel® Core™ i5 Processors SoC
- 2 x DDR5 5200MHz SODIMM up to 64GB
- 2 x 2.5GbE support vPro Essentials, 1 x SATAIII, GPIO, SMBUS, PS/2
- 2 x USB 3.2 Gen2, 2 x USB3.2 Gen2 Type-C, 7 x USB2.0
- 2 x RS232/422/485, 4 x RS232
- 1 x M.2 2242/2280 M-key, 1 x M.2 2242 E-key, 1 x M.2 2230 E-key, 1 x M.2 3042/3052 B-key
- 2 x HDMI, 2 x Type-C DP, 1 x LVDS/eDP
- DC Input 12-24V

Applications

- Industrial Automation
- KIOSK
- Signage

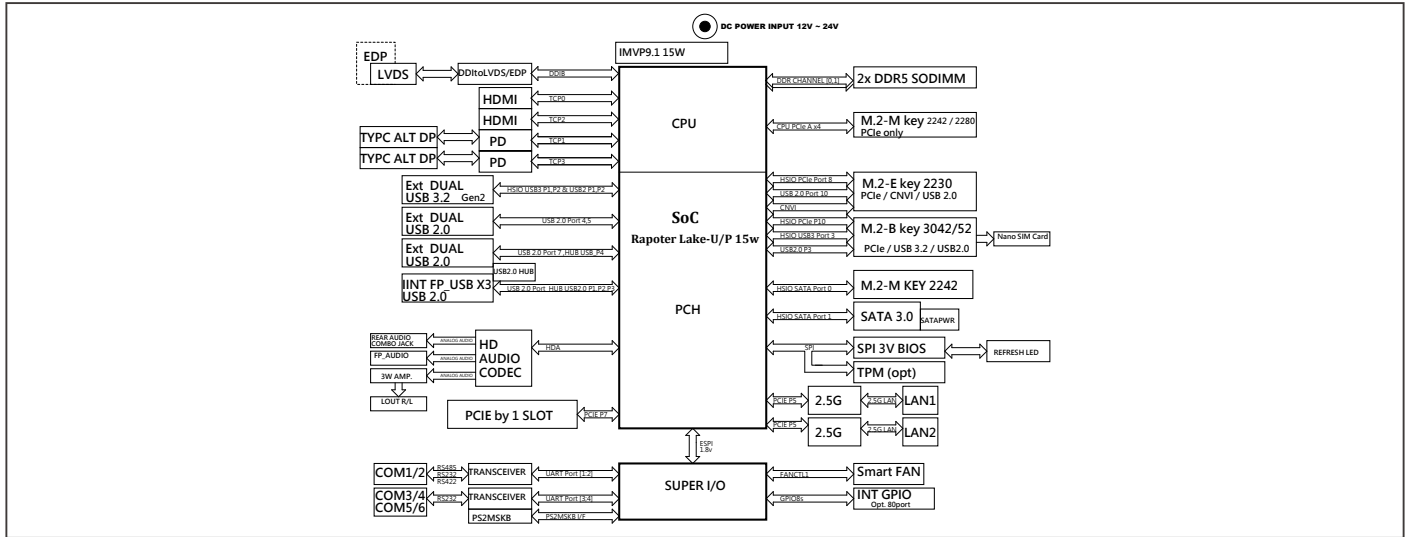
Packing List

Part Number	Description	QTY per Board
	MI24 MB	1
F04-MB-101-F	MI24 I/O shield	1
G01-COM-H2M22-1F	COM cable	2
G01-SATA3-BL-1F	SATAIII cable	1
G01-PW4PS2S-322-1F	SATA PWR cable	1

Specifications

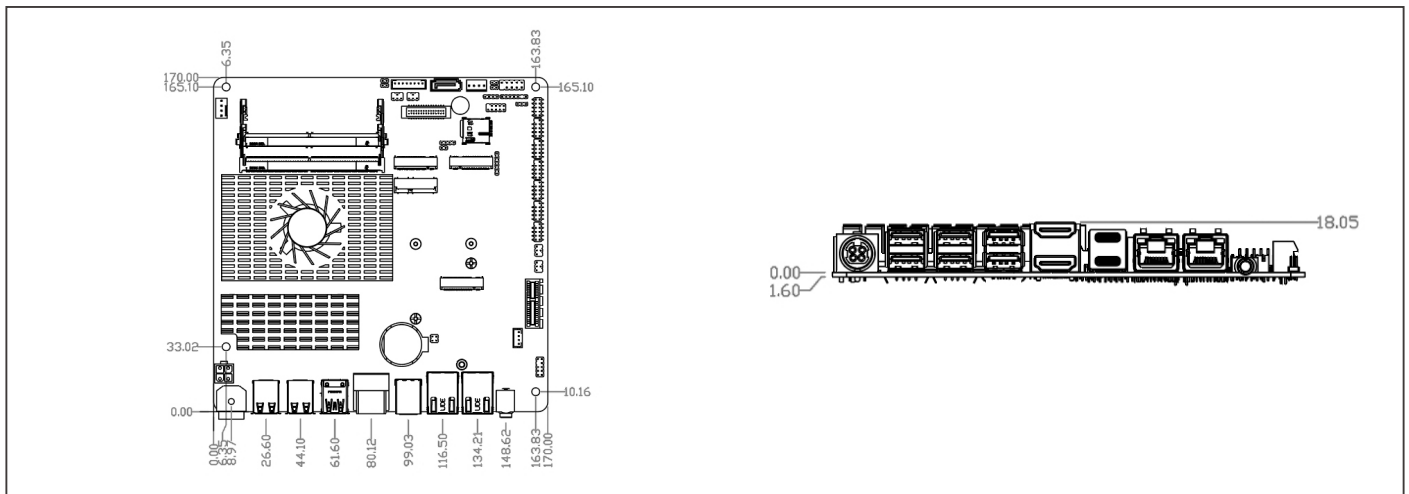
SYSTEM	
FORM FACTOR	Mini-ITX
CPU	13th Generation Intel® Core™ i5 Processors (formerly Raptor Lake) Intel® Core™ i5-1335UE Intel® Core™ i5-1335U
CPU TDP	15W
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	2 x DDR5 5200MHz, Dual Channel SODIMM, up to 64GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0 (optional)
RTC Battery	Lithium Battery
DIMENSION (L X W)	170mm x 170mm (6.7" x 6.7")
OS SUPPORT	Windows® 10 (64bit), Windows® 11 (64bit), Linux
POWER	
POWER REQUIREMENT	+12-24V
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	4pin DC-in Power Jack 4pin Header
DISPLAY	
CONTROLLER	Intel® Iris® Xe Graphics
LVDS/eDP/MIPI-DSI	1 x 24 Bit Dual Channel LVDS, up to 1920 x 1080 @60Hz, co-lay eDP
DISPLAY INTERFACE	2 x HDMI 2.0b, up to 4K x 2K @60Hz 2 x Type-C DP1.4a, up to 4K x 2K @60Hz
MULTIPLE DISPLAY	Support 4 Displays
AUDIO	
CODEC	Realtek ALC888S with 3W Amp.
AUDIO INTERFACE	Combo Line-out/MIC
Speaker	1 x Speaker Connector
EXTERNAL I/O	
ETHERNET	1 x Intel® i225LM, 10/100/2500Base 1 x Intel® i225V, 10/100/2500Base
USB	2 x USB3.2 Gen 2 2 x USB3.2 Gen 2 Type-C support DP ALT mode 4 x USB2.0
SERIAL PORT	—
VIDEO	2 x HDMI 2.0b 2 x DP1.4a (USB Type-C)
INTERNAL I/O	
USB	3 x USB2.0
SERIAL PORT	2 x RS232/422/485, 4 x RS232
VIDEO	1 x 24 Bit Dual Channel LVDS, up to 1920 x 1080 @60Hz, co-lay eDP
AUDIO	1 x 3W Speaker Connector 1 x Audio Header
GPIO	8-Bit
SMBUS	Yes
I2C	—
FAN	1 x CPU Fan
SIM	1 x SIM Card
FRONT PANEL	HDD LED, PWR LED, Power Button, Reset
OTHERS	1 x PS/2
STORAGE	
SATA	1 x SATA3 1 x SATA Power Connector
MINI PCI-E/MSATA	—
M.2	1 x M-Key 2242/2280 (SATA/PCIe 4.0 x4) support NVMe 1 x M-Key 2242 (SATA)
eMMC	—
EXPANSION	
M.2	1 x E-key 2230 (USB2.0/PCIe 3.0 x1) support CNVi 1 x B-key 3042/3052 (USB3.1/USB2.0/PCIe 3.0 x1) for 4G/5G module
OTHERS	1 x PCIe 3.0 x1
ENVIRONMENT & CERTIFICATION	
OPERATING TEMPERATURE	0°C ~ 60°C (32°F ~ 140°F)
STORAGE TEMPERATURE	-20°C ~ 85°C (-4°F ~ 185°F)
OPERATING HUMIDITY	10% ~ 90% relative humidity, non-condensing
CERTIFICATION	Meet CE/FCC Class A

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	MI24-133E0	MI24-133E2	MI24-13350	MI24-13352
CPU	Intel® Core™ i5-1335UE	Intel® Core™ i5-1335UE	Intel® Core™ i5-1335U	Intel® Core™ i5-1335U
DISPLAY	2 x HDMI 2 x Typ-C DP 1 x LVDS, co-lay eDP	2 x HDMI 2 x Typ-C DP 1 x LVDS, co-lay eDP	2 x HDMI 2 x Typ-C DP 1 x LVDS, co-lay eDP	2 x HDMI 2 x Typ-C DP 1 x LVDS, co-lay eDP
LAN	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE
USB	2 x USB 3.2 Gen2 2 x USB3.2 Gen2 Type-C 7 x USB2.0	2 x USB 3.2 Gen2 2 x USB3.2 Gen2 Type-C 7 x USB2.0	2 x USB 3.2 Gen2 2 x USB3.2 Gen2 Type-C 7 x USB2.0	2 x USB 3.2 Gen2 2 x USB3.2 Gen2 Type-C 7 x USB2.0
RS-232	4	4	4	4
RS-232/422/485	2	2	2	2
STORAGE	1 x SATAIII 1 x M.2 M-key 2242/2280 1 x M.2 M-key 2242	1 x SATAIII 1 x M.2 M-key 2242/2280 1 x M.2 M-key 2242	1 x SATAIII 1 x M.2 M-key 2242/2280 1 x M.2 M-key 2242	1 x SATAIII 1 x M.2 M-key 2242/2280 1 x M.2 M-key 2242
EXPANSION SLOT	1 x PCIe 3.0 x1 1 x M.2 E-key 2230 1 x M.2 B-key 3042/3052	1 x PCIe 3.0 x1 1 x M.2 E-key 2230 1 x M.2 B-key 3042/3052	1 x PCIe 3.0 x1 1 x M.2 E-key 2230 1 x M.2 B-key 3042/3052	1 x PCIe 3.0 x1 1 x M.2 E-key 2230 1 x M.2 B-key 3042/3052
TPM	—	TPM2.0	—	TPM2.0
eMMC	—	—	—	—
POWER	12-24V	12-24V	12-24V	12-24V
OPERATING TEMP	0°C ~ 60°C	0°C ~ 60°C	0°C ~ 60°C	0°C ~ 60°C