



IMB-1224

Mini-ITX Motherboard



KEY FEATURES

- Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors
- 2 x 260-pin SO-DIMM DDR4 3200 MHz, up to 64GB
- 2 x USB 3.2 Gen2, 1 x USB 3.2 Gen1, 5 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key M, 1 x M.2 Key B, 6 x COM, 2 x SATA3
- 1 x Intel 1 Gigabit LAN, 1 x Intel 2.5 Gigabit LAN
- Support Quad display, 1 x LVDS, 1 x eDP, 4 x HDMI 2.0b
- TPM 2.0 onboard
- Supports Intel® vPro, AMT (IMB-1224P/IMB-1224M)
- Support Intel® RAID 0/1
- 12~28V DC-In(Lockable DC Jack)

SPECIFICATIONS

Form Factor

Dimensions	Mini-ITX (6.7-in x 6.7-in)
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Processor System

CPU	Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors, up to 28W -IMB-1224P (i7-1185G7E, QC, Max Speed up to 4.4GHz) -IMB-1224M (i5-1145G7E, QC, Max Speed up to 4.1GHz) -IMB-1224V (i3-1115G4E, DC, Max Speed up to 3.9GHz) -IMB-1224E (Celeron 6305E, DC, 1.8GHz)
Chipset	MCP
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel DDR4 3200 MHz
Capacity	64GB (32GB per DIMM)
Socket	2 x 260-pin SO-DIMM

Graphics

Controller	Intel® Iris® Xe Graphics for i7/i5 CPU Intel® UHD Graphics for i3/Celeron CPU
HDMI	4 x HDMI 2.0b Max resolution up to 4096x2160@60Hz
DisplayPort	N/A
LVDS	Dual channel 24 bit up to 1920x1200@60Hz
eDP	eDP Max resolution up to 4096x2304@60Hz
DVI	N/A
MultiDisplay	Quad display

Expansion Slot

PCIe	N/A
PCI	N/A
mini-PCIe	N/A
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless 1 x M.2 (Key B*, 3042/3052) with PCIe x1/USB 3.2/USB2.0/SATA and SIM for 4G/5G * Shared with SATA3_1
SIM Socket	1x SIM socket connected to M.2 key B

Audio

Interface	Realtek ALC897 HD , High Definition Audio. Mic-In / Line-Out
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Ethernet

Controller/ Speed	IMB-1224P/IMB-1224M: LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I219LM with 10/100/1000 Mbps IMB-1224V/IMB-1224E: LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I219V with 10/100/1000 Mbps
Connector	2 x RJ-45

Front I/O

USB	N/A
HDMI	N/A
Audio	N/A

Rear I/O

HDMI	4 x HDMI 2.0b
DisplayPort	N/A
VGA	N/A
DVI	N/A
Ethernet	1 x 1 Gigabit LAN, 1 x 2.5 Gigabit LAN
USB	2 x USB 3.2 (Gen2), 2 x USB2.0
Audio	2 (Mic-in, Line-out)
DC Jack	1 (Screw type)

Internal Connector

USB	1x USB 3.2 Gen1 3 x USB 2.0 (1x2.54 pitch header, 1xUSB3.2 header)
COM	4 x COM (RS-232) 2 x COM (RS-232/422/485)
Parallel	1
GPIO	8 x GPI, 8 x GPO
TPM	TPM 2.0 onboard
LVDS	1
eDP	1
SATA PWR Output	1
Speaker Header	1

Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA3 and PCIe Gen4 x4 for SSD * Shared with SATA3_0
mSATA	N/A
SATA	2 x SATA3 (6Gb/s)
RAID	Intel® SATA RAID 0/1
eMMC	N/A

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

Power Requirements

Input PWR	12~28V DC-In with 4-pin wafer PWR cable or DC Jack(Screw type)
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	0°C ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%