

# IMB-1314

Micro-ATX Motherboard



## KEY FEATURES

- Intel® 12th Gen (Alder Lake-S) Core™ Processors with Q670 chipset
- 4 x 288-pin Long-DIMM DDR4 3200 MHz, up to 128GB (32GB per DIMM)
- 1 x PCIe x16 (Gen4), 1 x PCIe x8 (Gen4), 2 x PCIe x4 (Gen4),  
1 x USB3.2 Gen2x2 Type C, 5 x USB 3.2 Gen2, 2x USB 3.2 Gen1, 4 x USB 2.0,  
1 x M.2 Key E, 2 x M.2 Key M, 1 x M.2 Key B, 6 x COM, 8 x SATA3
- 2 x Intel 2.5 Gigabit LAN
- Support Quad display, 1 x HDMI2.0b, 1 x DP 1.4a, 1 x VGA, 1 x LVDS
- TPM2.0 on board IC
- Supports Intel® vPro, AMT, RAID 0/1/5/10
- ATX PWR (24+8 Pin)

## SPECIFICATIONS

### Form Factor

Dimensions	Micro-ATX (9.6-in x 9.6-in x 1.4-in)
------------	--------------------------------------

### Processor System

CPU	Intel® 12th Gen (Alder Lake-S) Core™ Processors, up to 125W
Chipset	Intel® Q670
Socket	LGA 1700
BIOS	AMI SPI 256 Mbit

### Memory

Technology	Dual Channel DDR4 3200 MHz
Capacity	128GB (32GB per DIMM)
Socket	4 x 288-pin Long-DIMM

### Graphics

Controller	Intel® Iris® Xe Graphics
HDMI	HDMI 2.0b Max resolution up to 4096 x 2160@60Hz
DisplayPort	DisplayPort 1.4a, DP++ Max resolution up to 4096x2160@60Hz
VGA	Max resolution up to 1920 x 1200@60Hz
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz
MultiDisplay	Quad Display

### Expansion Slot

PCIe	2 x PCIe Gen4 Slots (PCIe1/PCIe3:single at x16(PCIe1); dual at x8 (PCIe1) / x8 (PCIe3)) (PCIe1: Support riser card x8/x8) 2 x PCIe x4 (Gen4)
M.2	1 x M.2 (Key B, 3042/3052) with PCIe x1, USB3.2 Gen1, USB2.0 and SIM for 4G/5G 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless
SIM Socket	1x SIM socket connected to M.2 key B

### Audio

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

### Ethernet

Controller/ Speed	LAN1: Intel® I225LM with 10/100/1000/2500 Mbps, supports AMT/vPro LAN2: Intel® I225LM with 10/100/1000/2500 Mbps
Connector	2 x RJ-45

### Rear I/O

HDMI	1 x HDMI2.0
DisplayPort	1 x DP1.4a++
VGA	1
Ethernet	2 x 2.5 Gigabit LAN
USB	5 x USB 3.2 Gen2 1 x USB3.2 Gen2x2 (20G) Type C
Audio	3 (Line-In/Line-Out/Mic-In)
Serial Port	COM1, COM2 (RS-232/422/485)

### Internal Connector

USB	2 x USB 3.2 Gen1 (1xUSB3.2 header) 4 x USB 2.0 (2x2.54pitch header)
COM	COM3, COM4, COM5, COM6 (RS-232)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO (shared with LPT header)
TPM	TPM2.0 on board IC
LVDS	1
Speaker Header	1
PS/2	1 x PS/2 header

### Storage

M.2	1 x M.2 (Key M, up to 22110) with PCIe x4 Gen4 for SSD 1 x M.2 (Key M, 2242/2260/2280) with PCIe x4 Gen3 for SSD
SATA	8 x SATA3
RAID	Intel® SATA RAID 0/1/5/10

### Watchdog Timer

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

### Power Requirements

Input PWR	ATX PWR (24+8-pin)
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%