



# IMB-1004

## Mini-ITX Motherboard



### KEY FEATURES

- Intel® Elkhart Lake SoC Processors
- 2 x 260-pin SO-DIMM DDR4 3200 MHz, up to 32GB
- 1 x PCIE x1 Gen3, 4 x USB 3.2 Gen1, 7 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key M, 1 x M.2 Key B, 4 x COM, 2 x SATA3
- 1 x Realtek 2.5 Gigabit LAN, 1 x Realtek 1 Gigabit LAN
- Support Triple display, 1 x LVDS or eDP, 1 x HDMI2.0b, 1 x VGA
- TPM Header
- 12~28V DC-In/ATX PWR

### SPECIFICATIONS

#### Form Factor

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

CPU	Intel® Elkhart Lake SoC Processors IMB-1004J (J6412, QC, Max Speed Up to 2.6GHz, 10W) IMB-1004D (J6426, QC, Max Speed Up to 3.0GHz, 10W) IMB-1004L (N6210, DC, Max Speed Up to 2.6GHz, 6.5W) IMB-1004N (N6415, QC, Max Speed Up to 3.0GHz, 6.5W)
Chipset	SoC
BIOS	AMI SPI 256 Mbit

#### Memory

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

#### Graphics

Controller	Intel® Gen 11 Graphics
HDMI	HDMI 2.0b Max resolution up to 4096 x 2160@60Hz
VGA	Max resolution up to 1920 x 1200
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz (shared with eDP)
eDP	Max resolution up to 4096x2160@60Hz (shared with LVDS)
MultiDisplay	Triple display

#### Expansion Slot

PCIe	1 x PCIe x1 (Gen3)
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 1 x M.2 (Key B, 3042/3052) with PCIe x1/USB 3.2/USB2.0 and SIM for 4G/5G
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	LAN1: Realtek RTL8125BG with 10/100/1000/2500 Mbps LAN2: Realtek RTL8111G/RTL8111H-CG with 10/100/1000 Mbps
Connector	2 x RJ-45

#### Rear I/O

HDMI	1 x HDMI2.0b
VGA	1
Ethernet	1 x 1 Gigabit LAN, 1 x 2.5 Gigabit LAN
USB	2 x USB 3.2 (Gen1), 2 x USB2.0
Audio	2 (Mic-In, Line-Out)
DC Jack	1

#### Internal Connector

USB	2 x USB 3.2 Gen1 (1xUSB3.2 header) 4 x USB 2.0 (2x2.54 pitch header) 1 x USB 2.0 (Type A)
COM	2 x COM (RS-232) 2 x COM (RS-232/422/485)
GPIO	4 x GPI, 4 x GPO
TPM	TPM Header
LVDS	1 (shared with eDP)
eDP	1 (shared with LVDS)
VGA	1
SATA PWR Output	1
Speaker Header	1

#### Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA3 and PCIe x1 for SSD
SATA	2 x SATA3 (6Gb/s)

#### 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
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%