



# IMB-A1000

## Mini-ITX Motherboard



### KEY FEATURES

- AMD Ryzen 7<sup>th</sup>/5<sup>th</sup>/3<sup>rd</sup> Gen (Matisse/Renoir/Vermeer/Cezanne/Raven Ridge) Core™ Processors with B450 chipset
- 2 x 204-pin SO-DIMM up to 32GB DDR4 3200 MHz (16GB per DIMM)
- 1 x PCIe x16 (Gen3), 6 x USB 3.1 Gen2, 2 x USB 3.1 Gen1, 4 x USB 2.0 with Matisse/Renoir/Vermeer/Cezanne CPU
- 1 x PCIe x16 (Gen3), 2 x USB 3.1 Gen2, 6 x USB 3.1 Gen1, 4 x USB 2.0 with Raven Ridge CPU
- 2 x M.2 Key M, 1 x M.2 Key E, 1 x M.2 Key B, 2 x COM, 3 x SATA3
- 2 x Intel 1 Gigabit LAN
- Supports triple display, 3 x DP++ 1.2, 1 x eDP
- TPM 2.0 onboard IC
- Support RAID 0/1
- ATX PWR (24+8-pin)

### SPECIFICATIONS

#### Form Factor

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

CPU	AMD Ryzen 7 <sup>th</sup> /5 <sup>th</sup> /3 <sup>rd</sup> Gen (Raven Ridge/Matisse) Core™ Processors Ryzen 7 <sup>th</sup> :Matisse (3700X,8cores,3.6GHz,65W) Ryzen 5 <sup>th</sup> :Raven Ridge (2400G, QC, 3.6GHz,65W); Matisse (3600,6cores,3.6GHz,65W) Ryzen 3 <sup>rd</sup> :Raven Ridge (2200G, QC,3.5GHz,65W)
Chipset	AMD Promontory B450
Socket	AM4
BIOS	AMI SPI 256 Mbit

#### Memory

Technology	Dual Channel DDR4 3200 MHz
Capacity	32 GB (16 GB per DIMM)
Socket	2 x 204-pin SO-DIMM

#### Graphics

Controller	AMD Radeon™ HD Vega DirectX 12
HDMI	N/A
DisplayPort	DisplayPort 1.2, DP++ Max resolution up to 4096x2160@60Hz
VGA	N/A
LVDS	N/A
eDP	eDP 1.4 (share with DisplayPort) Max resolution up to 4096x2160@60Hz
DVI	N/A
MultiDisplay	Triple Display

#### Expansion Slot

PCIe	1 x PCIe x16 (PCIe Gen3 x8 for Raven Ridge) 1 x PCIe x16 (PCIe Gen3 x16 for Matisse)
PCI	N/A
mini-PCIe	N/A
M.2	1 x Key B (3042) with PCIe, USB 2.0 and SIM Socket for 4G 1 x Key E (2230) with PCIe x1 and USB 2.0 for Wireless
SIM Socket	1 x Socket connected to M.2 Key_B

#### Audio

Interface	Realtek ALC887, High Definition Audio. Line-out,Mic-in
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#### Ethernet

Controller/ Speed	2 x Intel® I210AT with 10/100/1000 Mbps
Connector	2 x RJ-45

#### Rear I/O

HDMI	N/A
DisplayPort	3x DP 1.2++
VGA	N/A
DVI	N/A
Ethernet	2 x 1 Gigabit LAN
USB	Matisse/Renoir/Vermeer/Cezanne: 6 x USB 3.1 Gen2 Raven Ridge: 2 x USB 3.1 Gen2, 4 x USB 3.1 Gen1
Audio	2 (Mic-in, Line-out)
COM	N/A
PS2	N/A

#### Internal Connector

USB	2 x USB 3.1 Gen1 (1 x USB 3.1 header) 4 x USB 2.0 (2 x 2.54 pitch header)
COM	2 x COM (RS232/422/485)
Parallel	N/A
GPIO	N/A
TPM	TPM 2.0 onboard IC
LVDS	N/A
eDP	1 (share with DisplayPort) * Only supports 3V LCD_VCC and 12V Backlight power to eDP panel
VGA	N/A
SATA PWR Output	1
Speaker Header	1

#### Storage

M.2	1 x Key M (2242/2260/2280) with PCIe x4 and SATA3 for SSD 1 x Key M (2242/2280) with PCIe x1 for SSD
mSATA	N/A
SATA	3 x SATA3 (6Gb/s), SATA3_1 shared with M.2_Key M
RAID	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	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%

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