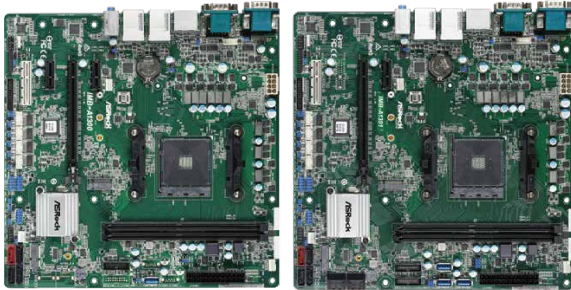


# IMB-A1300 / A1301

Micro-ATX Motherboard



## KEY FEATURES

- AMD Ryzen 7th/5th/3th Gen (Raven Ridge/Matisse) Core™ Processors with B450 chipset (IMB-A1300)
- AMD Ryzen 7th/5th/3th Gen (Raven Ridge/Matisse) Core™ Processors with X470 chipset (IMB-A1301)
- 2 x 288-pin Long-DIMM up to 32GB DDR4 3200 MHz with Matisse (16GB per DIMM)
- 2 x 288-pin Long-DIMM up to 32GB DDR4 2933 MHz with Raven Ridge (16GB per DIMM)
- 1 x PCIe x16 (Gen3), 3 x PCIe x1 (Gen3), 4 x USB 3.1 Gen2, 3 x USB 3.1 Gen1, 6 x USB 2.0, 1 x M.2 Key M, 1 x M.2 Key E, 6 x COM, 4 x SATA3 (IMB-A1300)
- 1 x PCIe x16 (Gen3), 1 x PCIe x1 (Gen3), 1 x PCIe x1 (Gen3), 4 x USB 3.1 Gen2, 7 x USB 3.1 Gen1, 6 x USB 2.0, 1 x M.2 Key M, 1 x M.2 Key E, 6 x COM, 8 x SATA3 (IMB-A1301)
- 2 x Intel 1 Gigabit LAN
- Supports triple display, 2 x DP++ 1.2, 1 x VGA
- TPM 2.0 onboard IC
- Support RAID 0/1/10
- ATX PWR (24+8-pin)

## SPECIFICATIONS

| Form Factor       | IMB-A1300                                                                                                                                                                                                                                          | IMB-A1301                                                                                                           |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Dimensions        | Micro-ATX (9.6-in x 9.6-in)                                                                                                                                                                                                                        |                                                                                                                     |
| Processor System  |                                                                                                                                                                                                                                                    |                                                                                                                     |
| CPU               | AMD Ryzen 7th/5th/3th Gen (Raven Ridge/Matisse) Core™ Processors<br>Ryzen 7th:Matisse (3700X,8cores,3.6GHz,65W)<br>Ryzen 5th:Raven Ridge (2400G, QC, 3.6GHz,65W);Matisse (3600,6cores,3.6GHz,65W)<br>Ryzen 3th:Raven Ridge (2200G, QC,3.5GHz,65W ) |                                                                                                                     |
| Chipset           | AMD Promontory B450 (IMB-A1300)                                                                                                                                                                                                                    | AMD Promontory X470 (IMB-A1301)                                                                                     |
| Socket            | AM4                                                                                                                                                                                                                                                |                                                                                                                     |
| BIOS              | AMI SPI 256Mbit                                                                                                                                                                                                                                    |                                                                                                                     |
| Memory            |                                                                                                                                                                                                                                                    |                                                                                                                     |
| Technology        | Dual Channel DDR4 3200 MHz (Matisse)<br>Dual Channel DDR4 2933 MHz (Raven Ridge)                                                                                                                                                                   |                                                                                                                     |
| Capacity          | 32 GB (16 GB per DIMM)                                                                                                                                                                                                                             |                                                                                                                     |
| Socket            | 2 x 288-pin Long-DIMM                                                                                                                                                                                                                              |                                                                                                                     |
| Graphics          |                                                                                                                                                                                                                                                    |                                                                                                                     |
| Controller        | AMD Radeon™ HD Vega DirectX 12                                                                                                                                                                                                                     |                                                                                                                     |
| HDMI              | N/A                                                                                                                                                                                                                                                |                                                                                                                     |
| DisplayPort       | DisplayPort 1.2, DP++<br>Max resolution up to 4096x2160@60Hz                                                                                                                                                                                       |                                                                                                                     |
| VGA               | Max resolution up to 4096x2160@60Hz                                                                                                                                                                                                                |                                                                                                                     |
| LVDS              | N/A                                                                                                                                                                                                                                                |                                                                                                                     |
| eDP               | N/A                                                                                                                                                                                                                                                |                                                                                                                     |
| DVI               | N/A                                                                                                                                                                                                                                                |                                                                                                                     |
| MultiDisplay      | Triple Display                                                                                                                                                                                                                                     |                                                                                                                     |
| Expansion Slot    |                                                                                                                                                                                                                                                    |                                                                                                                     |
| PCIe              | 1 x PCIe x16 (PCIe Gen3 x8 for Raven Ridge);(PCIe Gen3 x16 for Matisse)<br>3 x PCIe x1 (Gen3)                                                                                                                                                      | 1 x PCIe x16 (PCIe Gen3 x8 for Raven Ridge);(PCIe Gen3 x16 for Matisse)<br>1 x PCIe x4 (Gen3)<br>1 x PCIe x1 (Gen3) |
| PCI               | 0                                                                                                                                                                                                                                                  |                                                                                                                     |
| mini-PCIe         | 0                                                                                                                                                                                                                                                  |                                                                                                                     |
| M.2               | 1 x Key E (2230)with PCIe x1 and USB 2.0 for Wireless                                                                                                                                                                                              |                                                                                                                     |
| SIM Socket        | N/A                                                                                                                                                                                                                                                |                                                                                                                     |
| Audio             |                                                                                                                                                                                                                                                    |                                                                                                                     |
| Interface         | Realtek ALC887, High Definition Audio. Line-out,Mic-in                                                                                                                                                                                             |                                                                                                                     |
| Ethernet          |                                                                                                                                                                                                                                                    |                                                                                                                     |
| Controller/ Speed | 2 x Intel® I210-AT with 10/100/1000 Mbps                                                                                                                                                                                                           |                                                                                                                     |
| Connector         | 2 x RJ-45                                                                                                                                                                                                                                          |                                                                                                                     |

| Rear I/O           | IMB-A1300                                                                                                                 | IMB-A1301                                                                                  |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| HDMI               | N/A                                                                                                                       |                                                                                            |
| DisplayPort        | 2 x DP1.2++                                                                                                               |                                                                                            |
| VGA                | 1                                                                                                                         |                                                                                            |
| DVI                | N/A                                                                                                                       |                                                                                            |
| Ethernet           | 2 x 1 Gigabit LAN                                                                                                         |                                                                                            |
| USB                | Matisse: 4 x USB 3.1 (Gen2)<br>Raven Ridge: 4 x USB 3.1 (Gen1)                                                            |                                                                                            |
| Audio              | 3 (Mic-in, Line-in, Line-out)                                                                                             |                                                                                            |
| COM                | 2 x COM(RS-232/422/485)                                                                                                   |                                                                                            |
| PS2                | 1 x PS/2 combo                                                                                                            |                                                                                            |
| Internal Connector |                                                                                                                           |                                                                                            |
| USB                | 3 x USB 3.1 (Gen1) (1 x USB 3.1 header, 1 x Type A)<br>6 x USB 2.0 (3 x 2.54 pitch header)                                | 7 x USB 3.1 (Gen1) (2 x USB 3.1 header, 3 x Type A)<br>6 x USB 2.0 (3 x 2.54 pitch header) |
| COM                | 4 x COM (RS-232)                                                                                                          |                                                                                            |
| Parallel           | 1 (shared with GPIO)                                                                                                      |                                                                                            |
| GPIO               | 8 x GPI, 8 x GPO (shared with LPT header)                                                                                 |                                                                                            |
| TPM                | TPM 2.0 onboard IC                                                                                                        |                                                                                            |
| LVDS               | N/A                                                                                                                       |                                                                                            |
| eDP                | N/A                                                                                                                       |                                                                                            |
| 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                                                                  |                                                                                            |
| mSATA              | N/A                                                                                                                       |                                                                                            |
| SATA               | 4 x SATA3 (6Gb/s), SATA3_1 shared with M.2_Key M                                                                          | 8 x SATA3 (6Gb/s), SATA3_1 shared with M.2_Key M                                           |
| RAID               | Support RAID 0/1/10                                                                                                       |                                                                                            |
| 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<br>- AT : Directly PWR on as power input ready<br>- 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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