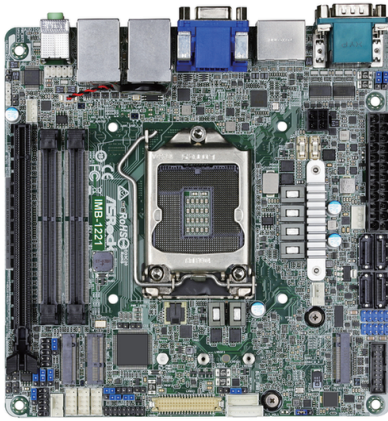


IMB-1221-L/IMB-1221-D

Mini-ITX Motherboard

KEY FEATURES

- Intel® 10th Gen (Comet lake-S) Core™ Processors with H420E chipset
- 2 x 260-pin SO-DIMM Support Dual Channel DDR4 2933 (i9/i7 CPU) / 2666 (i5/i3 CPU) / 2400 (Pentium/ Celeron CPU), up to 64GB
- 1 x PCIe x16 Gen3, 4 x USB 3.2 Gen1, 4 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, 4 x SATA3
- 1 x Intel 1 Gigabit LAN
- 1 x Intel 2.5 Gigabit LAN
- Support Dual display, 1 x DP1.2, 1 x VGA, 1 x LVDS. 1 x HDMI 2.0a (IMB-1221-L)
- Support Dual display, 2 x DP1.2, 1 x eDP, 1 x HDMI 2.0a (IMB-1221-D)
- ATX-PWR (24+4-pin)



IMB-1221-L

IMB-1221-D

SPECIFICATIONS

| Form Factor | IMB-1221-L | IMB-1221-D |
|-------------------------|---|---|
| Dimensions(LxWxH) | Mini-ITX (6.7-in x 6.7-in x 1.5-in) | |
| Processor System | | |
| CPU | Intel® 10 th Gen (Cometlake-S) Core™ Processors, up to 80W <small>*The performance of CPUs over 80W will be limited due to power design</small> | |
| Chipset | Intel® H420E | |
| Socket | LGA1200 | |
| BIOS | AMI SPI 256 Mbit | |
| Memory | | |
| Technology | Dual Channel DDR4 2933/2666/2400 MHz - Intel Core i9/i7 CPUs support DDR4 up to 2933 MHz - Intel Core i5/i3 CPUs support DDR4 up to 2666 MHz - Intel Pentium/Celeron CPU support DDR4 up to 2400 MHz | |
| Capacity | 64GB (32 GB per DIMM) | |
| Socket | 2 x 260-pin SO-DIMM | |
| Graphics | | |
| Controller | Intel® UHD Graphics | |
| HDMI | HDMI 2.0a Max resolution up to 4096x2160 @60Hz | |
| DisplayPort | DisplayPort 1.2 , DP++ Max resolution up to 4096x2160@60Hz | |
| VGA | Max resolution up to 1920x1200@60Hz | N/A |
| LVDS | Dual channel 24 bit up to 1920 x 1200@60Hz | N/A |
| eDP | N/A | eDP 1.4 Max resolution up to 4096x2304@60Hz |
| DVI | N/A | |
| MultiDisplay | Dual Display | |
| Expansion Slot | | |
| PCIe | 1 x PCIe x16 (Gen3) | |
| PCI | N/A | |
| Mini-PCIe | N/A | |
| M.2 | 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 for Wireless 1 x M.2 (Key B, 3042) with PCIe x1/USB 3.0/USB2.0 and SIM for 4G/5G | |
| SIM Socket | 1x SIM socket connected to M.2 key B | |
| Audio | | |
| Interface | Realtek ALC887 HD , High Definition Audio. Line-out,Mic-in. | |
| Ethernet | | |
| Controller/ Speed | LAN1: Intel® I225V with 10/100/1000/2500 Mbps LAN2: Intel® I219V with 10/100/1000 Mbps | |
| Connector | 2 x RJ-45 | |

| Rear I/O | IMB-1221-L | IMB-1221-D |
|-------------|--|------------|
| HDMI | 1 x HDMI 2.0a | |
| DisplayPort | 1 x DP 1.2 | 2 x DP 1.2 |
| VGA | 1 | N/A |
| DVI | N/A | |
| Ethernet | 1 x 1 Gigabit LAN 1 x 2.5 Gigabit LAN | |
| USB | 2 x USB 3.2 (Gen1), 2 x USB 2.0 | |
| Audio | 2 (Mic-in, Line-out) | |
| COM | 2 x COM (RS-232/422/485) | |
| PS2 | N/A | |

Internal Connector

| | | |
|-----------------|---|-----|
| USB | 2 x USB 3.2 Gen1 (1 x USB 3.2 Gen1 header) 2 x USB 2.0 (1 x 2.54 pitch header) | |
| COM | 2 x COM (RS-232) | |
| Parallel | N/A | |
| GPIO | 4 x GPI, 4 x GPO | |
| TPM | TPM Header | |
| LVDS | 1 | N/A |
| eDP | N/A | 1 |
| VGA | N/A | |
| SATA PWR Output | 1 | |
| Speaker Header | 1 | |

Storage

| | |
|-------|---|
| M.2 | 1 x M.2 (Key M, 2242/2260/2280) with PCIe x2 and shared with SATA3 by switch IC (Default M.2) |
| mSATA | N/A |
| SATA | 4 x SATA3 (6Gb/s) |
| 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 4pin+24 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% |