

IMB-X1220-L

Mini-ITX Motherboard



KEY FEATURES

- Intel® Xeon® W-1200 series & Intel® 10th Gen (Comet lake-S) Core™ Processors with W480E 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
- support ECC SO DIMM memory modules
- 1 x PCIe x16 Gen3, 6 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, 5 x COM, 4 x SATA3
- 1 x Intel 1 Gigabit LAN, 1 x Intel 2.5 Gigabit LAN
- Support Triple display, 1 x DP1.2, 1 x VGA, 1 x LVDS, 1 x HDMI 2.0a
- TPM 2.0 onboard
- ATX-PWR (24+4-pin)

SPECIFICATIONS

Form Factor

| | |
|-------------------|-------------------------------------|
| Dimensions(LxWxH) | Mini-ITX (6.7-in x 6.7-in x 1.5-in) |
|-------------------|-------------------------------------|

Processor System

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|---------|--|
| 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® W480E |
| Socket | LGA1200 |
| BIOS | AMI SPI 256 Mbit |

Memory

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|------------|--|
| Technology | Dual Channel DDR4 2933/2666/2400 MHz, (ECC memory supported by CPU) - 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

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|--------------|--|
| 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 |
| LVDS | Dual channel 24 bit up to 1920 x 1200@60Hz |
| eDP | N/A |
| DVI | N/A |
| MultiDisplay | Triple Display |

Expansion Slot

| | |
|------------|--|
| PCIe | 1 x PCIe x16 (Gen3, Support riser card x8/x8, x8/x4/x4) |
| PCI | N/A |
| Mini-PCIe | N/A |
| M.2 | 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi 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

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|-----------|---|
| Interface | Realtek ALC887 HD, High Definition Audio. Line-out, Mic-in. |
|-----------|---|

Ethernet

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|-------------------|---|
| Controller/ Speed | LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I219LM with 10/100/1000 Mbps, support AMT/vPro |
| Connector | 2 x RJ-45 |

Rear I/O

| | |
|-------------|--|
| HDMI | 1 x HDMI 2.0a |
| DisplayPort | 1 x DP1.2 |
| VGA | 1 |
| DVI | N/A |
| Ethernet | 1 x 1 Gigabit LAN 1 x 2.5 Gigabit LAN |
| USB | 4 x USB 3.2 (Gen1) |
| Audio | 2 (Mic-in, Line-out) |
| COM | 2 x COM(RS-232/422/485) |
| PS2 | N/A |

Internal Connector

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|-----------------|---|
| USB | 2 x USB 3.2 Gen1 (1 x USB 3.2 Gen1 header) 4 x USB 2.0 (2 x 2.54 pitch header) |
| COM | 3 x COM (RS-232) |
| Parallel | N/A |
| GPIO | 4 x GPI, 4 x GPO |
| TPM | TPM 2.0 onboard |
| LVDS | 1 |
| eDP | N/A |
| VGA | N/A |
| SATA PWR Output | 1 |
| Speaker Header | 1 |

Storage

| | |
|-------|--|
| M.2 | 1 x M.2 (Key M, 2242/2260/2280) with PCIe4 and SATA3 for SSD |
| mSATA | N/A |
| SATA | 4 x SATA3 (6Gb/s) |
| eMMC | N/A |

Watchdog Timer

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

Power Requirements

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|-----------|---|
| 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

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|--------------------|----------------|
| Operating Temp | 0°C ~ 60°C |
| Storage Temp | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90% |
| Storage Humidity | 5% ~ 90% |