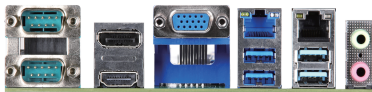
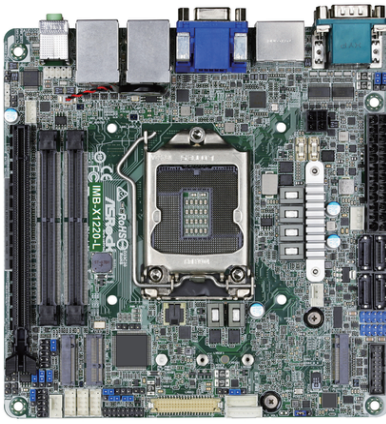


# IMB-X1220-L

## Mini-ITX Motherboard



### KEY FEATURES

- Intel® Xeon® W-1200 series & Intel® 10<sup>th</sup> 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

<b>Form Factor</b>	
Dimensions(LxWxH)	Mini-ITX (6.7-in x 6.7-in x 1.5-in)

<b>Processor System</b>	
CPU	Intel® 10 <sup>th</sup> 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

<b>Memory</b>	
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

<b>Graphics</b>	
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

<b>Expansion Slot</b>	
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

<b>Audio</b>	
Interface	Realtek ALC887 HD , High Definition Audio. Line-out,Mic-in.

<b>Ethernet</b>	
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

<b>Rear I/O</b>	
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

<b>Internal Connector</b>	
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

<b>Storage</b>	
M.2	1 x M.2 (Key M, 2242/2260/2280) with PCIex4 and SATA3 for SSD
mSATA	N/A
SATA	4 x SATA3 (6Gb/s)
eMMC	N/A

<b>Watchdog Timer</b>	
Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

<b>Power Requirements</b>	
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

<b>Environment</b>	
Operating Temp	0°C ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%