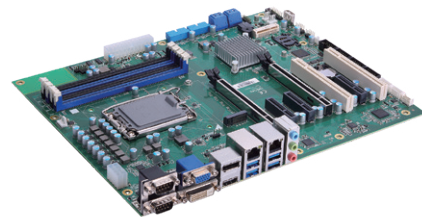
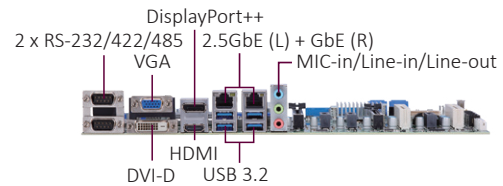
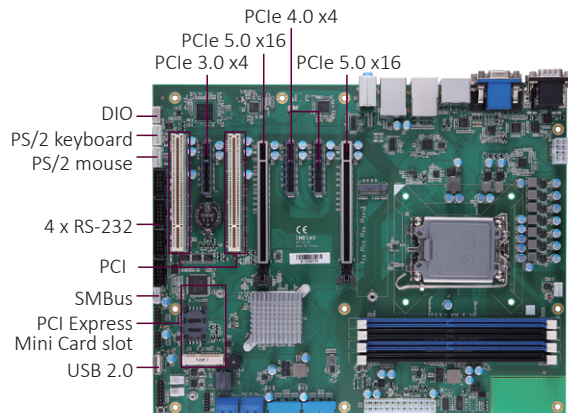


IMB540

ATX Motherboard with LGA1700 Socket Bartlett Lake S/14th/13th/12th Gen Intel® Core™ Processor, Intel® R680E, USB 3.2 Gen 2, SATA 3.0, GbE and 2.5GbE LAN, VGA, DisplayPort++, DVI-D, and HDMI



▲ Side view



Quad-View



USB 3.2 Gen 1



M.2



Flexible Slots

Features

- LGA1700 socket BTL-S*/14th/13th/12th Gen Intel® Core™ processor
- 4 288-pin DDR4-3200 ECC/non-ECC unbuffered Long-DIMM, up to 128GB
- Supports DisplayPort++, VGA, DVI-D, and HDMI with quad-view
- Supports M.2 Key M 2280
- Supports 2 PCIe x16 slots with PCIe Gen 5 for GPU cards
- Supports TPM 2.0 (optional)

Specifications

Core System

CPU	LGA1700 socket BTL-S*/14th/13th/12th Gen Intel® Core™ processor, up to 125W *Supports Intel® Core™ Series 2 Hybrid (E) & P-Core only (PE) processors
System Memory	4 x 288-pin DDR4-3200 ECC/non-ECC un-buffered Long-DIMM, up to 128GB (ECC memory available only for Intel® R680E)
Chipset	Intel® R680E
BIOS	AMI BIOS
Storage	M.2 key M 2280 in support of PCIe x4 via CPU



Specifications

Core System

Watchdog Timer	255 levels, 1 to 255 sec.
Expansion Interface	2 x PCIe Gen 5 x16 slot (signal: PCIe x16 + PCIe x0 or PCIe x8 + PCIe x8) 3 x PCIe x4 slot open ended (1 x Gen 3 + 2 x Gen 4) (signal by PCH) 1 x PCIe Mini Card slot (signal: PCIe x1) 2 x 32-bit PCI slot, default clock is 33 MHz, PCI clock could be selected between 33 or 66 MHz by jumper (signal by PCH)
Battery Lithium	Lithium 3 V/220 mA
Power Input	24-pin + 8-pin ATX connector
Power Consumption	Intel® Core™ i9-14900K with 16GB (2 x DDR4-2666) Power requirements: +12V_CPU @ 6.5A +5V @ 2.8A +3.3V @ 0.6A

Display

Chipset	Intel® UHD Graphics
Display Interface	1 x VGA, up to 1920 x 1200 @ 60Hz 1 x HDMI 1.4b, up to 4096 x 2160 @ 24Hz 1 x DisplayPort++ (DP 1.2), up to 4096 x 2304 @ 60Hz 1 x DVI-D, up to 1920 x 1200 @ 60Hz

I/O

External	1 x 2.5GbE with Intel® I226-LM supporting Wake-on-LAN, PXE Boot ROM, TSN, and Intel® AMT with Intel vPro® 1 x GbE Ethernet with Intel® I210-AT supporting Wake-on-LAN and PXE Boot ROM 1 x HD Codec audio as MIC-in/Line-in/Line-out 4 x USB 3.2 Gen 2 x1 (10G) (rear I/O) 2 x RS-232/422/485 (rear I/O)
Internal	4 x SATA-600 with RAID 0/1/5/10 2 x Dual USB 3.2 Gen 1 x1 (5G) (box header) 4 x USB 2.0 (pin header) 1 x USB 2.0 (180D Type-A) 4 x RS-232 (box header) 1 x PS/2 keyboard (box header) 1 x PS/2 mouse (box header)

Key Benefits

TPM	TPM 2.0 (optional)
SMBus	Yes
GPIO	8-channel programmable
Hardware Monitoring	Detect CPU/system temperature, voltage and supports smart fan control

Mechanical and Environmental

Dimensions	305 x 244 mm
Board Thickness	1.6 mm
Operating Temperature	0°C to +60°C (+32°F to +140°F)
Relative Humidity	10% to 95% relative humidity, non-condensing

Ordering Information

Standard

IMB540-ADL-R680E SP (P/N: E38F540100)	ATX motherboard with LGA1700 socket BTL-S/14th/13th/12th Gen Intel® Core™ processor, Intel® R680E, USB 3.2 Gen 2 x1, SATA 3.0, GbE and 2.5GbE LAN, VGA, DisplayPort++, DVI-D, and HDMI, single packing
IMB540-ADL-R680E BP (P/N: E38F540101)	ATX motherboard with LGA1700 socket BTL-S/14th/13th/12th Gen Intel® Core™ processor, Intel® R680E, USB 3.2 Gen 2 x1, SATA 3.0, GbE and 2.5GbE LAN, VGA, DisplayPort++, DVI-D, and HDMI, bulk packing

Ordering Information

Optional

5938A808010E	2 x USB 2.0 cable with bracket, P=2.54 mm, L=190 mm
5938A808020E	2 x USB 2.0 cable with bracket, P=2.54 mm, L=400 mm
5948C122800E	2 x USB 3.2 Gen 1 cable with bracket, L=400 mm
59380000290E	PS/2 keyboard & mouse cable with bracket
594G5208000E	SATA 3.0 signal cable, L=500 mm with locking latch
594G5208010E	SATA 3.0 signal cable, L=500 mm without locking latch
59384500100E	Audio cable with bracket, P=2.0 mm, L=450 mm
59380402010E	1 x COM port cable with bracket, P=2.54 mm, L=300 mm
59380703000E	2 x COM port cable with bracket, P=2.54 mm, L=300 mm
83935151000E	TPM 2.0 module (AX93515)
713000002100	CPU heatsink for 1U chassis (AX61135TM)
713000000500	1U CPU cooler with smart fan
711000002500	CPU cooler for 2U, 4U, and wall mount chassis with smart fan

*Please refer to the user manual for the complete list of supported CPUs.

Block Diagram

