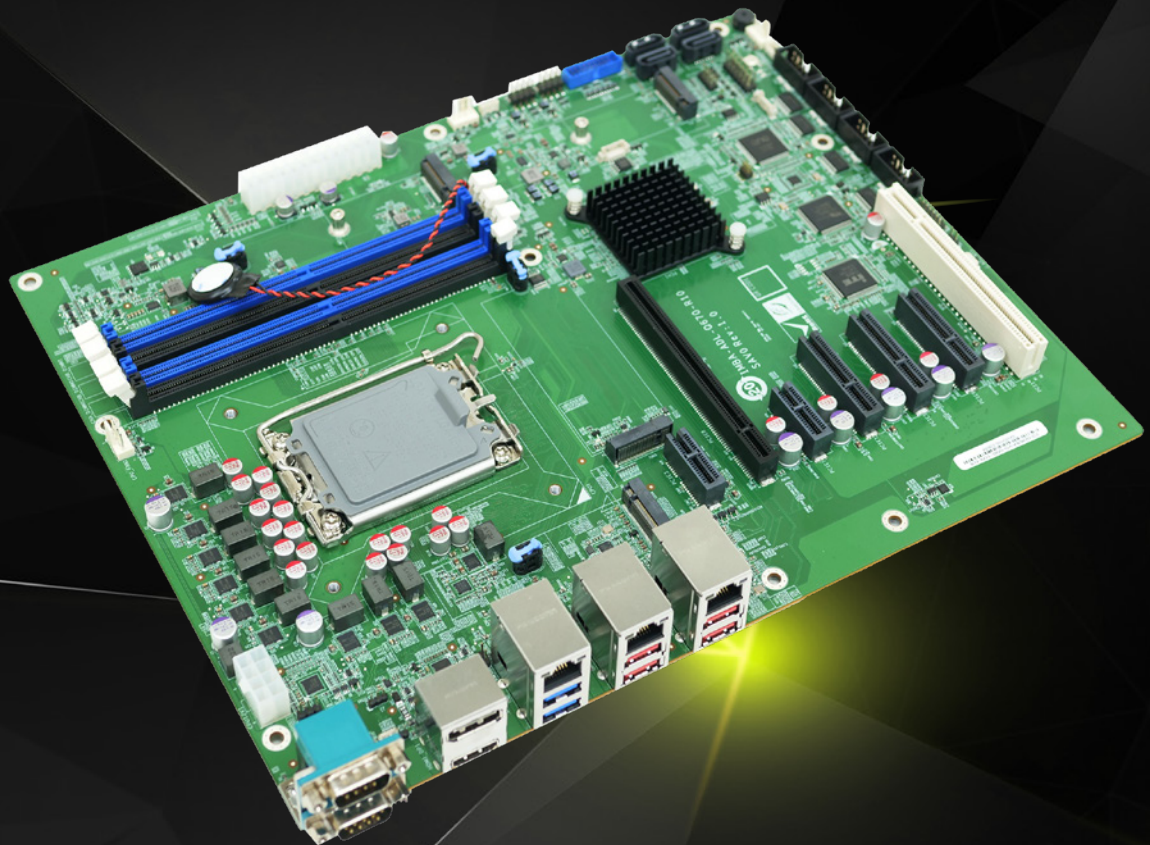


IMBA-ADL-Q670

ATX motherboard supports LGA1700 Intel® 12th/13th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processor

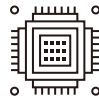
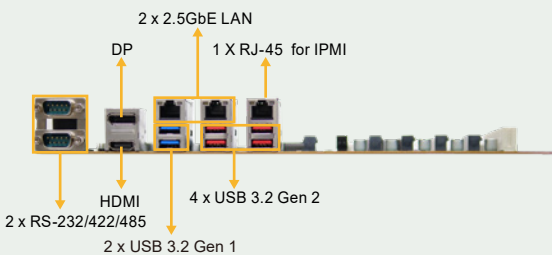
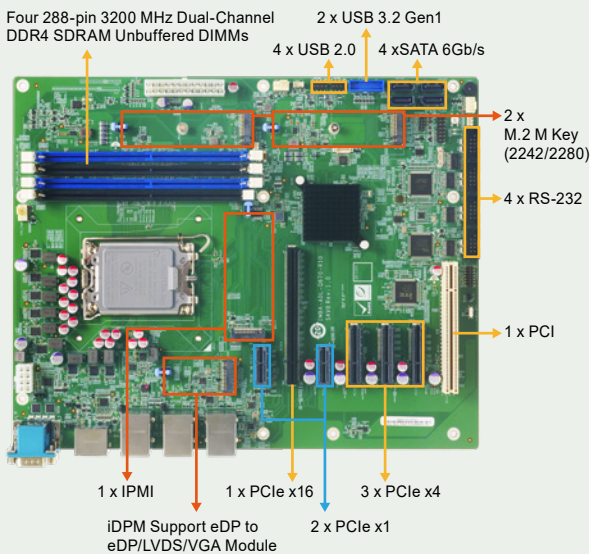
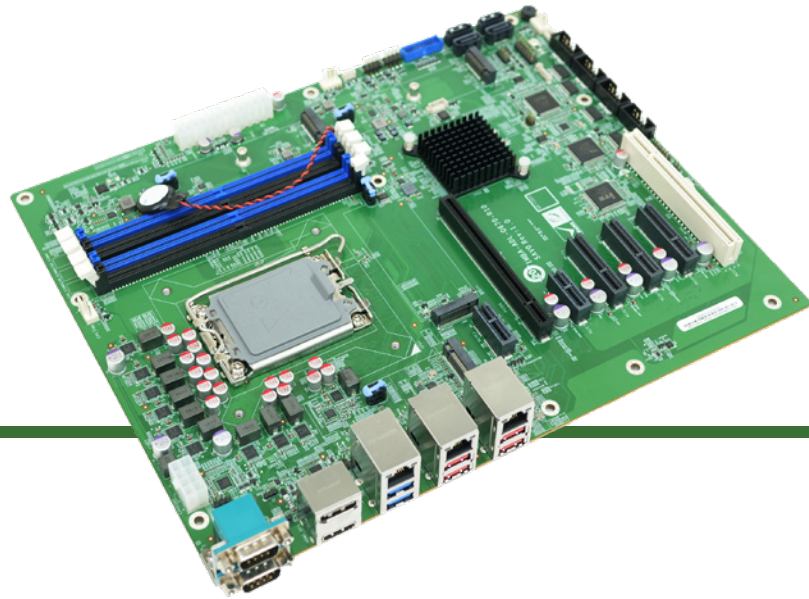
- LGA1700 Intel® 12th/13th Generation Core i9/i7/i5/i3, Pentium and Celeron processor ((up to 125W))
- Dual-channel DDR4 3200MHz
- Support DisplayPort 1.4a, HDMI&iDPM module
- Support two M.2 M keys for storage
- Support one PCIe x16, three PCIe x4, two PCIe x1, one PCI for expansions



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IMBA-ADL-Q670

ATX motherboard supports LGA1700 Intel® 12th/13th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processor, DDR4, Triple independent displays, dual 2.5GbE LAN, M.2, USB 3.2, SATA 6Gb/s, IPMI, HD Audio and RoHS



Support 12th/13th Gen Intel® Core™ CPU

Support LGA1700 socket 12th/13th generation Alder Lake-S/Raptor Lake-S Intel® Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor (up to 125W TDP CPU), up to 16cores/24threads for outstanding Multi Threaded performance



Support Intel® I225V 2.5GbE Ethernet Controller

Support two RJ45 network interface via Intel® I225v 2.5GbE network controller to achieve up to 2.5GbE network transmission



Rich Expansion I/O

It includes one PCIe x16, three PCIe x4, two PCIe x1 and one PCI slots for functional expansions like graphics cards, LAN cards or motion control cards

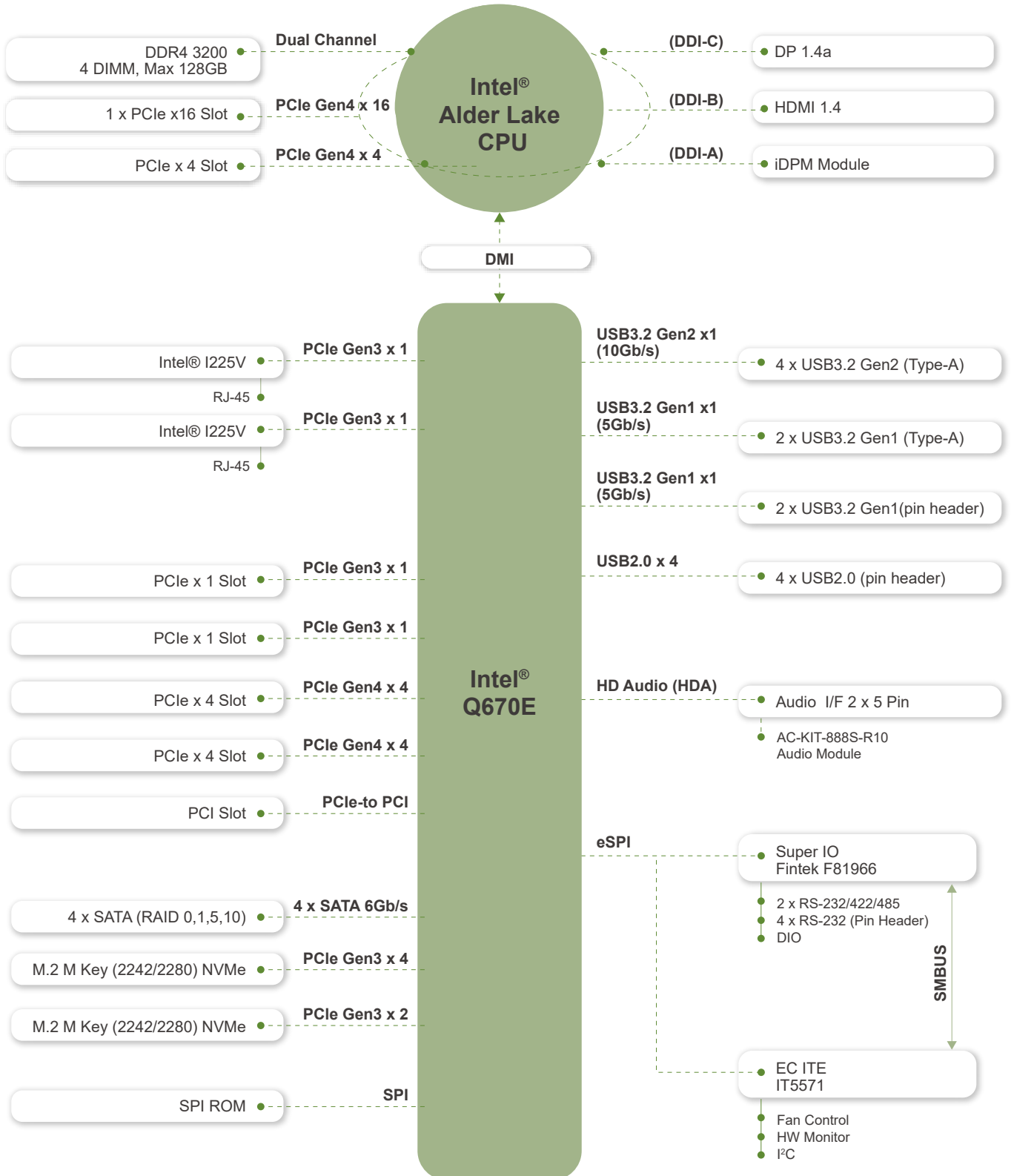


Support Four SATA for Storage

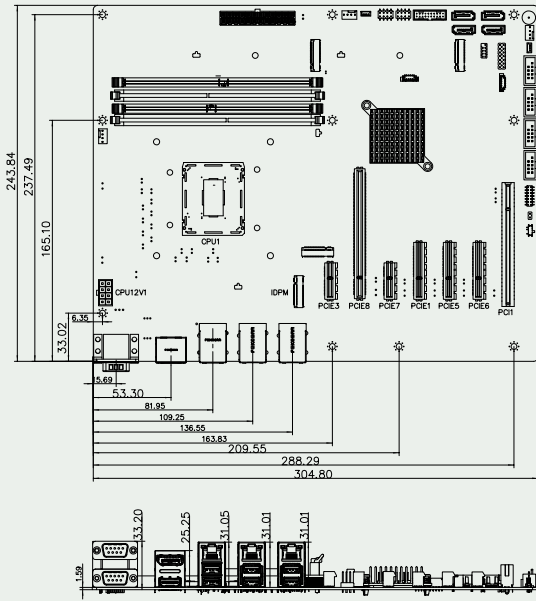
It supports 4 x SATA 6Gb/s, and RAID 0/1/5/10 supported. Otherwise, there are 2 x M.2 M key with PCIe signal support NVMe storage



IMBA-ADL-Q670 Block Diagram



Dimensions



Optional accessories



Specifications

Model	IMBA-ADL-Q670
CPU	LGA1700 socket supports 12th/13th generation Alder Lake-S/Raptor Lake-S Intel® Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor (up to 125W TDP CPU)
Chipset	Intel® Q670/Q670E
BIOS	AMI UEFI BIOS
Memory	Four 288-pin 3200 MHz Dual-Channel DDR4 SDRAM Unbuffered DIMMs supported up to 128GB
Graphics Engine	Intel® UHD Graphics
Display Output	Triple independent display 1 x DP 1.4a (up to 4096 x 2304 @60Hz) 1 x HDMI 1.4 (up to 4096 x 2304 @30Hz) 1 x IDPM support IEI eDP/ LVDS/ VGA module
Ethernet	LAN1: Intel® I225V 2.5GbE controller (CO-LAY I225-LM support vPro) LAN2: Intel® I225V 2.5GbE controller (CO-LAY I225-LM support vPro)
External I/O Interface	4 x USB 3.2 Gen2 (Type-A) (10Gb/s) 2 x USB 3.2 Gen1 (Type-A) (5Gb/s) 2 x RS-232/422/485 (RS-485 support AFC)
Internal I/O Interface	4 x SATA 6Gb/s (RAID 0/1/5/10 supported) 4 x USB 2.0 (2x4 pin, P=2.54) 2 x USB 3.2 Gen1 (2 x 10pin P=2.00 pin wafer) (5Gb/s) 4 x RS-232 (2x5 pin, P=2.54)
SMBus	1 x SMBus (1x4 pin)
I ² C	1 x I ² C (1x4 pin)
Audio	1 x IAUDIO, support IEI AC-KIT-888S Audio Module (2x5 pin)
Front Panel	1 x Front Panel (2x7 pin, Power LED, HDD LED, Speaker, Power Button, Reset Button)
LAN LED	2 x LAN LED (1x2 pin)
Expansion	**1 x PCIe Gen4 x16 slot **1 x PCIe Gen4 x4 open-end slot 2 x PCIe Gen4 x4 open-end slot 2 x PCIe Gen3 x1 slot 1 x PCI slot 1 x M.2 M Key (2242/2280, PCIe x4) NVMe support 1 x M.2 M Key (2242/2280, PCIe x2 for SSD) NVMe support
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
TPM	Intel® PTT
IPMI	1 x IPMI slot support Intelligent platform management
FAN connector	1 x CPU fan connector (1x4 pin) 2 x System fan connector (1x4 pin)
Chassis Open	1 x Chassis intrusion (1x2 pin)
Power supply	ATX/AT power supply Support AT/ATX mode ErP/EuP Compliant
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Power Consumption	3.3V@1.04A, 5V@10.38A, 12V@5.76A, 5VSB@0.39A (Intel® Core™ i9-12900E CPU with 8 GB 3200 MHz DDR4 memory, EuP mode enabled)
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimensions	244mm x 305mm
Weight	GW:1200g / NW:700g

**Intel® recommends that Alder Lake-S CPU PCIe ports are only used for discrete graphics and storage devices

Packing List

1 x IMBA-ADL-Q670 single board computer	2 x SATA cable
1 x I/O shielding	1 x QIG

Ordering Information

IMBA-ADL-Q670-R10	ATX motherboard supports LGA1700 Intel® 12th/13th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processor, DDR4, Triple independent displays, dual 2.5GbE LAN, M.2, USB 3.2, SATA 6Gb/s, IPMI, HD Audio and RoHS
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Optional Accessories

19800-003100-100-RS	Dual port USB cable with bracket, 300mm, P=2.54
19800-010500-200-RS	USB 3.0 cable 450mm with bracket
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-000702-200-RS	RS-232 cable, 230mm, P=2.54
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
iDPM-eDP-R10	eDP to eDP DisplayPort converter board (for IEI iDPM connector)
iDPM-VGA-R10	eDP to VGA Connector converter board (For IEI Display Module)
19100-000323-00-RS	High-performance LGA1700 cooler: 65W, 72*70*25.5mm
19100-000319-00-RS	High-performanc 1 U LGA1700 cooler, 65W, 95*90*27.45mm
19100-000333-00-RS	High-performance LGA1700 cooler, 80W, 72*48.5*73.5mm
19100-000326-00-RS	High-performance LGA1700 cooler, 125W, 87.8*66.5*75mm
19100-000327-00-RS	High-performance LGA1700 cooler, 125W, 96.5*91.4*119.5mm
19100-000328-00-RS	High-performance LGA1700 cooler, 125W, 92*92*25mm