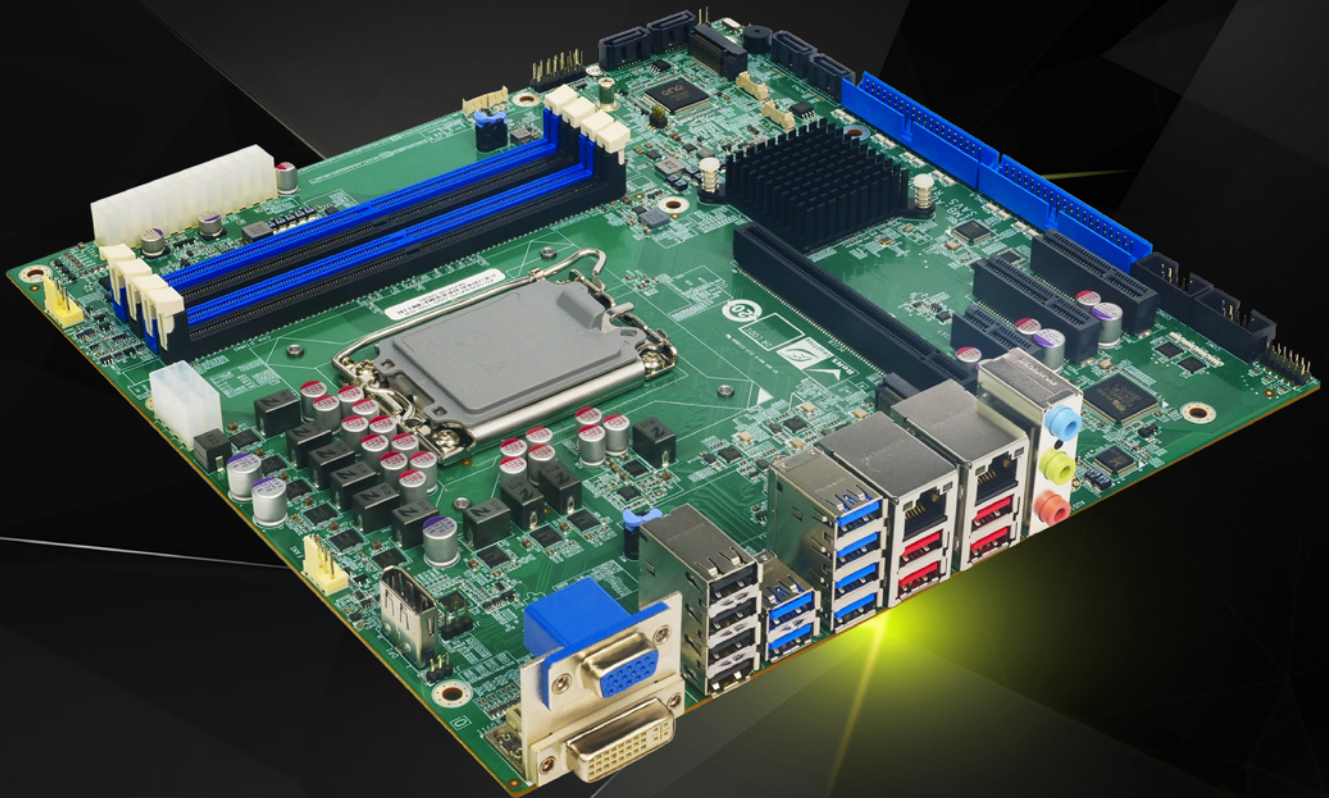


IMB-ADL-Q670

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

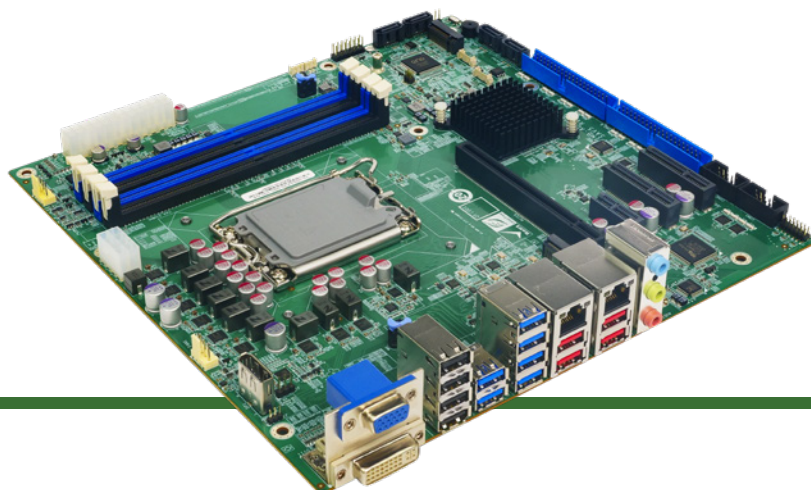
- LGA1700 Intel® 12th/13th Generation Core i9/i7/i5/i3, Pentium and Celeron processor
- Dual-channel DDR4 3200MHz
- Support DVI,VGA and internal DP++ displayports
- Support two M.2 M keys for NVME storage
- Support one PCIe x16, two PCIe x4 and one PCIe x1 expansion



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IMB-ADL-Q670

micro-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, HD Audio and RoHS



Four 288-pin 3200 MHz Dual-Channel DDR4 SDRAM Unbuffered DIMMs

M.2 M Key (2242/2280)

4 x SATA 6Gb/s

8 x RS-232

2 x RS-232/422/485

1 x internal DP++

M.2 M Key (2242/2280)

1 x PCIe x16

2 x PCIe x4

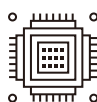
1 x PCIe x1

VGA 6 x USB 3.2 Gen 1 2 x 2.5GbE LAN

DVI-I

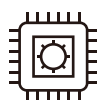
4 x USB 2.0

1 x HD Audio



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 24 cores/32 threads for outstanding Multi Threaded performance



Support Intel® I225V/I226V 2.5GbE Ethernet Controller

Support two RJ45 network interface via Intel® I225V/I226V 2.5GbE network controller to achieve up to 2.5GbE network transmission



Rich Expansion I/O

It includes one PCIe Gen4 x16, two PCIe Gen4 x4 and one PCIe Gen3 x1 for functional expansions like graphics cards, LAN cards or motion control cards

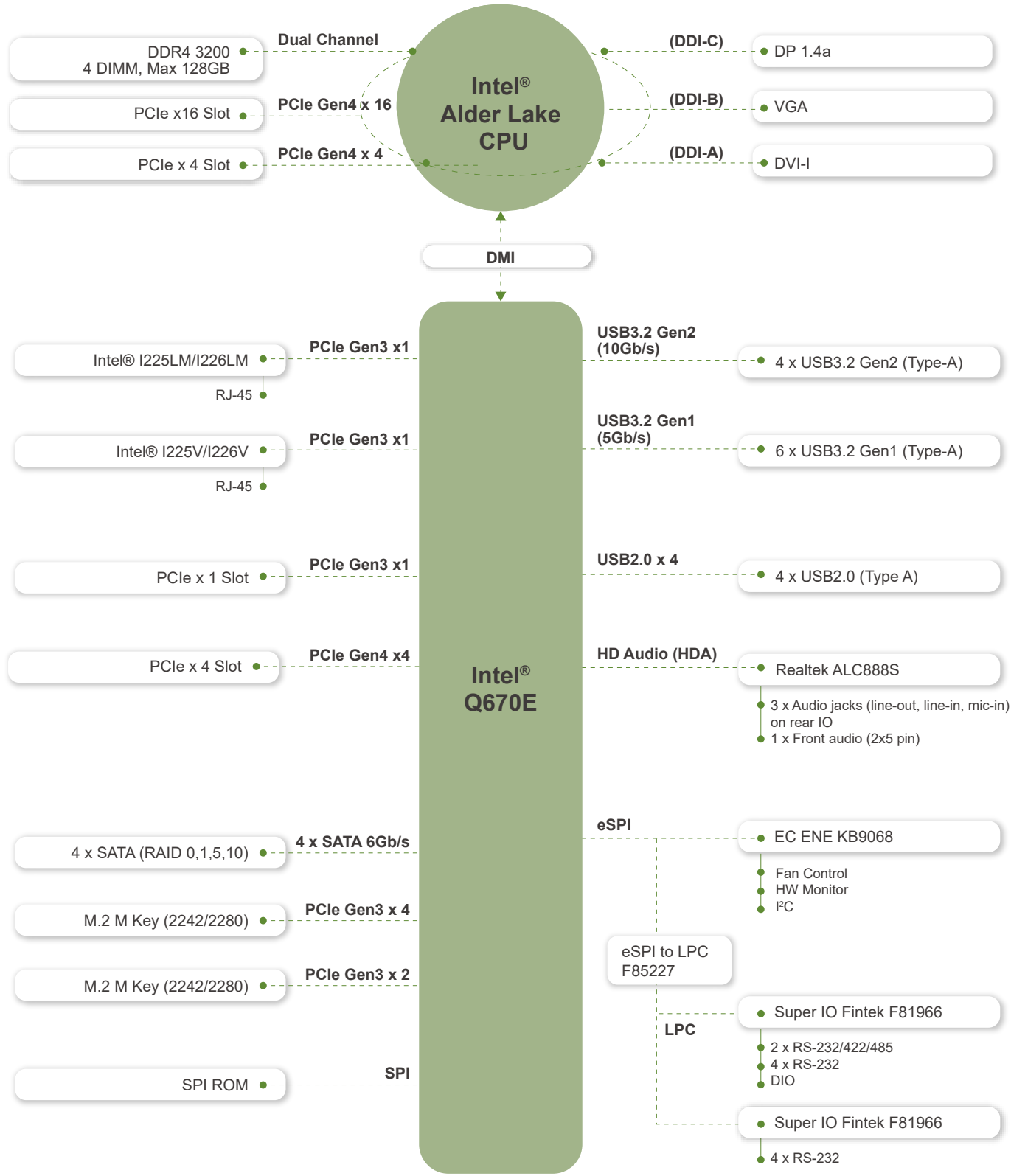


Support Four SATA for Storage

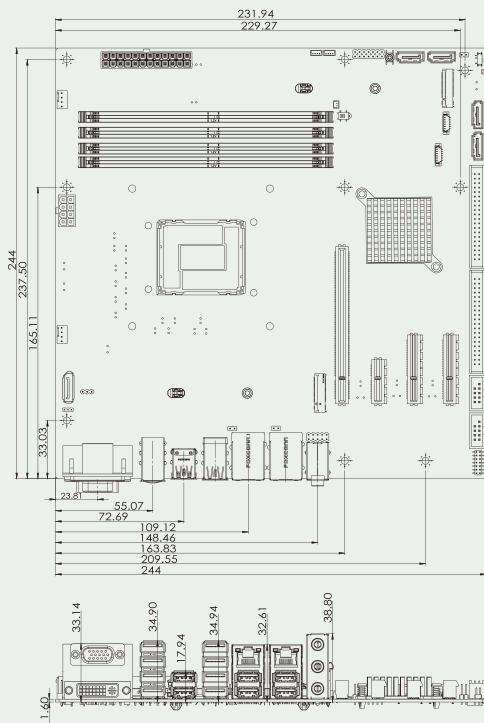
It supports 4 x SATA 6Gb/s, and RAID 0/1/5/10 supported. Otherwise, there are 2 x M.2 M key with PCIe signal support NVMe storage



IMB-ADL-Q670 Block Diagram



Dimensions



Optional accessories



Specifications

Model	IMB-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 VGA (up to 1920x1200@60Hz) 1 x DVI-I (up to 1920x1200@ 60Hz) 1 x internal DP++ (up to 4096 x 2304 @60Hz)
Ethernet	LAN1: Intel® I225LM/I226LM 2.5GbE controller LAN2: Intel® I225V/I226V 2.5GbE controller
External I/O Interface	4 x USB 3.2 Gen2 (Type-A) (10Gb/s) 6 x USB 3.2 Gen1 (Type-A) (5Gb/s) 4 x USB 2.0 (Type A)
Internal I/O Interface	4 x SATA 6Gb/s (RAID 0/1/5/10 supported) 2 x RS-232/422/485 (2x5 pin, P=2.54) 8 x RS-232 (2x20 pin, P=2.54)
SMBus	1 x SMBus (1x4 pin)
I2C	1 x I2C (1x4 pin)
Audio	Realtek ALC888S HD Audio codec supports 7.1-channel 3 x Audio jacks (line-out, line-in, mic-in) on rear IO 1 x Front audio (2x5 pin)
Front Panel	1 x Front Panel (2 x 7 pin, Power LED, HDD LED, Speaker, Power Button, Reset Button)
LAN LED	2 x LAN LED (1x2 pin)
Expansion	*1 x PCIe Gen4 x16 with x16 Signal *1 x PCIe Gen4 x4 open-end 1 x PCIe Gen4 x4 open-end 1 x PCIe Gen3 x1 1 x M.2 M key 2242/80 (PCIe Gen3 x4) 1 x M.2 M key 2242/80 (PCIe Gen3 x2)
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
TPM	Intel PTT
FAN connector	1 x CPU fan connector (1x4 pin) 1 x System fan connector (1x 4 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@1.36A, 5V@11.85A, 12V@5.75A, 5VSB@0.38A (Intel® Core™ i9-12900E CPU with two 32 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
Dimension	244mm x 244mm
Weight	GW:1200g / NW:700g
Certification	CE/FCC compliant

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

Packing List

1 x IMB-ADL-Q670 single board computer	2 x SATA cable (PN: 32801-012500-100-RS)
1 x I/O shielding (PN: 45014-0101C0-00-HF)	1 x QIG

Ordering Information

IMB-ADL-Q670-R10	micro-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, HD Audio and RoHS
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Optional Accessories

32205-000702-200-RS	RS-232 cable, 230mm, 2*5 pin, P=2.54
19800-014700-100-RS	RS-232 cable, 400mm, 2*20 pin, P=2.54
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
19100-000323-00-RS	High-performance LGA1700 cooler, 65W (72 x 70 x 25.5 mm)
19100-000319-00-RS	High-performance 1 U LGA1700 cooler, 65W (95 x 90 x 27.45 mm)
19100-000333-00-RS	High-performance LGA1700 cooler, 80W (72 x 48.5 x 73.5 mm)
19100-000326-00-RS	High-performance LGA1700 cooler, 125W (87.8 x 66.5 x 75 mm)
19100-000327-00-RS	High-performance LGA1700 cooler, 125W (96.5 x 91.4 x 119.5 mm)
iDPM-eDP-R10	eDP to eDP DisplayPort converter board (for IEI iDPM connector)
iDPM-LVDS-R10	eDP to LVDS DisplayPort converter board (for IEI iDPM connector)
iDPM-VGA-R10	eDP to VGA Connector converter board (For IEI Display Module)