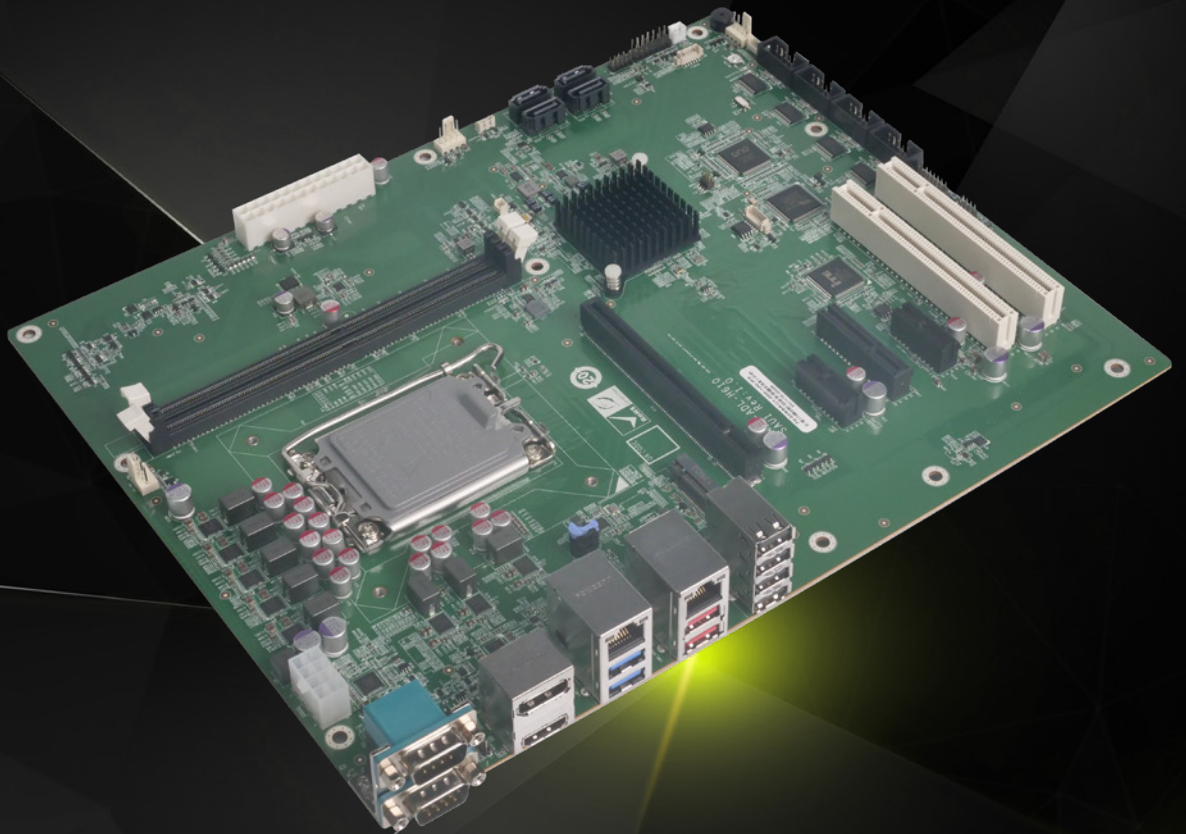


# IMBA-ADL-H610

ATX industrial motherboard supporting 12th/13th Intel® Core™ i9/i7/i5/i3, Celeron®, Pentium® processors

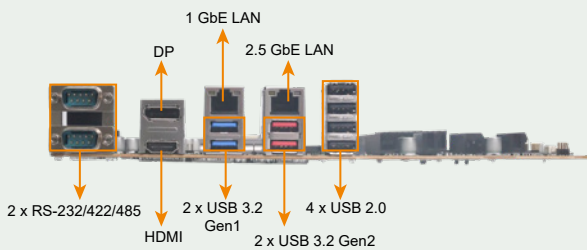
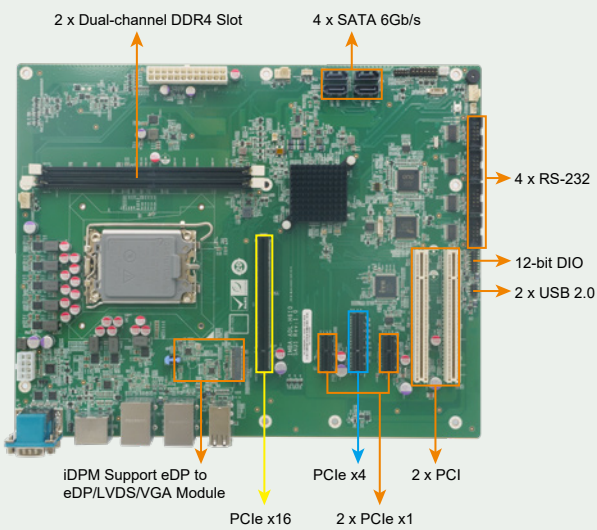
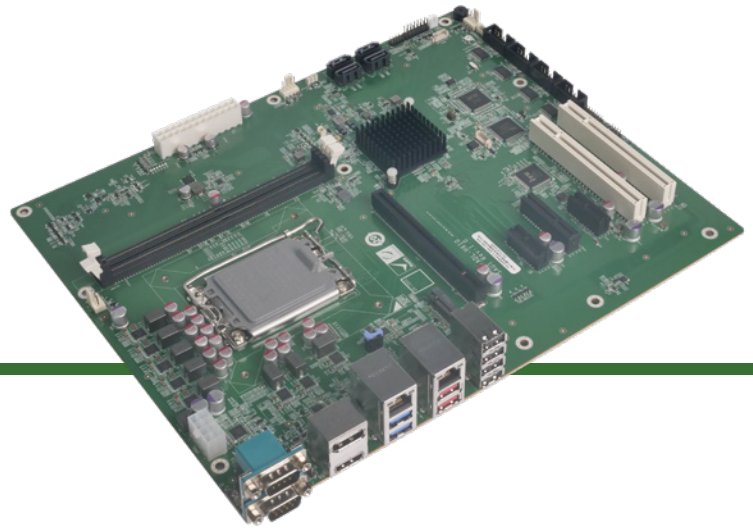
- Support one Intel® I225V 2.5GbE and one Intel® I219LM 1GbE Ethernet controllers
- Support triple independent display via HDMI, DP and iDPM
- Support one PCIe x16, one PCIe x4, two PCIe x1 and two PCI expansions
- Support two USB 3.2 Gen 2, two USB 3.2 Gen 1, six USB 2.0, with up to 10Gb/s transfer speed
- Support two RS-232/422/485 , four RS-232 and four SATA ports



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# IMBA-ADL-H610

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



## Support LGA1700 socket 12th/13th Generation Intel® Processor

Supports 12th/13th generation Alder Lake-S/Raptor Lake-S Intel® Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor (up to 65W TDP CPU)



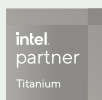
## Support Intel® I225V 2.5GbE Ethernet Controller

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

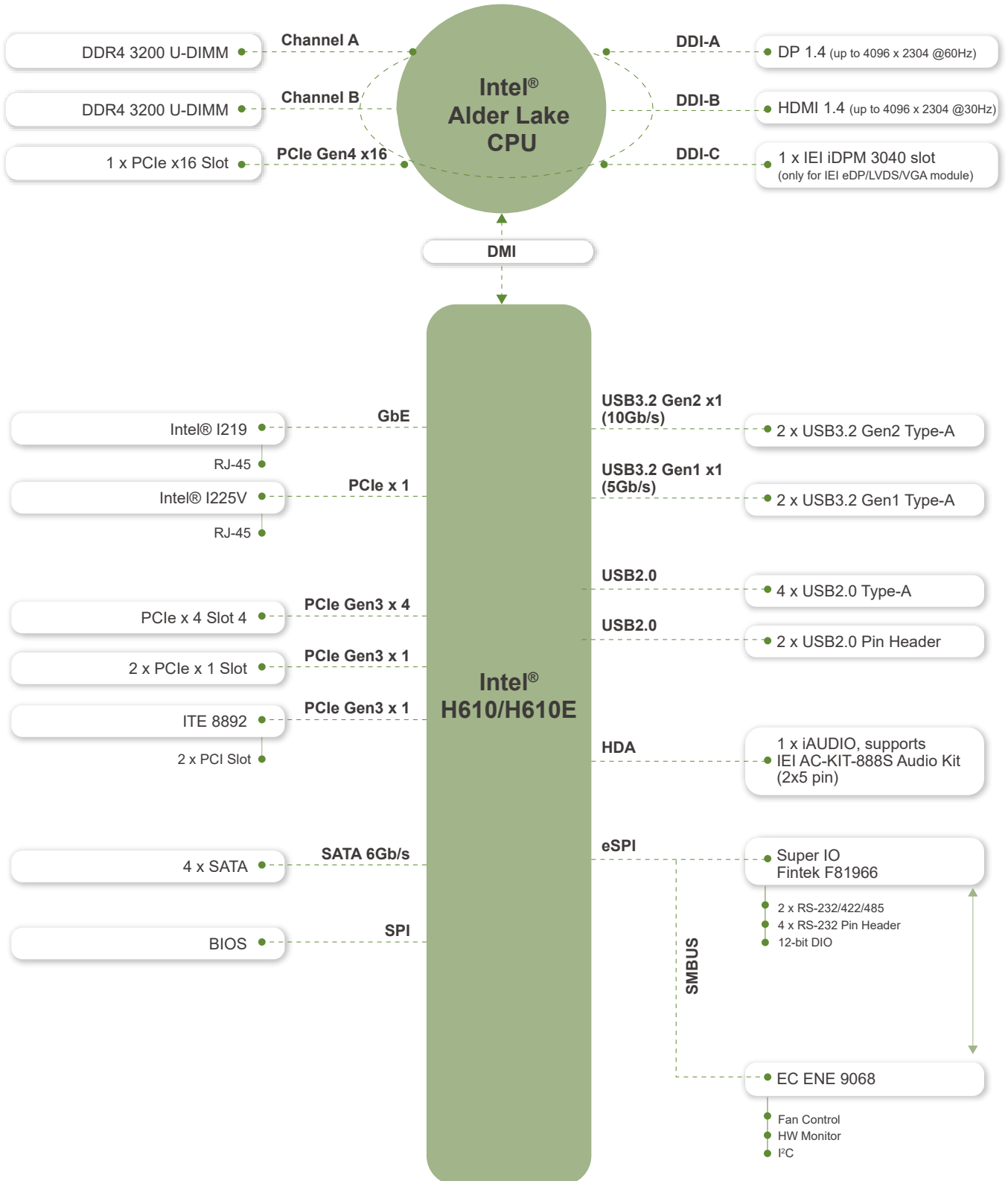


## Rich Expansion I/O

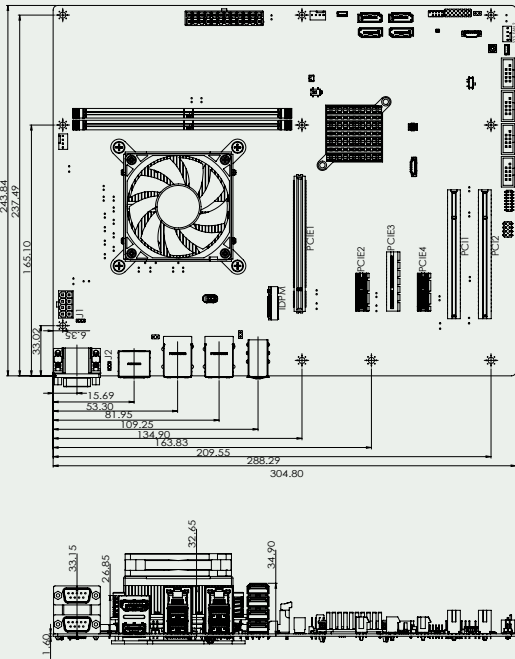
It includes one PCIe x16, one PCIe x4, two PCIe x1 and two PCI slots for functional expansions like graphics cards, LAN cards or motion control cards.



# IMBA-ADL-H610 Block Diagram



### Dimensions



### Optional accessories

19800-003100-100-RS	32205-000702-100-RS
AC-KIT-888S-R10	32102-000100-200-RS
19100-000323-00-RS	19100-000319-00-RS
19100-000328-00-RS	19100-000327-00-RS
iDPM-eDP-R10	iDPM-LVDS-R10
iDPM-VBO-R10	iDPM-DP-R10

### Specifications

Model	IMBA-ADL-H610
CPU	LGA1700 socket supports 12th/13th generation Alder Lake-S/Raptor Lake-S Intel® Core™ i9/i7/i5/i3/Pentium®/Celeron® Processor (up to 65W TDP CPU)
Chipset	Intel® H610/H610E
BIOS	AMI UEFI BIOS
Memory	Two 288-pin 3200 MHz Dual-Channel DDR4 SDRAM Unbuffered DIMMs supported up to 64GB
Graphics Engine	Intel® UHD Graphics
Display Output	Triple independent display 1 x DP (up to 4096 x 2304 @60Hz) 1 x HDMI (up to 4096 x 2304 @30Hz) 1 x iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
Ethernet	LAN1: Intel® i219 LM controller LAN2: Intel® I225V 2.5GbE controller
External I/O Interface	2 x USB 3.2 Gen2 x1 (Type-A) (10Gb/s) 2 x USB 3.2 Gen1 x1 (Type-A) (5Gb/s) 4 x USB 2.0 (Type-A) 2 x RS-232/422/485 (RS-485 support AFC)
Internal I/O Interface	4 x SATA 6Gb/s 2 x USB 2.0 (2x4 pin, P=2.54) 4 x RS-232 (2x5 pin, P=2.54)
SMBus	1 x SMBus (1x4 pin)
I2C	1 x I2C (1x4 pin)
Audio	1 x iAUDIO, support IEI AC-KIT-888S Audio Module (2x5 pin,P=2.0)
Front Panel	1 x Front Panel (2x7 pin, power LED, HDD LED, power button, reset button)
LAN LED	2 x LAN LED (1x2 pin)
Expansion	**1 x PCIe Gen4 x16 1 x PCIe Gen3 x4 open-end 2 x PCIe Gen3 x1 2 x PCI
Digital I/O	1 x 12bit-DIO (2x7 pin)
TPM	Intel® PTT
FAN connector	1 x CPU fan connector (1x4 pin) 1 x System fan connector (1x4 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@0.36A, 5V@7.04A, 12V@5.62A, 5VSB@0.7A (Intel® Core™ i7-12700E CPU with two 32 GB 2933 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 305mm
Weight	GW:900g / NW:400g
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 IMBA-ADL-H610 single board computer	1 x I/O shielding
2 x SATA cable	1 x QIG

### Ordering Information

IMBA-ADL-H610-R10	ATX motherboard supports LGA1700 Intel® 12th/13th Generation Core™ i9/i7/i5/i3, Pentium® and Celeron® processor, DDR4, Triple independent displays, dual LAN, USB 3.2, SATA 6Gb/s and RoHS
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### Optional Accessories

19800-003100-100-RS	Dual port USB cable with bracket, 300mm, P=2.54
32205-000702-100-RS	RS-232 cable, 230mm, P=2.54
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board,RoHS
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-performanc 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)
19100-000328-00-RS	High-performance LGA1700 cooler, 125W, (92 x 92 x 25 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-VBO-R10	eDP to VBO DisplayPort converter board (for IEI iDPM connector)
iDPM-DP-R10	eDP to DP DisplayPort converter board (for IEI iDPM connector)