

# IMBA-ARL-H810

ATX motherboard supports LGA1851 High-Performance Intel® Core™ Ultra Processors (Series 2)

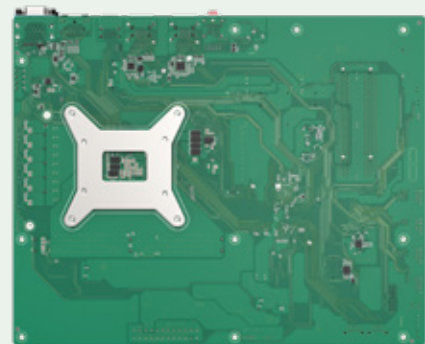
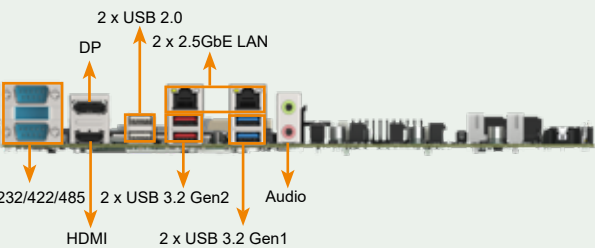
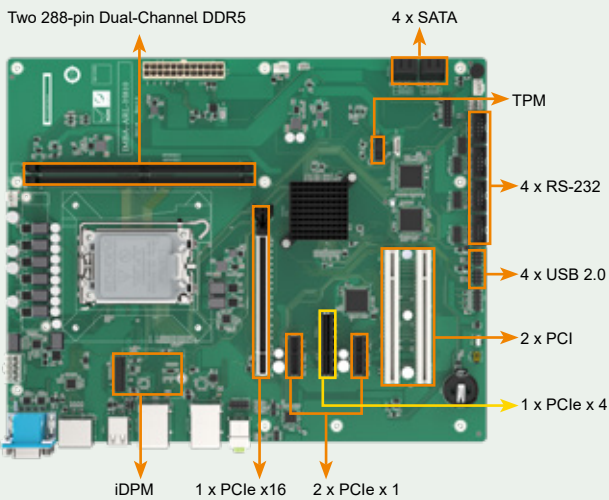
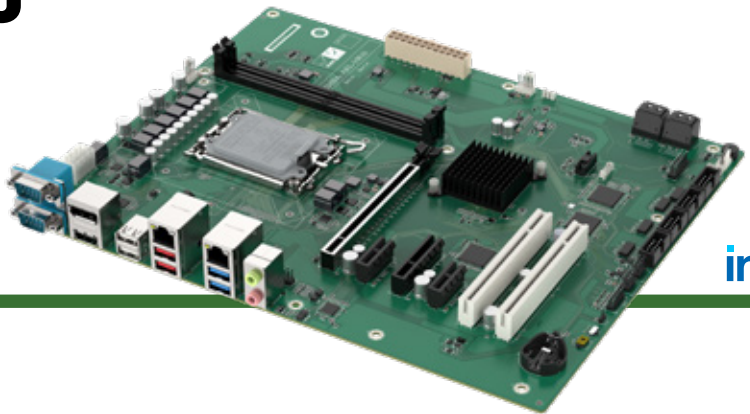
- LGA1851 High-Performance Intel® Core™ Ultra Processors (Series 2)
- Support DisplayPort, HDMI and iDPM
- Support one PCIe x16, one PCIe x4, two PCIe x1 and two PCI expansion



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# IMBA-ARL-H810

LGA1851 socket supports High-Performance Intel® Core™ Ultra Processors (Series 2) (up to 65W TDP CPU)



### Support High-Performance Intel® Core™ Ultra CPU

LGA1851 socket supports High-Performance Intel® Core™ Ultra Processors (Series 2) (up to 65W TDP CPU)



### Support Dual-Channel DDR5 SDRAM Unbuffered DIMMs

IEI design the IMBA-ARL-H810 support two 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Unbuffered, Clocked Unbuffered DIMM (CUDIMM support 6400MHz) supported up to 128GB



### Support Intel® 2.5GbE Network Controller

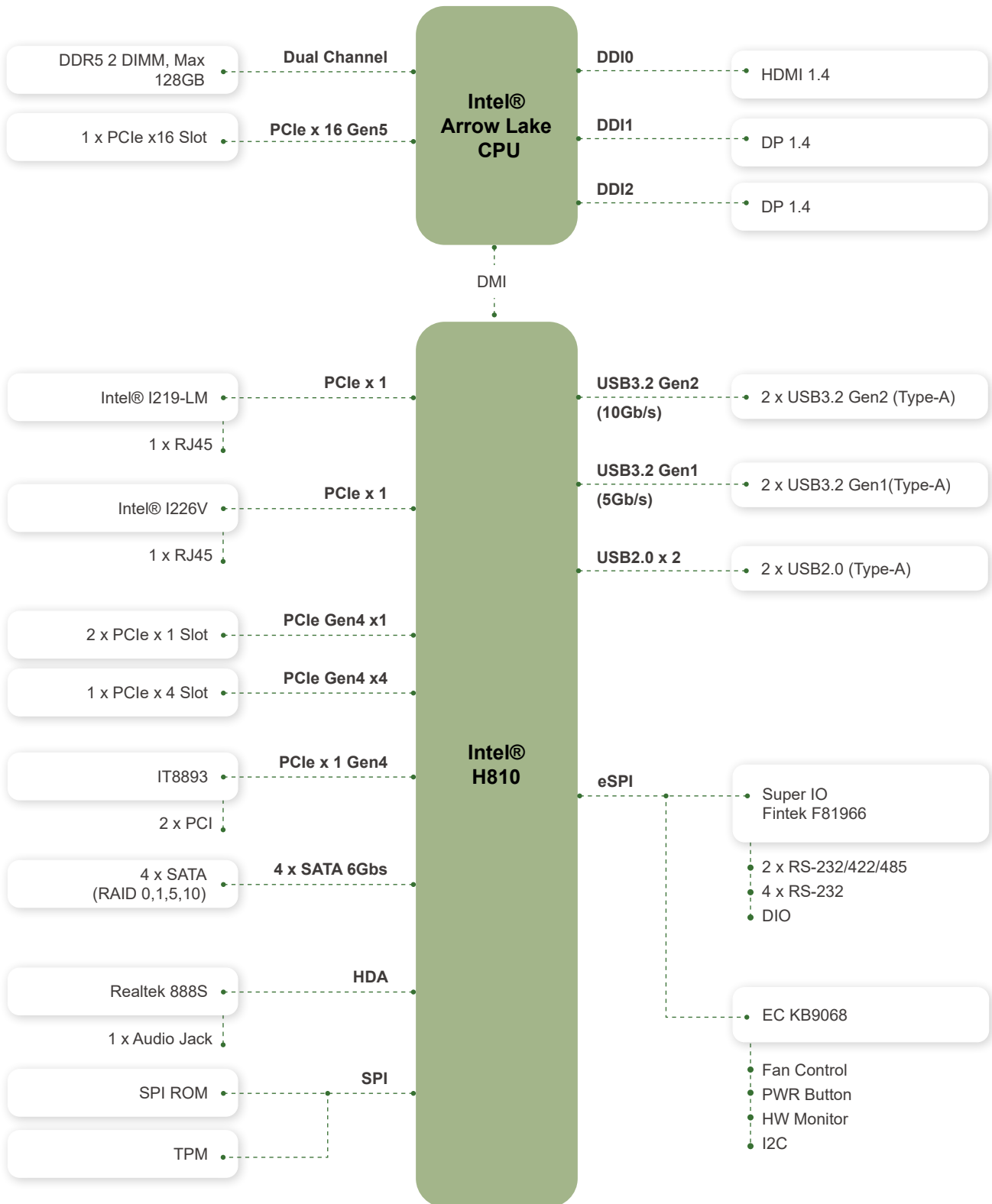
Two RJ45 network ports are provided via Intel® I226-LM and I226-V 2.5GbE network controller to achieve up to 2.5GbE network transmission rate



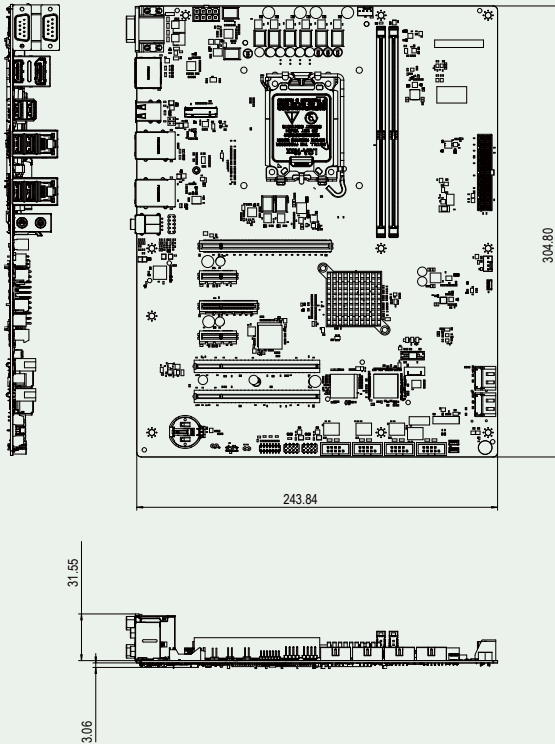
### Abundant Expansion Slots

The IMBA-ARL-H810 supports 1 x PCIe Gen5 x16 slot, 1 x PCIe Gen4 x 4, 2 x PCIe Gen4 x1 and 2 x PCI slots for more PCI express card to install

# Block Diagram



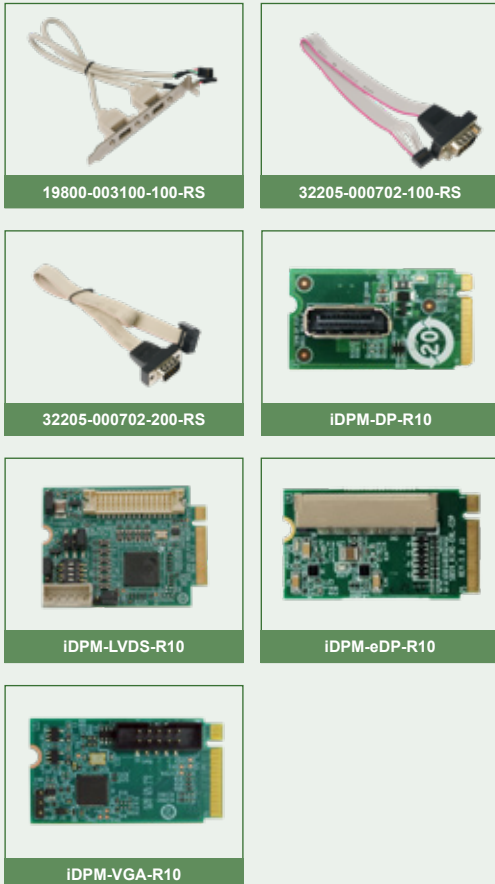
Dimensions



Specifications

Model	IMBA-ARL-H810
CPU	LGA1851 socket supports 15th generation Arrow Lake-S Intel® Ultra Processor (up to 65W TDP CPU)
Chipset	Intel® H810
BIOS	AMI UEFI BIOS
Memory	Two 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Unbuffered, Clocked Unbuffered DIMM(CUDIMM support 6400MHz) supported up to 128GB
Graphics Engine	New Intel® Xe Graphics architecture with SRIOV, Genlock
Display Output	Triple independent display 1 x DP1.4 (up to 4K@60Hz) 1 x HDMI2.0 (up to 4K@60Hz) 1 x iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
Ethernet	LAN1: Intel® I219 LM controller LAN2: Intel® I226V 2.5GbE controller
Super I/O	Fintek F81966
Embedded Controller	IT5571
External I/O Interface	2 x RS-232/422/485 (RS-485 support AFC) 2 x USB 3.2 Gen1 (Type-A) (5Gb/s) 2 x USB 3.2 Gen2 (Type-A) (10Gb/s) 2 x USB 2.0 (Type-A)
Internal I/O Interface	4 x SATA 6Gb/s 4 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	Realtek ALC888S HD codec 2 x Audio Jack (Line-out, Mic-in) on rear IO 1 x Analog 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 x16 with Signal Gen5 1 x PCIe x4 open-end Gen4 2 x PCIe x1 Gen4 2 x PCI
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
TPM	1 x TPM 2 x10 pin ,support Intel PTT
FAN connector	1 x CPU fan connector (1x4 pin) 1 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@0.64A,5V@3.63A, 12V@6.49A, 5Vsb@0.53A (Intel Ultra 9 285T with DDR5 4800MHz 32GB memory)
Operating Temperature	-10°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Diemension	244mm x 305mm
Weight	GW:1200g / NW:700g
Certification	CE/FCC compliant

Optional Accessories



Packing List

1 x IMBA-ARL-H810 single board computer	2 x SATA cable
1 x I/O Shielding	1 x QIG

Ordering Informaiton

IMBA-ARL-H810-R10	ATX motherboard supports LGA1851 Intel® 15th Generation Ultra™ processor, DDR5, Triple independent displays, dual LAN, USB 3.2, SATA 6Gb/s, HD Audio and RoHS
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Optional Accessories

19800-003100-100-RS	Dual port USB cable with bracket, 30mm, P=2.54
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-000702-100-RS	RS-232 cable, 230mm, P=2.54
iDPM-VGA-R10	eDP to VGA Connector converter board (For IEI Display Module)
iDPM-DP-R10	DisplayPort extension board (For iDPM connector), RoHS
iDPM-LVDS-R10	eDP to 24 bit dual channel LVDS converter board converter board (For IEI Display Module)
iDPM-eDP-R10	eDP to eDP Connector converter board (For IEI Display Module)