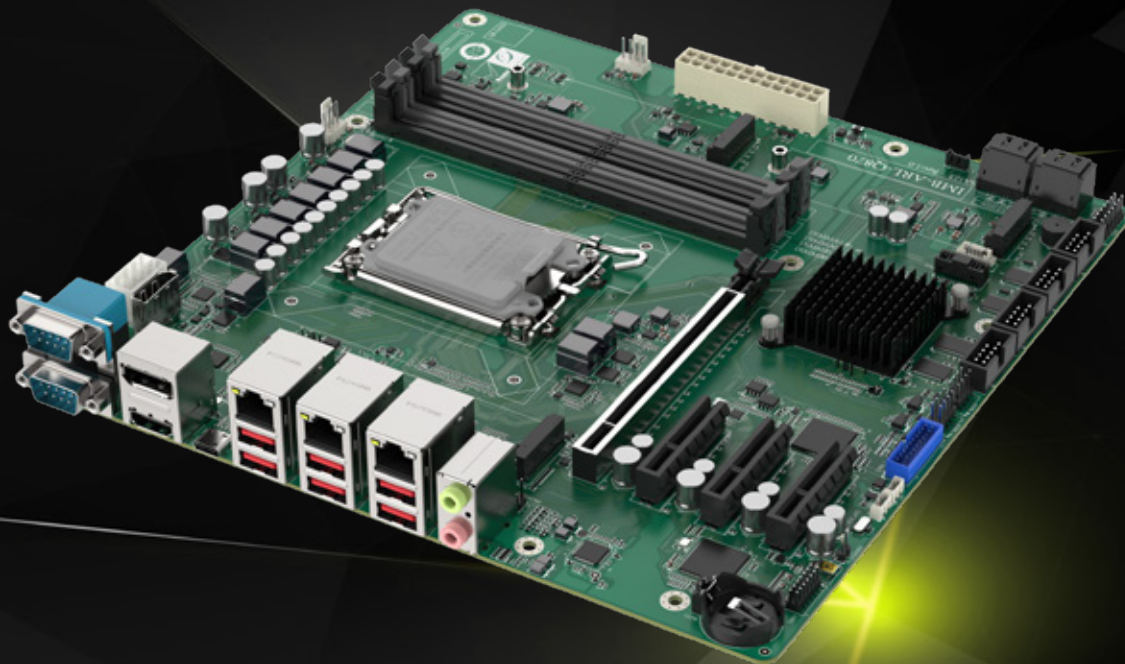


IMB-ARL-Q870

micro-ATX motherboard supports high-Performance Intel® Core™ Ultra Processors (Series 2), DDR5, Quadruple independent displays, double LAN, M.2, USB 3.2, SATA 6Gb/s, HD Audio and RoHS

- High-Performance Intel® Core™ Ultra Processors (Series 2)
- Support DisplayPort, HDMI and USB4
- Support two M.2 M Key and one M.2 B Key
- Support one PCIe x16 and three PCIe x4



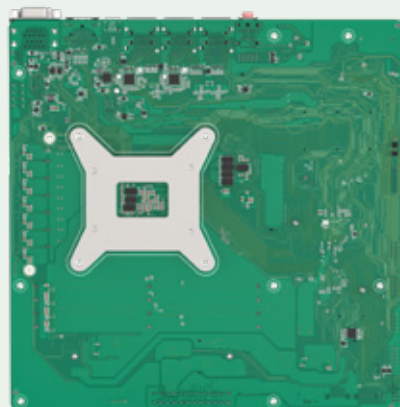
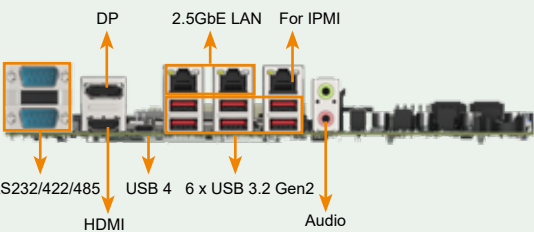
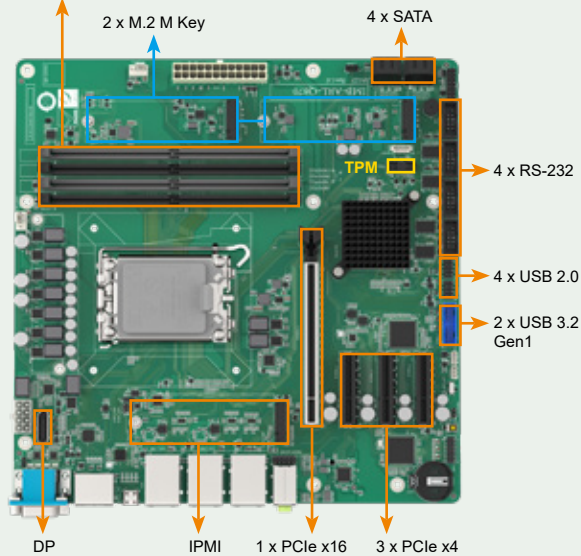
www.ieiworld.com

IMB-ARL-Q870

micro-ATX motherboard supports LGA1851 high-Performance Intel® Core™ Ultra Processors (Series 2), DDR5, Quadruple independent displays, double LAN, M.2, USB 3.2, SATA 6Gb/s, HD Audio and RoHS



Four 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Clocked Unbuffered DIMMs



Support 15th Gen Intel® Core™ Ultra CPU

high-Performance Intel® Core™ Ultra Processors (Series 2) (up to 125W TDP CPU)



Support Dual-Channel DDR5 SDRAM Unbuffered DIMMs

IEI design the IMB-ARL-Q870 support 4 x 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Unbuffered, Clocked Unbuffered DIMM (UDIMM & CUDIMM) supported up to 96GB



Support Intel® 2.5GbE Network Controller

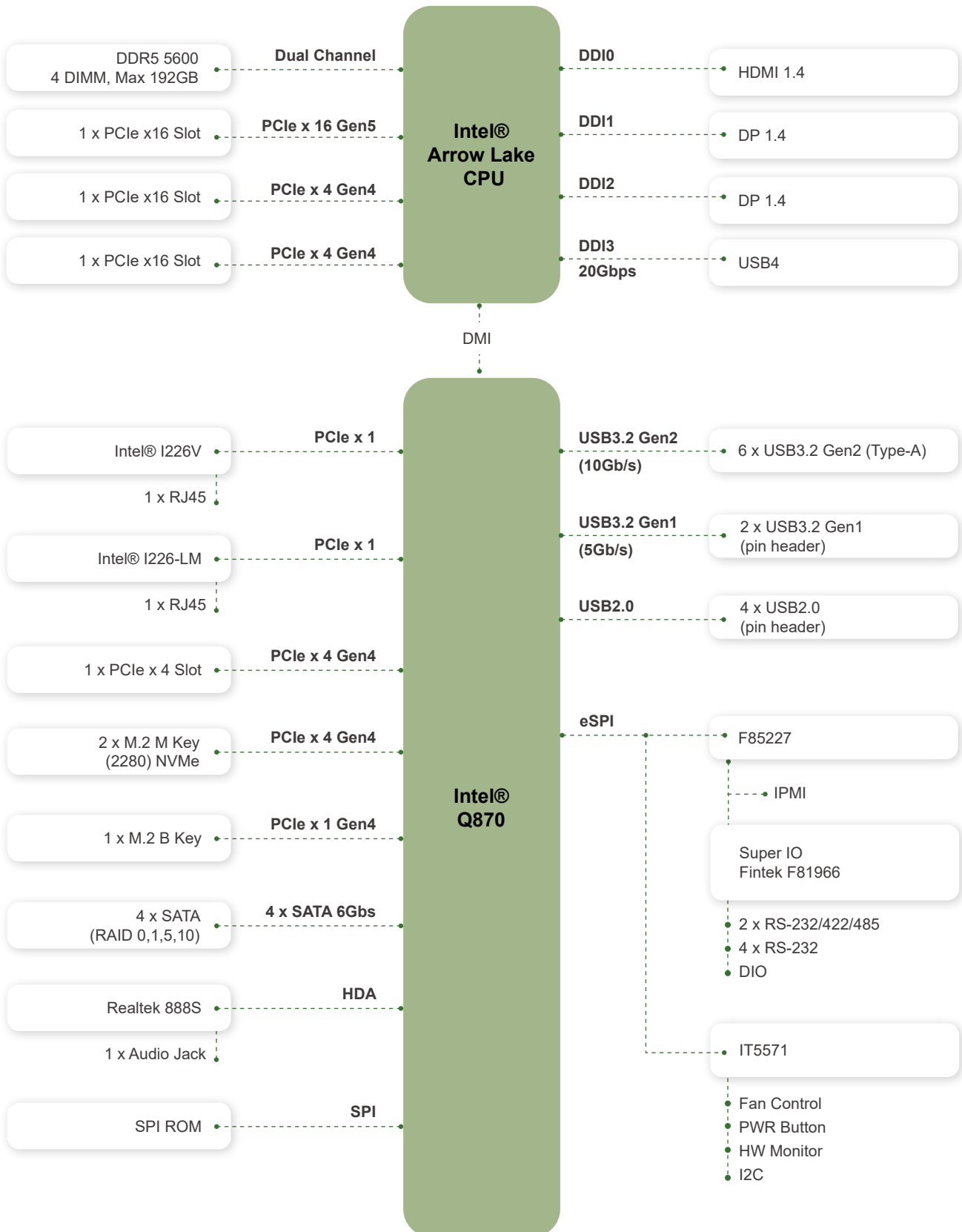
Two RJ45 network ports are provided via Intel® I226-LM and I226-V 2.5GbE network controller to achieve up to 2.5GbE network transmission rate



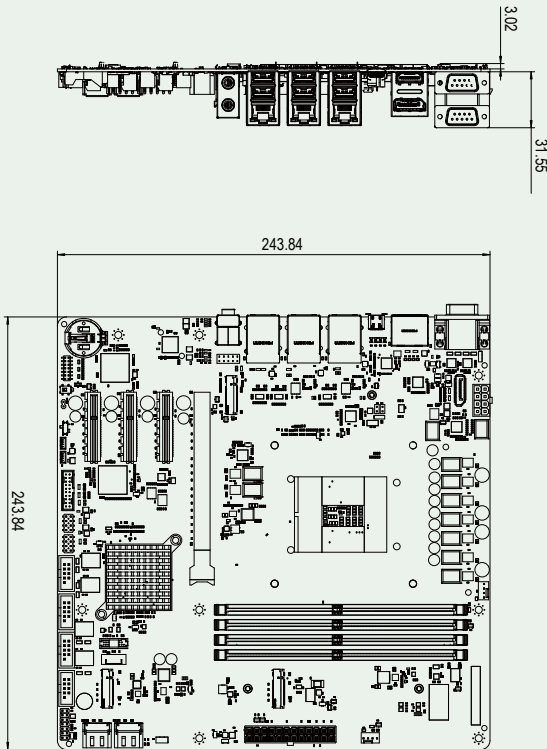
Abundant Expansion Slots

The IMBA-ARL-Q870 supports 1 x PCIe x16, 3 x PCIe x4, M.2 B key for IRIS2-2600 and M.2 M key for NVME storage

Block Diagram



Dimensions



Optional Accessories



Specifications

Model	IMB-ARL-Q870
CPU	high-Performance Intel® Core™ Ultra Processors (Series 2) (up to 125W TDP CPU)
Chipset	Intel® Q870
BIOS	AMI UEFI BIOS
Memory	Four 288-pin 5600 MHz Dual-Channel DDR5 Unbuffered, Clocked Unbuffered DIMM (UDIMM&CUDIMM) supported up to 192GB
Graphics Engine	New Intel® Xe Graphics architecture with SRIOV, Genlock
Display Output	Quad independent display 1 x DP1.4 (up to 4K@60Hz) 1 x HDMI2.0 (up to 4K@60Hz) 1 x USB4 (40Gb/s speed,support DP 4096 x 2304 @60Hz,up to 15W per port power for accessories 1 x DP1.4 (up to 4K@60Hz) internal
Ethernet	LAN1: Intel® I226-LM 2.5GbE 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) 6 x USB 3.2 Gen2 (Type-A) (10Gb/s)
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)
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 3 x PCIe x4 open-end Gen4 1 x M.2 M Key (2280, PCIe x4) NVMe support 1 x M.2 M Key (2280, PCIe x4) NVMe support 1 x M.2 B key for IRIS2-2600
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@5.05A, 5V@11.94A, 12V@5.79A, 5VSB@0.6A (Intel® Core Ultra 9 285 with DDR5 5600MT/s U-DIMM 48GB memory)
Operating Temperature	-10°C ~ 65°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimensions	244mm x 244mm
Weight	GW: 1200g / NW: 700g

Packing List

1 x IMB-ARL-Q870 single board computer	2 x SATA cable
1 x I/O Shielding	1 x QIG

Ordering Informaiton

IMB-ARL-Q870-R10	micro-ATX motherboard supports LGA1851 Intel® 15th Generation Ultra™ processor, DDR5, Quadruple independent displays, triple LAN, M.2, USB 3.2, SATA 6Gb/s, HD Audio and RoHS
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Optional Accessories

CB-USB02-RS	Dual port USB cable with bracket, 300mm, P=2.54
19800-010500-200-RS	USB 3.0 cable with bracket, 457mm , P=2.00
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-000702-100-RS	RS-232 cable, 230mm, P=2.54
IRIS2-2600-R10	IPMI 2.0 adapter card with AST2600 BMC chip with KVM function for I/EI iRIS2 Connector IPMI 2.0 module
19100-000323-00-RS	High-performance cooler, 65W (72 x 70 x 25.5 mm)
19100-000326-00-RS	High-performance cooler, 125W (87.8 x 66.5 x 75 mm)
19100-000333-00-RS	High-performance cooler, 80W (72 x 48.5 x 73.5 mm)