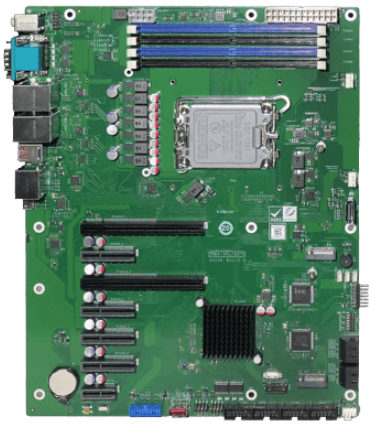
IMBA-ARL-Q870

ATX motherboard supports high-performance Intel® Core™ Ultra Processors (Series 2) processor



Features

» High-Performance Intel® Core™ Ultra Processors (Series 2)

» Support four 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Unbuffered, Clocked Unbuffered DIMM supported up to 192GB

» Quad independent display via HDMI™, DP and USB4

» Support Dual Intel® I226V/I226LM 2.5GbE controller

» Support PCIe Gen4 x1, PCIe Gen4 x4, PCIe Gen5 x16 and M.2 M key expansion

Specifications

Form Factor	
Form Factor	ATX
System	
CPU	High-Performance Intel® Core™ Ultra Processors (Series 2)
	(up to 125W TDP CPU)
Chipset	Intel® Q870
Memory	Four 288-pin 5600 MHz Dual-Channel DDR5 SDRAM Unbuffered, Clocked Unbuffered DIMM
Memory Max.	up to 192GB
Cooling method / System Fan	1 x CPU fan connector (1x4 pin)
	2 x System fan connector (1x4 pin)
Physical Characteristics	
Dimensions (LxWxH) (mm)	244mm x 305mm
Net Weight	GW: 1200g / NW: 700g
Storage	
Storage	4 x SATA : 6Gb/s (RAID 0/1/5/10 supported)
I/O Interface	
Display Output	2 x Display Port -
	1 x DP1.4 (up to 4K@60Hz)
	1 x DP1.4 (up to 4K@60Hz) internal
	1 x HDMI™ : up to 4K@30Hz
	1 x USB4 : up to 4K@60Hz
Ethernet	2 x LAN -
	LAN1: Intel® I226-LM 2.5GbE controller
	LAN2: Intel® I226-V 2.5GbE controller
Audio	1 x HD Audio : Realtek ALC888S HD codec
	2 x Audio Jack (Line-out, Mic-in) on rear IO
	1 x Analog audio (2x5 pin)
I/O Interface	1 x DIO : 12-bit digital I/O (2x7 pin)
	2 x External RS-232/422/485 : RS-485 support AFC
	6 x External USB 3.2 Gen2x1 : Type-A, 10Gb/s
	4 x Internal RS-232 : 2x5 pin, P=2.54
	4 x Internal USB 2.0 : 2x4 pin, P=2.54
	2 x Internal USB 3.2 Gen1x1 : 2x10pin, P=2.00 (5Gb/s)

	1 x Internal USB 3.2 Gen2x1 : Type-A, 10Gb/s
Expansion	2 x M.2(NGFF) : M Key (2280, PCIe x2) NVMe support
	1 x PCIe x1 : PCIe Gen4 x1
	2 x PCIe x16 : PCIe x16 (Gen5 x 8)
	4 x PCIe x4 : PCIe Gen4 x4
Power	
Power Consumption	3.3V@5.21A, 5V@11.59A, 12V@5.68A, 5Vsb@0.95A
	(Intel® Ultra 9 285 with DDR5 6400MHz CUDIMM 16GB memory)
Power Supply	ATX/AT power supply
	Support AT/ATX mode
	ErP/EuP Compliant
Environment	
Operating Temperature	-10°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Humidity	5% ~ 95%, non-condensing

Ordering Information

IMBA-ARL-Q870-R10	ATX motherboard supports LGA1851 Intel® 15th Generation Ultra™ processor, DDR5, Quadruple independent displays, dual 2.5GbE LAN, M.2, USB 3.2, SATA 6Gb/s, HD Audio and RoHS

Packing List

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