

Q870A-IM-A

ATX, Intel® Core™ Ultra Processors(Series 2), LGA1851, Q870 Chipset, 4*U-DIMM, 3*Lan, 2*PCIe x16 slots, 1*PCI, VGA, HDMI, DP, 3*M.2 slot, 6*COM, 4*SATA

Features

- Support up to 125W Intel® Core™ Ultra Processors(Series 2)
- 2* PCIe x16 slots support dual graphic cards
- Four U-DIMM up to 192GB DDR5 5600 MHz
- Supports multiple displays: VGA/ HDMI / DP
- 5-year longevity supply

Specifications

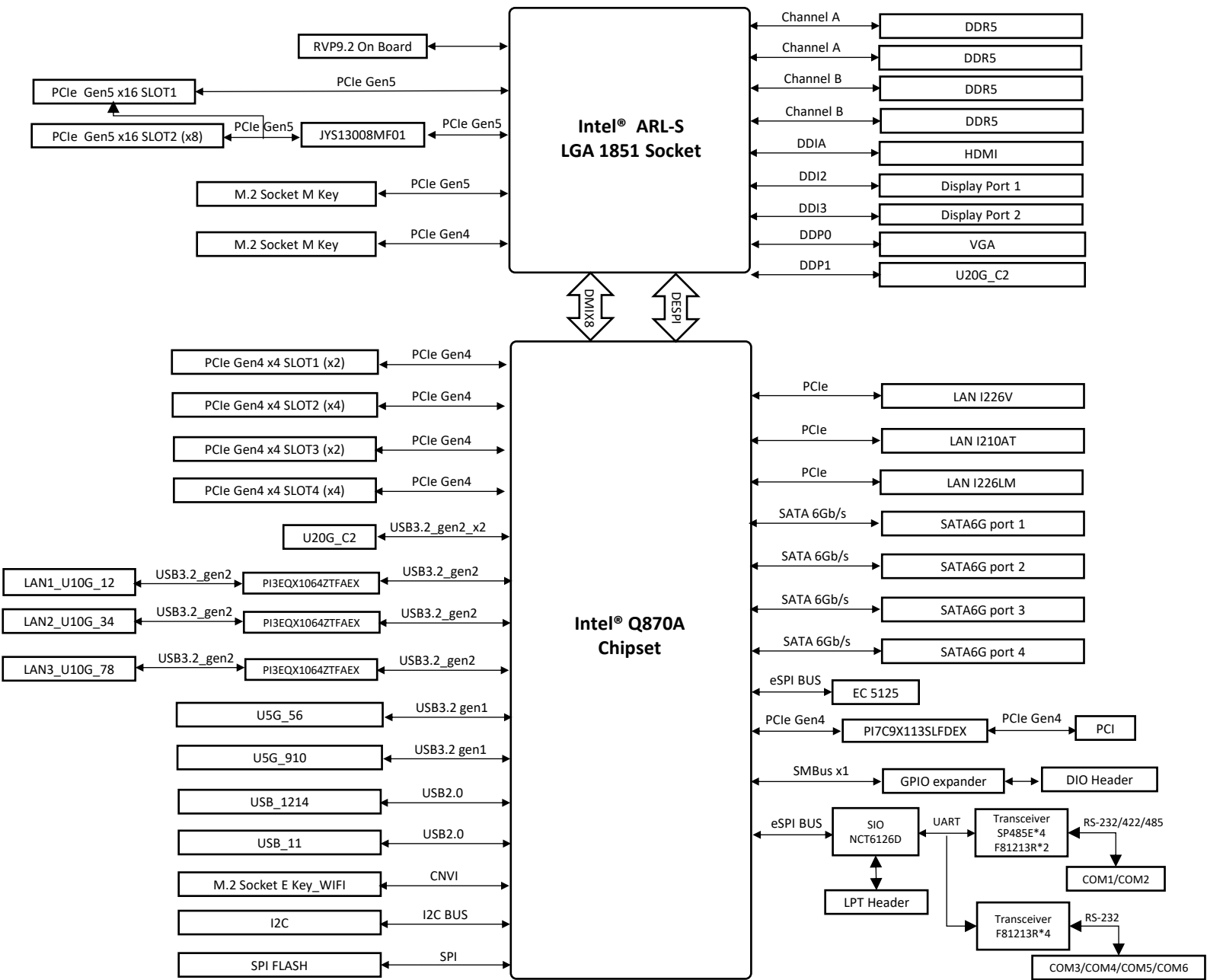


Processor System	CPU	LGA1851 for Intel® Core™ Ultra Processors(Series 2) Max. 125W TDP
	Chipset	Intel® Q870 Chipset
Memory	Technology	DDR5 5600MT/s (SPC 0r2r) 4400MT/s (2SPC 2r2r)
	Max.	192GB
	Socket	4 x U-DIMM
Display	Display Port	2, Supports DP 1.4, up to 3840 x 2160 @ 60Hz 1, Supports DP 1.4 (colay with USB 3.2 Gen2 Type C)
	HDMI	1, Supports 2.1, up to 4096 X 2160 @ 60Hz
	VGA	1 *An additional cable is required for VGA.
	Multiple displays	Max.4 displays
Expansion Slot	PCIe	1 x PCIe 5.0 x16 Slot (1 x16 mode/ 2 x8 mode) 1 x PCIe 4.0 x4 Slot (x2 mode, open slot) 1 x PCIe 4.0 x4 Slot (x4 mode, open slot) 1 x PCIe 5.0 x16 Slot (x8 mode) 1 x PCIe 4.0 x4 Slot (x2 mode, open slot) 1 x PCIe 4.0 x4 Slot (x4 mode, open slot)
		1
	M.2	1 x M.2 M key, Type 2242/2260/2280 (PCIe 5.0 x4 mode) supports NVMe 1 x M.2 M key, Type 2280 (PCIe 4.0 x4 mode) supports NVMe 1 x M.2 E key, type 2230 for WIFI/BT device (only support Intel® CNVi) *If install CNVI Wifi card on M.2 E key slot, USB port14 will be disabled.
Ethernet	Speed	10/100/1000/2500 Mbps
	Controller	1 x Intel® i210AT 1 x Intel® i226V 1 x Intel® i226LM (Intel vPro supported)
	Connector	3 x RJ-45
Audio	Codec	Realtek ALC897
Storage	SATA port	4 x SATA Gen 3.0, Up to 6Gb/s, Support RAID 0,1,5,10
Rear I/O	Display Port	2, Supports DP 1.4, up to 3840 x2160 @ 60Hz 1, Supports DP 1.4 (colay with USB 3.2 Gen2 Type C)
	HDMI	1, Supports 2.1, up to 4096 X 2160 @ 60Hz
	USB 3.2 Gen2	6 x type A
	USB 3.2 20G	1 x Type C *colay with DP 1.4
	Ethernet	3 x RJ45
	Serial Port	1 (RS232/422/485)
	Audio jack	3 (Line-Out, Line-In, Mic in)

Specifications

Internal Connector	COM Header	5 x COM Headers (1 x RS232/422/485, 4 x RS232)
	USB3.2 Gen1	2 x Headers Support Additional 4 x USB3.2 Gen1 Ports
	USB2.0	1 x 10-1 pin Header Support Additional 2 x USB2.0 Ports 1 x Vertical Header
	CPU Fan/ Chassis Fan	1 x Header (PWM Mode) / 3 x Headers (PWM Mode)
	PL SEL Jumper	1 x Header
	Front Panel Audio (F_Audio)	1 x Header
	System Panel	1 x Header
	Chassis Intrusion	1 x Header
	Speaker Connector	1 x Header
	I2C Header	1 x Header
	Clear CMOS	1 x Header
	COM Debug	1 x Header
	LPT Port Header	1 x Header (GPIO 16bit multi function)
	Buzzer	1
	PS/2	1 x Header
	SPDIF	1 x Header
	GPIO	1 x Header (8 Bit)
	Extended Temp. Sensor Header	1 x Header
	DIS ME Jumper	1 x Header
	AT/ATX Select Header (Jumper)	1 x Header
	USB G3 Power Jumper	1 x Header
	Power Connector	1 x 24-pin ATX Power connector, 1 x 8-pin ATX 12V Power connector
	JOOB Header *An additional card is required for iBMC.	iBMC provides the following functions: Remote Power On/Off Remote Reset Control Remote Serial Console Remote Firmware Update Remote BIOS Update Remote OS Recovery *Specific SSD required for this feature.
Security	TPM	1 x SPI TPM header
Watchdog Timer	H/W	YES
Power Type	Power Type	AT mode/ ATX mode
OS & Software Support	Microsoft Windows	Windows® 10 IoT Enterprise LTSC/Windows® 11 IoT Enterprise LTSC
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
	ASUS IoT Suite	☒ HW Monitor ☒ Power Scheduling ☒ Fan Control ☒ Watch Dog Timer ☒ GPIO ☒ I2C (API only) ☒ Linux Sample code
	User Interfaces	☒ API ☒ GUI
Environment	Operating Temperature	-20~70° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	Operational humidity: 40°C@10%~95%
Mechanical	Dimensions	ATX, 305 x 244 mm
Certification	EMC (CLASS B)	CE, FCC, BSMI, VCCI, RCM
	Safety	CE-LVD

Block Diagram



Order Information

Model name	Part number	Description
Q870A-IM-A	90ME0A2*	LGA1851, Q870, DP, HDMI, VGA, MB

* The part number might vary for different regulations and package. Please consult the TPM in your region for exact 90PN.

Packing List

Part number	Description	Quantity
13020*	IO shield	1
14013*	SATA 6G CABLE	1
13020*	M.2 SCREW PACK	2

* The part number might vary due to part number revision.