

Q870I-IM-A

New LGA 1851 Socket for Intel® Core™ Ultra processors (ARL-S), Q870 Chipset, DDR5 2*SO-DIMM, PCIe Gen 5.0 x16 slot, DP 1.4, HDMI 2.1, USB TypeC (DP-alt), M.2 M key, M.2 E Key



Features

- Support up to 65W Intel® Core™ Ultra 9/7/5 processors (Series2)
- Dual DDR5 SO-DIMM Up to 6400 MHz
- Support PCIe Gen 5 *16 slot
- Multiple Display Configuration: DP; USB TypeC (DP-alt); HDMI; eDP/LVDS
- 1 x Intel 2.5 Gigabit LAN (Intel vPro support); 1 x Intel 1 Gigabit LAN

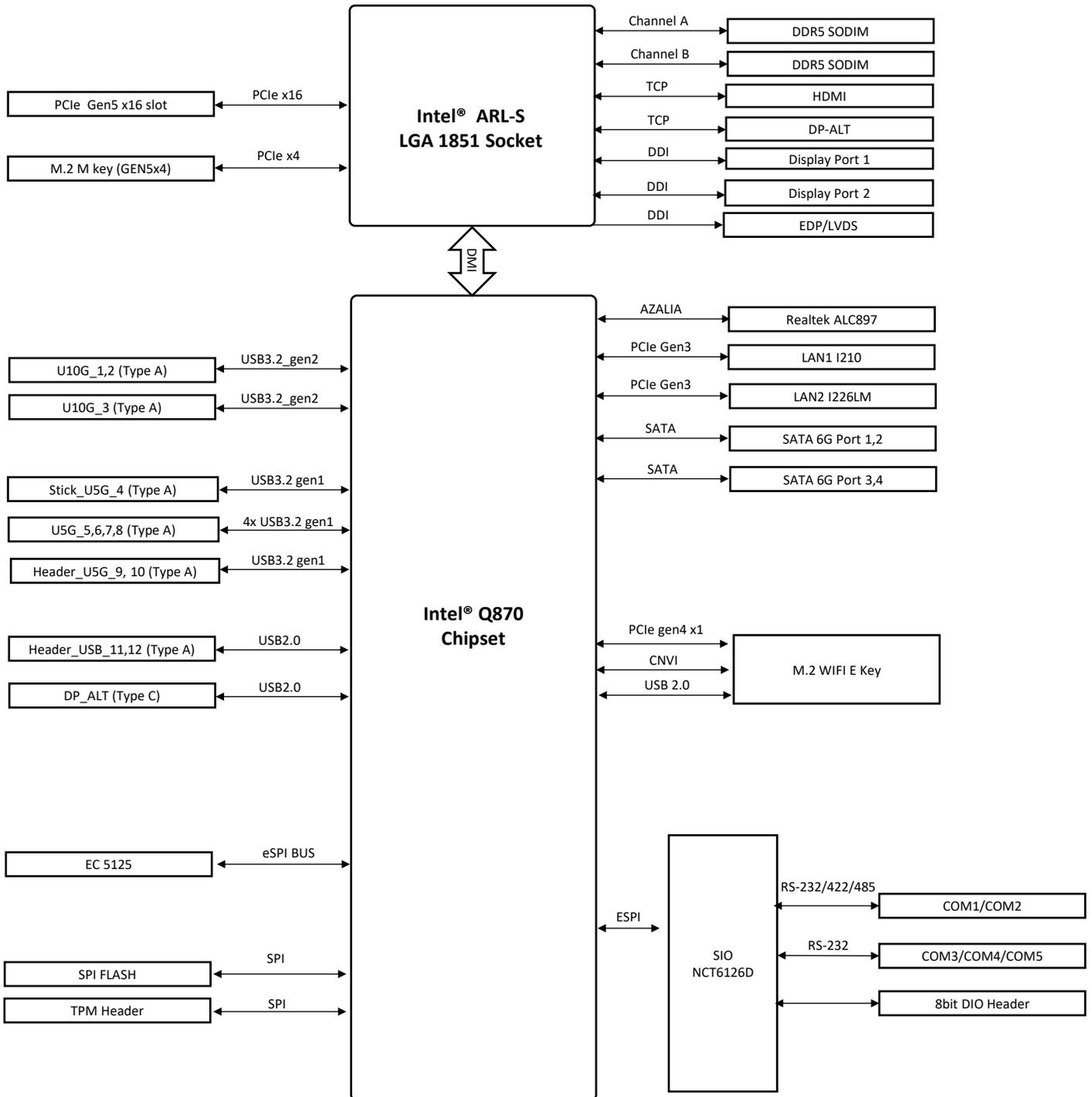
Specifications

Processor System	CPU	LGA1851 for Intel ARL-S Core™ Ultra 9/7/5 processors (Series2) Max. 65W TDP
	Chipset	Intel® Q870 Chipset support vPro (colayed with W880)
Memory	Technology	Up to DDR5 6400 MHz
	Max.	2 x 48GB (Total 96GB)
	Socket	2 x SO-DIMM
Display	Display Port	2 x DP 1.4, Supports DP++ (Up to 4K resolution). 1 x USB Type C(DP-alt) (Up to 4K)
	HDMI	1 x HDMI 2.1 (Up to 4K)
	eDP/LVDS	1 x Header (switched by BIOS)
Expansion Slot	PCIe	1 x PCIe 5.0 x16 Slot (1 x16 mode/ 2 x 8 mode/ 1x8; 2x4 mode)
	M.2	1 x M.2 E key, Type 2230 for WIFI/BT device (PCIe & CNVi), support WiFi 5/6/7, BT5.4 1 x M.2 M key Type 2280 (PCIe Gen 5) NVME support
Ethernet	Speed	10/100/1000/2500 Mbps
	Controller	1 x Intel® i210 1Gbe 1 x Intel® i226LM (Intel vPro support) 2.5Gbe
	Teaming	Yes
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
	Connector	Line-Out, Line-In
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
	HDMI	1
	USB3.2 (10G)	3
	USB3.2 (5G)	4
	USB Type- C (DP-alt) (20G)	1
	Ethernet	2 x RJ45
	Audio jack	2
	Serial Port	1 (RS232/422/485)

Specifications

Internal Connector	Serial Port Header	4 x COM Header (1 x RS232/422/485, 3 x RS232)
	USB3.2 Gen1	1x 1 Stick Connector 1 x Header Support Additional 2 x USB3.2 Gen1 Ports
	USB2.0	1 x Header Support Additional 2 x USB2.0 Ports
	CPU Fan/ Chassis Fan	1 x Header (PWM Mode)/1 x Header (PWM Mode)
	Disable ME	2 x Header
	LVDS/ eDP	1 x Header
	Panel SW	1 x Header
	Front Panel Audio (AAFP)	1 x Header
	System Panel	1 x Header
	SP/DIF	1 x Header
	Chassis Intrusion	1 x Header
	Speaker	1 x Header
	Clear CMOS	1 x Header
	COM Debug	1 x Header
	DIO	1 x Header (8 Bit)
Watchdog Timer H/W	YES	
TPM	1 x SPI TPM header	
EC (Embedded Controller)	Yes, support auto retry mode	
IAMT/vPRO	Yes	
Power Type	AT/ATX mode (DC-in mode supported by additional transfer card)	
Microsoft Windows	Windows® 10/ Windows 11 IoT Enterprise LTSC	
Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE	
Operating Temperature	0~60° C	
Non-Operating Temperature	-40~85° C	
Relative Humidity	5%~95%	
Form Factor	Mini-ITX, 170 x 170 mm	
Safety	CE (CLASS B), FCC (CLASS B)	

Block Diagram



Order Information

Model name	Part number	Description
Q870I-IM-A	90ME0A4*	LGA1851,Q870,DDR5,DP,HDMI,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.