

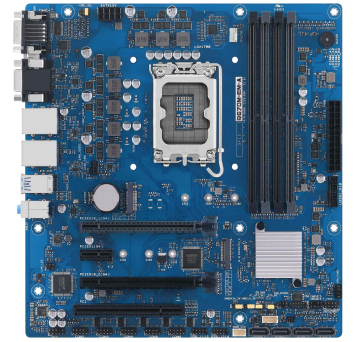
Q670M-EM-A

Micro ATX, LGA1700 socket for 14th / 13th / 12th Gen. CPU, Q670 chipset, 4*U-DIMM, 2*PCIe x16 slots, 1*VGA, 1*HDMI, 2*DP, Dual LAN, 2*M.2 slot, 4*USB 3.2 Gen2, 6*USB 3.2 Gen1, 4*USB 2.0

Features

- Four U-DIMM slots up to 128GB DDR4 3200 MHz
- Multi-display: 1 x HDMI™ port, 1 x VGA port, 2 x DisplayPort
- Advanced I/O and connectivity features
- 4-year longevity supply

Specifications

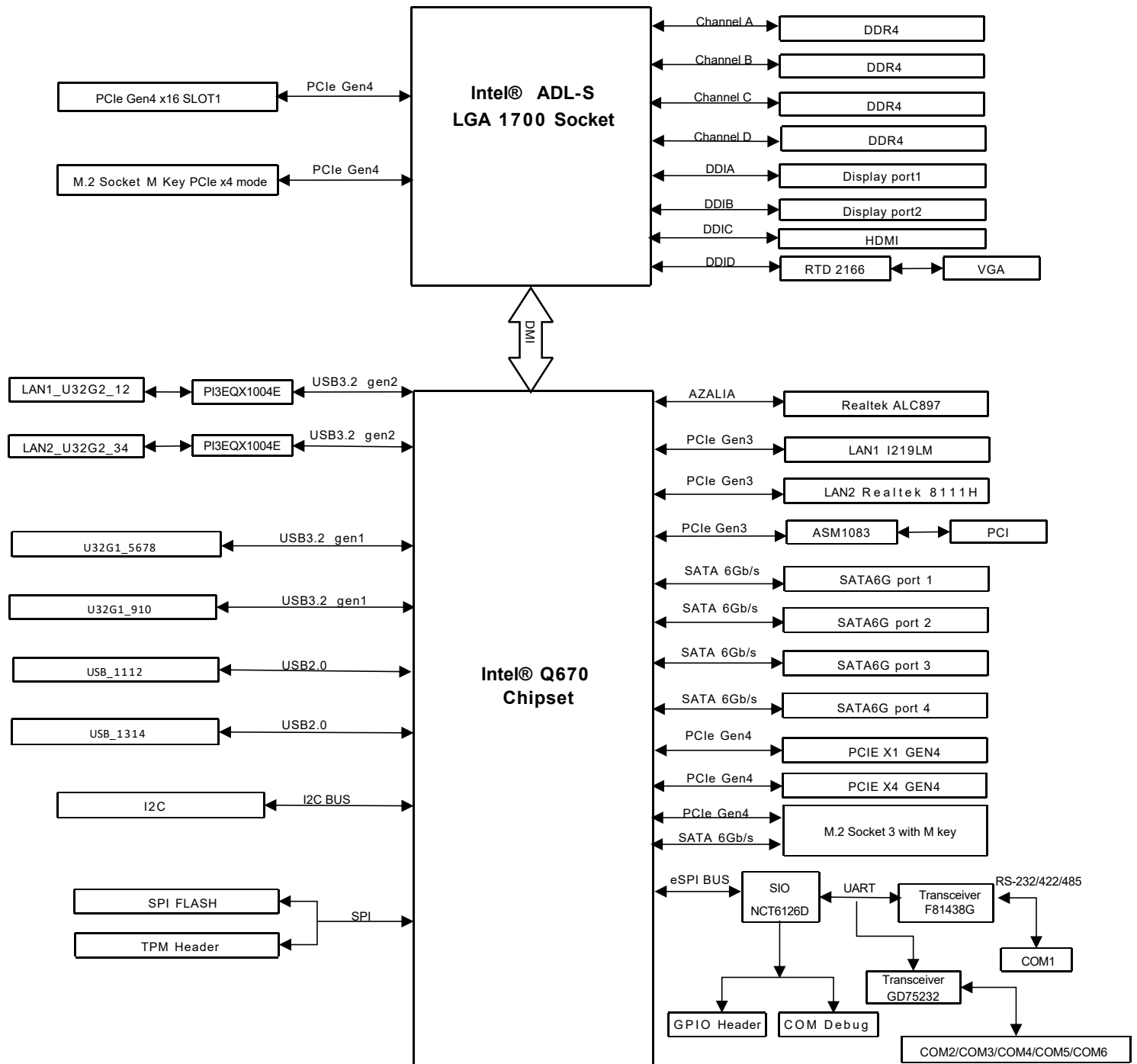


Processor System .	CPU	LGA1700 Socket for Intel® Core™ i9/ i7/ i5/ i3/ Pentium® /Celeron® Processors Max. 125W TDP
	CHIPSET	Intel® Q670 chipset
Memory	Technology	Up to DDR4 2400/2666/2933/3200 MHz
	Max.	128GB(32GB per U-DIMM)
	Socket	4 x U-DIMM
Display	HDMI	1, Supports HDMI 2.1 up to 4096 x 2160 @ 60 Hz
	VGA	1, up to 1920 x 1200 @ 60 Hz
	DP	2, up to 3840 x 2160 @ 60 Hz
	Four Display	Y
Expansion Slot	PCIe x16	1 x PCIe 4.0 x16 Slot
	PCIe x4	1 x PCIe 4.0 x16 Slot (run at x4)
	PCIe x1	1 x PCIe 4.0 x1 Slot
	PCI	1 x PCI Slot
	M.2	1 x M.2 Socket 3 with M key, type 2242/2260/2280(PCIe 4.0 x4/SATA mode) 1 x M.2 Socket 3 with M key, type 2242/2260/2280(PCIe 4.0 x4 mode)
Ethernet	Speed	10/100/1000Mbps
	Controller	1 x Intel® I219LM(vPRO), 1 x Realtek RTL 8111H
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
	Connector	3(Line-Out, Line-In, Mic in)
Storage	SATA port	4 x SATA Gen 3.0, up to 6Gb/s
Rear I/O	HDMI	1
	VGA	1
	DP	2
	USB 3.2	4 x USB 3.2 Gen2 4 x USB 3.2 Gen1
	Ethernet	2
	Serial Port	1(RS232/422/485)
	Audio jack	3
Internal Connector	Serial Port	5 (RS232)
	USB2.0	2 x Header Support Additional 4 x USB2.0 Connectors
	USB3.2	1 x Header Support Additional 2 x USB3.2 GEN1 Connectors
	CPU Fan Connector	1 (PWM Mode)
	Chassis Fan Header	2 (PWM Mode)
	Chassis Intrusion Header	1
	Front Panel Audio Header (AAFP)	1
	System Panel Header	1 (10-1 Pin)
	Clear CMOS Jumper	1
	BUZZER	1
	Speaker connector	1 x Header
	COM Debug Header	1
	I ² C Header	1
	GPIO Header	1 (8 Bit)
	PS/2	1
AT/ATX Select Header	1	
Power Connector	1 x 8-pin ATX Power Connector, 1 x 24-pin ATX Power Connector	

Specifications

Watchdog Timer	H/W	YES
Security	TPM	1 x SPI TPM header
Power	Power Type	both ATX/AT mode
Operating System	Microsoft Windows	Windows® 10 (64bit) / Win10 IoT Enterprise/win11
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
	ASUS IoT Suite	<input checked="" type="checkbox"/> HW Monitor <input checked="" type="checkbox"/> Power Scheduling <input checked="" type="checkbox"/> Fan Control <input checked="" type="checkbox"/> Watch Dog Timer <input checked="" type="checkbox"/> GPIO <input checked="" type="checkbox"/> I2C (API only) <input checked="" type="checkbox"/> Buzzer (API only) <input checked="" type="checkbox"/> Linux Sample code
	User Interfaces	<input checked="" type="checkbox"/> API <input checked="" type="checkbox"/> GUI
Environment	Operating Temperature	0~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	10%~95%
Dimension	Form Factor	Micro ATX, 244 x 244 mm
Certification	Safety	CE, FCC

Block Diagram



Order Information

Model name	Part number	Description
Q670M-EM-A	90ME08L*	LGA1700, Q670, 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.