

ASUS IoT Q670EM-IM-A

Industrial Micro-ATX motherboard with Intel® Q670E chipset and Intel® Core™ 14th/13th/12th Gen. CPU



Features

- Supports Intel® processors of the 14th/13th/12th gen.
- 4x DDR5 4400 MHz U-DIMM, up to 128GB
- Intel® Q670E chipset
- Supports up to 4x displays
- Micro-ATX form factor

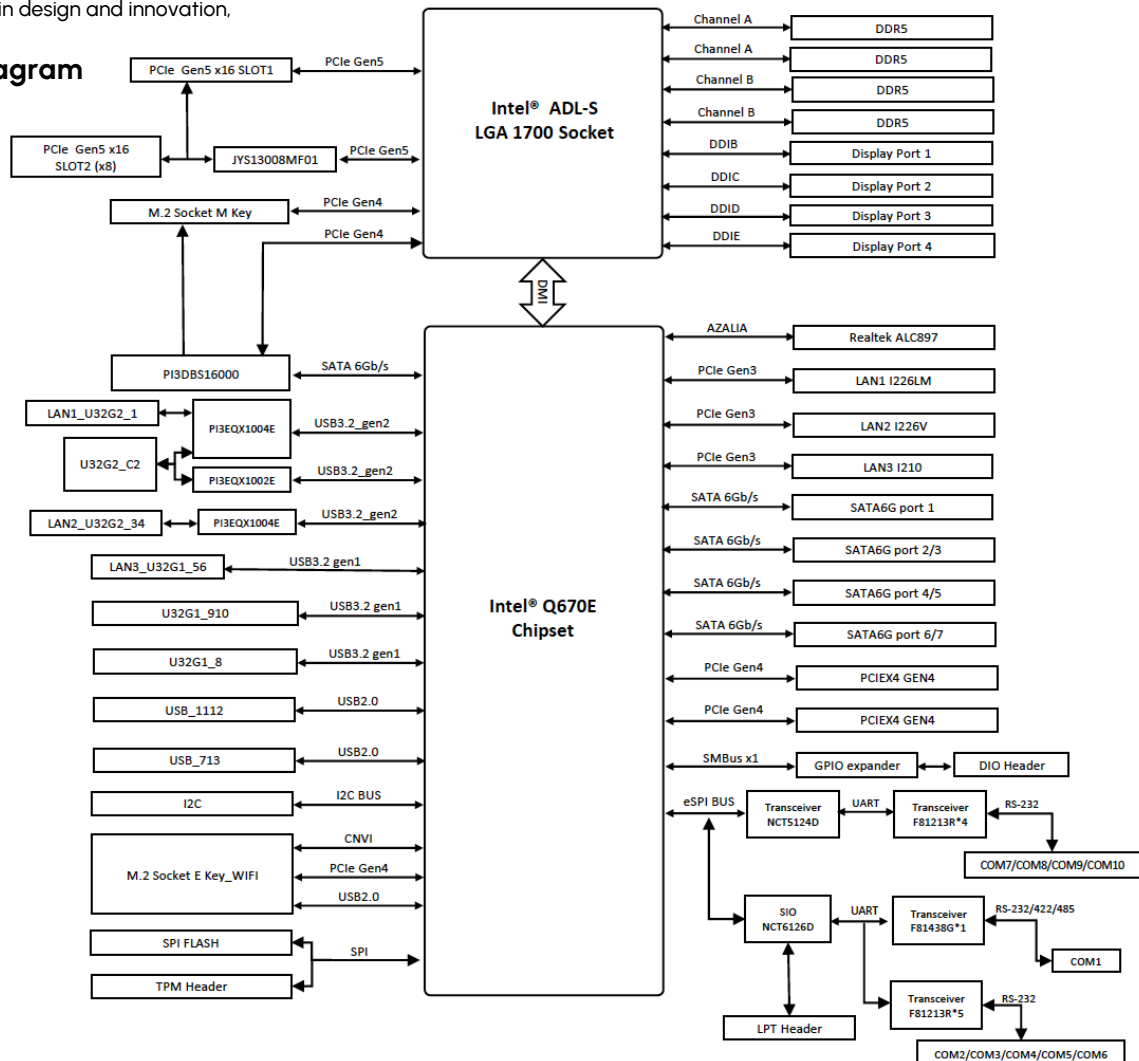
ASUS IoT Q670EM-IM-A: High-performance Micro-ATX industrial motherboard

The ASUS IoT Q670EM-IM-A is a Micro-ATX industrial motherboard characterized by its extensive I/O capabilities and advanced connectivity options. It offers multiple legacy options for industrial applications, multiple COM ports and three Intel LAN ports, making it ideal for a wide range of embedded applications. With one PCIe slot, one M.2 E-key and one M.2 M-key, the ASUS IoT Q670EM-IM-A offers extensive expansion options. This flexibility makes it possible to adapt the motherboard to specific requirements and use it in a wide range of industrial applications.

ASUS: A global leader in quality and innovation

As the world's leading brand for motherboards, ASUS focuses on industrial motherboards with durable, industrial-grade components. These are specifically designed for reliable 24/7 operation in extreme environments and various vertical markets. With over 30 years of experience in design and innovation,

Block diagram



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Specifications	ASUS IoT Q670EM-IM-A
SYSTEM	
CPU	LGA1700 for Intel® Core™ 14th/13th/12th Gen. i9/ i7/ i5/ i3/ Pentium® / Celeron® processors, Max. 125W TDP
Chipset	Intel® Q670E
RAM	Up to 128GB DDR5 4400 MT/s (2DPC -1DIMM 1R&2R) / 4000 MT/s (2DPC - 2DIMM 1R) / 3600 MT/s (2DPC - 2DIMM 2R) (four U-DIMM slots)
TPM	1x SPI TPM header
Watchdog	Yes
Storage	7x SATA Gen 3.0, up to 6Gb/s, supports RAID 0,1,5,10
Expansion	1x PCIe 5.0 x16 slot (1 x16 mode/ 2 x8 mode) 1x PCIe 4.0 x4 slot (x4 mode) 1x PCIe 5.0 x16 slot (x8 mode) 1x PCIe 4.0 x4 slot (x4 mode) 1x M.2 E Key, type 2230 for WIFI/BT device (PCIe x1 & USB 2.0 & CNVi) 1x M.2 M key, type 2242/2260/2280 (PCIe x4 & SATA mode), supports NVMe
Operating System	Windows® 10 (64bit) Windows® IoT Enterprise Ubuntu RedHat Enterprise Fedora Workstation OpenSUSE
ASUS IoT Suite	HW Monitor, Power Scheduling, Fan control, Watch Dog Timer, GPIO, I2C (API only), Buzzer (API only), Linux sample code
User Interface	API, GUI
INTERFACE	
Ethernet	3x RJ-45 (10/100/1000/2500 Mbps): 1x Intel® i210AT 1x Intel® i226V 1x Intel® i226LM (Intel vPro support)
USB	3x USB 3.2 Gen 2 (Type-A) ports 1x USB 3.2 Gen 2 (Type-C) port 2x USB 3.2 Gen 1 ports
COM	1x COM: RS-232/ 422/ 485 port
Video	4x DisplayPort connections, supports DP++ 1.4, up to 3,840 x 2,160 @ 60Hz
Audio	3x Audio-Jack (Line-Out, Mic-In), Audio codec Realtek ALC897
Internal Connectors	Serial port connector: 9x COM ports (9x RS-232) USB 3.2 Gen 1: 1x header support for 2x USB 3.2 Gen 1 ports, 1x vertical port USB 2.0: 2x header support for 4x USB 2.0 ports CPU fan/case fan: 1x header (PWM mode) / 3x header (PWM mode) Front panel audio (AAP): 1x header System panel: 1x header Enclosure intrusion: 1x header Loudspeaker: 1x header I2C Header: 1x Header Clear CMOS: 1x header Debug COM: 1x header LPT connection header: 1x header Buzzer: 1x PS/2: 1x header SPDIF: 1x header GPIO: 1x header (8 bit) DIS ME jumper: 1x header AT/ATX selection header: 1x header Power connector: 1x 24-pin ATX power connector, 1x 8-pin ATX 12V power connector
ENVIRONMENTAL	
Power Supply	ATX
Operating Temperature	0° ~ 60°C
Storage Temperature	-40° ~ 85°C
Humidity	Operation: 40°C @ 10% ~ 95%
Dimensions	Micro-ATX, 244 x 244 mm
Certifications	CE (Class B), FCC (Class B), BSMI (Class B), VCCI (Class B), RCM (Class B), CE-LVD

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BRESSNER
A ONE STOP SYSTEMS COMPANY

Order Information	ASUS IoT Q670EM-IM-A
MODEL NO. [1]	
90ME061	Q670EM-IM-A, LGA1700, Q670E, DP, MB
PACKING LIST [2]	
13020	1x I/O shield
14013	1x SATA 6G cable
13020	2x M.2 screw pack

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

[2] The part number might vary due to part number revision.

