



LGA1200 Socket Asus Industrial Motherboard For 10th Gen Processors ASUS IOT Q470EA-IM-A

Our Product Introduction

Basic Information

- Place of Origin: Guangdong, China
- Brand Name: ASUS
- Certification: ROHS
- Model Number: Q470EA-IM-A
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: All the products are packed in right way to keep it safe. For small sizes of products we use tray+ carton, for bigger sizes we use foam slot+carton. We also design packages according to customers' requirements.
- Delivery Time: 7-10 workdays
- Payment Terms: T/T
- Supply Ability: 300K/month



Product Specification

- Item Condition: New
- Package: Yes
- Ports: Wifi, SATA, DVI, VGA, PCI-Express X16, USB 2.0, Display Port, M.2, USB 3.0, Usb3.1, PCI-E 3.0, PCI-Express X1, HDMI
- With CPU: No
- Memory Bank: 4 DDR4
- Chipset: Intel Q470E Chipset
- Maximum Ram Capacity: 128 GB
- Memory Channel: Double
- Private Mold: NO
- Products Status: New
- Application: Server/Workstation
- Chipset Manufacturer: Intel
- Socket Type: Other
- Form Factor: ATX



More Images



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Product Description

Industrial Motherboard LGA1200 Socket Warranty 3 years for The 10th Generation Processors ASUS IOT Q470EA-IM-A

Product Description

□ Main Infos

- * ASUS IOT Q470EA-IM-A ATX motherboard, LGA1200 Socket for 10th Generation Core™ i9/ i7/ i5/ i3/Pentium®/Celeron® Processors
- * Supports 3 displays configuration by multiple interface: VGA/ DP/HDMI
- * 2 x PCIe x16 slots support dual graphic cards
- * M.2 B key support 5G
- * 7 years of longevity with extended product life cycles
- * Advanced I/O and connectivity features
- * Wide temperature range endurance: 0–60°C



Q470EA-IM-A

ATX, LGA 1200 Socket for 10th Gen. CPU, Q470E Chipset, 4*U-DIMM
2*PCIe x16 slots, VGA, HDMI, DP, 3*M.2 slot, USB 3.2 Gen2, USB Type C

Features

- Support up to 125W Intel® 10th Gen. CPU
- 2* PCIe x16 slots support dual graphic cards
- Up to triple displays: VGA/ HDMI/ DP
- M.2 B key support 4G/5G
- Up to 7-year longevity supply

Specifications

Processor System	CPU	Intel® Socket 1200 for 10th Generation
	TDP	Core™ i9/ i7/ i5/ i3/Pentium®/Celeron® Processors Up to 125W
	Chipset	Intel® Q470E Chipset
Memory	Technology	DDR4 2400/2666/2933 MHz
	Max.	128GB (32GB per U-DIMM)
	Socket	4 x U-DIMM
Display	VGA	1, up to 1920 x 1200 @ 60Hz
	HDMI	1, up to 4096 x 2160 @ 30Hz
	DP	2, up to 4096 x 2160 @ 60Hz
	Triple Display	VGA + HDMI + DP/ DP + HDMI + DP/ VGA + DP + DP
Expansion Slot	PCIe	2 x PCIe 3.0/2.0 x16 slot (1 x16 mode/ 2 x8 mode) *If any expansion card is installed on the second x16 slot, BIOS automatically switches the signal from 1 x16 mode to 2 x8 mode. 3 x PCIe 3.0/2.0 x4 slot (x4, x4, x2 mode)
	PCI	2
	M.2	1 x M.2 M key, type 2242/2260/2280 (PCIe x4/ SATA mode) 1 x M.2 B key, type 3042/3052/2260/2280 (PCIe x1/USB 3.2 Gen1/USB 2.0) *type 3042/3052 support 4G/5G module 1 x M.2 E key, type 2230 (PCIe x1/USB 2.0)
	SIM Socket	1
Ethernet	Speed	10/100/1000Mbps/2500Mbps
	Controller	1 x Intel® i219LM (1 GbE), support WOL/PXE 1 x Intel® i225V (2.5 GbE), support WOL/PXE
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
	Connector	Line-Out, Line-In, Mic in
Storage	SATA port	Up to 6 x SATA Gen 3.0, up to 6Gb/s*, RAID 0/1/5/10 *If install M.2 PCIe x4/ SATA SSD on M.2 M key slot, 2/ 1 SATA port will be disabled.
Rear I/O	VGA	1
	HDMI	1
	DP	2
	USB 3.2 Gen2	4 (3 x type A, 1 x Type C)
	USB 2.0	2
	Ethernet	2
	COM Port	1 x RS232/422/485
	PS/2	1
	Audio jack	3 (Line-Out, Line-In, Mic in)



Specifications

Internal Connector	COM header	1 x (RS232/422/485); 4 x RS232
	USB2.0	1 x Header support additional 2 x USB2.0 connectors 2 x Vertical connector
	USB3.2 Gen 1	1 x Header support additional 2 x USB3.1 Gen1 connectors
	CPU Fan Connector	1 (PWM mode)
	Chassis Fan Header	3 (PWM mode)
	Chassis Intrusion Header	1
	Front Panel Audio Connector (AAFP)	1
	System Panel Header	1
	Clear CMOS Jumper	1
	Speaker Connector	1
	LPC Debug Header	1
	I ² C Header	1
	Parallel (LPT Header)	1
	Buzzer	1
	GPIO Header	1 (8 Bit)
	SPDIF	1
	AT/ATX Select Header	1
	Power Connector	1 x 8-pin ATX 12V Power Connector & 1 x 24-pin ATX Power Connector
Watchdog Timer	H/W	YES
Security	TPM	1 x SPI TPM header
	vPro	yes
Power	Power Type	AT mode/ ATX mode
Operating System	Microsoft Windows	Windows 10 (64bit) / Win10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
Environment	Operating Temperature	0~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	15%~95%
Dimension	Form Factor	ATX, 305 x 244 mm
Certification	EMI & Safety	CE, FCC

2.2 Motherboard layout



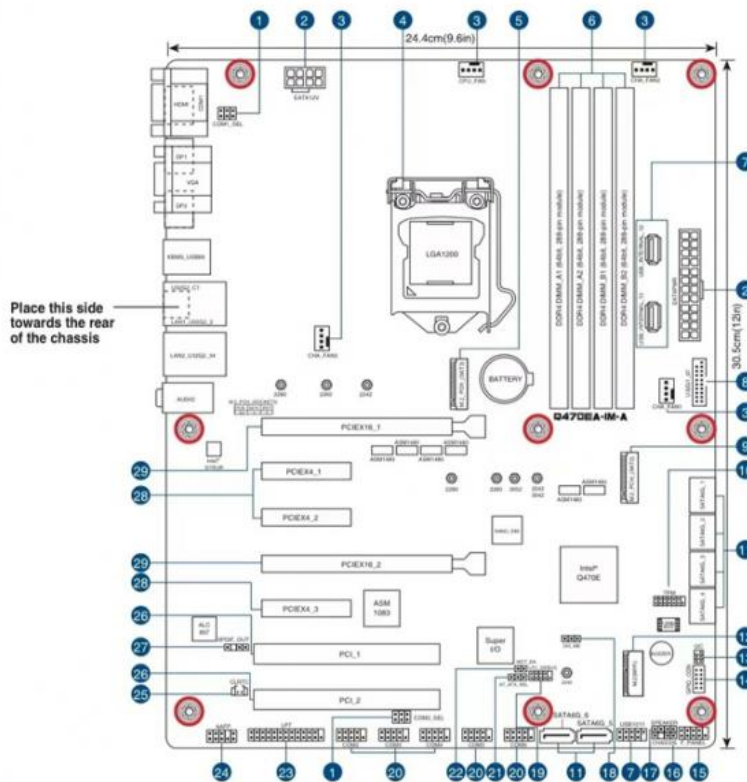
NOTE: Please plug screws into the holes indicated by circles to secure the



NOTE: Place nine screws into the holes indicated by circles to secure the motherboard to the chassis.



CAUTION! Do not overtighten the screws! Doing so can damage the motherboard.

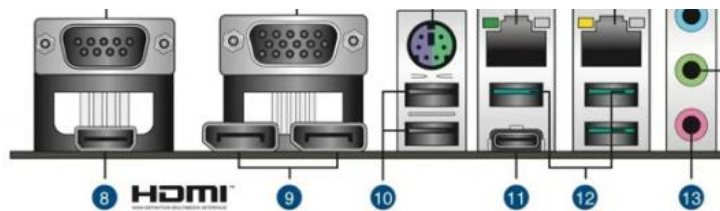


Connectors/Jumpers/Slots	Page
1. COM RING/+5V/+12V selection jumper (6-pin COM1_SEL)	2-10
2. EATX Power connectors (24-pin EATXPWR, 8-pin EATX12V)	2-15
3. CPU and Chassis Fan headers (4-pin CPU_FAN, 4-pin CHA_FAN1/2/3)	2-15
4. Intel® LGA1200 CPU socket	2-4
5. M.2 socket 3 (M.2_PCH_(SKT3))	2-16
6. DDR4 DIMM slots	2-9
7. USB 2.0 connectors / header (USB_INTERNAL_12, USB_INTERNAL_13, USB1011)	2-16
8. USB 3.2 Gen 1 header (20-1 pin U32G1_67)	2-17
9. M.2 socket 2 (M.2_PCH_(SKT2))	2-17
10. TPM header (14-1 pin TPM)	2-18
11. SATA 6.0Gb/s ports (7-pin SATA6G_1-6)	2-18
12. M.2 Wi-Fi	2-19
13. I²C header (6-pin I2C)	2-19
14. General Purpose Input/Output header (10-pin GPIO_CON)	2-20
15. System Panel header (10-1 pin F_PANEL)	2-21
16. Chassis Intrusion header (4-1 pin CHASSIS)	2-22
17. Speaker header (4-pin SPEAKER)	2-22
18. Disable ME jumper (3-pin DIS_ME)	2-10
19. LPC Debug header (10-1 pin LPC_DEBUG)	2-23
20. COM Port headers (10-1 pin COM2, COM3, COM4, COM5, COM6)	2-23
21. AT/ATX Mode selection jumper (3-pin AT_ATX_SEL)	2-11
22. WDT Enable jumper (2-pin WDT_EN)	2-11
23. LPT header (26-1 pin LPT)	2-24
24. Front Panel Audio header (10-1 pin AAFP)	2-24
25. Clear CMOS header (2-pin CLRTC)	2-12
26. PCI slots	
27. Digital Audio header (4-1 pin SPDIF_OUT)	2-25
28. PCI Express 3.0/2.0 x4 slots	
29. PCI Express 3.0/2.0 x16 slots	

2.6 Connectors

2.6.1 Rear panel connectors





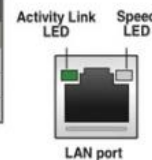
1. **COM port.** This port connects a modem or other device that conforms with serial specification.

	RS232	RS485	RS422
Pin1	DCD	B	T(B)
Pin2	RXD	A	T(A)
Pin3	TXD	NC	R(A)
Pin4	DTR	NC	R(B)
Pin5	GND	GND	GND
Pin6	DSR	NC	NC
Pin7	RTS	NC	NC
Pin8	CTS	NC	NC
Pin9	RI/5V/12V	NC/5V/12V	NC/5V/12V

2. **Video Graphics Adapter (VGA) port.** This 15-pin port is for a VGA monitor or other VGA-compatible device.
3. **PS/2 Keyboard/Mouse Combo port.** This port is for a PS/2 keyboard or mouse.
4. **2.5G Ethernet port.** This port allows 2.5Gbps Ethernet connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the Ethernet port LED indications.

2.5G LAN port LED indications

Activity/Link LED		Speed LED	
Status	Description	Status	Description
Off	No link	OFF	No link
Green	Linked	Green	2.5 Gbps connection
Blinking	Data activity	Orange	1 Gbps/100Mbps/10Mbps connection

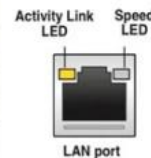


LAN port

5. **LAN (RJ-45) port.** This port allow Gigabit connection to a Local Area Network (LAN) through a network hub.

LAN port LED indications

Activity/Link LED		Speed LED	
Status	Description	Status	Description
Off	No link	OFF	10Mbps connection
Orange	Linked	ORANGE	100Mbps connection
Orange (Blinking)	Data activity	GREEN	1Gbps connection
Orange (Blinking then steady)	Ready to wake up from S5 mode		



LAN port

6. **Line In port (light blue).** This port connects to the tape, CD, DVD player, or other audio sources.
7. **Line Out port (lime).** This port connects to a headphone or a speaker. In the 4 and 5.1 channel configurations, the function of this port becomes Front Speaker Out.
8. **HDMI™ port.** This port is for a High-Definition Multimedia Interface (HDMI™) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.
9. **DisplayPorts.** These ports are for DisplayPort-compatible devices.
10. **USB 2.0 ports.** These 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices.
11. **USB 3.2 Gen 2 (up to 10Gbps) port (USB Type-C®).** This 9-pin Universal Serial Bus 3.2 (USB 3.2) port is for USB 3.2 Gen 2 Type-C® devices.
12. **USB 3.2 Gen 2 (up to 10Gbps) ports (teal blue, Type-A).** These 9-pin Universal Serial Bus (USB) ports are for USB 3.2 Gen 2 devices.
13. **Microphone port (pink).** This port connects to a microphone.



Refer to the audio configuration table for the function of the audio ports in 2, 4, 5.1, or 7.1-channel configuration.

Audio 2, 4, 5.1 or 7.1-channel configuration

Port	Headset 2-channel	4-channel	5.1-channel	7.1-channel
Light Blue (Rear panel)	Line In	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Lime (Rear panel)	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out

Pink (Hear panel)	Mic In	Mic In	Bass/Center	Bass/Center
Lime (Front panel)	—	—	—	Side Speaker Out/ Headphone
Pink (Front panel)	—	—	—	Mic In*/ Side Speaker Out

* Multi-streaming is disabled by default, and the Lime (front panel) jack may be used as Side Speaker Out. If multi-streaming is enabled, the Lime (front panel) jack will support headphone, and Pink (front panel) jack will support Side Speaker Out.



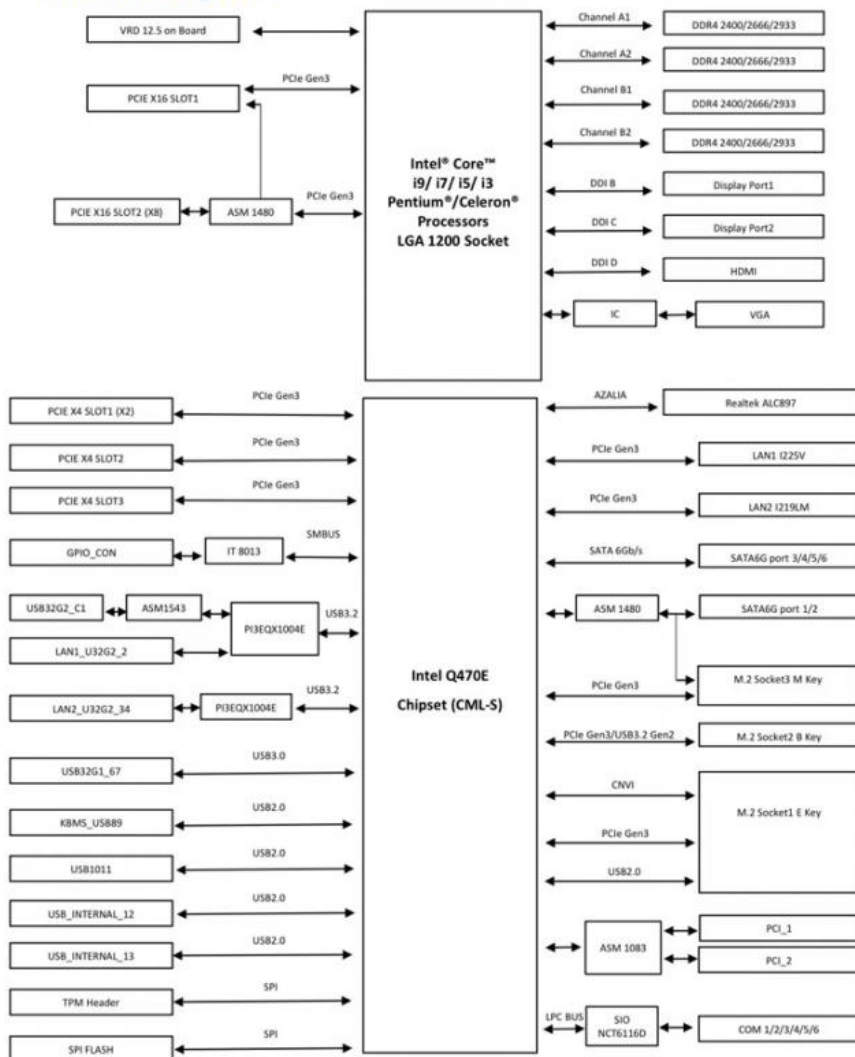
To configure a 7.1-channel audio output:

Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output.

INDUSTRIAL MOTHERBOARD DATASHEET Q470EA-IM-A

ASUS IoT

Block Diagram



Order Information

Model name	Part number	Description
Q470EA-IM-A	90ME03F*	LGA1200, Q470E, DP, HDMI, VGA, MB

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

Packing List

Part number	Description	Quantity
13020*	IO shield	1
14013*	SATA 6G CABLE	1
13020*	M.2 screw pack	3

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

Packing & Delivery



IO shield 1
SATA 6G 1
CABLE
M.2 screw pack 1

Company Profile

ZhuoHong Electronic Technology has been specializing in TFT LCD display and Board more than 10years. There are 90% of our business is custom made display modules for projects such as industrial devices, medical and smart home applications. Our mission is to provide customer one-stop solution. With LCD display and touch screen as our product center, great trust is built with our customers.





FACTORY SHOW



COG Automatic Plant



Bonding IC



Rubberizing



Sample production



Assembling



QC testing

APPLICATION



FAQ

A Q: When can i get the quotation?

A: We usually quote within 12 hours after we got your inquiry.

If it is very urgent, please call us or contact us via email, Skype or WhatsApp.

Q: What is your warranty?

A: We provide one year warranty.

Q: May i buy samples from you?

A: Yes! You are welcome to place sample order to test our superior quality and service.

Q: How to place bulk order?

A: 1) Tell us model number, quantity, color and other special requirements.

2) Proforma Invoice will be made and sent to you for approval

3) Production will be arranged once get your payment or deposit.

4) Goods will be delivered as stated on the Proforma Invoice.

Q: How will you deliver my goods to me?

A: We provide as many shipping options as possible, such as DHL, UPS, FEDEX, TNT AND EMS to enable our customers get their goods rapidly at door. We also ship by economical method such as air cargo and sea cargo, direct line, air mail according to customers' request.

Q: What about the quality of your product?

A: We provide unrivaled quality: very rigorous testing process for incoming quality control, input process quality control, and final quantity control for every piece. We follow QC test procedure, and do 100% FQC to ensure your satisfaction.

Q: Can you provide OEM service?

A: Yes! We can provide professional OEM service.

Q: What payment method do you accept?

A: T/T(bank transfer), L/C and paypal

Q: Do you have any after-sales service?

A: Yes! Our product has professional after-sales service dept. Follow up R.M.A. Items service and upload product firmware and app for you download. If you have any technical questions with the goods, please feel free to contact our technical support dept, or our sales directly.



Title goes here.

Semi-Automatic PET Bottle Blowing Machine Bottle Making Machine Bottle Moulding Machine PET Bottle Making Machine is suitable for producing PET plastic containers and bottles in all shapes.



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