

# Q470EI-IM-A

Mini-ITX, LGA1200 socket for the 10<sup>th</sup> Gen CPU, Q470E chipset, 2\*SO-DIMM.  
1\*PCIe x16, 2\*DP, DVI-D, LVDS/ eDP, 2\*M.2 slot, USB 3.2 Gen2, USB Type C

## Features

- Two 260-pin SO-DIMM up to 64GB DDR4 2933/2666/2400/2133 MHz SDRAM.
- Supports 3 displays configuration by multiple interface: 2\*DP/LVDS
- 7-year longevity supply
- Wide temperature Range: 0~60°C



## Specifications

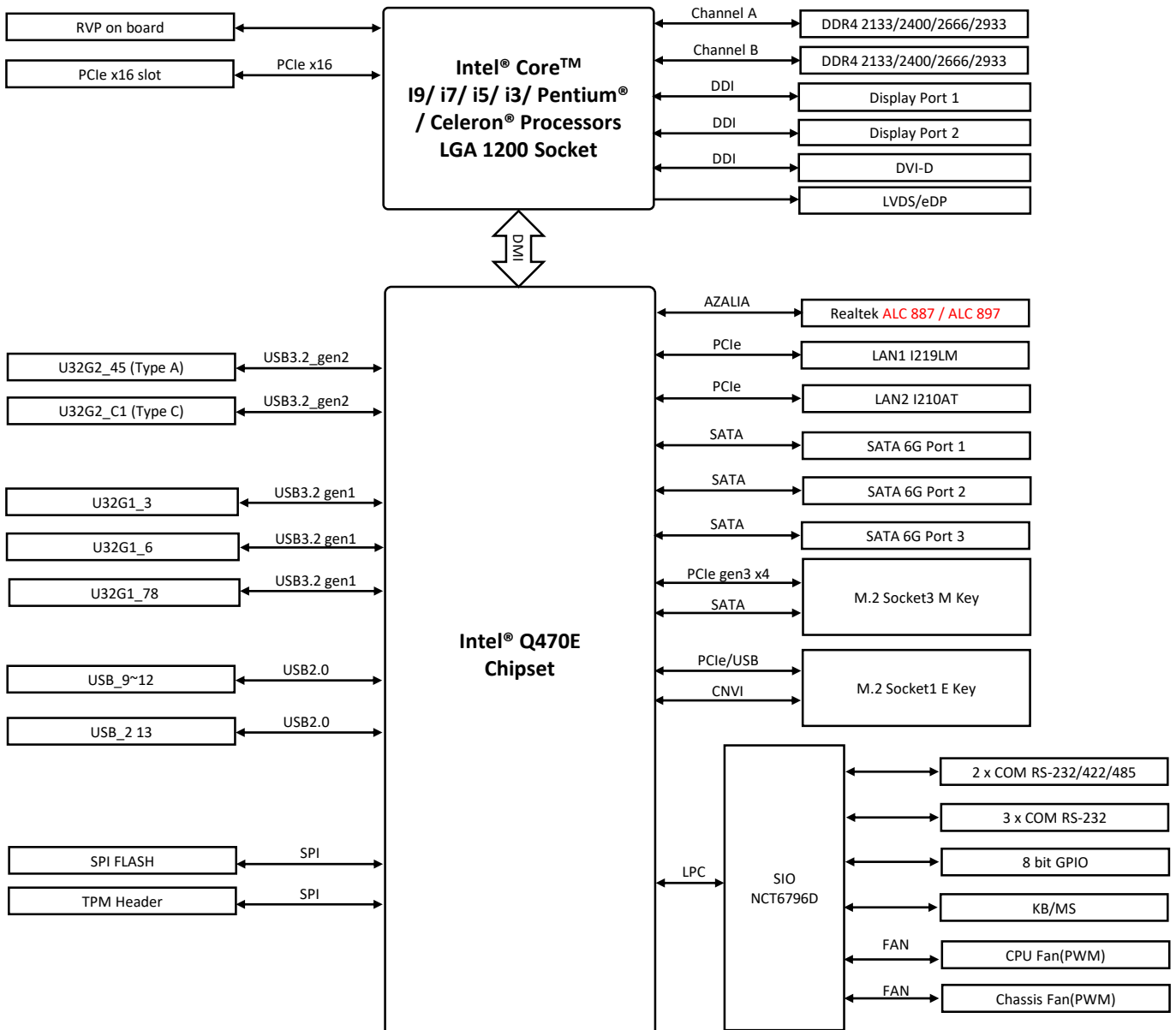
Processor System	CPU	LGA1200 Socket for The 10th Generation Intel® Core™ i9/ i7/ i5/ i3/ Pentium® /Celeron® Processors Supports 14nm CPU Max. 65W TDP
	Chipset	Intel® Q470E Chipset
Memory	Technology	DDR4 2933/2666/2400/2133 MHz
	Max.	Overall: 64GB, Per Module:32GB
	Socket	2 x SO-DIMM
Display	Display Port	2, Supports DP 1.4
	DVI-D	1
	eDP/LVDS	1 x Header (Support either eDP or LVDS ; switched by BIOS)
Expansion Slot	PCIe	1 x PCIe 3.0/2.0 x16 Slot (Bifurcation Support: 16x to 8x+8x or 8x+4x+4x)
	M.2	1 x M.2 Socket 1 with E key, Type 2230 for WIFI/BT device (PCIe & CNVi) 1 x M.2 Socket 3 with M key, Type 2242/2260/2280 (PCIe x4 & SATA mode)
Ethernet	Speed	10/100/1000 Mbps
	Controller	1 x Intel® I210AT, 1 x Intel® I219LM
	Teaming	Yes
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC 887 /ALC 897* High Definition Audio
	Connector	Line-Out, Line-In
Storage	SATA port	3 x SATA Gen 3.0, Up to 6Gb/s
	M.2	1 x M.2 Socket 3 with M key, Type 2242/2260/2280 (PCIe x4 & SATA mode)
Rear I/O	Display Port	2
	DVI-D	1
	USB3.2 Gen2	3 (2*Type A, 1*Type C)
	USB3.2 Gen1	1 (Type A)
	USB2.0	4 (Type A)
	Ethernet	2 x RJ45
	Serial Port	1 (RS232/422/485)
	Audio jack	2
Internal Connector	PS/2	1 x Keyboard, 1x Mouse
	Serial Port Header	4 x COM Header (1 x RS232/422/485, 3 x RS232)
	USB3.2 Gen1	1 x USB3.2 Gen1 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	1 x Header
	LVDS/ eDP selection	1 x Header
	I <sup>2</sup> C	1 x Header
	Panel SW	1 x Header
	Front Panel Audio (AAFP)	1 x Header
	System Panel	1 x Header (10-1 Pin)
	SP/DIF	1 x Header
	Chassis Intrusion	1 x Header
	Speaker	1 x Header
	Clear CMOS	1 x Header
	LPC Debug	1 x Header
	GPIO	1 x Header (8 Bit)
AT/ATX Select	1 x Header	
Power Connector	1 x 8-pin ATX Power Connector, 1 x 24-pin ATX Power Connector	

\*The audio codec may vary between models, please consult your sales window for the device's exact codec type.

## Specifications

<b>Watchdog Timer</b>	H/W	YES
<b>Security</b>	TPM	1 x SPI TPM header
<b>Power</b>	IAMT/vPRO	Yes
	Power Type	ATX DC-IN* *Support by power transfer card "EMA-DCB-A". Please contact your sales window for order information.
<b>Operating System</b>	Microsoft Windows	Windows® 10 (64bit ) / Win10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
<b>Environment</b>	Operating Temperature	0~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	0%~85%
<b>Dimension</b>	Form Factor	Mini-ITX, 170 x 170 mm
<b>Certification</b>	Safety	CE, FCC

## Block Diagram



## Order Information

Model name	Part number	Description
Q470EI-IM-A	90ME02M0*	LGA1200,Q470E, 2*DP,MB
Q470EI-IM-A	90ME02M1*	LGA1200,Q470E, 2*DP,MB

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

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## Packing List

Part number	Description	Quantity
13020*	IO shield	1
14013*	SATA 6G CABLE	1
13ME0*	Screw pack	1
13ME0*	HEX pack	1

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