



289.00 EUR
incl. 19% VAT, plus [shipping](#)

- Q470 !
- 2x LAN !

- Up to Intel® Comet Lake 10th Gen i9 125W (10 Cores) LGA1200 processor
- Intel Q470E Chipset
- Intel® vPro technology supported
- Support 1 x PCIe X16 slot, 1 x PCIe X8 slot, and 1 x PCI slot 1 x M.2 2280M-key (NVME), 1 x M.2 2230 E-key (CNVi)
- Support triple display for 1 x DisplayPort, 1 x HDMI and 1 x DVI
- Up to 6 x SATAIII (support RAID 0, 1, 5, 10)
- Up to 2 x Intel® Gigabit Ethernet
- Up to 6 x USB 3.2 Gen1, 4 x USB 2.0, 4 x COM ports
- ATX power input

FORM FACTOR	Micro-ATX: 9.6" x 9.6" (244 mm x 244 mm)
PROCESSOR	10th Gen Intel® Comet Lake LGA1200 Socket Processor, Core i9/i7/i5/i3 up to 10-core TDP Max. 125W
CHIPSET	Intel® Q470E / W480E (Support RAID 0 / 1 / 5 / 10) DDR4 2933MHz
SYSTEM MEMORY	/ Max. 64 GB (Non-ECC: H420E/Q470E, ECC: W480E) / 4 x 288-pin U-DIMM
GRAPHICS	Intel® HD Graphics
ETHERNET	Intel® I219-LM Giga LAN + 2 x Intel® I210-AT Giga LAN
AUDIO	Realtek® ALC662 / ALC888
I/O CHIPSET	Nuvoton NCT6126D(eSPI)
TPM	TPM Header / (support optional TPM module board NPCT750)

EXPANSION SLOT	1. PCIe 3.0 X16 slot
	PCIe x16 support 3 options of PCIe switch:
	#1: 1 x PCIe X16,
	#2: 2 x PCIe X8,
	#3: 1 x PCIe X8 + 2 x PCIe X4
	2. PCIe 3.0 X8 slot (X4 Lanes)
	PCIe x4 lanes is switched with M.2 2242/2260/2280 slot
	3. PCI slot
	/ 4. M.2 2242 / 2260 / 2280 M key (PCIe x4 ,SATA)
	M.2 2280 for H420E support SATA only
	5. M.2 2230 E key (PCIe x1, USB2.0, CNVi)
	/ **5G card support is by BOM option. Please check with sales about the M.2 B Key 3052 5G card spec if you have any request
BIOS	256 Mbit SPI
H/W MONITOR	Temperature Monitor / Voltage Monitor / Fan Monitor
WATCHDOG TIMER	1~255 steps by software program
SMART FAN CONTROL	CPU Fan / System Fan
VGA	-
DVI	Up to 1920 x 1200 @60 Hz
HDMI	Up to 4K (4096 x 2160) @30 Hz
DISPLAYPORT	Up to 4K (4096 x 2304) @60 Hz
LVDS	-
eDP (Option)	Up to 4K (4096 x 2304) @60 Hz
USB	2 x USB 2.0 / 4 x USB 3.1 Gen1 (Q470E / W480E) / 3 x USB 3.1 Gen1 (H420E)
DISPLAY I/O	1 x HDMI 1.4 / 1 x DisplayPort 1.2 / 1 x DVI-I
AUDIO I/O	1 x 3-stack Audio Jack (Mic-in, Line-in, and Line-out)
LAN I/O	2 x RJ-45 (1 x Optional)
SERIAL PORT	1 x RS232
PS/2 PORT	-
OTHERS	-
STORAGE	6 x SATAIII (Q470E / W480E)
	/ 4 x SATAIII (H420E)
	2 x USB 3.1
USB	/ 2 x USB 2.0
DISPLAY I/O	1 x Backlight Connector / 1 x eDP
AUDIO I/O	-
SERIAL PORT	2 x RS232 / 1 x RS232 / 422 / 485
PS/2 PORT	-
PARALLEL PORT	-
GPIO	1 x MiAPI Header (Programmable. Support 10-bit GPIO)
FAN	1 x 4-pin CPU Fan Header / 1 x 4-pin System Fan Header
POWER	1 x 8-pin ATX Power Connector / 1 x 24-pin ATX Power Connector / 1 x AT / ATX Mode Select
	Jumper
POWER INPUT	ATX 8-pin + ATX 24-pin
OPERATING TEMPERATURE	0 ~ 60°C (32 ~140°F)
STORAGE TEMPERATURE	-20 ~ 70°C (-4 ~158°F)
OPERATING HUMIDITY	10% ~ 95% R/H (Non-condensing)
CERTIFICATION	CE / *Class B by request for customization SKU / FCC Class A
OS SUPPORT	Windows® 10 64-bit / Linux (support by request)
PACKAGE	1 x Motherboard / 1 x 50 cm SATA Cable / 1 x I/O Bracket