



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

- Intel Q470E Chipset !
- Intel vPro tech support !
- up to 32GB DDR4 SO-DIMM !
- Support triple display !



- Intel® Comet Lake 10th 65W(10cores) LGA processor
- Intel® Q470E Chipset
- Intel® vPro technology support (Q470E)
- 2 x DDR4 SO-DIMM up to 32GB
- Support triple display for HDMI, DisplayPort and LVDS/eDP
- 1 x M.2 M 2280, 1 x M.2 E 2230, 1 x mPCIe Full size, 1 x PCIe X4
- 2 x Intel® Gigabit Ethernet
- DC-in 12V

MECHANICAL

FORM FACTOR

Mini-ITX: 6.7" x 6.7" (170 mm x 170 mm)

SYSTEM	PROCESSOR	10th Gen Intel® Comet Lake LGA1200 Socket Processor / 10core TDP Max 35W / 8ccore TDP 65W
	CHIPSET	Intel® Q470 (Support RAID 0 / 1 / 5, VPro)
	SYSTEM MEMORY	DDR4 2933/2666/2400MHz / 2 x 260-pin SO-DIMM / Max. 64 GB (Non-ECC)
	GRAPHICS	Intel® HD Graphics
	ETHERNET	Intel® I219-LM Giga LAN + Intel® I211-AT Giga LAN
	AUDIO	Realtek® ALC662 / ALC888
	I/O CHIPSET	Nuvoton NCT6126D(eSPI)
	TPM	TPM Header / (support TPM module board NPCT750)
	EXPANSION SLOT	1 x M.2 2230 E key(PCIe / USB) / PCIe 3.0 X4 slot / M.2 2242 / 2280 M key (PCIe, SATA) / Mini PCIe Full size (PCIe / USB / SATA)
	BIOS	AMI BIOS / 128 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	
2nd DISPLAYPORT	-	
VGA	-	
DVI	-	
HDMI	Up to 4K (4096 x 2160) @30 Hz	
DISPLAYPORT	Up to 4K (4096 x 2304) @60 Hz	
LVDS	Up to 1920 x 1200 @60 Hz	
eDP (Option)	Up to 4K (4096 x 2304) @60 Hz	
USB	4 x USB 3.2 Gen 2 (Q470)	
DISPLAY I/O	1 x HDMI 1.4 / 1 x DisplayPort 1.2	
AUDIO I/O	1 x Mic-in / 1 x Line-out	
LAN I/O	2 x RJ-45	
SERIAL PORT	-	
PS/2 PORT	-	
OTHERS	DC-in 12V(DIN 4-pin power cable) / DC-in 19V (5.1 mm / ID, 7.4 mm / OD)	
STORAGE	2 x SATAIII / 1 x SATA power header	
USB	6 x USB 2.0	
DISPLAY I/O	1 x LVDS (*Optional eDP SKU available) / 1 x Backlight Connector	
AUDIO I/O	-	
SERIAL PORT	4 x RS232 (One supports RS232 / 422 / 485)	
PARALLEL PORT	-	
INTERNAL CONNECTORS	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 AT / ATX Mode Select Jumper / 1 x 4-pin ATX Power Connector	
OTHERS	1 x CMOS Jumper / 1 x Front Audio Header (Mic-in & Line-out) / 1 x panel power select header / 1 x backlight power select header, / 1x buzzer header / 1x Digital MIC	

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POWER REQUIREMENT	POWER INPUT	DC-in 19V (5.1 mm / ID, 7.4 mm / OD) / ATX 2-pin 19V / DC-in 12V(DIN 4-pin power cable)/ ATX 4-pin 12V
ENVIRONMENTAL	OPERATING TEMPERATURE	0 ~ 60°C (32 ~140°F)
	STORAGE TEMPERATURE	-40 ~ 85°C (-40 ~185°F)
	OPERATING HUMIDITY	10% ~ 95% R/H (Non-condensing)
	CERTIFICATION	CE / FCC Class B
OS	OS SUPPORT	Windows® 10 64-bit / Linux (support by request)
PACKING LIST	PACKAGE	1 x Motherboard / 2 x I/O Bracket (Half and Full Height) / 1 x Quick Installation Guide / 1 x SATA & SATA PWR Cable