



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

- Intel Alder Lake !
- Q670 Chipset !
- 12V DC-in !
- vPro !

Long-term availability until at least 2030.

- Intel® Alder Lake 12th i9/i7/i5/i3 LGA 65W processor
- Intel® Q670 Chipset
- Intel® vPro technology support (nur Q670)
- 2x DDR5 SO-DIMM up to 64GB
- Support triple display for HDMI, DisplayPort and LVDS/eDP
- 1x M.2 2280M-key (NVME), 1x M.2 2230 E-key (CNVi), 1x M.2 3042 B-Key, 1x PCIe X4
- 1x Intel® 2.5Gigabit Ethernet, 1x Intel® Gigabit Ethernet
- DC-in 12V

FORM FACTOR

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

PROCESSOR

12th Gen Intel® Alder Lake LGA1700 Socket Processor / Core i9/i7/i5/i3 Processor / TDP 65W

CHIPSET

Intel® Q670

SYSTEM MEMORY

DDR5 4800 MHz / 2 x 262-pin SO-DIMM / Max. 64 GB (Non-ECC)

GRAPHICS

Intel® UHD Graphics

ETHERNET

Intel® I219-LM Giga LAN + Intel® I225V 2.5 Giga LAN

AUDIO

Realtek® ALC888 Co-Lay ALC897

I/O CHIPSET

Nuvoton NCT6126D(eSPI)

TPM

TPM Header / (support optional TPM module board NPCT750)

|                       |   |
|-----------------------|---|
| EXPANSION SLOT        | 1x M.2 2230 E key (PCIe X1 , USB2.0, SMBus, CNVi)<br>/ 1x M.2 3042 B key (USB2.0, PCIe3.0 X1, SATAIII)<br>/ 1x M.2 2242 / 2280 M key (PCIe3.0 X4, SATAIII)<br>/ 1x PCIe 3.0 X4 slot |
| BIOS                  | AMI 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  |
| 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 Gen1 (H610) / 4 x USB 3.2 Gen2 (Q670)   |
| DISPLAY I/O           | 1 x HDMI 1.4 / 1 x DisplayPort 1.2  |
| AUDIO I/O             | 1 x Mic-in<br>/ 1 x Line-out  |
| LAN I/O               | 2 x RJ-45   |
| SERIAL PORT           | -   |
| PS/2 PORT             | -   |
| OTHERS                | DC-in 12V (2.5 mm / ID, 5.5 mm / OD)  |
| STORAGE               | 2 x SATAIII   |
| USB                   | H610 & Q670: 5 x USB 2.0 (1 x USB share M.2 B)<br>/ Q670: 2 x USB 3.2   |
| DISPLAY I/O           | 1 x LVDS (*Optional eDP SKU available) / 1 x Backlight Connector  |
| AUDIO I/O             | 1 x Stereo Speaker Header   |
| SERIAL PORT           | 1 x RS232 / 1 x RS232 / 422 / 485   |
| 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 AT / ATX Mode Select Jumper / 1 x 4-pin ATX Power Connector<br>1 x CMOS Jumper / 1 x Front Audio Header (Mic-in & Line-out) / 1   |
| OTHERS                | x panel power select header / 1x buzzer header / 1x Digital MIC / 1<br>x FIO header / 1 x intrusion switch header   |
| POWER INPUT           | DC-in 12V (2.5 mm / ID, 5.5 mm / OD) / ATX 4-pin 12V / DC-in 19V<br>(5.1 mm / ID, 7.4 mm / OD) / ATX 4-pin 19V  |
| 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 SUPPORT            | Ubuntu 20.04 / Windows® 11 64bit, / Linux (support by request)  |
| PACKAGE               | 1 x Motherboard / 2 x I/O Bracket (Half and Full Height) / 1 x SATA<br>& SATA PWR Cable   |