



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

Special offer. Like PH12FEI-H310-19V, but only 1x LAN, without PCIe, without Serial/MAPI header.

- Intel® Coffee Lake Core i7/i5/i3 / Pentium / Celeron LGA1151 processors
- Intel H310 Chipset
- 2x DDR4 SO-DIMM, support up to 32GB
- Support triple display for HDMI, Display Port and LVDS
- 3x SATA III
- 1x Intel Gigabit Ethernet
- 6x USB 2.0, 4 x USB3.1 (Gen 2)
- DC-in 19V power input

Attention : M.2 slot is without function.

**PH12FEI (PH12FEI) Specifications**

|            |                   |                                                                                                                         |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| MECHANICAL | FORM FACTOR       | Mini-ITX: 6.7" x 6.7" (170 mm x 170 mm)                                                                                 |
|            | PROCESSOR         | 9th & 8th Gen Intel Coffee Lake LGA1151 Socket Processor, Core i7/i5/i3 6-core TDP Max. 65W, Core i9 8-core TDP Max 35W |
|            | CHIPSET           | Intel® H310 / Intel® Q370 (Support RAID 0 / 1 / 5)                                                                      |
|            | SYSTEM MEMORY     | DDR4 2666MHz / 2 x 260-pin SO-DIMM / Max. 32GB (Non-ECC)                                                                |
| SYSTEM     | GRAPHICS          | Intel® HD Graphics                                                                                                      |
|            | ETHERNET          | Intel® Giga LAN                                                                                                         |
|            | AUDIO             | Realtek® ALC662                                                                                                         |
|            | I/O CHIPSET       | Nuvoton NCT6116D                                                                                                        |
|            | TPM               | Nuvoton NPCT750AAAYX TPM2.0 (Optional)                                                                                  |
|            | EXPANSION SLOT    |                                                                                                                         |
|            | BIOS              | 256 Mbit SPI                                                                                                            |
|            | H/W MONITOR       | Temperature Monitor / Voltage Monitor / Fan Monitor                                                                     |
| GRAPHICS   | WATCHDOG TIMER    | 1~255 steps by software program                                                                                         |
|            | SMART FAN CONTROL | CPU Fan / System Fan                                                                                                    |
|            | 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 3.1 Gen 2 / 4 x USB 3.0 (H310)                                                                                  |
|            | DISPLAY I/O       | 1 x HDMI 1.4 / 1 x DisplayPort 1.2                                                                                      |
| REAR I/O   | AUDIO I/O         | 1 x Mic-in / 1 x Line-out                                                                                               |
|            | LAN I/O           | 1 x RJ-45                                                                                                               |
|            | SERIAL PORT       | -                                                                                                                       |
|            | PS/2 PORT         | -                                                                                                                       |
|            | OTHERS            | DC-in 19V (5.1 mm / ID, 7.4 mm / OD)                                                                                    |

|                     |                       |                                                                                                                                                                                               |
|---------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INTERNAL CONNECTORS | STORAGE               | 3 x SATAIII                                                                                                                                                                                   |
|                     | USB                   | 6 x USB 2.0 (Q370) / 5 x USB 2.0 (H310)                                                                                                                                                       |
|                     | DISPLAY I/O           | 1 x LVDS (*Optional eDP SKU available) / 1 x Backlight Connector                                                                                                                              |
|                     | AUDIO I/O             | 1 x Audio Header (Front Panel Mic-in & Line-out)                                                                                                                                              |
|                     | SERIAL PORT           | -                                                                                                                                                                                             |
|                     | PARALLEL PORT         | -                                                                                                                                                                                             |
|                     | GPIO                  | -                                                                                                                                                                                             |
|                     | FAN                   | 1 x 4-pin CPU Fan Header / 1 x 4-pin System Fan Header                                                                                                                                        |
|                     | POWER                 | 1 x ATX Power Connector / 1 x AT / ATX Mode Select Jumper                                                                                                                                     |
|                     | OTHERS                | 1 x Chassis Intrusion / 1 x CMOS Jumper                                                                                                                                                       |
| POWER REQUIREMENT   | POWER INPUT           | DC-in 19V (5.1 mm / ID, 7.4 mm / OD) / ATX 2-pin 19V                                                                                                                                          |
| ENVIRONMENTAL       | OPERATING TEMPERATURE | 0 ~ 60°C (32 ~140°F)                                                                                                                                                                          |
|                     | STORAGE TEMPERATURE   | -20 ~ 80°C (-4 ~176°F)                                                                                                                                                                        |
|                     | OPERATING HUMIDITY    | 10% ~ 95% R/H (Non-condensing)                                                                                                                                                                |
| OS                  | CERTIFICATION         | CE / FCC Class B                                                                                                                                                                              |
|                     | OS SUPPORT            | Windows® 10 64-bit / Linux (support by request)                                                                                                                                               |
| PACKING LIST        | PACKAGE               | 1 x Motherboard / 1 x 50 cm SATA Cable / 1 x 45 cm SATA Power Cable / 2 x I/O Bracket (Half and Full Height) / 1 x Quick Installation Guide / 1 x ATX 4-pin to DIN 4-pin Cable (12v SKU only) |