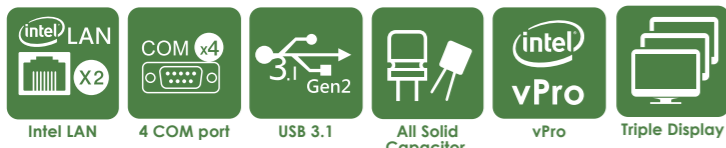
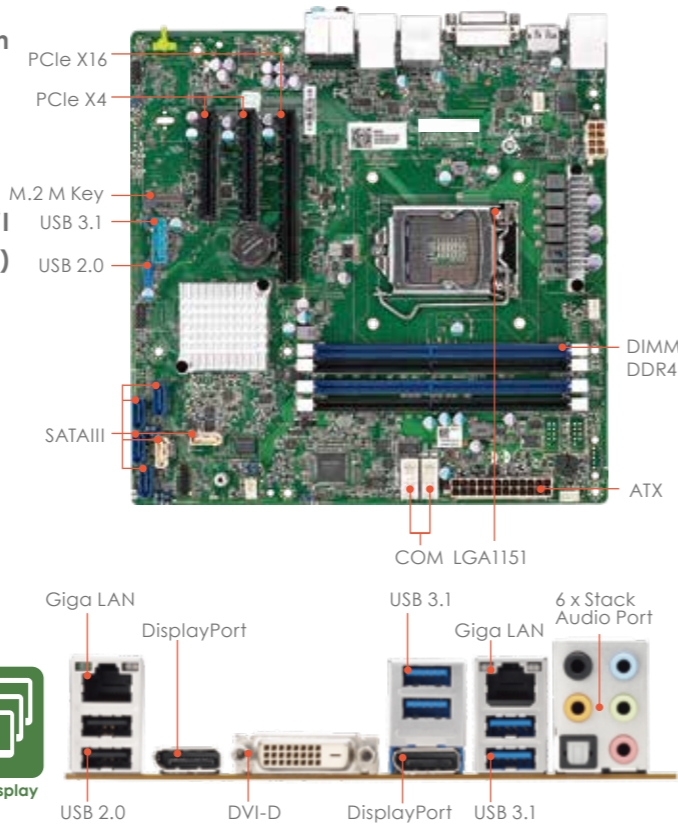


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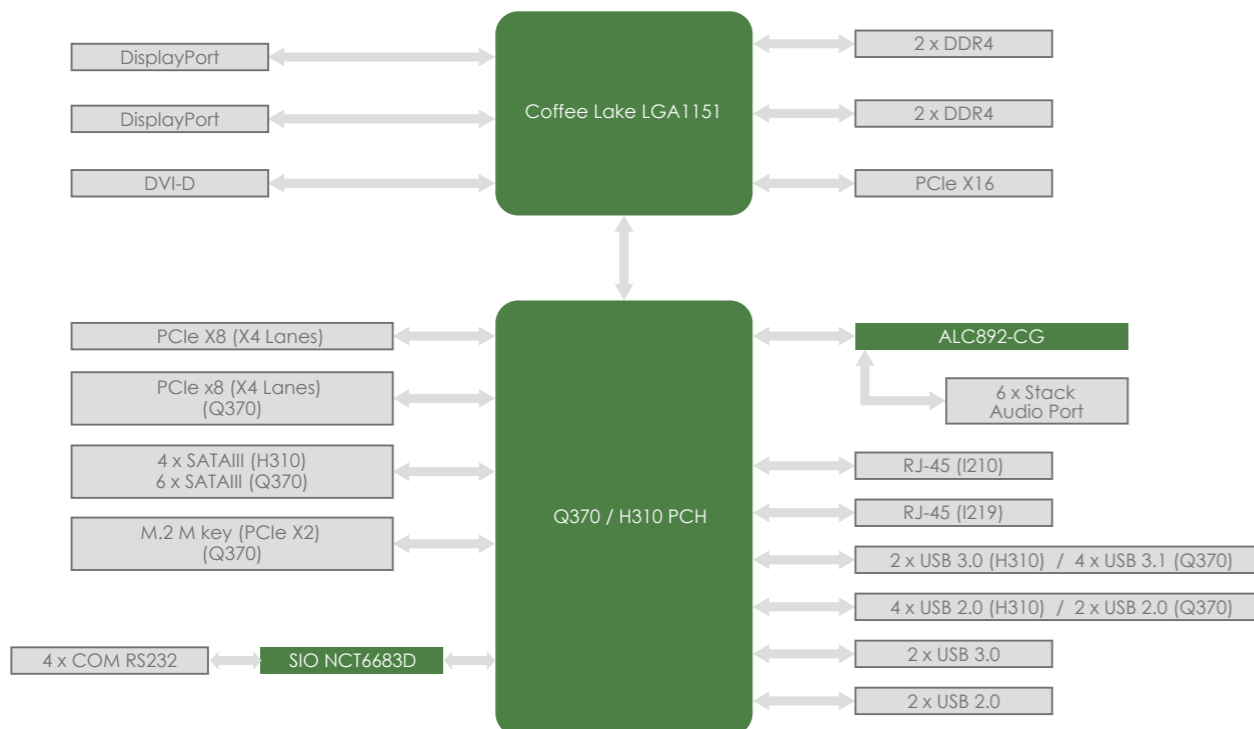
Micro-ATX Form Factor
Intel® Coffee Lake Processor with Q370 / H310 Chipset

Features

- Intel® Coffee Lake Core i7/i5/i3/Pentium/Celeron LGA1151 processors
- Intel® Q370 / H310 Chipset
- Intel® vPro technology supported
- 4 x DDR4 DIMM, support up to 64GB
- Support triple display for 2 x DisplayPort and DVI
- Support PCIe X16 (Gen 3) slot, 2 x PCIe X4 (Gen 3) slot, and M.2 slot
- 6 x SATAIII (support RAID 0, 1, 5, 10 w/ Q370)
- 2 x Intel® Gigabit Ethernet
- 4 x USB 2.0, 2 x USB 3.0, 4 x USB3.1 (Gen 2), 4 x COM
- ATX power input



Block Diagram



PH10FEU Micro ATX

| MECHANICAL | |
|-----------------------|--|
| Form Factor | Micro-ATX 9.6" x 9.6" (244mm x 244mm) |
| SYSTEM | |
| Processor | 9th & 8th Gen Intel® Coffee Lake LGA1151 Socket Processor, Core i7/i5/i3 6-core TDP Max. 95W, Core i9 8-core TDP Max 35W |
| Chipset | Intel® Q370 (Support RAID 0 / 1 / 5 / 10) / Intel® H310 |
| Memory | DDR4 2666MHz, 4 x 288-pin U-DIMM, Max. 64GB (Non-ECC) |
| Graphics | Intel® HD Graphics |
| Ethernet | Intel® I219-LM Giga LAN + Intel® I210-AT Giga LAN |
| Audio | Realtek® ALC892 |
| I/O Chipset | Nuvoton NCT6683D |
| TPM | Nuvoton NPCT750AAAYX TPM2.0 (Optional) |
| Expansion Slot | PCIe 3.0 X16 slot 2 x PCIe 2.0 X8 slot (X4 Lanes) for Q370 PCIe 2.0 X8 slot (X4 Lanes) for H310 / M.2 2242 / 2280 M key (PCIe) |
| BIOS | 256 Mbit SPI, AMI BIOS |
| H / W Monitor | Temperature Monitor, Voltage Monitor, Fan Monitor |
| Watchdog Timer | 1~255 Steps by Software Program |
| Smart Fan Control | CPU Fan / System Fan |
| GRAPHICS | |
| VGA | — |
| DVI | Up to 4K (4096 x 2160) @30 Hz |
| HDMI | — |
| DisplayPort | Up to 4K (4096 x 2304) @60 Hz |
| LVDS | — |
| eDP (Option) | — |
| REAR I/O | |
| USB | 4 x USB 3.1 Gen 2 (Q370), 2 x USB 2.0 (Q370), 4 x USB 2.0 (H310), 2 x USB 3.0 (H310) |
| Display I/O | 1 x DVI-D, 2 x DisplayPort 1.2 |
| Audio I/O | 6 x Stack Audio Jack |
| LAN I/O | 2 x RJ-45 |
| Serial Port | — |
| PS/2 Port | — |
| Others | — |
| INTERNAL CONNECTORS | |
| Storage | 6 x SATAIII / 4 x SATAIII (H310) 2 x USB 3.0 (Q370) 2 x USB 2.0 |
| Display I/O | — |
| Audio I/O | — |
| Serial Port | 4 x RS232 |
| PS/2 Port | — |
| Parallel Port | — |
| GPIO | — |
| Fan | 1 x 4-pin CPU Fan Connector, 1x 4-pin System Fan Connector |
| Power | 1 x ATX 24-pin, 1 x ATX 4-pin, 1 x AT/ATX Mode Select Jumper |
| Others | 1 x Front Audio Header (Mic-in & Line-out), 1 x Chassis Intrusion, 1 x CMOS Jumper |
| POWER REQUIREMENT | |
| Power Input | ATX Power 8-pin + ATX Power 24-pin |
| ENVIRONMENTAL | |
| 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 & FCC Class B |
| OS | |
| OS Support | Windows® 10 64-bit Linux (support by request) |

Ordering Information

| Model Number | Chipset | Display Port | DVI-D | External USB 3.1/3.0/2.0 | Internal USB 3.0/2.0 | 6-stack Audio Jack | RS232 | LAN | M.2 (2280 M key) / SATA | PCIe X16 | PCIe X4 | Power |
|--------------|-------------|--------------|-------|--------------------------|----------------------|--------------------|-------|-----|-------------------------|----------|---------|----------------------------|
| PH10FEU-Q370 | Intel® Q370 | 2 | 1 | 4 / 0 / 2 | 2 / 2 | 1 | 4 | 2 | 1 / 6 | 1 | 2 | ATX Power (24-pin + 8-pin) |
| PH10FEU-H310 | Intel® H310 | 2 | 1 | 0 / 2 / 4 | 2 / 2 | 1 | 4 | 2 | 0 / 4 | 1 | 1 | ATX Power (24-pin + 8-pin) |

Packing List

| Packing | | |
|-------------------|-----------------------|-------------------|
| • 1 x Motherboard | • 1 x 50cm SATA Cable | • 1 x I/O Bracket |