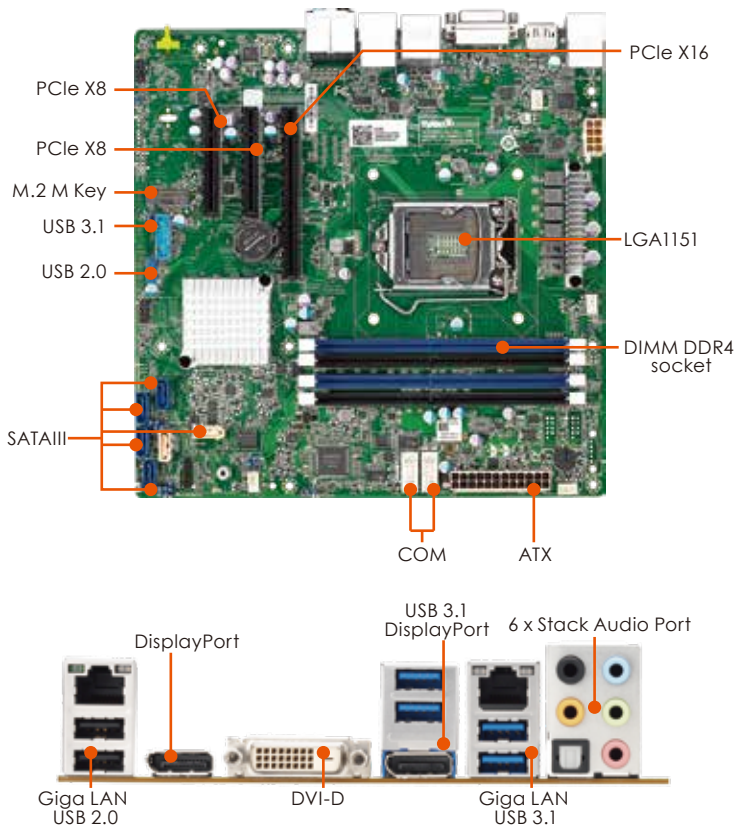


# PH10FEU

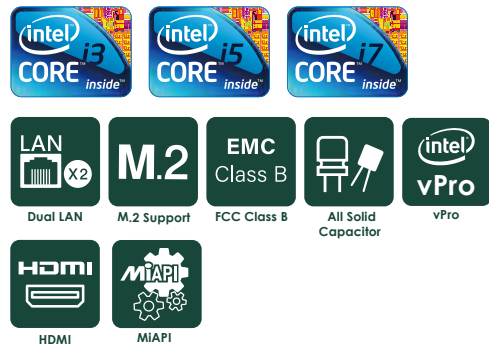
Micro-ATX Form Factor

Intel® Coffee Lake Processor with Q370 / H310 Chipset

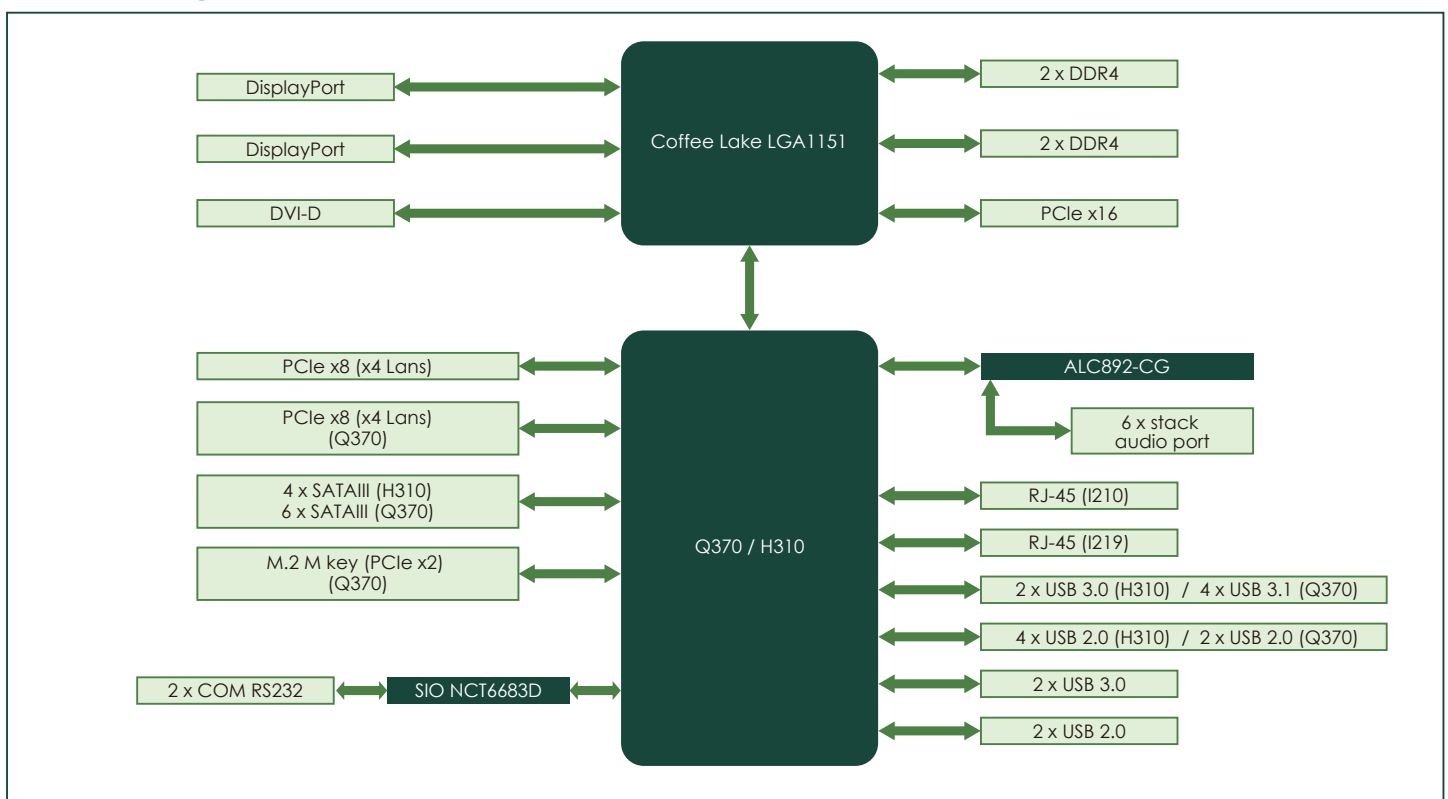


## Features

- Intel® Coffee Lake Core i7/i5/i3/Pentium/Celeron LGA1151 processors
- Intel® H310/Q370 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 x8 (Gen 3) slot, and M.2 slot
- 6 x SATA III support RAID 0,1,5,10
- 2 x Intel® Gigabit Ethernet
- 4 x USB 2.0, 2x USB 3.0, 4 x USB3.1 (Gen 2), 4 x COM
- ATX power input



## Block Diagram



# PH10FEU

Micro ATX

# Industrial Motherboard

## MECHANICAL

Form Factor Micro-ATX 9.6" x 9.6" (244mm x 244mm)

## SYSTEM

Processor	8th Gen Intel® Coffee Lake LGA1151 Socket Processor, TDP Max. 95W
Chipset	Intel® Q370 (Support RAID 0 / 1 / 5 / 10) Intel® H310
Memory	DDR4 2666MHz, 4 x 288-pin 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	1 x PCIe x16 slot 2 x PCIe x8 slot (x4 lanes) 1 x 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 (10 Gbps), 2 x USB 2.0
Display I/O	1 x DVI-D, 2 x Display Port 1.2
Audio I/O	1 x 6-stack Audio Jack
LAN I/O	2 x RJ-45
Serial Port	—
PS/2 Port	—
Others	—

## INTERNAL CONNECTORS

Storage	6 x SATAIII
USB	2 x USB 3.1 2 x USB 2.0
Display I/O	—
Audio I/O	1 x Line-out
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 (24-pin + 8-pin)

## ENVIRONMENTAL

Operating Temperature	0 ~ 60°C (32 ~131°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)
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## Ordering Information

Model Number	Chipset	Display Port	DVI-D	USB 3.1 / 2.0	Mic-in/ Line out/ Line in	RS232	LAN	M.2 (2280 M key) / SATA	PCIe x 16	PCIe x 8	Power
PH10FEU-Q370	Intel® Q370	2	1	6 / 4	1 / 1 / 1	2	2	1 / 6	1	2	ATX Power (24-pin + 8-pin)
PH10FEU-H310	Intel® H310	2	1	4 / 2	1 / 1 / 1	2	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
- 1 x Driver CD
- 1 x Quick Guide