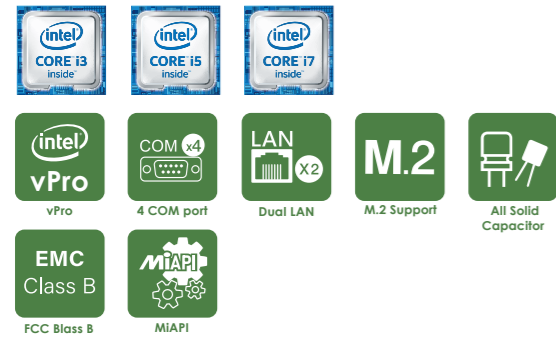
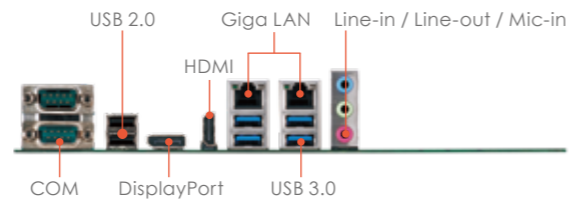
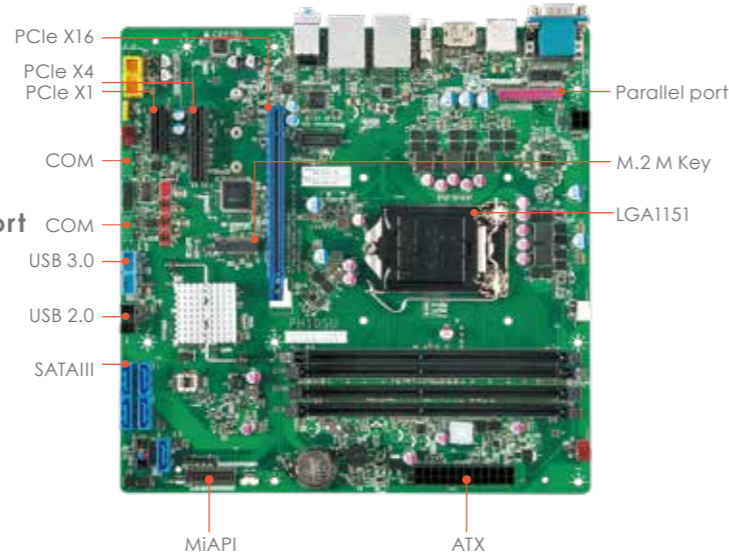


# PH10SU

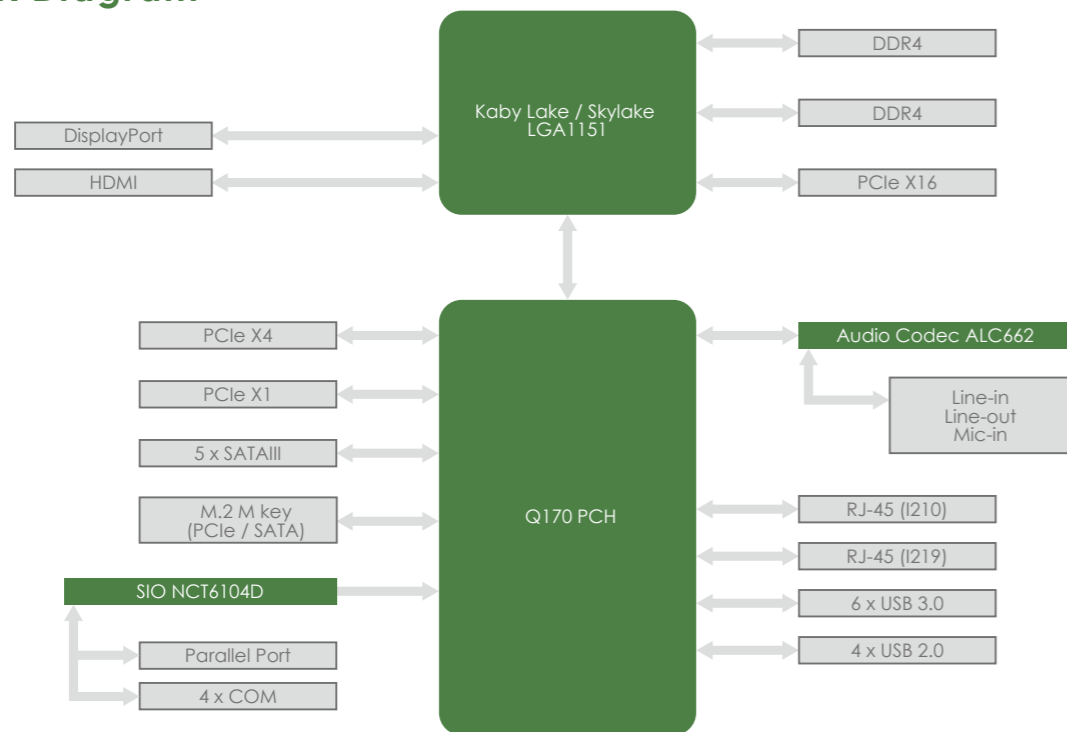
Micro-ATX Form Factor  
Intel® Kaby Lake / Skylake Processor with Q170 Chipset

## Features

- Intel® Skylake / Kaby Lake Core i7/i5/i3 / Pentium / Celeron LGA1151 processors
- Intel® Q170 Chipset
- Intel® vPro technology supported
- 4 x DDR4 DIMM, support up to 64GB
- Support dual display for HDMI and DisplayPort
- Support 1 x PCIe X16 (Gen 3) slot, 1 x PCIe X4 (Gen 2) slot
- 1 x PCIe X1 (Gen 2) slot and M.2 slot
- 5 x SATAIII, RAID 0, 1, 5, 10
- 2 x Intel® Gigabit Ethernet
- 4 x USB 2.0, 6 x USB 3.0, 4 x COM and 1 x Parallel Port
- ATX power input



## Block Diagram



# PH10SU Micro ATX

MECHANICAL	
Form Factor	Micro-ATX 9.6" x 9.6" (244mm x 244mm)
SYSTEM	
Processor	7th/6th Gen Intel® Core™ i Series LGA1151 Socket Processor, TDP Max. 91W
Chipset	Intel® Q170 Chipset (Support RAID 0/1/5/10)
Memory	DDR4 2133, 4 x 288-pin U-DIMM, Max. 64 GB (Non-ECC)
Graphics	Intel® HD Graphics
Ethernet	Intel® I219LM Giga LAN + I210AT Giga LAN
Audio	Realtek® ALC662
I/O Chipset	Nuvoton NCT6104D
TPM	Nuvoton NPCT650AAAWX TPM2.0
Expansion Slot	1 x PCIe 3.0 X16 slot 1 x PCIe 2.0 X4 slot 1 x PCIe 2.0 X1 slot 1 x M.2 2280/2260/2242 M key (PCIe / SATA)
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	—
HDMI	Up to 4k (4096 x 2160) @24 Hz
DisplayPort	Up to 4K (4096 x 2304) @60 Hz
LVDS	—
eDP (Option)	—
REAR I/O	
USB	4 x USB 3.0, 2 x USB 2.0
Display I/O	1 x HDMI 1.4, 1 x DisplayPort 1.2
Audio I/O	1 x Audio Jack (Mic-in, Line-in, and Line-out)
LAN I/O	2 x RJ-45
Serial Port	2 x RS232 (Configurable for power RS232)
PS/2 Port	—
Others	—
INTERNAL CONNECTORS	
Storage	5 x SATAIII, 1 x 4-pin SATA power for DOM
USB	2 x USB 3.0, 2 x USB 2.0
Display I/O	—
Audio I/O	1 x Audio Header (Front Panel Mic-in / Line-out) 1 x S/PDIF Out Audio Header (4-pin)
Serial Port	2 x RS232 (Configurable for RS232/422/485)
PS/2 Port	—
Parallel Port	1 x Parallel Port Header
GPIO	1 x MiAPI Header (Programmable, Support 10 x GPIO)
Fan	1 x 4-pin CPU Fan Header, 1 x 4-pin System Fan Header
Power	1 x ATX 24-pin, 1 x ATX 4-pin
Others	MiAPI: Programmable header (support 10 x GPIO, 1 x SMBUS, 1 x UART, 1 x Watchdog) with API library supported for Windows OS 1 x Chassis Front Panel Header 1 x CMOS Jumper
POWER REQUIREMENT	
Power Input	ATX Power (24-pin + 4-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	Kaby Lake: Windows® 10 64bit, Linux (support by request) Skylake: Windows® 7 32/64bit, Windows® 8.1 64bit, Windows® 10 64bit, Linux (support by request)

## Ordering Information

Model Number	Chipset	DisplayPort	HDMI	3-Stack Audio Jack	LAN	USB3.0 / 2.0	Serial Port	M.2 2280	PCIe X1/ X4/ X16	SATA	Power
PH10SU-Q170	Q170	1	1	1	2	6/4	4	1	1/1/1	5	ATX Power (24-pin + 4-pin)

## Packing List

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