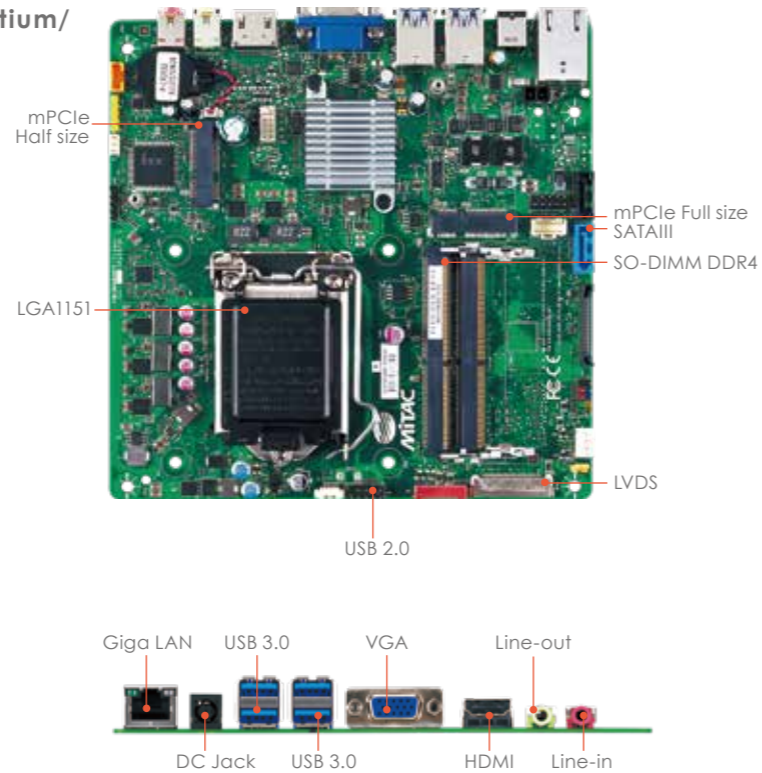
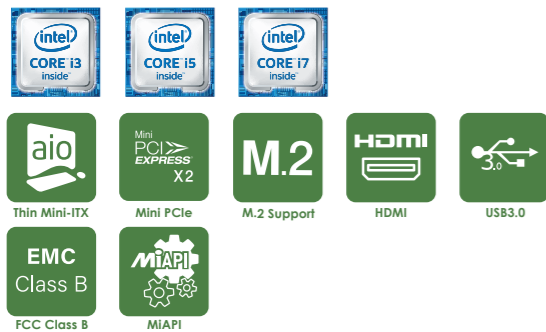


# PH11SI

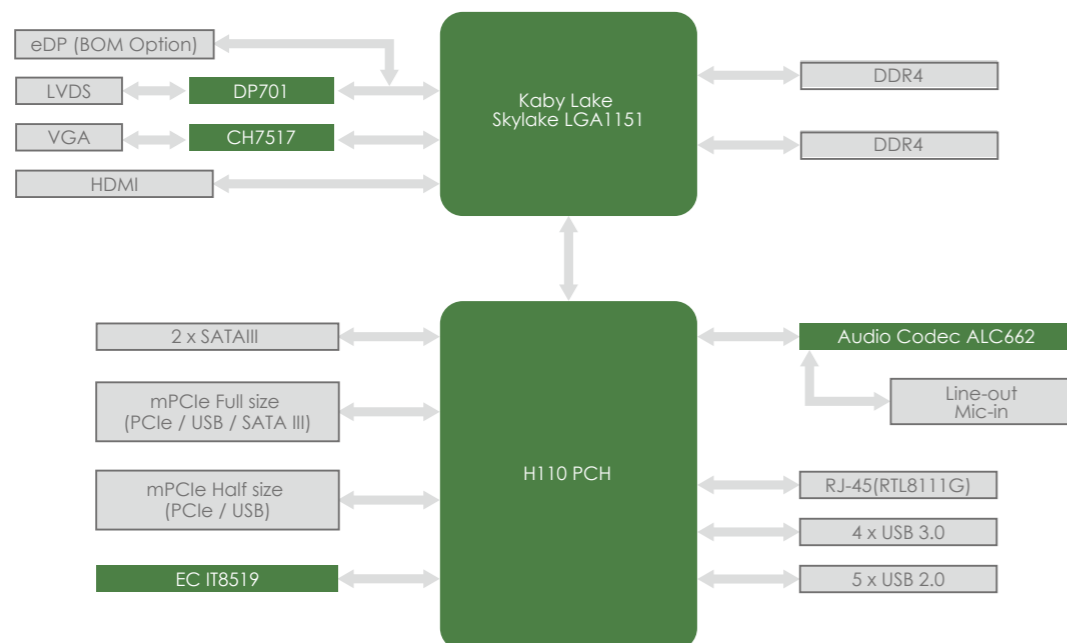
Thin Mini-ITX Form Factor  
Intel® Kaby Lake / Skylake Processor with H110 Chipset

## Features

- Intel® Skylake/Kaby Lake Core i7/i5/i3/Pentium/ Celeron LGA1151 processors
- Intel® H110 Chipset
- 2 x DDR4 SO-DIMM, support up to 32GB
- Support dual display for HDMI, VGA and LVDS/eDP
- 2 x Mini PCIe slot
- 2 x SATA III
- 1 x Intel® Gigabit Ethernet
- 5 x USB 2.0, 4 x USB 3.0
- DC-in 12/19V power input



## Block Diagram



# PH11SI Thin Mini-ITX

MECHANICAL	
Form Factor	Mini-ITX: 6.7" x 6.7" (170mm x 170mm)
SYSTEM	
Processor	7/6th Gen Intel® Kaby Lake / Skylake LGA1151 Socket Processor, TDP Max. 65W
Chipset	Intel® H110
Memory	DDR4 1866/2133MHz, 2 x 260-pin SO-DIMM, Max. 32GB (Non-ECC)
Graphics	Intel® HD Graphics
Ethernet	Realtek® RTL8111G Giga LAN
Audio	Realtek® ALC662
I/O Chipset	ITE IT8519E
TPM	Nuvoton NPCT650AAAYX TPM2.0 (Optional)
Expansion Slot	1 x PCIe X4 slot 1 x PCIe Full/Half size (PCIe / USB / SATA) 1 x PCIe Half size (PCIe / USB)
BIOS	AMI BIOS, 128 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
GRAPHICS	
VGA	Up to 1920 x 1200 @60 Hz
DVI	—
HDMI	Up to 4K (3840 x 2160) @30 Hz
DisplayPort	—
LVDS	Up to 1920 x 1200 @60 Hz
eDP (Option)	Up to 4K (4096 x 2304) @60 Hz
REAR I/O	
USB	4 x USB 3.0
Display I/O	1 x HDMI 1.4, 1 x VGA
Audio I/O	1 x Mic-in, 1 x Line-out
LAN I/O	1 x RJ-45
Serial Port	—
PS/2 Port	—
Others	1 x DC Jack
INTERNAL CONNECTORS	
Storage	2 x SATAIII
USB	5 x USB 2.0
Display I/O	1 x LVDS (Optional eDP SKU available) 1 x Backlight Connector
Audio I/O	1 x Line-out
Serial Port	—
PS/2 Port	—
Parallel Port	—
GPIO	—
Fan	1 x 4-pin CPU Fan Connector
Power	1 x 19V ATX Power Connector x 1, AT/ATX Mode Select Jumper
Others	1 x Front Audio Header (Mic/HP) x 1, CMOS Jumper
POWER REQUIREMENT	
Power Input	DC-in 19V(5.1mm/ ID, 7.4mm/ OD)/ ATX 2-pin 19V DC-in 12V(2.5mm/ ID, 5.5mm/ OD)/ ATX 4-pin 12V (optional)
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® 10 64bit, Linux (support by request)

## Ordering Information

Model Number	Chipset	VGA	HDMI	LVDS / eDP	USB 3.0 / 2.0	SATA	Mic-in/ Line out	LAN	mini PCIe Full / Half size	M.2 2230 E key / M.2 2242 M key	Power
PH11SI-H110-PE	Intel® H110	1	1	1 / 0	4 / 5	2	1 / 1	1	1 / 1	0 / 0	DC-in 19V
PH11SI-H110-M2	Intel® H110	1	1	1 / 0	4 / 5	2	1 / 1	1	0 / 0	1 / 1	DC-in 19V

## Packing List

Packing			
• 1 x Mainboard	• 1 x 50cm SATA Cable	• 2 x I/O Bracket (Half and Full Height)	• 1 x 45cm SATA Power Cable