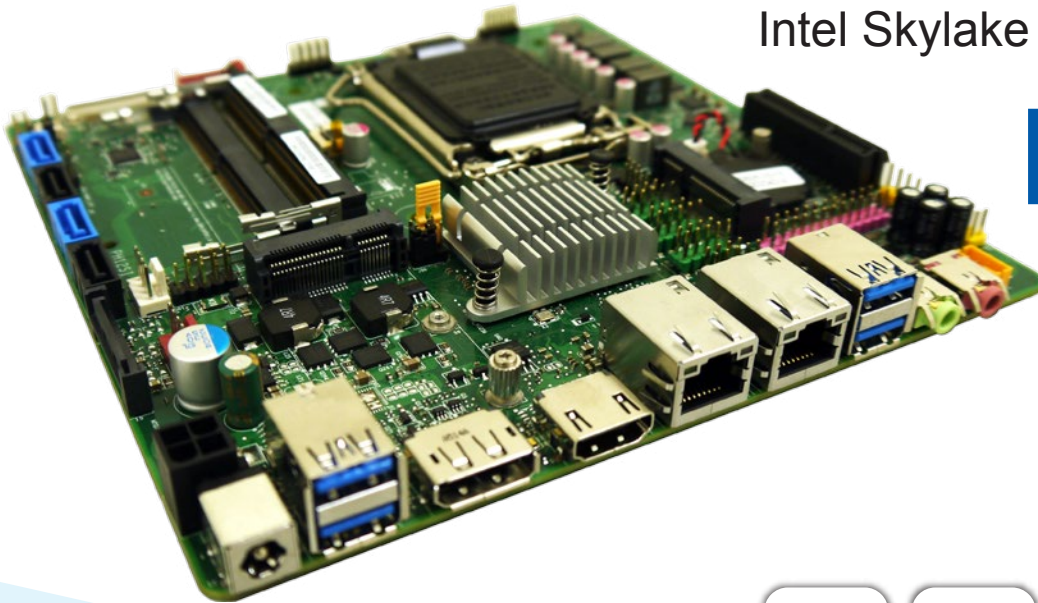


Thin Mini-ITX Form Factor  
Intel Skylake Q170 / H110 chipset

# PH12SI



## Features

Support Intel Skylake / Kabylake processors

Dual channel DDR4 260-pin SO-DIMM  
(up to 32GB)

Intel® vPro business-grade technology  
support (with Q170 chipset)

Dual high speed Gigabit Ethernet  
connection

Two PCI Express MiniCard connector for  
expansion

Features 3/4 SATA3 (6Gbps)

Dual display connectivity by DP & HDMI

Embedded LVDS / eDP connectivity

Onboard 2/4 serial ports

[www.mitac.com](http://www.mitac.com)

## Sales Contact

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Item	Spec	SKU-B	SKU-D	SKU-i
Form Factor	Low-profile Mini-ITX (20 millimeters [0.79 inches] x 170.18 millimeters [6.7 inches] x 170.18 millimeters [6.7 inches])	v	v	v
Processor	CPU Type: Intel Skylake / Kabylake Processor	v	v	v
	CPU Core: Dual Core / Quad Core			
	Socket: Socket LGA1151			
Chipset	TDP: Support up to 65W CPU types	v	v	v
	Chipset Series: Intel® Q170 Chipset			
Memory	Chipset Series: Intel® H110 Chipset	2	2	2
	Memory Type: DDR4 SODIMM @1.2V, 2133/2400 MHz (Unbuffered Non-ECC)			
	Memory Channel: Dual Channel			
	Memory Capacity: Support total up to 32GB			
Audio Controller	ECC Support: No	v	v	v
	Memory Socket: 260-pin So-DIMM socket			
Expansion Capability	Codec: HD audio codec, Realtek ALC662	v	v	v
	PCIe 3.0 x 4 slot			
	PCI Express Full-/Half-Mini Card slot (PCIe / USB / SATA)			
External I/O	PCI Express Half-Mini Card slot (PCIe / USB)	1	1	1
	HD-out			
	DP-out			
	USB 3.0			
	RJ-45			
	Line-out			
	Mic-in			
	DC-in			
Internal I/O	40p Embedded LVDS (default) or eDP (optional) connector	2	2	3
	front audio Header (Mic / HP)			
	standard header for DMIC			
	audio header to support system stereo speaker			
	USB 2.0 2 x 5 header			
	Serial port header			
	Parallel port header			
	MiAPI configurable header			
	SATA 3.0 6 Gb/s (Q170 support RAID 0, 1)			
	CPU fan header			
Legacy I/O	Nuvoton NCT6104D	v	v	v
Security	Intel® vPro™ Technology support	v	v	v
	TPM security by Nuvoton NPCT650AAAYX (optional)			
LAN Support	Intel® I219 Gigabit (10/100/1000 Mb/s) LAN	v	v	v
	Intel® I210 Gigabit (10/100/1000 Mb/s) LAN			
BIOS	Support for Advanced Configuration and Power Interface (ACPI) setting	v	v	v
Instantly Available PC Technology	Suspend to RAM support	v	v	v
	Wake on PCI Express, LAN, front panel, serial, and USB ports			
Hardware Monitor Subsystem	Hardware monitoring through the Nuvoton6104D legacy I/O controller, including Remote thermal sensor	v	v	v
	Speed control for 4-pin system fan header and 4-pin CPU fan header			
Power Requirement	DC-in 19V (5.1 mm/ID, 7.4 mm/OD) / ATX 2pin 19V	v	v	v
	DC-in 12V (2.5 mm/ID, 5.5 mm/OD) / ATX 4pin 12V			
Environment	Operating Temperature: 0°C to +60°C	v	v	v
	Storage Temperature: -20°C to +70°C			
Safety	CE	v	v	v
	FCC			
OS support	Skylake: win7, win8.1, win10, linux support by request			
	Kabylake: win10, linux support by request			

## Packing List

- PH12SI Mainboard
- 50CM SATA Cable
- 45CM SATA Power Cable
- 2\*IO Shield (Half and Full height)
- Driver CD
- Quick Guide