



Thin Mini-ITX Form Factor
Intel Q170 Chipset Support
KabyLake / Skylake Processors

PH13SI



Thin Mini-ITX



Dual GLAN



MiniCard Support



Triple / HDMI



All Solid Capacitor

Features

Support Intel KabyLake / Skylake processors

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

Intel® vPro business-grade technology
support

Dual high speed Gigabit Ethernet
connection

Two PCI Express MiniCard connector for
expansion

Features 4 SATA3 (6Gbps)

Triple display connectivity by HDMI

Embedded LVDS / eDP connectivity

Onboard 4 serial ports





Item	Spec	SKU-D1	SKU-D2
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
	CPU Type: Intel Skylake / Kabylake Processor		
Processor	CPU Core: Dual Core / Quad Core	v	v
	Socket: Socket LGA1151		
	TDP: Support up to 65W CPU types		
Chipset	Chipset Series: Intel® Q170 Chipset	v	v
Memory	Memory Type: DDR4 SODIMM @1.2V, 2133/2400 MHz (Unbuffered Non-ECC)		
	Memory Channel: Dual Channel		
	Memory Capacity: Support total up to 32GB	2	2
	ECC Support: No		
Audio Controller	Memory Socket: 260-pin So-DIMM socket		
	Codec: HD audio codec, Realtek ALC662	v	v
Expansion Capability	PCIe 3.0 x 4 slot		
	PCI Express Full-/Half-Mini Card slot (PCIe / USB / SATA)	v	v
	PCI Express Half-Mini Card slot (PCIe / USB)		
External I/O	HD-out	3	3
	USB 3.0	4	4
	RJ-45	2	2
	Line-out	1	1
	Mic-in	1	1
	DC-in	1	1
Internal I/O	40PIN Header LVDS Connector	1	0
	40PIN Header eDP Connector	0	1
	front audio Header (Mic / HP)	1	1
	standard header for DMIC	1	1
	audio header to support system stereo speaker	1	1
	USB 2.0 2 x 5 header	3	3
	Serial port header	4	4
	MiAPI configurable header	1	1
	SATA 3.0 6 Gb/s (Q170 support RAID 0, 1)	4	4
CPU fan header	1	1	
Legacy I/O	Nuvoton NCT6104D	v	v
Security	Intel® vPro™ Technology support	v	v
	TPM security by Nuvoton NPCT650AAAYX (optional)		
LAN Support	Intel® I219 Gigabit (10/100/1000 Mb/s) LAN	v	v
	Intel® I210 Gigabit (10/100/1000 Mb/s) LAN		
BIOS	Support for Advanced Configuration and Power Interface (ACPI) setting	v	v
Instantly Available PC Technology	Suspend to RAM support	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
	Speed control for 4-pin system fan header and 4-pin CPU fan header		
Power Requirement	DC-in 12V (2.5 mm/ID, 5.5 mm/OD) / ATX 4pin 12V	v	v
Environment	Operating Temperature: 0°C to +60°C	v	v
	Storage Temperature: -20°C to +70°C		
Safety	CE	v	v
	FCC		
OS support	Skylake: win7, win8.1, win10, linux support by request		
	Kabylake: win10, linux support by request		

Packing List

- PH13SI Mainboard
- 50CM SATA Cable
- 45CM SATA Power Cable
- 2*IO Shield (Half and Full height)
- Driver CD
- Quick Guide