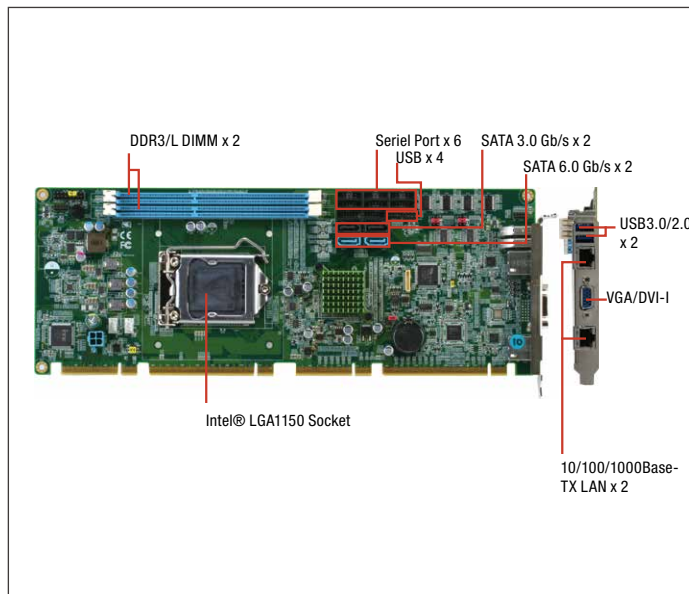


## Full-Size SBC with Intel® 4th Generation Core™ i7/i5/i3 LGA 1150 Processor



## Features

- Intel® 4th Generation Core™ i7/i5/i3 LGA 1150 Processor
- Intel® H81 Chipset
- Dual-Channel DDR3/L DIMM Socket x 2, Up to 16 GB
- Intel® H81 Integrated Intel® HD Graphics
- 10/100/1000Base-TX Ethernet x 2
- SATA 6.0 Gb/s x 2, SATA 3.0 Gb/s x 2
- COM x 6 (RS-232 x 4, RS-232/422/485 x 2)
- USB3.0/2.0 x 2 (On Bracket), USB 2.0 x 6 (4 Onboard)
- PICMG 1.3
- ATX 2.1 Power Requirement

## Specifications

System	
Form Factor	Full Size CPU Card
Bus Interface	PICMG 1.3
CPU	LGA 1150 for Intel® 4th Gen. Core™ i7/i5/i3 processor
Memory Type	Up to 16 GB (DDR3/DDR3L 1333/1600 non-ECC DIMM x 2)
Chipset	Intel® H81
BIOS	AMI
Wake on LAN	No
Watchdog Timer	255 Levels
Watchdog Timer	Yes
Power Requirement	ATX 2.1
Power Consumption (Typical)	Intel® Core™ i7-4790S 3.2 GHz, DDR3 8 GB 2.55A@+12V, 2.07A@+5V, 47.15W (Full load)
Dimension (L x W)	13.3" x 5" (339 mm x 126 mm)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	100,000
Certification	CE/FCC, Class A
Display	
VGA/LCD Controller	Intel® H81
Video Output	Up to 2048 x 1536 @ 75Hz for CRT, Up to 1920 x 1200 @ 60Hz for DVI (single link)
Backlight inverter supply	—
I/O	
Ethernet	10/100/1000Base-TX x 2
Audio	HDAC Daughter Board, Mic-in/ Line-in/Line-out (optional)
USB Port	USB 3.0 x 2, USB 2.0 x 6
Serial Port	RS-232 x 4 RS-232/422/485 x 2
Parallel Port	1
HDD Interface	SATA 3 x 2 + SATA 2 x 2
FDD Interface	—
SSD	—
Expansion Slot	PCI x 4, PCI-Express [x4] x 1, PCI-Express [x16] x 1
DIO	8-bit programmable (4-in/4-out)
TPM	—



## Packing List

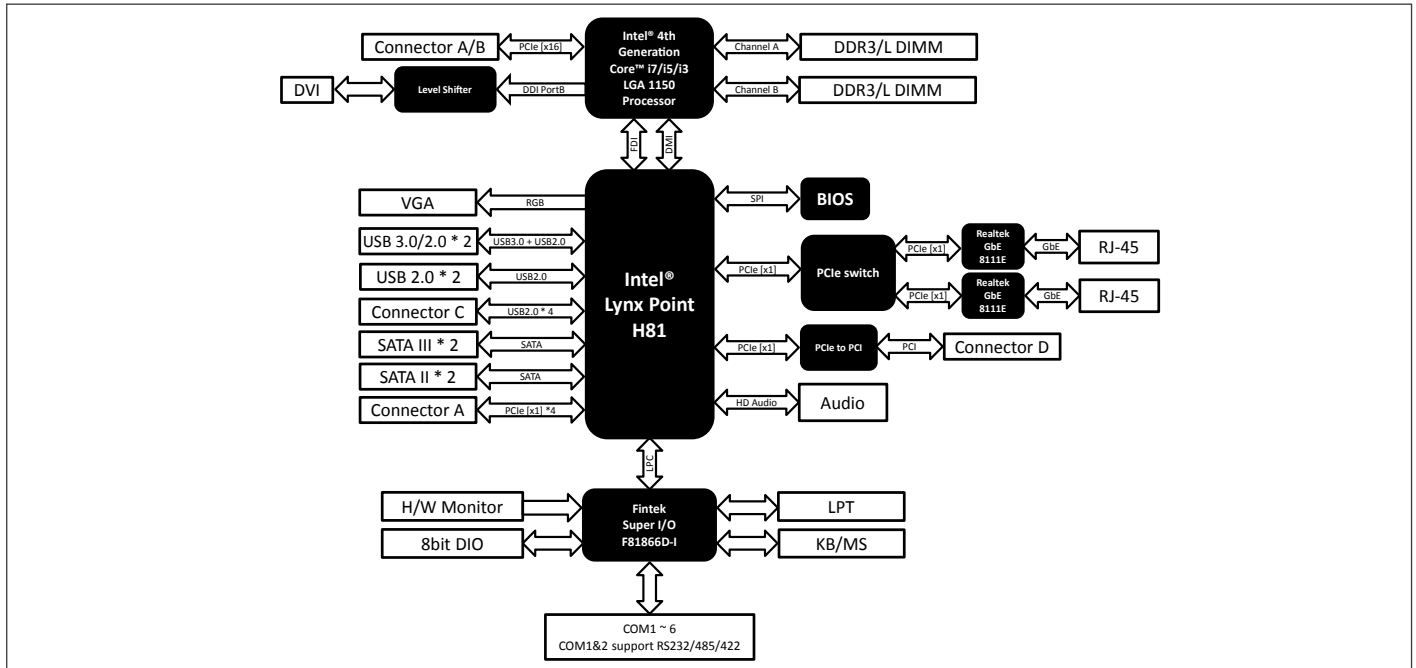
- COM Port & LPT Cable
- COM Port Cable
- SATA Cable x 4
- ATX Cable
- USB Cable
- COM Port Cable x 2
- Product DVD
- FSB-H81H

## Optional Accessories

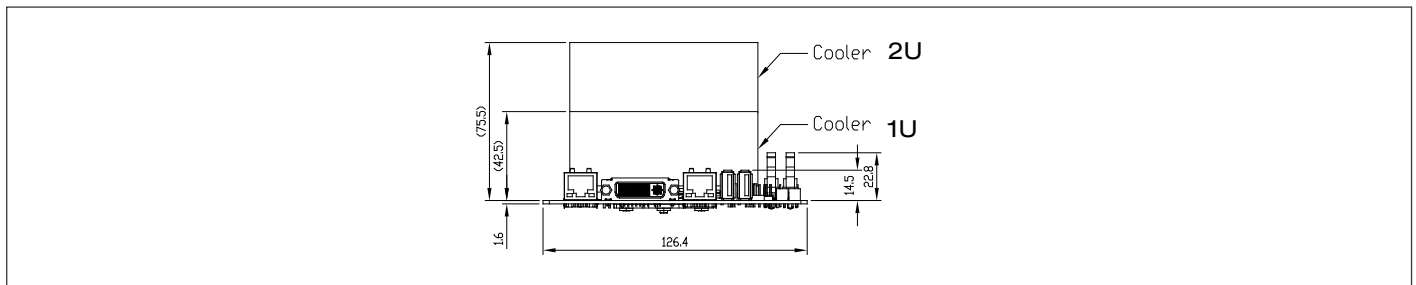
- **1175920000D**  
LGA1155/1150 CPU Cooler, Aluminum (2U Height, 95Watt)
- **1759218000**  
LGA1155/1150 CPU Cooler, Copper (1U Height, 95Watt)
- **1709080207**  
KB/MS Cable

# FSB-H81H

## Block Diagram



## Dimension Unit: mm



## Passive Backplane Options

P/N	Description	Master Interface	Slots	Power Connector, ATX Extend Function
TF-BP-214SH-P3E2I6	Rackmount, PICMG 1.3, 14-Slot, Backplane, 3 PCI, 1 PCI-E[x16], 1 PCI-E[x4], 6 ISA, Single Segment, ATX	PICMG 1.3	3/2/6/2 (PCI/PCI-E/ISA/PICMG 1.3)	ATX
BP-214SH-P8E4-A11	Rackmount, PICMG 1.3, 14-Slot, Backplane, 8 PCI, 1 PCI-E[x16], 4 PCI-E[x4], Single Segment, ATX	PICMG 1.3	8/4/1 (PCI/PCI-E/PICMG 1.3)	ATX
TF-BP-208RH-P4E3	Rackmount, PICMG 1.3, 8-Slot, Backplane, 4 PCI, 2 PCI-E[x1], 1 PCI-E[x16], Single Segment, ATX	PICMG 1.3	4/2/1 (PCI/PCI-E/PICMG 1.3)	ATX
BP-208SH-P3E4	Wallmount, PICMG 1.3, 8-Slot, Backplane, 3 PCI, 4 PCI-E, Single Segment, ATX	PICMG 1.3	3/4/1 (PCI/PCI-E/PICMG 1.3)	ATX
TF-BP-206VH-P4	Rackmount, PICMG 1.3, 6-slot Backplane, 4 PCI, Single Segment, ATX	PICMG 1.3	4/1 (PCI/ PICMG 1.3)	ATX
TF-BP-206SH-P3	Wallmount, PICMG 1.3, 6-Slot, Backplane, 3 PCI, 2 PCI-E, Single Segment, ATX	PICMG 1.3	3/2/1 (PCI/PCI-E/PICMG 1.3)	ATX
BP-206VH-P2E2	Rackmount, PICMG 1.3, 6-Slot, Backplane, 2 PCI, 2 PCI-E, Single Segment, ATX	PICMG 1.3	2/2/1 (PCI/PCI-E/PICMG 1.3)	ATX

## Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Temp.
FSB-H81H-A10-V	Socket	DIMM	Fan	VGA	SATA 6.0 Gb/s x 2 + SATA 3.0 Gb/s x 2	—	GbE x 2	USB3.0/2.0 x 2 USB2.0 x 6	4	2	PICMG 1.3	ATX	0°C ~ 60°C
FSB-H81H-A10-D	Socket	DIMM	Fan	DVI-I	SATA 6.0 Gb/s x 2 + SATA 3.0 Gb/s x 2	—	GbE x 2	USB3.0/2.0 x 2 USB2.0 x 6	4	2	PICMG 1.3	ATX	0°C ~ 60°C