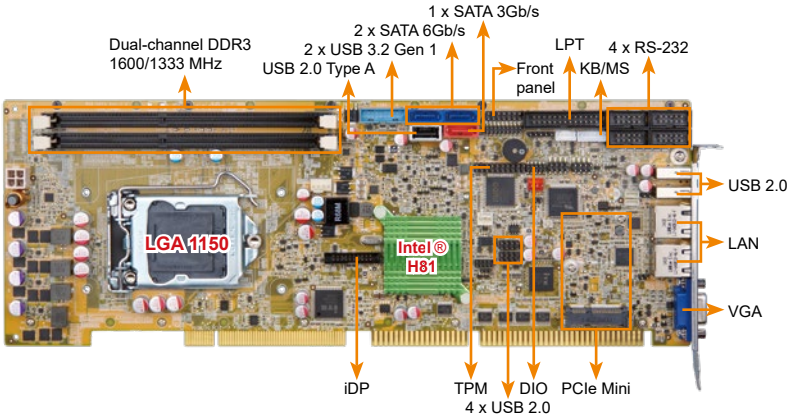
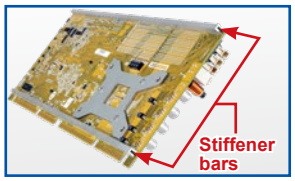
# WSB-H810

***Full-size PICMG 1.0 CPU Card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU with Intel® H81, DDR3, VGA, iDP, Dual Intel® GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, RS-232, HD Audio and RoHS***

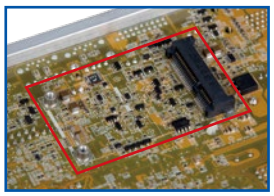



## Enhanced stability

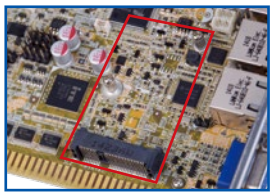
Strengthen the mechanism
Prevent PCB bending

## PCIe Mini & mSATA connector



Support PCIe Mini & mSATA

◄ mSATA



Top-side PCIe Mini connector supports PCIe signal for half-size or full-size PCIe device. Solder-side PCIe Mini connector supports SATA 3Gb/s signal for full-size mSATA.

◄ PCIe Mini

DDR3 1600 | USB 3.2 | SATA 6Gb/s | PCIe Mini Expansion | mSATA | iDP

## Specifications

- CPU
  4th generation LGA 1150 Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor supported
- Chipset
  Intel® H81
- Memory
  Twp 240-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM unbuffered DIMMs support up to 16 GB
- BIOS
  UEFI
- Graphics Engine
  Intel® HD Graphics Gen 7.5 supports DX11.1 and OpenCL 1.2, OpenGL 3.2
  Full MPEG2, VC1, AVC Decode
- Display Output
  Dual independent display
  1 x VGA (up to 1920x1200@60 Hz)
  1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60 Hz)
- Ethernet
  LAN1: Intel® I217-LM Ethernet controller
  LAN2: Intel® I211-AT Ethernet controller
- Audio
  Supports 7.1-channel HD Audio by IEI AC-KIT-892HD-R10 kit
- External I/O Interface
  2 x USB 2.0
- Internal I/O Interface
  1 x KB/MS (1x6 pin)
  1 x LPT (2x13 pin)
  1 x RS-422/485 (1x4 pin, P=2.0)
  1 x USB 2.0 (180° Type-A)
  1 x SATA 3Gb/s (AHCI supported, no RAID)
  2 x SATA 6Gb/s
  2 x USB 3.2 Gen 1 (5Gb/s) (2x10 pin)
  4 x RS-232 (2x5 pin, P=2.54)
  4 x USB 2.0 (2x4 pin, P=2.54)
- Front Panel
  1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- LAN LED
  2 x LAN LED (1x2 pin)
- Digital I/O
  8-bit digital I/O (2x5 pin)
- TPM
  1 x TPM (2x10 pin)
- SMBus
  1 x SMBus (1x4 pin)
- I²C
  1 x I²C (1x4 pin)
- Infrared Interface
  1 x Infrared Interface (1x5 pin)
- Expansion
  1 x Full-size PCIe Mini card slot (support mSATA)
  PCI and ISA signal via golden finger
- Watchdog Timer
  Software programmable supports 1~255 sec. system reset
- Fan Connector
  1 x CPU smart fan (1x4 pin)
  1 x System smart fan (1x3 pin)
- Power Supply: 5V/12V, AT/ATX support
- Power Consumption
  5V@3.4A, 12V@0.36A, Vcore_12V@7.48A, 3.3V@1.42A, 5VSB@0.13A
  (Intel® Core™ i7-4770K 3.90 GHz CPU with 8 GB (two 4 GB) 1333 MHz DDR3 memory)
- Operating Temperature: -20°C ~ 60°C
- Storage Temperature: -30°C ~ 70°C
- Operating Humidity: 5% ~ 95%, non-condensing
- Dimensions: 338 mm x 122 mm
- Weight: GW: 1000g / NW: 260g
- CE/FCC compliant

## Features

- Full-size PICMG 1.0 with LGA 1150 Intel® CPU
- Two 1600/1333 MHz DDR3 SDRAM DIMM slots support up to 16 GB of memory
- Dual Intel® Gigabit Ethernet LAN controller
- SATA 6Gb/s and USB 3.2 Gen 1 (5Gb/s) supported
- TPM v1.2 hardware security function supported by TPM module
- Stiffener bars
- IEI jumper-less function

## Packing List

| | |
|---|---|
| 1 x WSB-H810 single board computer | |
| 2 x SATA cable | 1 x QIG |

## Ordering Information

| Part No. | Description |
|---|---|
| WSB-H810-R10 | Full-size PICMG 1.0 CPU card supports LGA 1150 Intel® Core™ i7/i5/i3, Pentium® and Celeron® CPU with Intel® H81, DDR3, VGA, iDP, dual Intel® GbE, PCIe Mini, USB 3.2 Gen 1 (5Gb/s), SATA 6Gb/s, mSATA, RS-232, HD Audio and RoHS |
| 19800-000049-RS | LPT flat cable, 240mm, P=2.54 |
| 19800-000075-RS | PS/2 KB/MS cable with bracket, 220mm, P=2.0 |
| 19800-010500-200-RS | USB 3.2 Gen 1 (5Gb/s) cable with bracket, 450mm |
| 32102-000100-200-RS | SATA power cable, MOLEX 5264-4P to SATA15P |
| 32200-074800-RS | RS-422/485 cable, 200mm, P=2.0 |
| 32205-000702-100-RS | RS-232 cable, 230mm, P=2.54 |
| AC-KIT-892HD-R10 | 7.1-channel HD Audio kit with Realtek ALC892 supports dual audio streams |
| CB-USB02-RS | Dual port USB 2.0 cable with bracket, 300mm, P=2.54 |
| CF-1150SB-R11 | Special cooler kit for LGA 1150, high-performance compatible, 65W |
| CF-1150SC-R20 | Special cooler kit for LGA 1150, 1U chassis compatible, 65W |
| CF-1150SE-R11 | Special cooler kit for LGA 1150, high-performance compatible, 95W |
| CF-1150SF-R10 | Special cooler kit for LGA 1150, 1U chassis compatible, 54W |
| DP-DP-R10 | DisplayPort to DisplayPort converter board (for IEI iDP connector) |
| DP-DVI-R10 | DisplayPort to DVI-D converter board (for IEI iDP connector) |
| DP-HDMI-R10 | DisplayPort to HDMI converter board (for IEI iDP connector) |
| DP-LVDS-R10 | DisplayPort to LVDS converter board (for IEI iDP connector) |
| DP-VGA-R10 | DisplayPort to VGA converter board (for IEI iDP connector) |
| TPM-IN01-R20 | 20-pin Infineon TPM module, software management tool, firmware v3.17 |