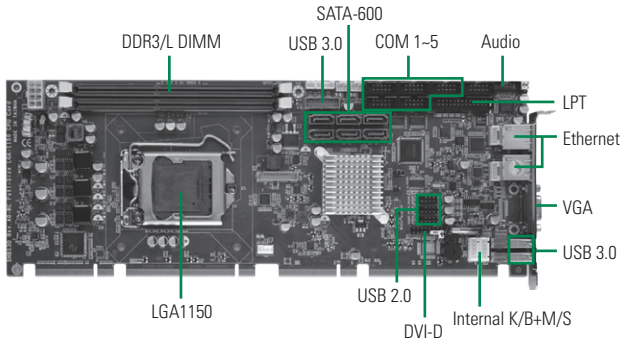


SHB130

LGA1150 4th Generation Intel® Core™ i7/i5/i3 Processor PICMG 1.3 Full-size CPU Card with Intel® Q87, SATA3, USB 3.0, DVI-D/VGA or DisplayPort for Dual Display and Dual LANs



System

| | |
|---------------------|--|
| CPU | LGA1150 socket for 4th Generation Intel® Core™ i7/i5/i3 processor (Codename Haswell/Haswell Refresh), TDP up to 65W |
| System Memory | 2 x 240-pin DDR3-1333/1600 DIMM max. up to 16 GB |
| Chipset | Intel® Q87 |
| BIOS | AMI UEFI BIOS with OA 3.0 built |
| SSD | N/A |
| Watchdog Timer | 225 levels, 1~255 sec. |
| Expansion Interface | Edge Connector A: 1 x PCIe x16, Gen. 3 Edge Connector B: 1 x PCIe x4 or 4 x PCIe x1, Gen. 2 4 x 32 bit PCI bus masters |
| Battery | Lithium 3V/220 mAh |
| Power Requirements | Intel® Core™ i7-4770S +5V @ 2.26A, +12V @ 4.68A, +5VSB @ 0.2A, +3.3V @ 2.3A |
| Size | 338 x 126 mm |
| Board Thickness | 1.6 mm |
| Temperature | 0° ~ +60°C (32°F ~ 140°F), operation |
| Operation Humidity | 10% ~ 95% relative humidity, non-condensing |

I/O

| | |
|---------------------|---|
| MIO | 1 x PS/2 keyboard 1 x PS/2 mouse 1 x LPT; with SPP/EPP/ECP supported 4 x RS-232 (COM 2/3/4/5) 1 x RS-232/422/425 (COM 1), mode selection by SW 1 x DVI-D 2 x Smart fan for system Fan 1/Fan 2 1 x DIO (4-IN & 4-OUT) |
| RIO | 2 x RJ-45, 1 x VGA or DisplayPort, 2 x USB 3.0 |
| SATA | 6 x SATA-600 with RAID 0/1/5/10 |
| Hardware Monitoring | Detect CPU/System temperature, voltage and fan speed |
| Ethernet | 1st ports as 10/100/1000Mbps supports WOL/RPL/PXE Boot ROM with Intel® i217LM with AMT 9.0 supported 2nd port as 10/100/1000Mbps supports WOL/RPL/PXE Boot ROM with Intel® i210AT |
| Audio | 1 x HD Codec audio as MIC-in/Line-in/Line-out/speaker-out with ALC662 |
| USB | 10 x USB 2.0, 4 x USB 3.0 |
| SMBus | N/A |
| TPM | Infineon SLB9635 for trusted platform(optional) |

Features

- LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 processor (Haswell/Haswell Refresh)
- Intel® Q87 Chipset
- 2 DDR3 DIMM max. up to 16 GB memory capacity
- Intel® AMT 9.0 & TPM supported (optional)
- PCIe Gen. 3 at 8GT/s supported
- DVI-D and VGA or DisplayPort for dual displays
- 6 SATA-600 with RAID 0/1/5/10
- USB 3.0 supported

Display

| | |
|-------------------|---|
| Chipset | Intel® HD Graphics |
| Memory Size | Intel® DVMT 5.0 |
| Display Interface | 1 x VGA (default) 1 x DVI-D (header) 1 x DisplayPort (optional) |

Packing List

Standard

Quick installation guide, user's manual/utility CD, cable

Cable

| Part Number | Description | Qty |
|--------------|---------------------------|-----|
| 59380502000E | COM+Print cable w/bracket | 1 |
| 593826A0000E | SATA signal cable 500 mm | 1 |

Ordering Information

Standard

| | | |
|------------|--|----------------------------------|
| SHB130VGGA | LGA1150 socket PICMG1.3 full-size CPU card with VGA, (P/N: E38C130101) | 2 GbE LAN Ethernet and audio |
| SHB130PGGA | LGA1150 socket PICMG1.3 full-size CPU card with (P/N: E38C130100) | DisplayPort, 2 GbE LAN and audio |

Optional

| | |
|--------------|---|
| E9B900C000 | LGA1156 cooler 4-pin H: 61.4 mm |
| 50761222000E | LGA1156 2U cooler 3-pin H: 68.8 mm |
| 5938A808010E | 2 x USB 2.0 cable w/bracket, P=2.54mm, L=190 mm |
| 59380000290E | PS/2 keyboard & mouse cable with bracket |
| 593836A0030E | 4 pin power cable to SATA x 2, L=150 mm |
| 59384500100E | Audio cable w/ bracket P=2.0 mm, L=450 mm |
| 594C1093500E | DVI cable 24-pin header to DVI-D, L=30 mm |
| 71193221200E | DVI bracket |
| 5948C122800E | 2 x USB 3.0 cable w/Bracket 20P, L=400mm |

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Industrial Motherboards

5

Slot CPU Cards

ARM Embedded Boards

Accessories

Appendix

