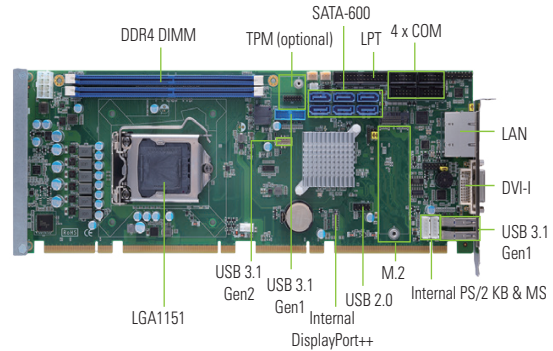


# SHB150R NEW

PICMG 1.3 Full-size CPU Card with LGA1151 9th/8th Gen Intel® Core™ i7/i5/i3, Xeon® E, Pentium® or Celeron® Processor, Intel® C246/Q370/H310, SATA 3.0, USB 3.1 Gen1/Gen2, Dual LAN and DVI-I

## Features

- LGA1151 9th/8th gen Intel® Core™ i7/i5/i3, Xeon® E (C246), Pentium® or Celeron® processor (up to 95W)
- Intel® C246/Q370/H310 chipset
- 2 DDR4-2666/2400 Long-DIMM for up to 64GB of memory
- Supports Intel® AMT and vPro (C246/Q370)
- TPM 2.0 supported (optional)
- Supports M.2 Key M (C246/Q370)



### Core System

|                       |   |
|-----------------------|---|
| CPU                   | LGA1151 9th/8th gen Intel® Core™ i7/i5/i3, Xeon® E (C246), Pentium® or Celeron® processor (up to 95W)   |
| System Memory         | 2 x 288-pin DDR4-2666/2400 un-buffered ECC Long-DIMM, up to 64GB (C246)<br>2 x 288-pin DDR4-2666/2400 un-buffered Long-DIMM, up to 64GB (Q370/H310) |
| Chipset               | Intel® C246/Q370 (Intel® vPro supported)<br>Intel® H310   |
| BIOS                  | AMI UEFI BIOS   |
| SSD                   | M.2 Key M 2280, PCIe x4 signal (C246, Q370)   |
| Watchdog Timer        | 225 levels, 1 to 255 sec.   |
| Expansion Interface   | 1 x PCIe x16 Gen3<br>1 x PCIe x4 or 4 x PCIe x1 Gen3<br>4 x 32-bit PCI bus masters  |
| Battery               | Lithium 3V/220 mAh  |
| Power Requirements    | TBC   |
| Dimensions            | 338 x 126 mm  |
| Board Thickness       | 1.6 mm  |
| Operating Temperature | 0°C to +60°C (+32°F to +140°F)  |
| Humidity              | 10% to 95% relative humidity, non-condensing  |

### I/O

|                     |   |
|---------------------|---|
| SATA                | C246/Q370: 6 x SATA-600, support RAID 0/1/5/10<br>H310: 4 x SATA-600  |
| Hardware Monitoring | Detect CPU/system temperature, voltage and fan speed  |
| Ethernet            | 1 x 10/100/1000 Mbps Ethernet with Intel® i219-LM; supports Wake-on-LAN, RPL/PXE Boot ROM, AMT<br>1 x 10/100/1000 Mbps Ethernet with Intel® i211-AT; supports Wake-on-LAN, RPL/PXE Boot ROM                                   |
| Audio               | HD Codec audio as MIC-in/Line-in/Line-out/Speaker-out with audio kit AX93242 (optional)   |
| USB                 | C246/Q370: 2 x USB 3.1 Gen2, 4 x USB 3.1 Gen1 & 6 x USB 2.0 (2 ports onboard, 4 ports on SHB connector-C golden fingers)<br>H310: 4 x USB 3.1 Gen1 & 6 x USB 2.0 (2 ports onboard, 4 ports on SHB connector-C golden fingers) |
| Serial              | 2 x RS-232<br>2 x RS-232/422/485, mode selection by SW  |
| PS/2 Combo Port     | 1 x PS/2 keyboard internal connector<br>1 x PS/2 mouse internal connector   |
| TPM                 | TPM 2.0 module (optional)   |
| SMBus               | N/A   |
| Others              | 1 x LPT<br>1 x Smart CPU fan<br>1 x Smart system fan  |

### Display

|                   |  |
|-------------------|--|
| Graphic           | Intel® HD Graphic                                |
| Memory Size       | Share system memory                              |
| Display Interface | 1 x DVI-I<br>1 x DisplayPort++ (internal header) |

### Packing List

|                 |                    |  |
|-----------------|--------------------|--|
| <b>Standard</b> | CPU card and cable |  |
|-----------------|--------------------|--|

| Part Number  | Description               | Qty |
|--------------|---------------------------|-----|
| 59380402010E | COM cable with bracket    | 1   |
| 59415318000E | SATA signal cable, 460 mm | 1   |

### Ordering Information

| Standard                          |   |
|-----------------------------------|---|
| SHB150RDGG-Q370 (P/N: E38C150106) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® Q370, DVI-I, 2 GbE LAN, and PCIe x4 BIOS |
| SHB150RDGG-Q370 (P/N: E38C150107) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® Q370, DVI-I, 2 GbE LAN, and PCIe x1 BIOS |
| SHB150RDGG-H310 (P/N: E38C150108) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® H310, DVI-I, 2 GbE LAN, and PCIe x4 BIOS |
| SHB150RDGG-H310 (P/N: E38C150109) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® H310, DVI-I, 2 GbE LAN, and PCIe x1 BIOS |
| SHB150RDGG-C246 (P/N: E38C150110) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® C246, DVI-I, 2 GbE LAN, and PCIe x4 BIOS |
| SHB150RDGG-C246 (P/N: E38C150111) | PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® C246, DVI-I, 2 GbE LAN, and PCIe x1 BIOS |

| Optional     |  |
|--------------|--|
| 5938A808010E | 2 x USB 2.0 cable with bracket, P=2.54 mm, L=190 mm  |
| 5948C122800E | 2 x USB 3.1 (Gen1) cable with bracket, L=400 mm      |
| 59401502800E | 2 x USB 3.1 (Gen2) cable with bracket, L=400 mm      |
| 59380000290E | PS/2 keyboard & mouse cable with bracket             |
| 593826A0000E | SATA signal cable/red, L=500mm                       |
| E393242100   | AX93242-RC HD audio converter kit                    |
| 59380402010E | 1 x COM port cable with bracket, P=2.54 mm, L=300 mm |
| 59380703000E | 2 x COM port cable with bracket, P=2.54 mm, L=300 mm |
| 594826A0010E | DVI-I to DVI-D+VGA Y cable                           |
| 83935151000E | TPM 2.0 module (AX93515)                             |
| 83987091000E | DisplayPort++ kit with bracket                       |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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