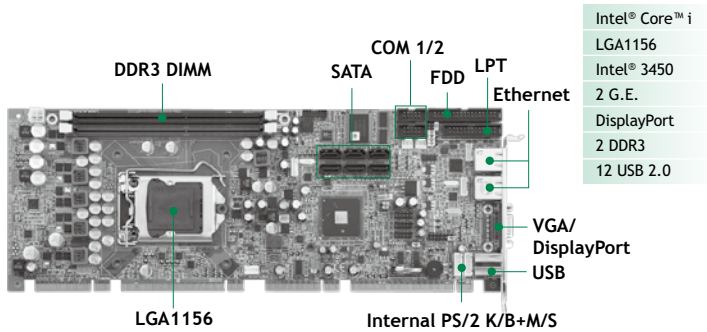


# SHB105

LGA1156 Intel® Xeon® PICMG 1.3 Full-size CPU Card with Intel® 3450 Chipset, VGA/DisplayPort and ECC Memory



## System

|                     |                                                                                                                                                        |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                 | LGA1156 socket for Intel® Xeon® / Core™ i5/ i3/ Pentium® processors                                                                                    |
| System Memory       | 2 x 240-pin DDR3 1066/1333 DIMM max. up to 8 GB                                                                                                        |
| Chipset             | Intel® 3450                                                                                                                                            |
| BIOS                | AMI BIOS                                                                                                                                               |
| SSD                 | N/A                                                                                                                                                    |
| Watchdog Timer      | 255 levels, 1 ~ 255 sec.                                                                                                                               |
| Expansion Interface | PCIe x16 via SHB connector-A & B<br>PCIe x4 (or 4 x PCIe x1) via SHB connector-A<br>PCI with 4 bus masters via SHB connector-D                         |
| Battery             | Lithium 3V/196mAH                                                                                                                                      |
| Power Requirements  | Intel® Core™ i5-660 @3.33 GHz, 1GB DDR3<br>+5V_SBY @ 23mA, +3.3V @ 1.372A, +5V @ 1.548A,<br>+12V (System) @ 158mA, -12V @ 28mA,<br>+12V (CPU) @ 1.809A |
| Size                | 338 x 126 mm                                                                                                                                           |
| Board Thickness     | 1.6 mm                                                                                                                                                 |
| Temperature         | 0° C ~ +60° C (32° F ~ 140° F), operation                                                                                                              |
| Relative Humidity   | 10% ~ 95% relative humidity, non-condensing                                                                                                            |

## I/O

|                     |                                                                                                                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MIO                 | 1 x FDD<br>1 x PS/2 keyboard<br>1 x PS/2 mouse<br>1 x LPT; with SPP/EPP/ECP supported<br>1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2)                                                               |
| SATA                | 6 x SATA-300; with RAID 0/1/10/5                                                                                                                                                                        |
| Hardware Monitoring | Supports CPU/System temperature, CPU/system voltage and CPU/system Smart Fan features                                                                                                                   |
| Ethernet            | 1 <sup>st</sup> port as 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM, iAMT with Intel® 82578DM<br>2 <sup>nd</sup> port as 10/100/1000 Mbps supports Wake-on-LAN, PXE Boot ROM with Intel® 82583V |
| Audio               | HD Codec audio as MIC-in/Line-in/Line-out/speaker-out with Realtek ALC662                                                                                                                               |
| USB                 | 12 x USB 2.0 (2 on the rear I/O; 6 ports with pin-headers; 4 ports via SHB connector-C)                                                                                                                 |
| SMBus               | System Management Bus for advanced monitoring/control interface                                                                                                                                         |
| TPM                 | Supports TPM 1.2                                                                                                                                                                                        |

## Features

- LGA1156 socket for Intel® Xeon® / Core™ i5/ i3/ Pentium® processors
- Intel® 3450 chipset
- 2 DDR3 1066/1333 DIMM support up to 8 GB memory capacity
- Intel® AMT & TPM supported
- DisplayPort (optional )
- Supports unbuffered-ECC memory

## Display

|                   |                                                                             |
|-------------------|-----------------------------------------------------------------------------|
| Chipset           | According to CPU                                                            |
| Display Interface | VGA with D-sub 15-pin connector<br>DisplayPort co-layout with VGA connector |

## 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 500mm      | 1   |

## Ordering Information

| Standard   |                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------|
| SHB105VGGA | LGA1156 Intel® Xeon® / Core™ i5/ i3/ Pentium® PICMG 1.3 full-size CPU card with VGA, 2 10/100/1000Mbps Ethernet and audio  |
| SHB105PGGA | LGA1156 Intel® Xeon® / Core™ i5/ i3/ Pentium® PICMG 1.3 full-size CPU card with DisplayPort and 2 10/100/1000Mbps Ethernet |

\* Discrete graphic card is necessary for display if the chosen CPU doesn't have integrated graphics support.