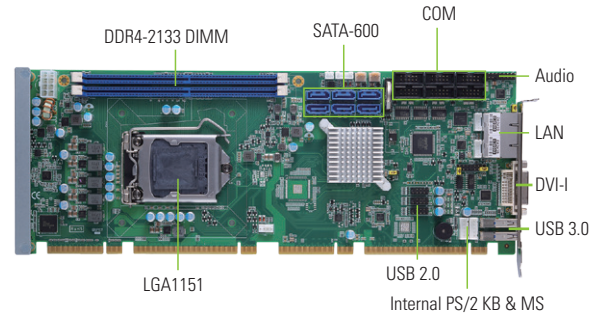


SHB140

PICMG 1.3 Full-size CPU Card with LGA1151 Socket 7th/6th Gen Intel® Core™ Processor, Intel® Q170/H110, SATA3, USB 3.0, Dual LANs and DVI-I

Features

- LGA1151 Socket 7th/6th gen Intel® Core™ processor
- Intel® Q170/H110 chipset
- 2 DDR4-2400 un-buffered DIMM for up to 32GB of memory
- Intel® AMT 11 (Q170)
- Optional TPM supported
- PCIe Gen3 at 8GT/s supported
- Intel® vPro supported
- 6 SATA-600 with RAID 0/1/5/10 (Q170)



Core System

CPU	LGA1151 socket 7th/6th gen Intel® Core™ processor, TDP up to 65W, Intel® vPro supported
System Memory	2 x 288-pin DDR4-2133/2400 un-buffered DIMM, up to 32GB
Chipset	Intel® Q170/H110
BIOS	AMI BIOS
SSD	N/A
Watchdog Timer	225 levels, 1 to 255 sec.
Expansion Interface	1 x PCIe x16 Gen3 1 x PCIe x4 or 4 x PCIe x1 Gen2 4 x 32-bit PCI bus masters
Battery	Lithium 3V/220 mAh
Power Requirements	Intel® Core™ i7-6700, 8GB DDR4-2133/2400 x 2 +5V @ 1.38A, +12V @ 2.13A, +5VSB @ 0.72A, +3.3V @ 0.54A
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	Q170: 6 x SATA-600, support RAID 0/1/5/10 H110: 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 11 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	Q170: 2 x USB 3.0 & 10 x USB 2.0 (6 ports onboard, 4 ports on SHB connector-C golden fingers) H110: 2 x USB 3.0 & 8 x USB 2.0 (4 ports onboard, 4 ports on SHB connector-C golden fingers)
Serial	5 x RS-232 1 x RS-232/422/485, mode selection by SW
PS/2 Combo Port	1 x PS/2 keyboard internal connector 1 x PS/2 mouse internal connector
TPM	Infineon SLB9635 for trusted platform (optional)
SMBus	N/A
Others	2 x Smart fan for system Fan1/Fan2

Display

Graphic	Intel® HD Graphic
Memory Size	Share system memory
Display Interface	1 x DVI-I

Packing List

Standard

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

Cable

Part Number	Description	Qty
593826A0000E	SATA signal cable, 500 mm	1
59380402010E	1 x COM port cable with bracket, P=2.54 mm, L=300 mm	1

Ordering Information

Standard

SHB140DGGA (P/N: E38C140101)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® Q170, DVI-I, 2 GbE LANs, audio and PCIe x1
SHB140DGGA (P/N: E38C140102)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® Q170, DVI-I, 2 GbE LANs, audio and PCIe x4
SHB140DGGA (P/N: E38C140107)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® Q170, DVI-I, 2 GbE LANs, audio and PCIe x4, TPM (limited to MoQ)
SHB140DGGA (P/N: E38C140100)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® H110, DVI-I, 2 GbE LANs, audio and PCIe x1
SHB140DGGA (P/N: E38C140104)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® H110, DVI-I, 2 GbE LANs, audio and PCIe x4
SHB140DGGA (P/N: E38C140105)	PICMG 1.3 full-size CPU card with LGA1151 socket, Intel® H110, DVI-I, 2 GbE LANs, audio and PCIe x4, TPM (limited to MoQ)

Optional

5938A808010E	2 x USB 2.0 cable with bracket, P=2.54 mm, L=190 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

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[SHB140DGGA-RC Q170 w/PClex4 BIOS &TPM2.0](#) [SHB140DGGA-RC H110 w/PClex1 BIOS](#) [SHB140DGGA-RC H110](#)
[w/PClex4 BIOS](#) [SHB140DGGA-RC Q170 w/PClex4 BIOS](#)