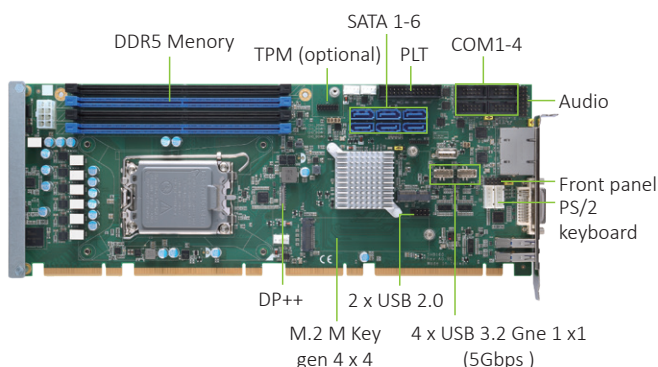


SHB160 NEW

PICMG 1.3 Full-size CPU Card with LGA1700 12th Gen Intel® Core™ i7/i5/i3, Pentium® or Celeron® Processor, Intel® R680E/Q670E, SATA 3.0, M.2 E/M Key USB 3.2 Gen1/Gen2, Dual 2.5GbE LAN and DVI-I



Features

- LGA1700 12th Gen Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor (up to 125W)
- Intel® R680E/Q670E chipset
- 4 DDR5-4400 U-DIMM up to 128GB ECC/Non ECC memory
- Supports Intel® AMT and vPro (R680E)
- TPM 2.0 supported (optional)
- Supports dual 2.5GbE
- Supports PLT Port
- Supports M.2 Key M / E (R680E)
- Supports PCIe 4.0 through the gold fingers



Specifications

Core System

CPU	LGA1700 12th Gen Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor (up to 125W)
System Memory	4 x DDR5-4400 ECC (R680E only) or non-ECC U-DIMM, up to 128GB
Chipset	Intel® R680E/ Q670E
BIOS	AMI UEFI BIOS
SSD	M.2 Key M 2280, PCIe 4.0 x4 signal
Watchdog Timer	225 levels, 1 to 255 sec.
Expansion Interface	1 x PCIe x16 Gen4 1 x PCIe x4 Gen4 or 4 x PCIe x1 Gen4 4 x 32-bit PCI bus masters
Battery	Lithium 3V/220 mAh
Power Consumption	Intel® Core™ i5-12400 with 32GB 4 x DDR5-4800, +12V_CPU @5.2A, +5V @4.64A, +3.3V @1.76A

Display

Graphic	Intel® UHD Graphic
Memory Size	Share system memory
Display Interface	1 x DVI-I 1 x DisplayPort (internal header)

I/O

SATA	6 x SATA-600, support RAID 0/1/5/10
Hardware Monitoring	Detect CPU/system temperature, voltage and fan speed
Ethernet	1 x 10/100/1000/2500 Mbps with Intel® I225-LM; supports Wake-on-LAN, PXE Boot ROM, TSN, and Intel® AMT with Intel vPro® 1 x 10/100/1000/2500 Mbps with Intel® I225-V; supports Wake-on-LAN, PXE Boot ROM
Audio	HD Codec audio as MIC-in/Line-in/Line-out/Speaker-out with audio kit AX93242 (optional)
USB	2 x USB 3.2 Gen2x1 (Rear I/O) 4 x USB 3.2 Gen1x1 (Internal box header) 3 x USB 2.0 (2 x Internal pin header, 1 x port with 180D type A) 4 x USB 2.0 (4 x ports on SHB connector-C via golden fingers)
Serial	2 x RS-232 2 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	TPM 2.0 module (optional)
Others	1 x LPT 1 x Smart CPU fan 2 x Smart system fan

Mechanical and Environmental

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

Packing List

Standard

User's manual

Ordering Information

Standard

SHB160DGG-R680E (P/N: TBC)	PICMG 1.3 full-size CPU card with 12th LGA1700 socket, Intel® R680E, ECC, DVI-I, 2.5GbE LAN, 6 x SATA, and PCIe x4 BIOS
SHB160DGG-R680E (P/N: TBC)	PICMG 1.3 full-size CPU card with 12th LGA1700 socket, Intel® R680E, ECC, DVI-I, 2.5GbE LAN, 6 x SATA and PCIe x1 BIOS
SHB160DGG-H610E (P/N: TBC)	PICMG 1.3 full-size CPU card with 12th LGA1700 socket, Intel® H610E, DVI-I, 2.5GbE LAN, 4 x SATA, and PCIe x4 BIOS
SHB160DGG-H610E (P/N: TBC)	PICMG 1.3 full-size CPU card with 12th LGA1700 socket, Intel® H610E, DVI-I, 2.5GbE LAN, 4 x SATA, 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
711000001500	2U Special cooler kit for SHB160, compatible, 65W
711000001400	1U Special cooler kit for SHB160, compatible, 125W

SHB160 series required specially designed cooler "711000001X00", please order as set