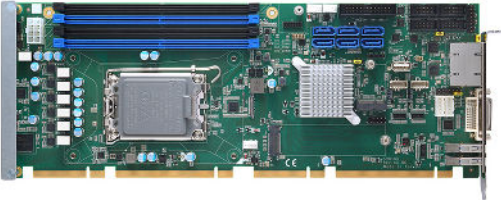




SHB160 – PICMG 1.3 Full-size SBC with Intel® 12th/13th Gen Processor



The SHB160 is a powerful single-board computer using the PICMG 1.3 specification. This SBC can use Intel's® 12th/13th Gen Core™ i7/i5/i3, Pentium® or Celeron® Processors up to 125W, supports either 64GB of non-ECC memory with the H610E chipset or 128GB of ECC or non-ECC memory with the R680E chipset, DVI-I and DisplayPort video out, and supports PCIe 4.0.

SPECIFICATIONS

CPU	12th/13th Gen Intel® Core™ i7/i5/i3, Pentium® or Celeron® processor (up to 125W)
CPU Socket	LGA1700
Chipset	Intel® R680E/ H610E
Memory Type	DDR5-4400MHz ECC or non-ECC U-DIMM, up to 128GB (R680E) or DDR5-4400MHz non-ECC U-DIMM, up to 64 GB (H610E)
Memory Slots	4 with (R680E) or 2 with (H610E)
Maximum Memory Supported	128GB with (R680E) or 64GB with (H610E)
Serial ATA (SATA)	6 x SATA III, supports RAID 0/1/5/10 (R680E) or 4 x SATA III (H610E)
LAN Ports	1 x 10/100/1000/2500 Mbps (Intel® I226-LM; Intel® AMT with Intel vPro®), 1 x 10/100/1000/2500 Mbps (Intel® I226-V)
Serial (COM) Port	2 x RS-232, 2 x RS-232/422/485, mode selection by SW
Video	1 x DVI-I, 1 x DisplayPort (internal header)

USB	4 x USB3.2 via header, 2 x USB3.2 I/O, 2 x USB2.0 via header, 1 x USB2.0 180D internal type A (R680E) or 2 x USB3.2 via header, 2 x USB3.2 I/O, 2 x USB2.0 via header (H610E)
Extended Interface	1 x M.2 Key M 2280, PCIe 4.0 x4 signal (R680E), 1 x M.2 Key E 2230, 1 x PCIe x16 Gen4, 1 x PCIe x4 Gen4 or 4 x PCIe x1 Gen4, 4 x 32-bit PCI bus masters
TPM	TPM 2.0 module (optional)
Watchdog Timer	255 levels, 1 to 255 sec
Operating Temperature	0 ~ 60-° C (32-° F ~ 140-° F)
Relative Humidity	10 ~ 95% (non-condensing)
OS Software Supported	Windows 10 64-bit, Windows 11 64-bit, Linux
Global P/N / SKU	3308942

Ordering Options

SHB160DGG-R680E (SKU# 3308942A): PICMG 1.3 full-size CPU card with 13th/12th LGA1700 socket, Intel® R680E Chipset
 SHB160DGG-H610E (SKU# 3308942B): PICMG 1.3 full-size CPU card with 13th/12th LGA1700 socket, Intel® H610E Chipset
 Note: The SHB160 SBC requires a specially designed cooler, please ask your sales rep for more information.