

### **PICMG 1.3 Half-size CPU Card**

### Intel® Tiger Lake /11th Gen H Processor

## **HE-B73**



### **Features**

- Onboard Tiger Lake /11<sup>th</sup> Gen H Processor
- 2 x DDR4 SO-DIMM 3200 MHz up to 64GB
- Integrated DisplayPort, DVI, LVDS, VGA for four display support
- 1 x Intel® Gigabit PHY LAN, 1 x Intel® 2.5 Gigabit LAN
- 1 x MiniPCle (support mSATA)
- 1 x M.2 2280 Key M support PCle Gen4 and SATA
- 1 x M.2 2230 Key E for Wi-Fi and Bluetooth
- 2 x SATA3, 4 x USB2.0, 2 x USB3.2 Gen2 (Type E),
- 6 x COM, 1 x GPIO, 1 x SIM Slot, 1 x PS/2
- Support 4K resolution, Watchdog Timer
- Standard 24-pin ATX power from Backplane

System	
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O y o to i i i	
Processor	Tiger Lake /11th Gen H Processor
	FCBGA1787 package
Chipset	Intel® QM580E / RM590E
	(TGL-H Xeon CPUs have to use RM590E)
Memory	2 x DDR4 SO-DIMM 3200 MHz up to 64GB,
	Support Non-ECC, unbuffered memory only
	(TGL-H Xeon CPUs can support ECC memory)
Watchdog Timer	Generates a system reset with internal timer for
	1 min/s ~ 255 min/s
Real Time Clock	Chipset integrated RTC with onboard lithium battery
Expansion	1 x MiniPCle with SIM slot (support mSATA)
	1 x M.2 2280 Key M support PCIe Gen4 and SATA
	1 x M.2 2230 Key E for Wi-Fi and Bluetooth
	1 x PCle X16 slot
	4 x PCle X1 slot or 1 x PCle X4 slot (Optional)
Graphics	
Chipset	Intel® 11th Gen integrated UHD Graphics
Display Interface	1 x LVDS (Note1),1 x DVI(Note5),
	1 x DisplayPort(Note2), 1 x VGA

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	(Support iAMT15.0)
	1 x Intel® I225-LM Gigabit LAN
I/O	
Serial ATA	2 x SATA3
Audio	Realtek ALC888S HD Audio
Internal I/O	1 x DVI, 1 x VGA, 1 x Audio, 1 x GPIO
	2 x SATA3, 4 x RS232, 2 x RS232/RS422/RS485,
	1 x SMBus, 2 x USB3.2 Gen2 (Type E)
	4 x USB2.0, 1 x LVDS, 1 x LCD inverter connector
Rear I/O	1 x DisplayPort, 2 x LAN, 1 x PS/2
Mechanical & Environmental	
Power Requirement	Standard 24-pin ATX power from Backplane

1 x Intel® I219-LM Gigabit PHY LAN

Power Requirement	Standard 24-pin ATX power from Backplane
Size	168mm x 126mm (L x W)
Temperature	Operating within 0°C~60°C (32°F~140°F)(Note3) Storage within -20°C~80°C (-4°F~176°F)
Relative Humidity	10%~90%, non-condensing

#### Ordering Code

HE-B/3/1	With Core™ 17-11850HE, QM580E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B7374	Same as HE-B7371, with 1 x PCle X4
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M2-3502 M2 2280 Key M support 2 x Gigabit LAN M2-3504 M2 2280 Key M support 4 x Gigabit LAN

Note1: Onboard 18/24-bit single/dual channel +3.3V/ +5V/ +12V LVDS

Note2: Add ADP-3355 supports 2nd VGA or Add ADP-3460 supports 2nd LVDS, please contact with our sales for OEM version

Note3: W-11865MRE, W-11555MRE, W-11155MRE can operate within -40°C~85°C

Note4: If you want to use other Tiger Lake /11th Gen H Processor, please turn to the next page and contact with our sales.

Note5: DVI Cable is optional.



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# **HE-B73**

#### **OEM**

HE-B7351	With Core™ i5-11500HE, QM580E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B7331	With Core™ i3-11100HE, QM580E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73C1	With Celeron® 6600HE, QM580E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W7R1	With Xeon® W-11865MRE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W7L1	With Xeon® W-11865MLE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W5R1	With Xeon® W-11555MRE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W5L1	With Xeon® W-11555MLE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W3R1	With Xeon® W-11155MRE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B73W3L1	With Xeon® W-11155MLE, RM590E, Cooler fan, DVI, DP, LVDS, VGA, 4 x PCIe X1
HE-B7354	Same as HE-B7351, with 1 x PCle X4
HE-B7334	Same as HE-B7331, with 1 x PCIe X4
HE-B73C4	Same as HE-B73C1, with 1 x PCle X4
HE-B73W7R4	Same as HE-B73W7R1, with 1 x PCIe X4
HE-B73W7L4	Same as HE-B73W7L1, with 1 x PCIe X4
HE-B73W5R4	Same as HE-B73W5R1, with 1 x PCIe X4
HE-B73W5L4	Same as HE-B73W5L1, with 1 x PCIe X4
HE-B73W3R4	Same as HE-B73W3R1, with 1 x PCIe X4
HE-B73W3L4	Same as HE-B73W3L1, with 1 x PCIe X4
ADP-3355	DisplayPort to VGA module (For 2 <sup>nd</sup> VGA)
ADP-3460	DisplayPort to LVDS module (For 2 <sup>nd</sup> LVDS)