

PE8000G

High-throughput GPU Computing Edge AI System supporting the latest CPU Intel® Core™ Processors Series 2 (Bartlett Lake-S) and up to dual 450W GPU Card

Features

- Intel® Core™ Processors Series 2 (Bartlett Lake-S) & Intel® 14th / 13th / 12th -Gen Core™ CPU with R680E chipset
- Support up to dual 450W NVIDIA® GPU card
- Four hot-swappable 2.5" SSD
- 8~48V wide-range DC-in w/ built-in Ignition power control



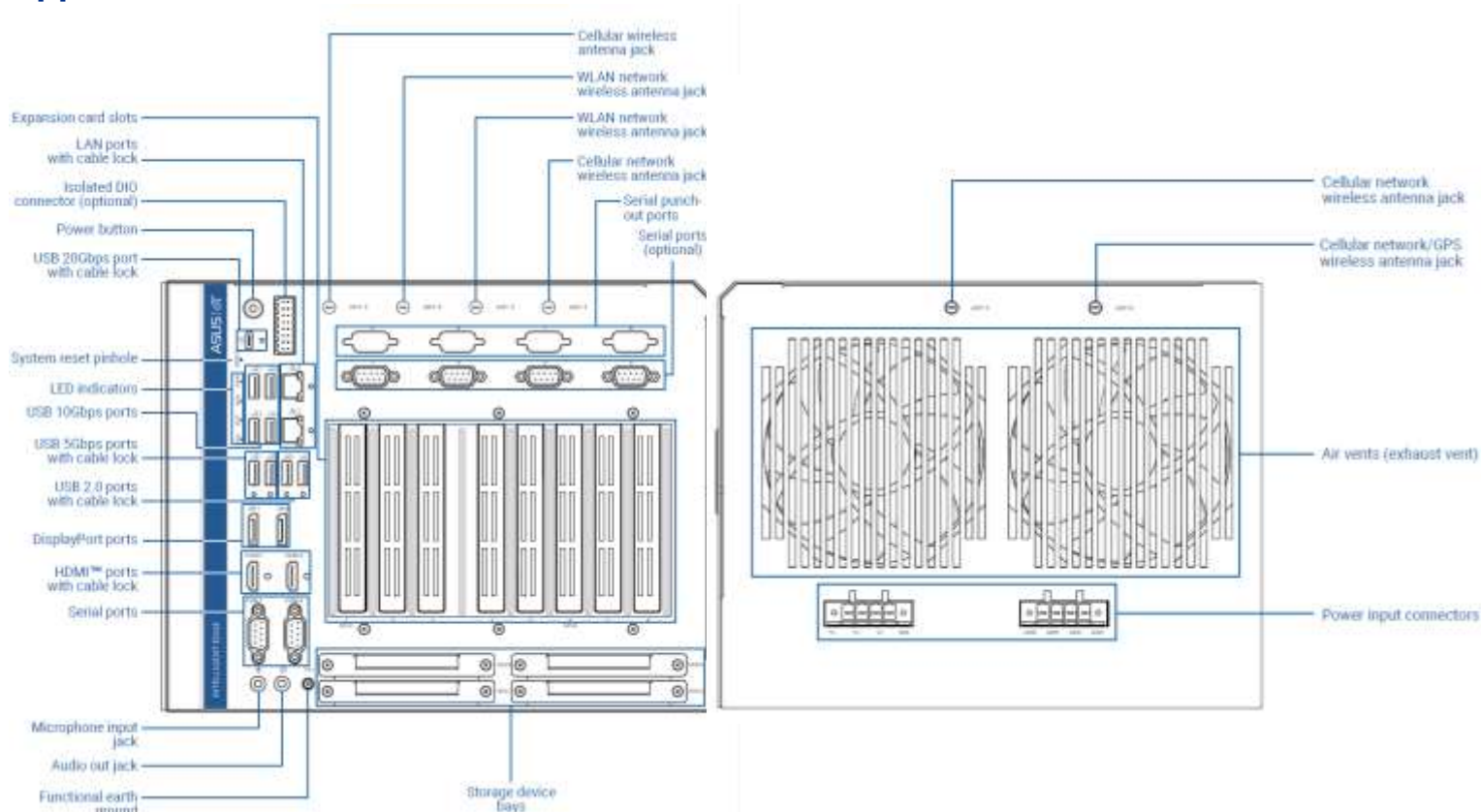
Specifications

Intel® Core™ Series 2 (Bartlett Lake-S)	CPU	Intel® Core 7 251E	Intel® Core 7 251TE	Intel® Core 5 221E	Intel® Core 5 221TE	Intel® Core 5 211E	Intel® Core 5 211TE	Intel® Core 3 201E	Intel® Core3 201TE	Intel® 300	Intel® 300T
	TDP	65W	45W	65W	45W	65W	45W	60W	45W	46W	35W
	# of Cores	24	24	14	14	10	10	4	4	2	2
	P Core Base Freq.	2.1GHz	1.4GHz	2.7GHz	1.8GHz	2.7GHz	1.7GHz	3.6GHz	2.9GHz	3.9GHz	3.4GHz
14 th Gen Processor	CPU	Intel® Core® i9-14900	Intel® Core® i9-14900T	Intel® Core® i7-14700	Intel® Core® i7-14700T	Intel® Core® i5-14500	Intel® Core® i5-14500T	Intel® Core® i3-14100	Intel® Core® i3-14100T		
	TDP	65W	35W	65W	35W	65W	35W	60W	35W		
	# of Cores	24	24	20	20	14	14	4	4		
	P Core Base Freq.	2 GHz	1.1 GHz	2.1 GHz	1.3 GHz	2.6 GHz	1.7 GHz	3.5 GHz	2.7 GHz		
13 th Gen Processor	CPU	Intel® Core® i9-13900E	Intel® Core® i9-13900TE	Intel® Core® i7-13700E	Intel® Core® i7-13700TE	Intel® Core® i5-13500E	Intel® Core® i5-13500TE	Intel® Core® i3-13100E	Intel® Core® i3-13100TE		
	TDP	65W	35W	65W	35W	65W	35W	60W	35W		
	# of Cores	24	24	16	16	14	14	4	4		
	P Core Base Freq.	1.8 GHz	1 GHz	1.9 GHz	1.1 GHz	2.4 GHz	1.3 GHz	3.3 GHz	2.4 GHz		
12 th Gen Processor	CPU	Intel® Core® i9-12900E	Intel® Core® i9-12900TE	Intel® Core® i7-12700E	Intel® Core® i7-12700TE	Intel® Core® i5-12500E	Intel® Core® i5-12500TE	Intel® Core® i3-12100E	Intel® Core® i3-12100TE		
	TDP	65W	35W	65W	35W	65W	35W	65W	35W		
	# of Cores	16	16	12	12	6	6	4	4		
	P Core Base Freq.	2.3 GHz	1.1 GHz	2.1 GHz	1.4 GHz	2.9 GHz	1.9 GHz	3.2 GHz	2.1 GHz		
System	Chipset	R680E									
	Memory	2 x SO-DIMM, DDR5 up to 5600MHz MHz, ECC/ non ECC, max. 64GB									
External Interfaces	Display	2x HDMI 1.4, supports up to 4096 x 2160 @ 30 Hz 2x DP 1.2, supports up to 4096 x 2160 @ 60 Hz, DP++									
	Ethernet	1x Intel® i219-LM (1 GbE), support PXE boot, RJ45, wake on Lan 1x Intel® i226-IT (2.5 GbE), support PXE boot, RJ45, wake on Lan									
	AMT	Supports Intel vPro/ AMT									
	USB	1x USB 3.2 Gen2x2 (20G), type C 4x USB 3.2 Gen2x1 (10G) ,type A 2x USB 3.2 Gen1 (5G), type A 2x USB2.0, type A									
	Audio	Mic in; Line out									
	COM	2x COM: RS-232/422/485, DB9 4x COM: RS-232, DB9 --- Punch-out port (optional)									
	DIO	4x DI, 4 x DO support isolation (optional)									
	LED	LED Indicators x 4 (by on-board SMD shows PWR/ storage (HDD)/ watch dog timer(WDT)/ ignition(IGN)									
	Antenna	4x cellular; 2x wifi									
Expansion	PCIe	7 x PCIe slots (1 x PCIe Gen4 x16 + 3 x PCIe Gen3 x4 + 2 x Gen3 x1 or 2 x PCIe Gen4 x8 + 3 x PCIe Gen3 x4 + 2 x PCIe Gen3 x1)									
	Mini PCIe	1 x Mini PCIe socket (support mSATA or cellular module) support single nano SIM									
	M.2 M Key	1 x M.2 2280 M-key socket (support NVMe PCIe4)									
	M.2 E Key	1 x M.2 2230 E-key socket (support CNVi, Wi-Fi/BT module)									
	M.2 B Key	1 x 3042/3052 (support M.2 5G/ 4G module/ UDR GPS module) support dual nano SIM									
	2.5" SATA	4 x 2.5" slots (hot-swappable, supports SATA 3.0, 7~7.5mm)									
Wireless	Wifi	WiFi5, WiFi 6/6E									
	Cellular	4G LTE, 5G NR									
Power	System Power	2 x 4 pin pluggable terminal block for 8-48V DC input									
	Power related button	Power button / Reset pinhole / Header for remote power button									
	Power Supply	960W (Optional)									
	Type	ATX/AT/Ignition									
Mechanical	Mounting	Damping bracket mounting kit									
	GPU holder	Card holder (optional)									
	Dimension	225 x 288 x 443 mm									
	Weight	12.2 kg									

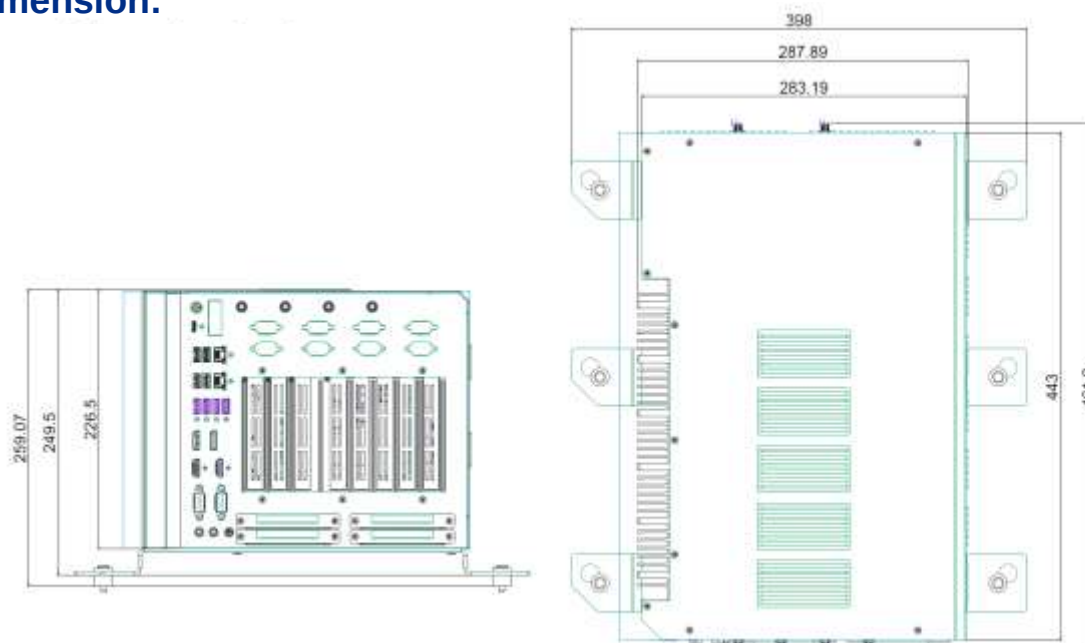
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Environment	Operating Temp.	* -20~60°C with 35W CPU (or CPU configured as 35W TDP), and all module operating (industrial parts) * -20~55°C with 65W CPU, and all module operating (industrial parts) * 0~40° with all module operating (commercial parts)
	Storage Temp.	-40~85°C
	Relative Humidity	10 to 95% (non-condensing)
	EMC	CE, FCC VCCI, BSMI
	Safety	CB, BSMI
	Vibration	Operating: MIL-STD-810H, Method 514.8, 5-500 Hz, Table 514.8C-I
	Shock	Operating: MIL-STD-810H, Method 516.8, Procedures I, Table 516.8-IV (20G/11ms)
	Green	GA (RoHS)
Security	TPM	On-board Infineon TPM
Others	Watch dog timer	HW WDT Enable (WDT_EN)
	OS	Windows® 11 IoT Enterprise (64-bit) Windows® 10 IoT Enterprise (64-bit) Linux by Project support

Appearance:



Dimension:



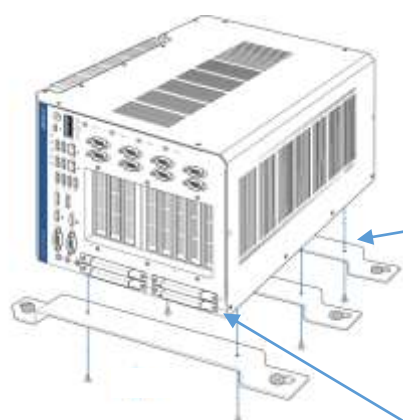
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Ordering Information:

CPU	Chipset	SO-DIMM	2.5" SATA	COM	4x COM	DIO	OP Temperature
Intel® Core™ Series 2 (Bartlett Lake-S)	R680E	2	4	2	Optional	Optional	-20~60/ 0~40°
12 th Gen Core™ CPU	R680E	2	4	2	Optional	Optional	-20~60/ 0~40°
13 th Gen Core™ CPU	R680E	2	4	2	Optional	Optional	-20~60/ 0~40°
14 th Gen Core™ CPU	R680E	2	4	2	Optional	Optional	-20~60/ 0~40°

Packing List:

Description	Qty
Desktop mount bracket	3
Desk mount screws pack (6x M4 screw in one pack)	1
Anti shock & vibration damper	6
2.5" SATA SSD screws pack (4x M3 screws in one pack)	4
12V GPU power cable (6+2P)	4
Power terminal block	2



3x Desk mount bracket



1x Desk mount screws pack (6x M4 screw in one pack)



6x Anti shock & vibration damper



4x 2.5" SATA SSD screws pack (4x M3 screws in one pack)



4x 12V GPU power cable (6+2P)



2x Power terminal block

Optional Accessories:

Description	Qty
DIO terminal block	1
GPU card holder set (based on GPU type)	2
12V GPU power cable (12+4 Pin)	2



(Optional) 12V GPU power cable (12+4P)