

PE4000G

Rugged GPU Computing Edge AI System supporting Intel® 14th /13th / 12th Gen Core™ CPU and up to 220W GPU Card

Features

- Intel® 14th/13th/ 12th Gen Core™ CPU with R680E chipset
- Support GPU card up to 220W
- Two hot-swappable 2.5" SSD
- 8~48V wide-range DC-in w/ built-in Ignition power control
- Comply with MIL-STD 810H

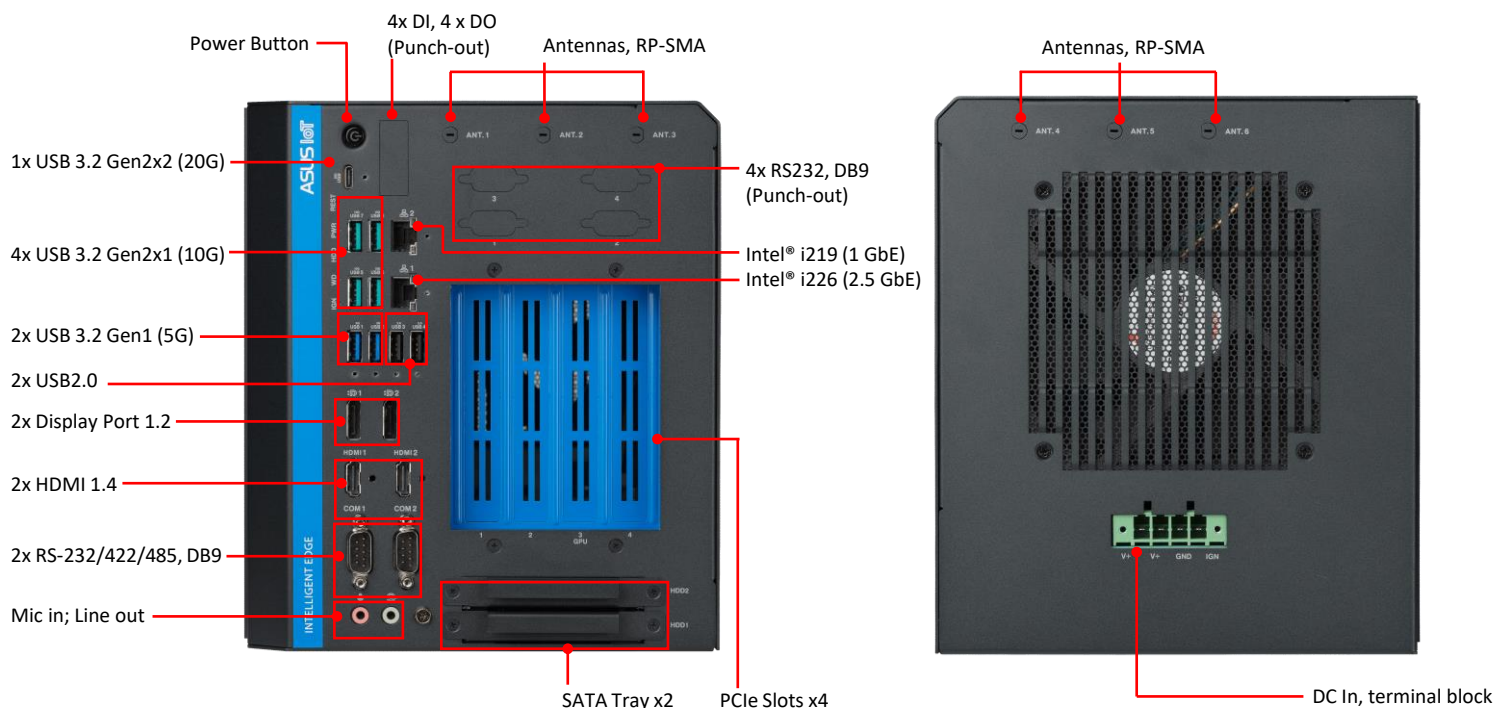
Specifications



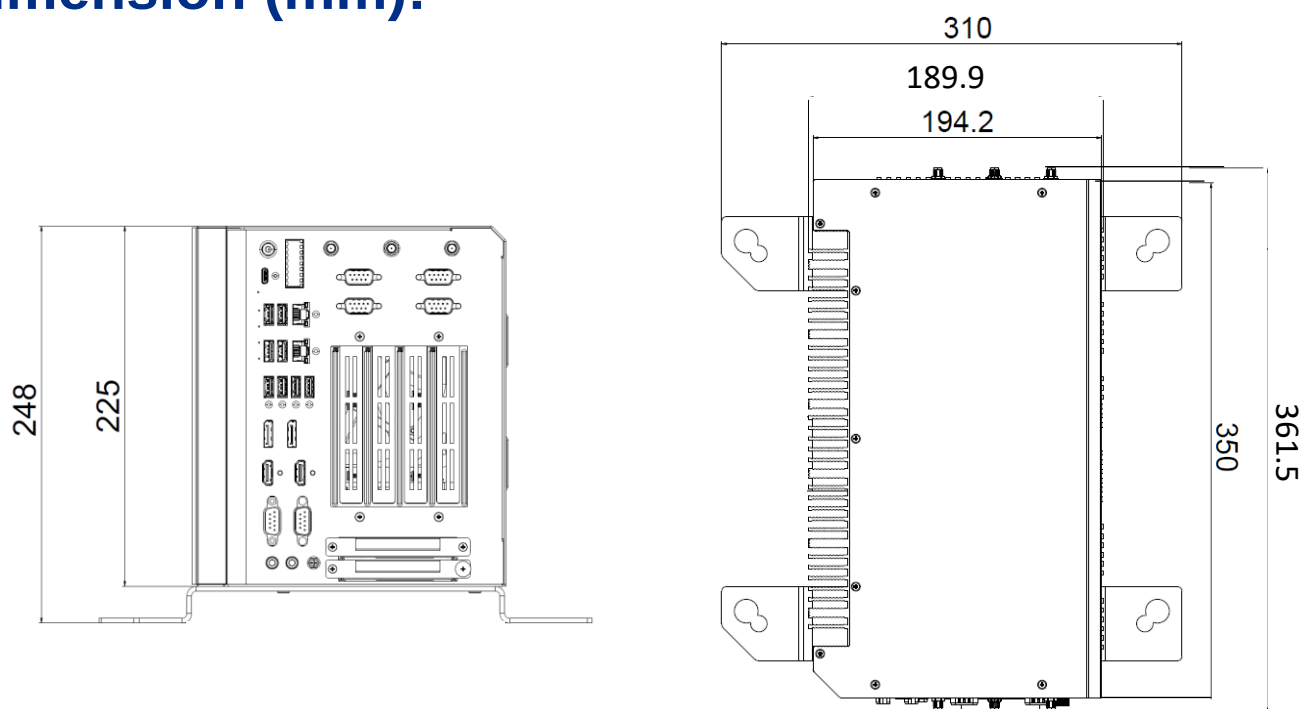
14 th Gen Processor	CPU	Intel® Core® i9-14900	Intel® Core® i9-14900T	Intel® Core® i7-14700	Intel® Core® i7-14700T	Intel® Core® i5-14500	Intel® Core® i5-14500T	Intel® Core® i3-14100	Intel® Core® i3-14100T
	TDP	65W	35W	65W	35W	65W	35W	60W	35W
	# of Cores	24	24	20	20	14	14	4	4
	P Core Base Freq.	2 GHz	1.1 GHz	2.1 GHz	1.3 GHz	2.6 GHz	1.7 GHz	3.5 GHz	2.7 GHz
13 th Gen Processor	13 th Gen 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	12 th Gen 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 4800MHz 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							
	PCIe	4 x PCIe slot (2 configuration: 1 x PCIe16 + 2 x PCIe4 or 2 x PCIe8 + 2 x PCIe4, auto-detect)							
Expansion	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	2 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	1 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	480W							
	Type	ATX/AT/Ignition							
Mechanical	Mounting	Damping bracket mounting kit							
	GPU holder	Card holder (optional)							
	Dimension	225 (H) mm *198 (W) mm *350 (D) mm							
	Weight	8.2 kg							
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)							

Security	EMC	CE, FCC VCCI, BSMI
	Safety	CB, BSMI
	Vibration	Operating: MIL-STD-810H, Method 514.8, 5-500 Hz, Table 514.8C-I; 5-500 Hz, 3 Grms, 3 Axes
	Shock	Operating: MIL-STD-810H, Method 516.8, Procedures I, Table 516.8-IV (40G/11ms)
	Green	GA (RoHS)
Others	TPM	On-board Infineon TPM
	Watch dog timer	HW WDT Enable (WDT_EN)
	OS	Windows 11 IoT Enterprise, Windows 10 IoT Enterprise, Linux(UBUNTU)

Appearance:



Dimension (mm):

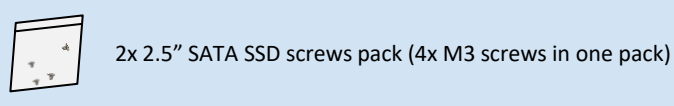
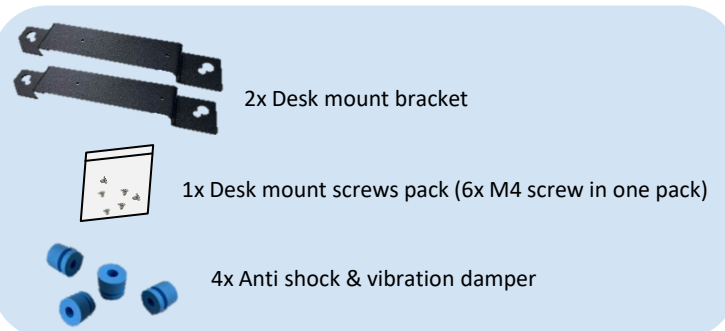
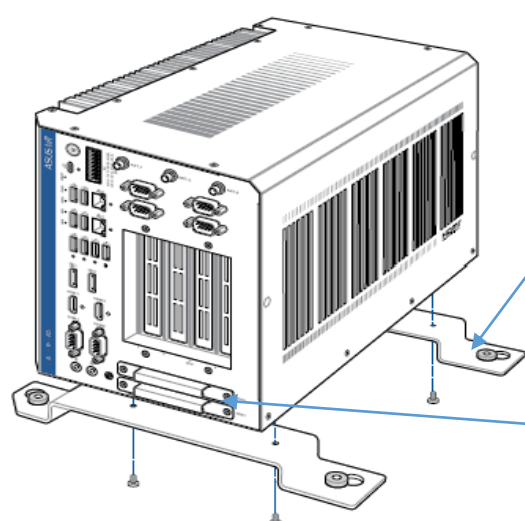


Ordering Information:

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

Packing List:

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



1x 12V GPU power cable (6+2P)

1x Power terminal block

Optional Accessories:

Description	Qty
DIO terminal block	1
GPU card holder set	1