

# PE5101D

Rugged High-Performance and Fanless Edge Computer supporting Intel® Core™ Processors Series 2 & 14<sup>th</sup>/ 13<sup>th</sup>/12<sup>th</sup> Gen Intel® Core™ CPU, 2.5" Hot-Swappable SSD/HDD Tray, RAID 0/1, Rich I/O and up to 200W Graphics Card

## Features

- Supports Intel® Core™ Processors Series 2 & 14<sup>th</sup>/ 13<sup>th</sup>/ 12<sup>th</sup> Gen Intel® Core™ CPU with Intel® R680E chipset
- Supports dual 2.5" hot-swappable SSD/HDD tray & RAID 0/1
- Rich I/O with 3 x 2.5 GbE, 10 x USB, 6 x COM
- PCIe x16 & PCIe x4 expansion slots support up to 200-watt Graphics card
- 8 to 48V wide-range DC-in w/ built-in ignition power control
- Wide operating temperature range: -25° C to 60° C
- Compliant with EN 50121-3-2 for EN 50155



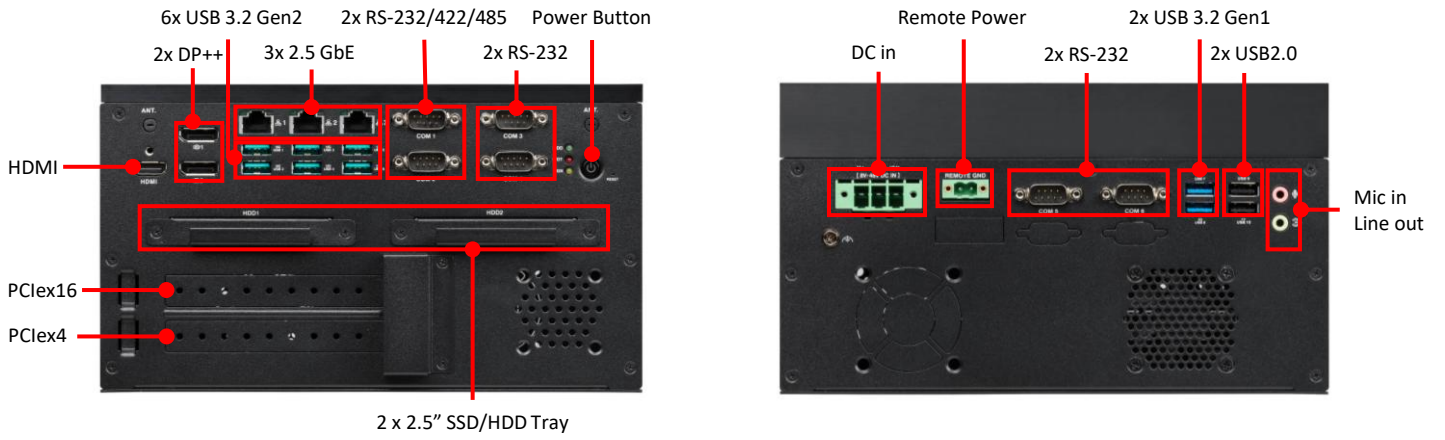
## Specifications

Intel® Core™ Processors Series 2	CPU	Intel® Core™ 7 processor 251TE		Intel® Core™ 5 processor 221TE	Intel® Core™ 3 processor 201TE
	TDP	45W		45W	45W
	# of Cores	24		14	4
	P-core Base Freq.	1.4GHz		1.8GHz	2.9GHz
14 <sup>th</sup> Gen Processors	CPU	Intel® Core™ i9-14900T	Intel® Core™ i7-14700T	Intel® Core™ i5-14500T	Intel® Core™ i3-14100T
	TDP	35W	35W	35W	35W
	# of Cores	24	20	14	4
	P-core Base Freq.	1.1GHz	1.3GHz	1.7GHz	2.7GHz
13 <sup>th</sup> Gen Processors	CPU	Intel® Core™ i9-13900TE	Intel® Core™ i7-13700TE	Intel® Core™ i5-13500TE	Intel® Core™ i3-13100TE
	TDP	35W	35W	35W	35W
	# of Cores	24	16	14	4
	P-core Base Freq.	1.0GHz	1.1GHz	1.3GHz	2.4GHz
System	Chipset	Intel® R680E			
	Memory	2 x SO-DIMM (supports DDR5 ECC/non-ECC, up to 5600 MHz, max. 64GB)			
I/O Interfaces	Display	1 x HDMI, supports up to 4096 x 2160 @ 30 Hz 2 x DP++, supports up to 4096 x 2160 @ 60 Hz			
	Ethernet	3 x 2.5 GbE, RJ45 (Intel® i226-IT)			
	AMT	Supports Intel® vPro/ AMT			
	USB	6 x USB 3.2 Gen 2 (10Gbps) 2 x USB 3.2 Gen 1 (5Gbps) 2 x USB 2.0			
	COM	2 x RS-232/422/485 4 x RS-232			
	Audio	1 x Mic-in 1 x Line-out			
	DIO	8-bit isolated DIO(4-in/4-out, terminal block, optional)			
Storage	2.5" SATA	2 x 2.5" (supports hot-swappable SSD/HDD tray, RAID 0/1)			
	M.2 M Key	1 x M.2 2280 M-key (PCIe Gen4x4)			
Expansion Slot	M.2 E Key	1 x M.2 2230 E-key (PCIex1/USB2.0)			
	M.2 B Key	1 x M.2 3042/3052 B-key with dual nano-SIM slot (PCIex1/USB 3.2 Gen1/USB2.0)			
	Mini PCIe	1 x Mini PCIe socket (PCIex1/USB 2.0)			
	PCIe Slot	1 x PCIe Gen4 x4 slot 1 x PCIe Gen4 x16 slot, the max in size 229 x 123.24 x 49.6 mm <sup>1</sup>			
Power	Power input	8 to 48 V DC-in, 3-pin terminal block (V+, GND, IGN)			
	Remote switch	2-pin terminal block (Remote, GND)			
Mechanical	Mounting	Wall-mount			
	Dimensions	242 x 241.4 x 137mm			
	Weight	5.81 kg			

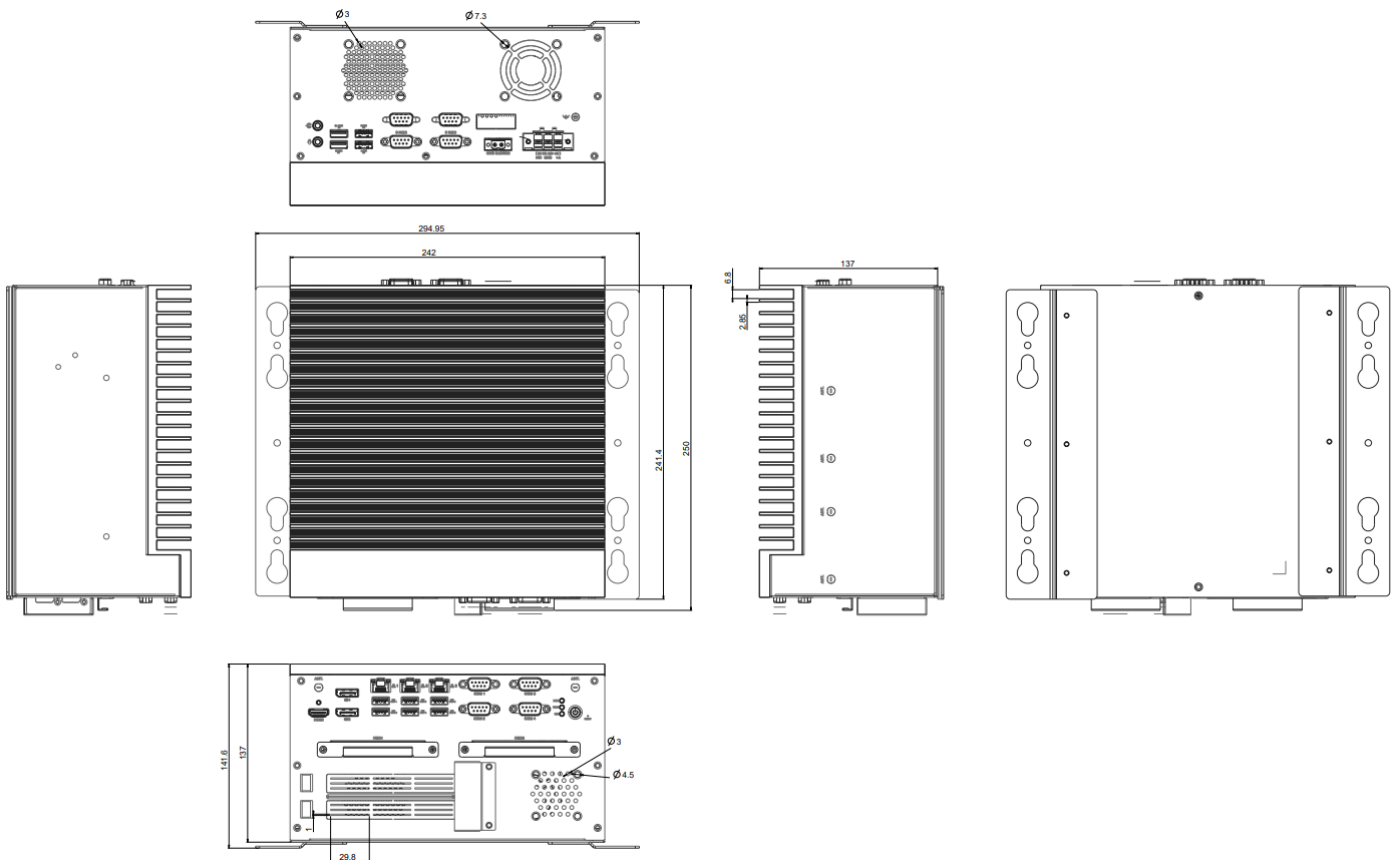
<b>Environment</b>	Operating Temp.	-25° C to 60° C <sup>2,3</sup>
	Storage Temp.	-40° C to 85° C
	Relative Humidity	10 to 95% (non-condensing)
	EMC	CE, FCC, BSMI, Compliant with EN 50121-3-2 for EN 50155
	Safety	CE-LVD, CB, BSMI, CCC
	Vibration	Operating: MIL-STD 810H Method 514.8, Category 4 & 3Grms, 5-500 Hz, 3 Axes
	Shock	Operating: MIL-STD 810H Method 516.8, Procedure I, Table 516.6-II; 20 G 11ms
	Green	GA (RoHS)
<b>Security</b>	TPM	Supports dTPM v2.0
<b>Others</b>	Watchdog timer	Supported
	OS	Windows® 11 IoT Enterprise (64-bit) Windows® 10 IoT Enterprise (64-bit) Linux by Project support
	Software compatibility	AWS IoT Greengrass

1. If the length of add-on card is over 200 mm, the location of system fan needs to be adjusted, please refer to UMN for more detail.
2. For wide temperature demand, the industrial memory & storage are required.
3. No thermal throttling occur with 100% CPU loading via PassMark BurnInTest; Ambient with air flow.

# Appearance



# Dimension (mm)



## Ordering Information

CPU	Chipset	SO-DIMM	LAN	2.5" SATA	COM	DIO	OP Temperature
Intel® Core™ Processors Series 2	R680E	2	3	2	6	Optional	-25~60°C/ 0~40°C
14 <sup>th</sup> Gen Processors	R680E	2	3	2	6	Optional	-25~60°C/ 0~40°C
13 <sup>th</sup> Gen Processors	R680E	2	3	2	6	Optional	-25~60°C/ 0~40°C

\* Please check with your importer or integrator for system level certification.

## Packing List

Item	Qty
Power terminal block, 3-PIN	1
Remote power terminal block, 2-PIN	1
GPU Power cable	1
Wall mount kit	2
Wall mount screw pack	1
Anti shock & vibration damper	8
SSD screw pack	2
PCIe card screw pack	2

## Optional Accessories

Item	Description
<b>ADAPTER</b>	
	Power adapter, 330W 24V, input voltage 100 to 264VAC, output voltage 24VDC with 13.75A DC load, 0 to 40°C operating temperature
<b>POWER CORD</b>	
	Power cord with United States (US) plug
	Power cord with Europe (EU) plug
	Power cord with China (CN) plug
	Power cord with Australia (AU) plug
	Power cord with United Kingdom (UK) plug
	Power cord with Korea (KR) plug
	Power cord with Taiwan (TW) plug