

# SB-5000

## Modular Fanless Box PC with 13<sup>th</sup>/12<sup>th</sup> Gen Intel® Core™ i9/i7/i5/i3 Desktop Processors



### Applications

- Edge AI Computing
- Factory Automation
- Image Processing
- Gaming and Entertainment Industries
- Data Collection

### Features

- Supports 13<sup>th</sup>/12<sup>th</sup> Gen Intel® LGA 1700 Processors
- 2 x Intel® 2.5GbE supporting Wake-on-LAN and PXE
- 2 x DDR5 4800/5600MHz SO-DIMM, Max to 64GB
- Quad Display: 3 x DisplayPort, 1 x VGA
- Multiple Storage Capability (M.2, SATA SSD)
- 9~48V DC Input with Power Ignition Function
- -40°C ~ 70°C Wide Operating Temperature

### Ordering Information

Part No.	Description
SB-5000	Intel® 13 <sup>th</sup> /12 <sup>th</sup> Core™ i LGA1700 CPU, R680E Fanless Box PC with 9 x USB3.2, 6 x RS232/422/485, 2 x 2.5GbE, 1 x VGA, 3 x DP, 1 x Flexible I/O Window Slot, 2 x Internal 2.5" SATA SSD, DC 9~48V, Terminal Block Connector

### Packing List

Description
1 x SB-5000
1 x Wall Mount Kit

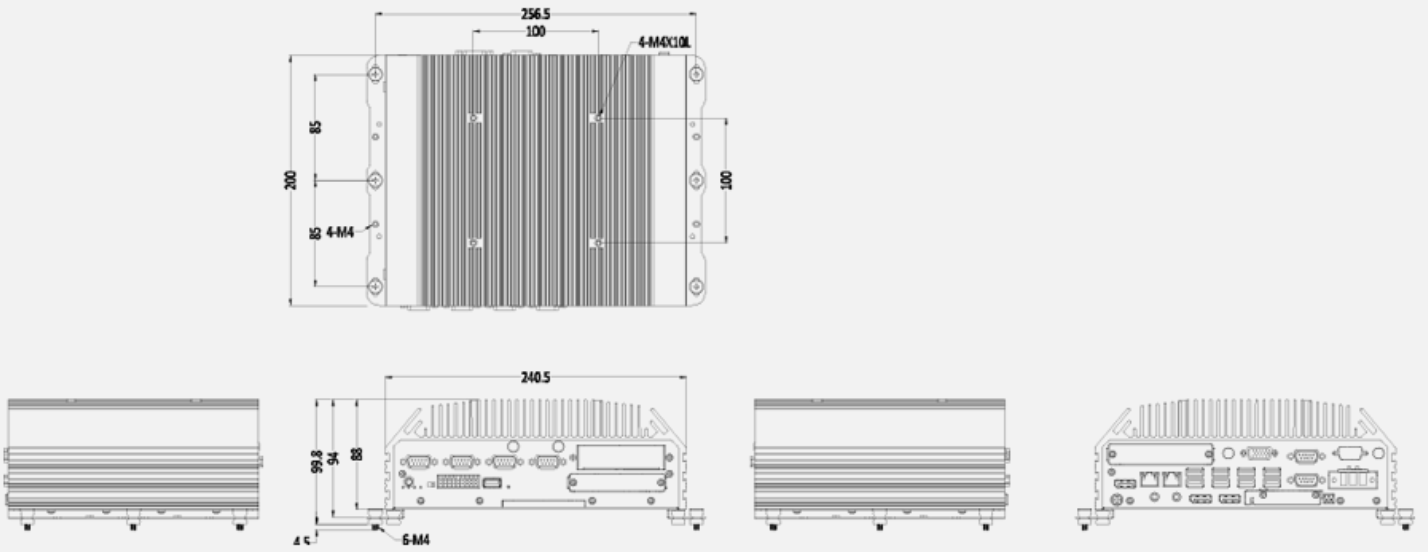
## Optional Items

Part No.	Description
i9-13900TE	Intel® 13 <sup>th</sup> Gen Core™ i9-13900TE Embedded_Raptor Lake_36M Cache, up to 5.00 GHz_35W
i7-13700TE	Intel® 13 <sup>th</sup> Gen Core™ i7-13700TE Embedded_Raptor Lake_30M Cache, up to 4.80 GHz_35W
i5-13500TE	Intel® 13 <sup>th</sup> Gen Core™ i5-13500TE Embedded_Raptor Lake_24M Cache, up to 4.50 GHz_35W
i3-13100TE	Intel® 13 <sup>th</sup> Gen Core™ i3-13100TE Embedded_Raptor Lake_12M Cache, up to 4.10 GHz_35W
i9-12900TE	Intel® 12 <sup>th</sup> Gen Core™ i9-12900TE Embedded_Alder Lake_30M Cache, up to 4.80 GHz_35W
i7-12700TE	Intel® 12 <sup>th</sup> Gen Core™ i7-12700TE Embedded_Alder Lake_25M Cache, up to 4.60 GHz_35W
i5-12500TE	Intel® 12 <sup>th</sup> Gen Core™ i5-12500TE Embedded_Alder Lake_18M Cache, up to 4.30 GHz_35W
i3-12100TE	Intel® 12 <sup>th</sup> Gen Core™ i3-12100TE Embedded_Alder Lake_12M Cache, up to 4.20 GHz_35W
EA-PS-160W24VTB3x-0111	Adapter AC/DC 24V 6.67A 160W with 3-pin Terminal Block Plug 7.62mm Pitch
EA-PS-221W24VTB3x-0111	Adapter AC/DC 24V 9.2A 221W with 3-pin Terminal Block Plug 7.62mm Pitch
30100-0003-CA	Power Cord, 3-pin US Type, 180 cm
30101-0005-CA	Power Cord, 3-pin EU Type, 180 cm

## Specifications

Model	SB-5000	
Processor System	CPU	13 <sup>th</sup> /12 <sup>th</sup> Gen Intel® Core™/Pentium®/Celeron® 35W LGA 1700 Processors
	System Chipset	Intel® R680E
	BIOS	AMI 256 Mbit SPI Flash
	TPM	TPM 2.0
Memory	Technology	DDR5 4800/5600 SDRAM (ECC and Unbuffered)
	Type	2 x 262-pin SO-DIMM
Display	Graphics Engine	Core™ i9/i7/i5: Intel® UHD Graphics 770 Core™ i3: Intel® UHD Graphics 730 Pentium®/Celeron®: Intel® HD Graphics 710
	Multiple Display	4
	VGA	1 x VGA, Max Resolution 1920 x 1200
	DP	3 x DP, Max Resolution 4096 x 2160
	HDMI	3 x HDMI, Max Resolution 4096 x 2160 (Optional)
I/O Interface	USB	9 x USB3.2 (Gen2)
	Serial Port	6 x RS232/422/485
	Ethernet	2 x 2.5GbE Intel® i226-IT, RJ45 4 x GbE Intel® i350-AM4 (Optional, via Arestech Flexible I/O Window)
	PoE+	4 x PoE+ Intel® i350-AM4 (Optional, via Arestech Flexible I/O Window)
	Audio	1 x Line-out, 1 x Mic-in
	GPIO / DIO	8 x Isolated DI and 8 x Isolated DO, 2 x 9-pin Terminal Block
	Antenna Hole	4
	CMOS Battery	1 x Removable CMOS Battery and 1 x Removable Clear CMOS Switch
Storage	Flexible I/O Window	1
	2.5" HDD / SSD	2 x 2.5" SATA III (6.0Gb/s)
	M.2	1 x M.2 M-Key1 2280 (SATA) 1 x M.2 M-Key2 2280 (NVMe x 4 and SATA)
Expansion	RAID	RAID 0/1/5/10
	Mini PCIe	1 x Full-Size Mini-PCIe (PCIe, USB 2.0 and SIM)
	M.2	1 x M.2 B-Key 2242/3042/3052 (PCIe, USB 3.0 and SIM), 1 x M.2 E-Key 2230 (PCIe, CNVi)
Power	SIM Holder	2 x Mini-SIM Holder
	Power Mode	AT/ATX
	Power Supply Voltage	9-48V DC Input with Ignition Control
	Power Connector Type	1 x DC Power Connector, 1 x 3-pin Terminal Block
	Protection	Over Voltage Protection (OVP) up to 52V Over Current Protection (OCP) up to 20A Reverser Voltage Protection (RVP) up to -48V
Mounting	Car Mode	1 x PC/Car Mode Switch 1 x Delay Time Switch
	Type	Wall Mount (Additional Mounting Kit)
Environment	Operating Temperature	-40°C ~ 70°C
	Storage Temperature	-40°C ~ 80°C
	Humidity	10% ~ 90% (Non-condensing)
General	Vibration	IEC 60068-2-64: 5Grms, random, 5~500 Hz, 1hr/axis
	Shock	IEC 60068-2-27: 50G, half-sine, 11ms duration
	Certification	CE/FCC Class A
	Thermal Dissipation	Fanless for 35W CPU
	Material	Aluminum & SECC
	Dimensions (W x D x H)	240 x 200 x 88mm
	Net Weight	3.8kg
Operating System	Windows 10 IoT, Windows 11 (IoT/Professional), Linux	

## Dimensions



## Viewing

