SPC 7000/7100/7200

2.5GigE

11th Gen Intel® Core™ i7/i5/i3 Processor (Tiger Lake)
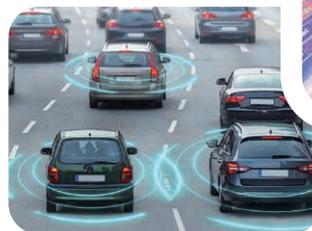**Ultra-Compact Fanless Embedded Box PC**

∧ AMR

- 11th Gen Intel® Core™ i7/i5/i3 processor (Tiger Lake UP3) delivers new generation system productivity than ever, up to 28W TDP
- 2.5GigE LAN supports Intel® Time-Sensitive Networking (TSN) for real-time data synchronization
- DC 9V to 160V wide range power input, Ignition Control
- M.2 Expansion for 5G/WiFi/4G/3G/LTE/GPRS/UMTS
- Optional VHub One-Stop AIoT Solution Service supports OpenVINO based AI accelerator and Edge AI applications

∨ Cellular V2X

∧ Gaming

intel partner
Gold IoT Solutions

Microsoft
Azure Certified Device

2.5G   TSN   9V~160V

Vecow

Specifications

System

Processor	Quad Core Intel® Core™ i7/i5/i3 Processor (Tiger Lake UP3)
Chipset	Intel® SoC (Tiger Lake)
BIOS	AMI
SIO	IT8786E
Memory	1 DDR4 3200MHz SO-DIMM, up to 32GB
OS	Windows 10, Linux

Graphics

Graphics Processor	Intel® Iris® Xᵉ Graphics
Interface	Supports dual display : - DisplayPort 1 : Up to 4096 x 2304 @60Hz - DisplayPort 2 : Up to 4096 x 2304 @60Hz

Ethernet

LAN 1	Intel® Ethernet Controller I219LM GigE LAN supports iAMT
LAN 2	Intel® Ethernet Controller I225-IT supports 2.5 GigE LAN

Audio

Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Storage

SATA	1 SATA III (6Gbps)
M.2	1 M.2 Key B 2260 Socket (Same socket as M.2 Key B for expansion)

I/O Interface

Serial	2 COM RS-232/422/485 (ESD 8kV)
USB	- 2 USB 3.1 (External) - 2 USB 2.0 (External) - 2 USB 2.0 (Internal)
LED	Power, HDD, WWAN, WLAN
SIM Card	1 External Nano SIM Card Socket

Expansion

M.2	- 1 M.2 Key B Socket (2260/3042/3052,PCIex2/USB3(Default)/USB2) - 1 M.2 Key E Socket (2230, PCIe/USB)
SUMIT A, B	2 SUMIT Slot (Optional, with customized chassis)

Power

Power Input	**SPC-7000/7100/7200 :** DC 9V to 55V **SPC-7000W :** DC 16V to 160V
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Ignition Control
Remote Switch	3-pin Terminal Block

Others

TPM	Infineon SLB9670 supports TPM 2.0, SPI Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Mgmt.	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	**SPC-7000 :** 150.4mm x 106.2mm x 44.2mm (5.92" x 4.18" x 1.74") **SPC-7000W :** 150.4mm x 106.2mm x 81.25mm (5.92" x 4.18" x 3.2") **SPC-7100 :** 150.4mm x 106.2mm x 57.0mm (5.92" x 4.18" x 2.24") **SPC-7200 :** 150.4mm x 106.2mm x 59.9mm (5.92" x 4.18" x 2.36")
Weight	**SPC-7000 :** 0.9 kg (1.98 lb) **SPC-7000W :** 1.3 kg (2.87 lb) **SPC-7100 :** 1.3 kg (2.87 lb) **SPC-7200 :** 1.4 kg (3.09 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - VESA Mount (Optional)

Environment

Operating Temp.	**SPC-7000 :** -40°C to 60°C (-40°F to 140°F) @15W TDP CPU **SPC-7000W :** -25°C to 65°C (-13°F to 149°F) @15W TDP CPU **SPC-7100 :** -40°C to 75°C (-40°F to 167°F) @15W TDP CPU **SPC-7200 :** -40°C to 70°C (-40°F to 158°F) @28W TDP CPU with Fan
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @75°C
Shock	- IEC 60068-2-27 - SSD : 50G @wallmount, Half-sine, 11ms
Vibration	- IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

Model	CPU	GigE LAN	2.5G LAN	10G USB	COM	SIM Socket	SSD Bracket	CPU TDP	Thermal Solution
SPC-7000-1185G7E	i7-1185G7E	1	1	2	2	1	1	12W, 15W	Heat Spreader
SPC-7000-1145G7E	i5-1145G7E								
SPC-7000W-1185G7E	i7-1185G7E								
SPC-7000W-1145G7E	i5-1145G7E								
SPC-7100-1185G7E	i7-1185G7E							12W, 15W	Heat Sink
SPC-7100-1145G7E	i5-1145G7E								
SPC-7200-1185G7E	i7-1185G7E							28W	Fan Sink
SPC-7200-1145G7E	i5-1145G7E								

Optional Software

VHub AI Developer	AI Development Kit
VHub ROS	AMR Development Kit
VHub EtherCAT	I/O Control Platform

Accessories

DDR4 32G	Certified DDR4 32GB 3200MHz RAM
DDR4 16G	Certified DDR4 16GB 3200MHz RAM
DDR4 8G	Certified DDR4 8GB 3200MHz RAM
DDR4 4G	Certified DDR4 4GB 3200/2666/2400 MHz RAM
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail Kit
PWA-120W1	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
5G Module	5G Module with Antenna
4G Module	4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)

SPC-7000
150.4 (5.92)
106.2 (4.18)
44.2 (1.74)

SPC-7000W
150.4 (5.92)
106.2 (4.18)
81.25 (3.20)

SPC-7100
150.4 (5.92)
106.2 (4.18)
57.0 (2.24)

SPC-7200
150.4 (5.92)
106.2 (4.18)
59.9 (2.36)

185.4 (7.30)
169.1 (6.66)
106.2 (4.18)
85.8 (3.38)
53.8 (2.12)

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