

SPC

7000/7100/7200

2.5GigE

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

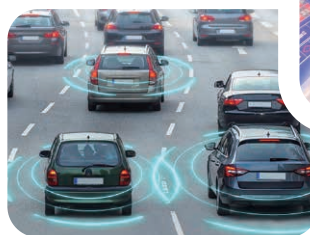


^ AMR



- 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

v Cellular V2X



^ Gaming



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

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

Ethernet

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

Audio

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

Storage

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|------|--|
| 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

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|----------|--|
| 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, PCIe2/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 | | | | | | | | |
| SPC-7000-1145G7E | i5-1145G7E | | | | | | | 12W, 15W | Heat Spreader |
| SPC-7000W-1185G7E | i7-1185G7E | | | | | | | | |
| SPC-7000W-1145G7E | i5-1145G7E | 1 | 1 | 2 | 2 | 1 | 1 | | |
| 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

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|-------------------|----------------------|
| 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)

