

SPC-7000/7100



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

- 11th Gen Intel® Core™ i7/i5/i3 processor (Tiger Lake UP3) delivers new generation system productivity than ever, up to 28W TDP
- Compact & Fanless design, up to -40°C to 85°C operating temperature
- DDR4 3200MHz memory, up to 32GB
- Dual DisplayPort display, up to 8K resolution
- Multiple USB supports up to 10Gbps data transfer
- 1 independent 2.5GigE LAN supports Intel® Time Sensitive Networking (TSN) for real-time data synchronization
- 1 GigE LAN supports iAMT, TPM 2.0 supported
- 9V to 55V wide range DC Power Input, Ignition Control
- SIM Socket for 5G/WiFi/4G/3G/LTE/GPRS/UMTS
- Optional supports full function SUMIT A, B expansions for multiple 10GigE LAN, 10G SFP+, 5G Network, SIM Socket, PoE LAN, Serial Port, GigE LAN, Fiber LAN, or Video Capture
- Optional VHub One-Stop AIoT Solution Service supports OpenVINO based AI accelerator and advanced Edge AI applications

Factory Automation



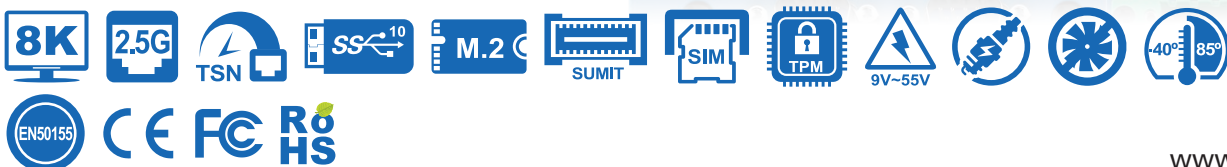
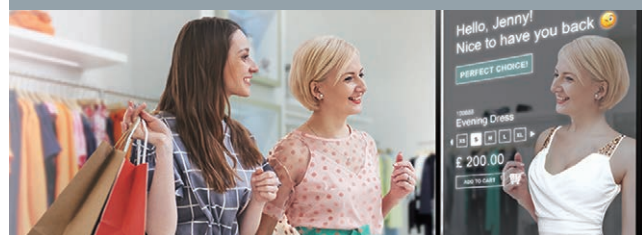
Service Robot



Cellular V2X (C-V2X)



Smart Retail



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® X* 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 Network Connection GPY215 supports 2.5GigE LAN

Audio

Audio Codec	Realtek ALC892, 5.1 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

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 (3042/3052) - 1 M.2 Key E Socket (2230)
SUMIT A, B	2 SUMIT Slot (Optional, with customized chassis)

Power

Power Input	9V to 55V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16-mode Ignition Control
Remote Switch	2-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-7100 : 150.4mm x 106.2mm x 57.0mm (5.92" x 4.18" x 2.24")
Weight	SPC-7000 : 0.9 kg (1.98 lb) SPC-7100 : 1.3 kg (2.87 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - VESA Mount (Optional)

Environment

Operating Temp.	SPC-7000 : -40°C to 70°C (-40°F to 158°F) @15W TDP CPU SPC-7100 : -40°C to 85°C (-40°F to 185°F) @15W TDP CPU
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @85°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, 28W	Heat Spreader
SPC-7000-1145G7E	i5-1145G7E								
SPC-7100-1185G7E	i7-1185G7E	1	1	2	2	1	1	12W, 15W, 28W	Heat Sink
SPC-7100-1145G7E	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-120W	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)

