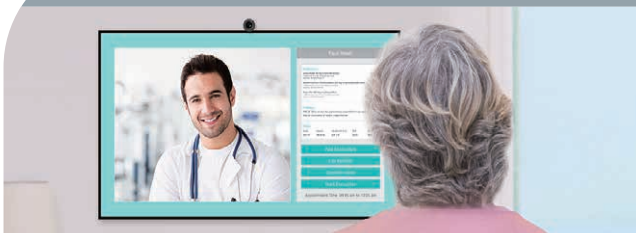
Vecow

EMBC-5000

11th Gen Intel® Core™ i7/i5/i3 Processor (Tiger Lake)
3.5" Embedded Single Board Computer

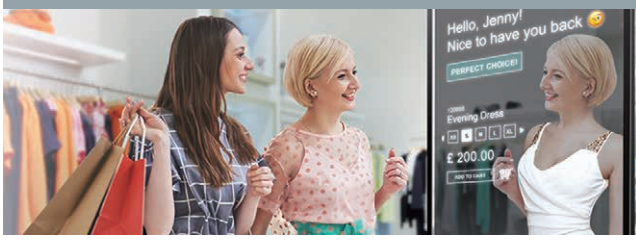
- 11th Gen Intel® Core™ i7/i5/i3 processor (Tiger Lake UP3) delivers new generation system productivity than ever, up to 28W TDP
- Fanless -40°C to 75°C Operating Temperature
- DDR4 3200MHz memory, up to 32GB
- Intel® Iris® Xe Graphics supports dual DisplayPort and 1 LVDS display interfaces, up to 4K 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
- SIM Socket for 5G/WiFi/4G/3G/LTE/GPRS/UMTS
- 4 COM RS-232/422/485, 2 SATA III, 1 M.2 Key E, 1 M.2 Key B
- Supports full function SUMIT A, B expansion
- 9V to 55V DC wide range Power Input
- Ignition Power Control
- Easy to customize for low-profile system applications
- One-stop SUMIT Expansion Design and Manufacturing Services

Telemedicine

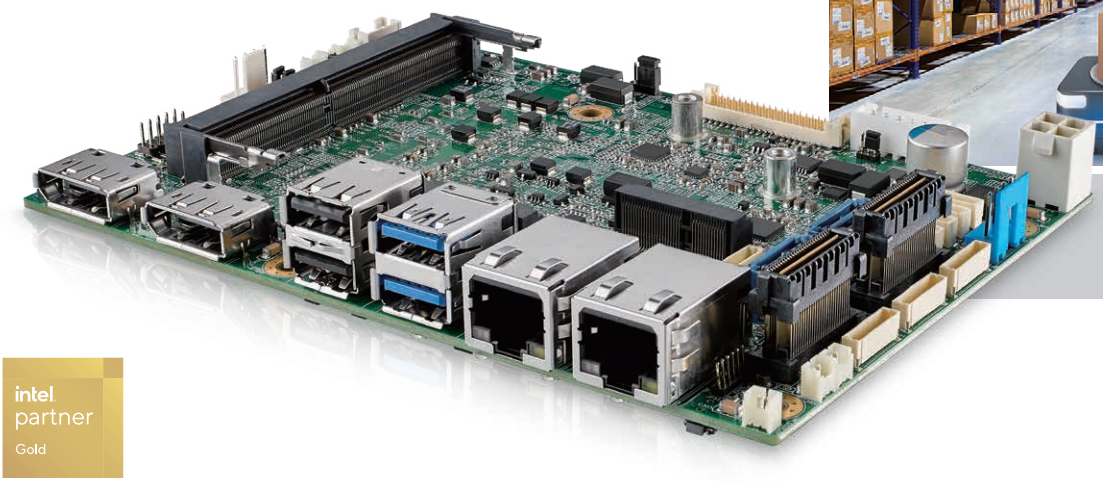


Intelligent Transportation System (ITS)

Intelligent Vending



Robotic Control



intel partner Gold

8K 2.5G TSN SS10 M.2 SUMIT SIM TPM 9V~55V -40° 75°

CE FC RoHS

www.vecow.com

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

Processor	Intel® Iris® Xᵉ Graphics
Interface	- DisplayPort 1 : Up to 4096 x 2304 @60Hz - DisplayPort 2 : Up to 4096 x 2304 @60Hz - LVDS : Dual channel 16-bit, up to 1920 x 1200

Ethernet

LAN 1	Intel® Ethernet Controller I219LM GigE LAN supports iAMT
LAN 2	Intel® Ethernet Controller I226-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

I/O Interface

Front I/O	- 2 DisplayPort Connector - 4 USB Connector - 2 RJ45 Connector - 1 Reset Button - 1 Power LED - 1 Wireless LED - 1 HDD LED - 1 WiFi LED
Internal I/O	- 4 COM RS-232/422/485 Connector - 1 ATX 4-pin Power Connector - 1 SUMIT A Connector (Optional) - 1 SUMIT B Connector (Optional) - 1 M.2 Key B Socket (2260/3042/3052,PCIex2/USB3(Default)/USB2) - 1 M.2 Key E Socket (2230, PCIe/USB) - 1 SIM Card Socket - 1 DDR4 SO-DIMM Socket - 1 LVDS Connector - 1 LVDS Backlight Connector - 2 USB 2.0 Wafer with 4 ports (Optional) - 2 SATA Data Connector - 1 SATA Power Connector - 1 4-pin Fan Connector - 1 GPIO Header - 1 Power On/Off Header - 1 Audio Header

Storage

SATA	2 SATA III (6Gbps)
M.2	1 M.2 Key B Socket (2260, PCIex2, share with expansion)

Expansion

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

Power

Power Input	9V to 55V DC-in
Power Interface	ATX Power Connector
Ignition Control	16 Mode (Internal)

Others

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

Mechanical

Dimensions	146.0mm x 102.0mm (5.75" x 4.02")

Environment

Operating Temp.	-40°C to 75°C (-40°F to 167°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% @75°C
EMC	CE, FCC

Packing List

EMBC-5000 SBC	x1
Driver CD	x1
Cable Kit	
- COM Port Cable	x2
- SATA Data Cable	x1
- SATA Power Cable	x1
- USB 2.0 Cable (Optional)	x1
- Audio Cable	x1
(*USB Cable is not included in EMBC-5000E Cable Kit)	

Order Information

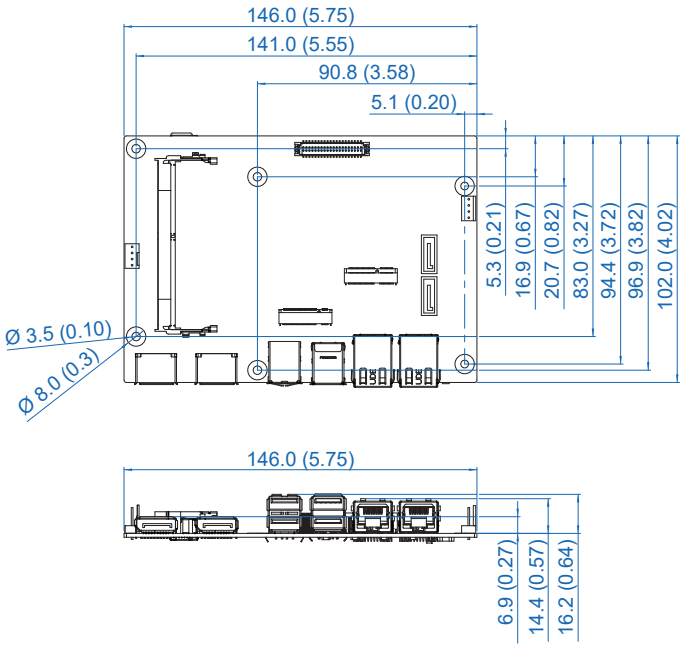
Model	CPU	GigE LAN	2.5G LAN	10G USB	USB 2.0	COM	M.2	SATA	SUMIT
EMBC-5000E-1185G7E	i7-1185G7E	1	1	2	2	4	2	2	Y
EMBC-5000-1185G7E	i7-1185G7E				6				N/A
EMBC-5000-1145G7E	i5-1145G7E								N/A

Optional Accessories

75-VI8HSK4-S10	Heat Sink for EMBC-5000 Series
75-VI8HSP4-S10	Heat Spreader for EMBC-5000 Series
61-13Q1009-0DA	COM Port Cable
61-1300011-100	SATA Data Cable
61-13P0430-08A	SATA Power Cable
61-193102U-156	USB 2.0 Cable
61-13T10LM-3CG	Audio Cable

Dimensions & Drawing

Unit : mm (inch)



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