Vecow

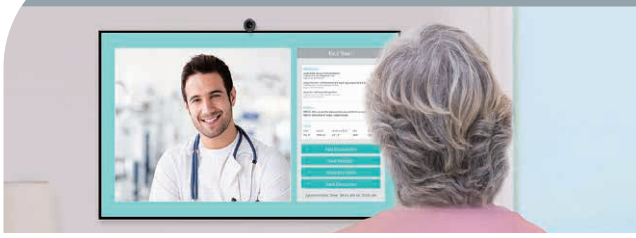
# EMBC-5000

5G 2.5GigE VHub

## 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

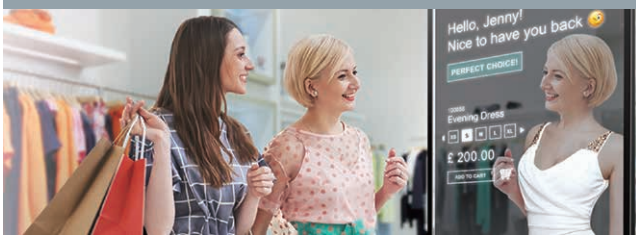
**Telemedicine**



**Intelligent Transportation System (ITS)**

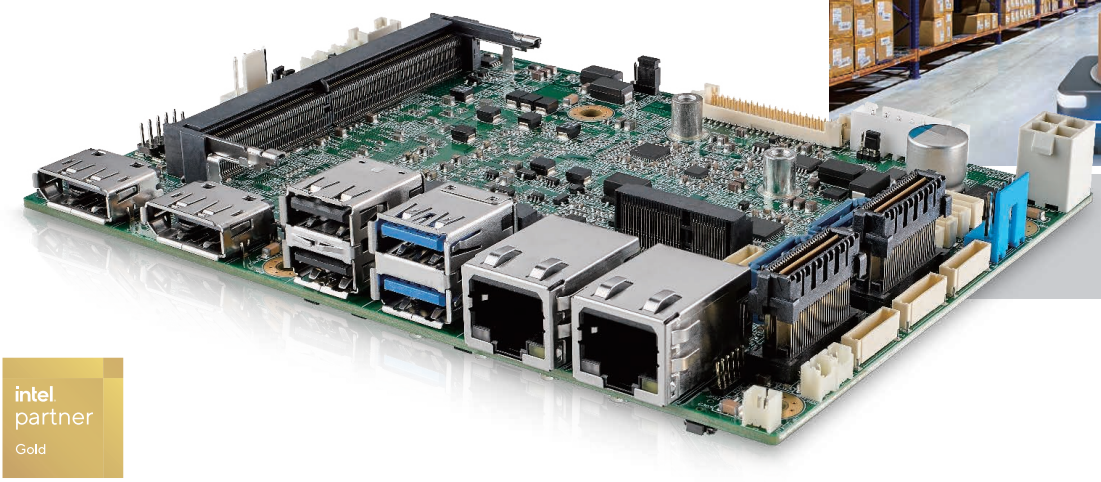


**Intelligent Vending**




**Robotic Control**





intel partner Gold

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

CE FC RoHS

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# 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<br>- DisplayPort 2 : Up to 4096 x 2304 @60Hz<br>- 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 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 |

## I/O Interface

| | |
|---|---|
| Front I/O | - 2 DisplayPort Connector<br>- 4 USB Connector<br>- 2 RJ45 Connector<br>- 1 Reset Button<br>- 1 Power LED<br>- 1 Wireless LED<br>- 1 HDD LED<br>- 1 WiFi LED |
| Internal I/O | - 4 COM RS-232/422/485 Connector<br>- 1 ATX 4-pin Power Connector<br>- 1 SUMIT A Connector (Optional)<br>- 1 SUMIT B Connector (Optional)<br>- 1 M.2 Key B Socket (2260/3042/3052,PCIex2/USB3(Default)/USB2)<br>- 1 M.2 Key E Socket (2230, PCIe/USB)<br>- 1 SIM Card Socket<br>- 1 DDR4 SO-DIMM Socket<br>- 1 LVDS Connector<br>- 1 LVDS Backlight Connector<br>- 2 USB 2.0 Wafer with 4 ports (Optional)<br>- 2 SATA Data Connector<br>- 1 SATA Power Connector<br>- 1 4-pin Fan Connector<br>- 1 GPIO Header<br>- 1 Power On/Off Header<br>- 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<br>- 1 SUMIT B Connector |
| M.2 | - 1 M.2 Key B Socket (2260/3042/3052,PCIex2/USB3(Default)/USB2)<br>- 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<br>- COM Port Cable<br>- SATA Data Cable<br>- SATA Power Cable<br>- USB 2.0 Cable (Optional)<br>- Audio Cable<br>(*USB Cable is not included in EMBC-5000E Cable Kit) | <br>x2<br>x1<br>x1<br>x1<br>x1 |

# Order Information

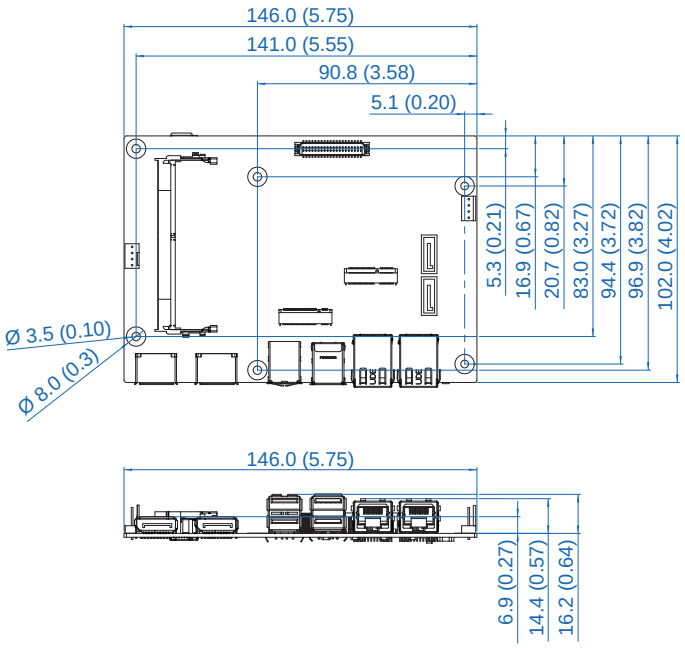
| Model | CPU | GigE LAN | 2.5G LAN | 10G USB | USB 2.0 | COM | M.2 | SATA | SUMIT |
|---|---|---|---|---|---|---|---|---|---|
| EMBC-5000E-1185G7E | i7-1185G7E | 1 | 1 | 2 | 2 | 4 | 2 | 2 | Y |
| EMBC-5000-1185G7E | i7-1185G7E | | | | 6 | | | | N/A |
| EMBC-5000-1145G7E | i5-1145G7E | | | | | | | |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