

# EMBC-3000

8th Gen Intel® Core™ i7/i5/i3 Processor (Whiskey Lake)  
3.5" Embedded Single Board Computer



- 8th Generation Intel® Core™ i7/i5/i3 U-series processor (Whiskey Lake) supports up to 40% greater productivity than former generation solution
- Fanless -40°C to 85°C Operating Temperature
- DDR4 2400MHz memory, up to 32GB
- Multiple DisplayPort, DVI and dual channel 24-bit LVDS display interfaces support triple independent displays
- 4-port USB 3.1 Gen 2 supports up to 10Gbps data transfer
- 2 Independent GigE LAN, iAMT 12.0 supported
- SIM Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- 4 COM RS-232/422/485, 2 SATA III, 1 mSATA
- Supports full function SUMIT A, B expansion
- 9V to 48V DC wide range Power Input
- Ignition Power Control, TPM 2.0
- Easy to customize for low-profile system applications
- One-stop SUMIT Expansion Design and Manufacturing Services

ITS (Intelligent Transportation System)



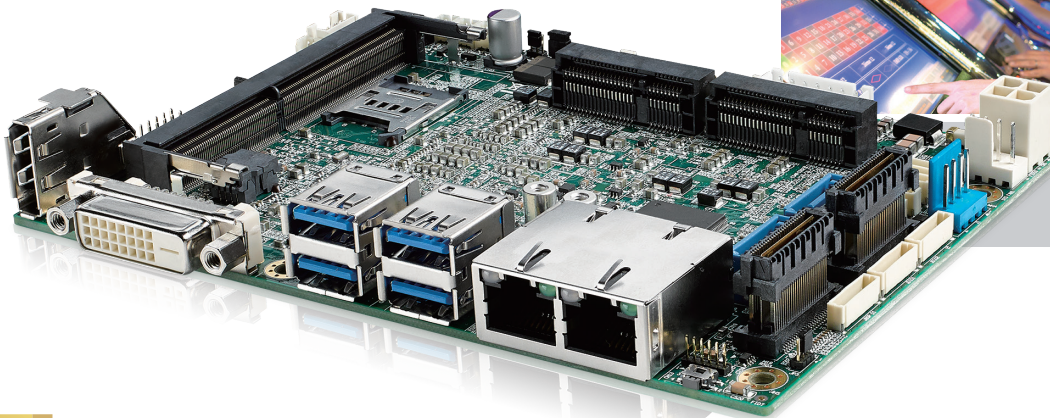
Factory Automation



In-Vehicle Infotainment



Gaming



intel  
partner  
Gold



# Specifications

## System

Processor	Quad Core Intel® Core™ i7/i5/i3 Processor (Whiskey Lake)
Chipset	Intel® SoC (Cannon Lake)
BIOS	AMI
SIO	IT8786E
Memory	1 DDR4 2400MHz SO-DIMM, up to 32GB
OS	Windows 10, Linux

## Graphics

Processor	Intel® UHD Graphics 620
Interface	Triple independent display : - DVI-D : Up to 1920 x 1200 @60Hz - DisplayPort : Up to 4096 x 2304 @60Hz - LVDS : Dual channel 24-bit, up to 1920 x 1200

## Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 12.0
LAN 2	Intel® I210 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	- 1 DVI-D Connector - 1 DisplayPort Connector - 4 USB 3.1 Connector - 2 RJ45 Connector - 1 Reset Button - 1 HDD LED - 1 Power LED
Internal I/O	- 1 ATX 4-pin Power Connector - 1 SUMIT A Connector (Optional) - 1 SUMIT B Connector (Optional) - 4 COM RS-232/422/485 Connector - 2 Mini PCIe Socket - 1 SIM Card Socket - 1 DDR4 SO-DIMM Socket - 1 LVDS Connector - 1 LVDS Backlight Connector - 2 SATA Data Connector - 1 SATA Power Connector - 1 GPIO Header - 1 Fan Connector - 2 USB 2.0 Wafer with 4 ports (Optional) - 1 Power On/Off Header - 1 Audio Header - 1 PS/2 KB/MS Header

## Storage

SATA	2 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)

## Expansion

SUMIT	- 1 SUMIT A Connector - 1 SUMIT B Connector
Mini PCIe	2 Mini PCIe Socket : - 1 Mini PCIe for PCIe/USB/SIM Card - 1 Mini PCIe for PCIe/USB/Optional mSATA

## Power

Power Input	9V to 48V DC-in
Power Interface	ATX Power Connector
Ignition Control	16 Mode (Internal)

## Others

TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC 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	146mm x 102mm (5.75" x 4.02")
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## Environment

Operating Temp.	-40°C to 85°C (-40°F to 185°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 85°C
EMC	CE, FCC

## Packing List

EMBC-3000 SBC	x1
Driver/User Manual DVD	x1
Cable Kit	
- COM Port Cable	x2
- SATA Data Cable	x1
- SATA Power Cable	x1
- USB 2.0 Cable (Optional)	x1
- Audio Cable	x1

## Order Information

Model	CPU	GigE LAN	10G USB	COM	Mini PCIe	SATA	SUMIT
EMBC-3000E-8665U	Core i7-8665UE	2	4	4	2	2	Y
EMBC-3000-8665U	Core i7-8665UE	2	4	4	2	2	N/A
EMBC-3000-8365U	Core i5-8365UE	2	4	4	2	2	N/A
EMBC-3000-8145U	Core i3-8145UE	2	4	4	2	2	N/A
EMBC-3000-4305U	Celeron 4305UE	2	4	4	2	2	N/A

## Optional Accessories

75-VI7HSK4-S10	Heat Sink for EMBC-3000 Series
75-VI7HS94-S10	Heat Spreader for EMBC-3000 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
61-13S33KM-3CG	KB/MS Cable

## Dimensions & Drawing

Unit : mm (inch)

