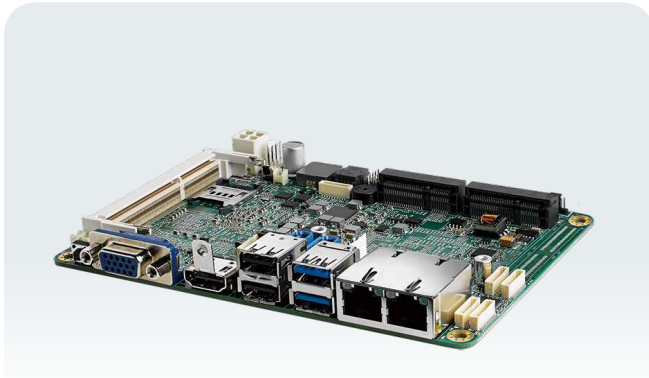


# EMBC-2000C

3.5" Embedded Single Board Computer with Intel Atom® x7-E3950 Processor (Apollo Lake), 2 GigE LAN, 2 COM, 6 USB, 16 GPIO, 2 Mini PCIe, High Performance, Fanless, Extended Temperature



## Features

- Quad Core Intel Atom® x7-E3950 SoC (Apollo Lake-I), up to 3 independent Ultra HD displays
- Supports DDR3L 1866MHz memory, up to 8GB
- Display : Lockable HDMI, VGA, 24-bit LVDS
- 2 GigE LAN support IEEE 1588 (PTP)
- 6 USB, 2 Mini PCIe, 1 SIM, 2 SATA III
- 16 GPIO, 2 COM RS-232/422/485
- TPM 2.0 supported
- 12V DC Power Input, optional supports 9V to 36V wide range DC power input
- Fanless, -40°C to 75°C Operating Temperature
- Optional for M.2, Mini PCIe expansions



## Specifications

System	
<b>Processor</b>	Intel Atom® x7-E3950 Processor (up to 2M Cache, 2.0GHz)
<b>BIOS</b>	AMI
<b>SIO</b>	IT8786E
<b>Memory</b>	1 DDR3L 1866MHz SO-DIMM, up to 8GB
Graphics	
<b>Graphics Processor</b>	Intel® HD Graphics 505
<b>Interface</b>	<ul style="list-style-type: none"> <li>▪ HDMI : Up to 3840 x 2160 @30Hz</li> <li>▪ VGA : Up to 1920 x 1440 @60Hz</li> <li>▪ LVDS : Dual channel 24-bit, up to 1920 x 1200</li> </ul>
Ethernet	
<b>LAN 1</b>	Intel® I210 GigE LAN supports IEEE 1588
<b>LAN 2</b>	Intel® I210 GigE LAN supports IEEE 1588
Audio	
<b>Audio Codec</b>	Realtek ALC888S-VD, 7.1 Channel HD Audio
<b>Audio Interface</b>	1 Mic-in, 1 Line-out
I/O Interface	
<b>Front I/O</b>	<ul style="list-style-type: none"> <li>▪ 2 RJ45 Connector</li> <li>▪ 2 USB 3.0 Connector</li> <li>▪ 2 USB 2.0 Connector</li> <li>▪ 1 Lockable HDMI Connector</li> <li>▪ 1 VGA Connector</li> <li>▪ 1 Power Button</li> <li>▪ 1 Reset Button</li> </ul>
<b>Internal I/O</b>	<ul style="list-style-type: none"> <li>▪ 1 ATX 4-Pin Power Connector</li> <li>▪ 1 DDR3L SO-DIMM Socket</li> <li>▪ 1 USB 2.0 Connector for 2 USB Port</li> <li>▪ 2 COM RS-232/422/485 Connector</li> <li>▪ 2 10-pin Box Header for GPIO</li> <li>▪ 1 Mic-in</li> <li>▪ 1 Line-out</li> <li>▪ 1 LVDS Connector</li> <li>▪ 1 LVDS Backlight Connector</li> <li>▪ 2 Mini PCIe Connector (1 co-lay with mSATA)</li> <li>▪ 1 SIM Card Socket</li> <li>▪ 2 SATA Connector</li> <li>▪ 1 SATA Power Connector</li> <li>▪ 1 Fan Connector</li> <li>▪ 1 LPC Debug Header</li> <li>▪ 1 Reset Header</li> <li>▪ 1 Power Header</li> <li>▪ 1 Battery Header</li> </ul>
Storage	
<b>SATA</b>	2 SATA III (6Gbps)
<b>mSATA</b>	1 SATA III (Mini PCIe Type, 6Gbps)

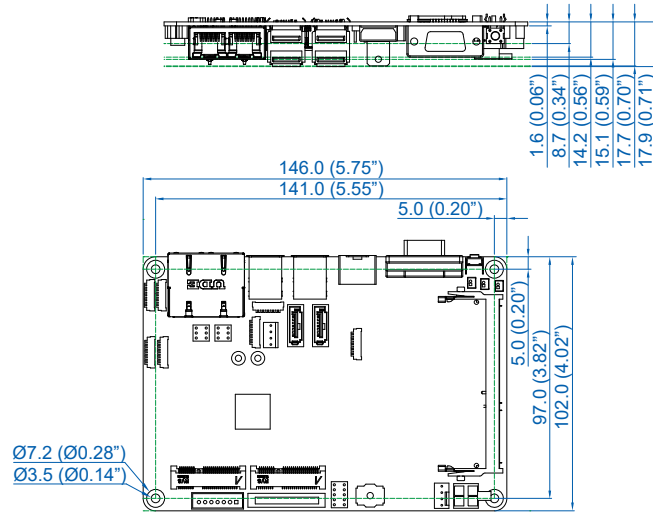
Expansion	
<b>Mini PCIe</b>	2 Mini PCIe Socket : <ul style="list-style-type: none"> <li>▪ 1 Mini PCIe for PCIe/USB/SIM Card</li> <li>▪ 1 Mini PCIe for PCIe/USB/Optional mSATA</li> </ul>
Power	
<b>Power Input</b>	<ul style="list-style-type: none"> <li>▪ Single 12V DC Power Input</li> <li>▪ 9V to 36V DC Power Input (Optional, via Power Module)</li> </ul>
<b>Power Interface</b>	ATX Power Connector
<b>Remote Switch</b>	2-pin Terminal Block (Optional)
Others	
<b>TPM</b>	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
<b>Watchdog Timer</b>	Reset : 1 to 255 sec./min. per step
<b>HW Monitor</b>	Monitoring temperature, voltages. Auto throttling control when CPU overheats.
Software Support	
<b>OS</b>	Windows 10, Linux
Mechanical	
<b>Dimensions (W x L)</b>	146mm x 102mm (5.75" x 4.02")
Environment	
<b>Operating Temperature</b>	-40°C to 75°C (-40°F to 167°F)
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Humidity</b>	5% to 95% Humidity, Non-condensing
<b>Relative Humidity</b>	95% at 75°C
<b>Certification</b>	CE, FCC

## Packing List

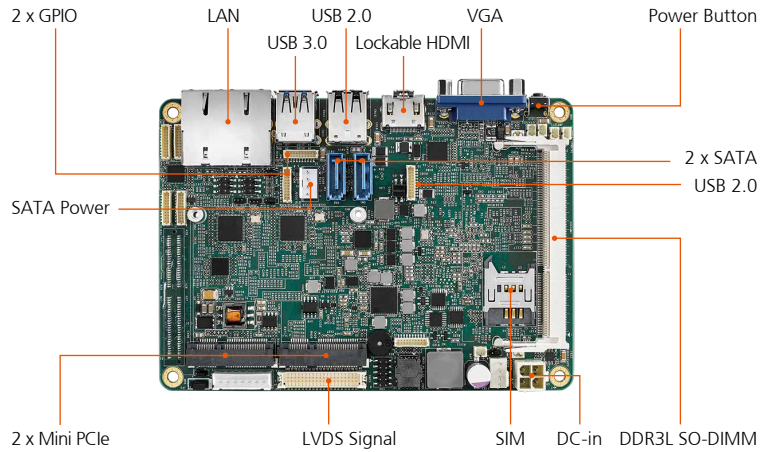
<b>EMBC-2000 3.5" SBC</b>	x1
<b>Driver/User Manual DVD</b>	x1
<b>Cable Kit</b>	<ul style="list-style-type: none"> <li>▪ COM Port Cable x2</li> <li>▪ USB 2.0 Cable x1</li> <li>▪ Audio Cable x1</li> <li>▪ SATA Data Cable x1</li> <li>▪ SATA Power Cable x1</li> </ul> x1

# Dimensions

Unit : mm/ inch



# Top View



# Order Information

<b>EMBC-2000</b>	EMBC-2000 SBC, Intel Atom® x7-E3950, 2 GigE LAN, 2 COM, 6 USB, 16 GPIO, 2 Mini PCIe
<b>61-13Q1009-0DA</b>	COM Port Cable
<b>61-193102U-156</b>	USB 2.0 Cable
<b>61-13T10LM-3CG</b>	Audio Cable
<b>61-13B0707-386</b>	SATA Data Cable
<b>61-13P0430-08A</b>	SATA Power Cable
<b>61-13S33KM-3CG</b>	KB/MS Cable
<b>WPM-101</b>	Wide-Range 9V to 36V DC-in Power Module
<b>EMBC-2000 Heat Spreader</b>	EMBC-2000 Heat Spreader