

iSBX-TS1000-J6412B

Intel® Elkhart Lake J6412, Quad-core processor
Fanless Embedded Computer with 1x HDMI/ 1x
DP/ 4x USB / 3x COM/ 2x GIGA LAN



FEATURES

- Rugged & compact sealed aluminum box design
- Onboard Intel® Elkhart Lake J6412, Quad-core processor
- 2x Intel® GLAN, expansional with 3G/ 4G/ LTE, Wi-Fi/Bluetooth wireless
- 3x Serial port
- 4x USB3.0 high speed interfaces
- DC 9~36V power range, with over-current and over-voltage and polarity reverse protection
- I/O: 2x GLAN, 4x USB3.0, 1x HDMI, 1x DP, 3x COM/ Mic-in/Line-out

Introduction

SINETIC iSBX-TS1000-J6412B is a compact yet powerful palm-sized fanless industrial box PC designed for demanding industrial applications. Powered by the Intel® Elkhart Lake J6412 quad-core processor, it delivers reliable high-performance computing with exceptionally low power consumption, making it ideal for continuous 24/7 operation.

Despite its ultra-small footprint, the iSBX-TS1000-J6412B offers essential high-speed connectivity, including dual LAN ports, four USB 3.0 ports, HDMI display output, Display Port, COM ports and audio interfaces. Support for a super-fast M.2 NVMe SSD ensures rapid data access and smooth system responsiveness. The wide-range 9~36 V DC power input, combined with over-current, over-voltage, and reverse-polarity protection, guarantees stable and secure operation in diverse industrial power environments.

Built with a fully sealed, fanless enclosure, the iSBX-TS1000-J6412B effectively blocks dust and contaminants while a large aluminum fin heat sink provides efficient heat dissipation for long-term system reliability. Designed to withstand harsh industrial conditions, it operates reliably in temperatures from -20 °C to +60 °C. Supporting Windows 10, Windows 11, Linux, and embedded operating systems, this versatile industrial box PC is fully compatible with a wide range of industrial and edge computing applications.

Specification

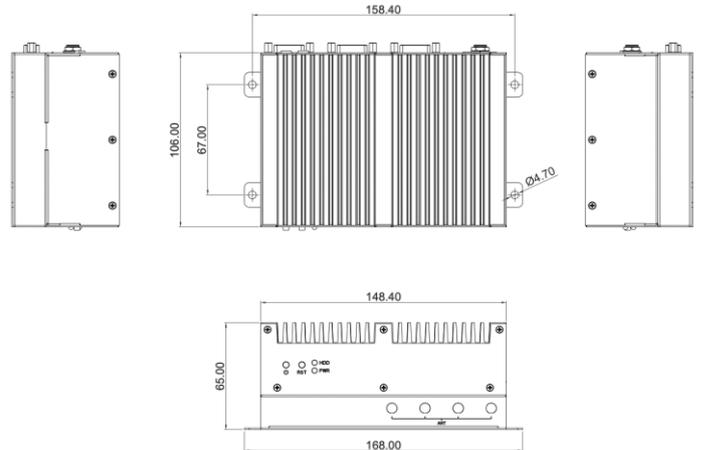
System	
Processor	• Intel® Elkhart Lake J6412, Quad-core processor Quad-core 2.0Ghz, burst to 2.6Ghz, TDP 10W
BIOS	• SPI AMI EEI BIOS
Memory	• SO-DIMM, DDR4-3200 Mhz, Max. up to 32GB
Storage	• 1x M.2 2280 M-Key PCIe x2
Graphic	• Intel® UHD Graphics for 10 th Gen Intel® processors
Network	• 1x Intel® I225-V, 1x Intel® I210AT, optional support 3G/4G/Wi-Fi Wireless
Audio	• Realtek ACL 269 Audio controller
Expansion	• 1x M.2 3042/3052 B-key slot, 1x M.2 2230 E-key slot
TPM	• Intel® PTT TPM2.0
Watchdog	• 0~255 seconds programmable
Operating system	• Windows 10/11, Linux
IO Interface	
COM	• COM1: RS232/RS485/RS422 (BIOS configurable), COM2: RS232, COM3: RS232 (Optional GPIO)
Network	• 2x RJ45, 10/100/1000 Mbps
Audio	• Mic-In, Line-Out
USB	• 4x USB3.0
Display	• 1x HDMI, 1x DP
Power Input	• 1x DC Jack, lockable 5.5 x 2.5 (Optional 2 pin Phoenix Connector)
GPIO	• Optional GPIO
Structure	
Structure and surface	• Aluminium alloy, anodizing and anti-scratch treatment
Cooling System	• Finned aluminium heatsinks
Color	• Black
Indicator	• Power Switch/ Power LED/ HDD LED
Mounting	• Desktop, wall mount, optional with Din-rail mount
Dimension	• 168.4 x 106.2 x 65 (mm)
Net weight	• About 0.8 Kg
Mechanical & Environment	
Voltage Input	• DC 9~36V
Power Consumption	• 20W
EMC	• CE/FCC/RoHS
Working temperature	• -20 ~ + 60 (°C)
Storage temperature	• -40 ~ + 70 (°C)
Relative humidity	• 10~95%@10°C (No condensation)
Vibration	• 50~500Hz, 1.5G, 0.15mm peak to peak
Shock	• 10G/Peak (11 ms)

Ordering Information

Part Number	Description
iSBX-TS1000-J6412B	Intel® Elkhart Lake J6412, Quad-core processor Fanless Embedded Computer with 1x HDMI/1x DP/ 4x USB /3x COM/ 2x GIGA LAN



Rear View



Dimension

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