

iSBX-TS3000-J6412

Intel® Elkhart Lake J6412, Quad-core processor
Fanless Embedded Computer with 1x HDMI/ 1x
VGA / 6x USB / 2x COM/ 4x GIGA LAN



FEATURES

- Intel® Elkhart Lake Celeron J6412 Quad-core processors
- 1x DDR4 memory socket, max. up to 32GB
- 1x M.2 M-key 2280 SATA SSD, and 1x 2.5" SATA Storage
- DC 9~36V input, with over-current, over-voltage, polarity protection
- I/O: 4x GLAN (3x PoE), 2xUSB3.0, 4xUSB2.0, 2xCOM, 1x HDMI, 1x VGA
- 1x M.2 2230 E-key for Wi-Fi, 1x Mini-PCIe for 4G modules expansion
- Industrial -20 ~ + 70°C operating temp. range.

Introduction

The SINETIC ISBX-TS3000-J6412 is a newly released, fanless industrial Box PC specifically designed for machine vision and industrial networking applications. It is powered by the latest Intel® Elkhart Lake Celeron® J6412 quad-core processor, delivering advanced computing and graphics performance with low power consumption for efficient and reliable operation.

The system supports flexible storage options, including 1 × M.2 M-Key SATA SSD and 1 × 2.5-inch SATA SSD/HDD, providing sufficient capacity for industrial data processing and application requirements. It features a wide range of communication interfaces, including 4 × LAN ports (3 × PoE supported), 2 × USB 3.0 ports, 4 × USB 2.0 ports, 1 × RS232, and 1 × RS485, with optional 32 × GPIO support for expanded control capabilities.

The unit operates on a wide DC 9–36V power input and includes over-current, over-voltage, and reverse-polarity protection, ensuring stable performance in demanding industrial power environments.

Built with a fully sealed enclosure, the ISBX-TS3000-J6412 effectively prevents dust ingress and enhances system durability. Its large aluminum fin heat sink provides efficient heat dissipation, improving overall reliability and extending the product's service life.

With an operating temperature range of -20°C to +70°C, the SINETIC ISBX-TS3000-J6412 is well suited for continuous operation in harsh industrial environments, including intelligent transportation systems, machine vision, medical devices, textile machinery, rail transportation, and industrial automation.

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, DDR4-2666/2933/3200 Mhz, Single slot, Max. up to 32GB
Storage	• 1x M.2 M-Key 2242/2280 SATA slot SSD, Optional support 1x 2.5" SATA III SSD
Graphic	• Intel UHD Graphics for 10th Gen. Intel Processors
Network	• 1x Intel i219V, 1x Intel i210AT Network chips, optional support 3G/4G/5G/Wi-Fi/BT wireless
Audio	• On-board Realtek ACL269 Audio controller
Expansion	• 1x M.2 E-Key 2230 slot, 1x Full length Mini-PCIe expansion slot
TPM	• Intel® PTT TPM2.0
Watchdog	• 0~255 seconds programmable
Operating system	• Windows 10/11, Linux
IO Interface	
COM	• COM1: RS232; COM2: RS485
Network	• 4x RJ45, 10/100/1000 Mbps, LAN1~LAN3 support PoE 802.3AF (Single port max. up to 15.4W, total less than 45W) • LAN4 support standard 10/100/1000 Mbps
Audio	• 1x Mic-in/Line-out (2 in 1, 3.5mm Jack)
USB	• 2x USB3.0, 4x USB2.0
Display	• 1x HDMI, 1x VGA
Power Input	• 1x 2 pin, phoenix terminal
GPIO	• 32x GPIO (16x DI, 16x DO, with isolated)
Structure	
Structure and surface	• Aluminium alloy, anodizing and anti-scratch treatment
Cooling System	• Finned aluminium heatsinks
Color	• Silver + Black
Indicator	• Power Switch/ Power LED/ HDD LED
Mounting	• Desktop, wall mount, optional with Din-rail mount
Dimension	• 236.5 x 150.0 x 60.0 (mm)
Net weight	• About 1.6 KG

Mechanical & Environment

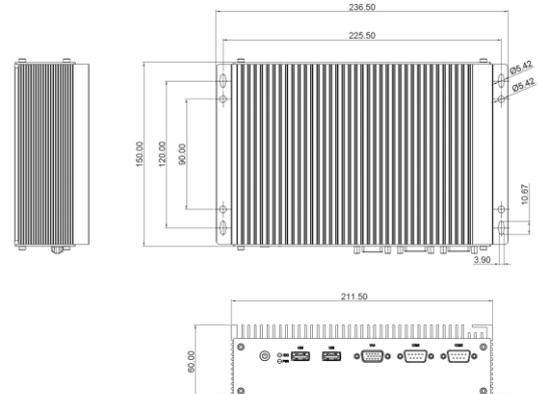
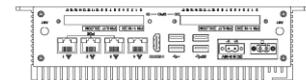
Voltage Input	• DC 9~36V
Power Consumption	• 20W
EMC	• CE/FCC/RoHS
Working temperature	• -20 ~ + 70 (°C)
Storage temperature	• -40 ~ + 80 (°C)
Relative humidity	• 10~95%@10°C (No condensation)
Vibration	• 50~500Hz,1.5G,0.15mm peak to peak
Shock	• 10G/Peak (11 ms)

Ordering Information

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Front View



Dimension

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