

# iSBX-TS3000-12XXU

Intel® Alder Lake 12<sup>th</sup> Gen Core i7/i5/i3 processor,  
Fanless Embedded Computer with 1x HDMI / 1x  
VGA/ 6x USB / 2x COM/ 5x GIGA LAN



## FEATURES

- Rugged & compact, fanless designed box structure
- Intel® 12<sup>th</sup> Gen. Alder Lake -U, Core i7/i5/i3 processor
- Dual DDR5 memory, up to 64GB
- 1x M.2 2280 storage slot
- Wide DC 9~36V power input
- I/O: 4x USB3.1, 2x USB2.0, 1x HDMI, 1x VGA, 2x COM, 5x GbE (**4x support PoE functional**)
- 1x Mini-PCIe (Optional M.2 2230 E-Key) for wireless expansion
- Industrial operating -20 ~ +60°C temp. range.

## Introduction

The SINETIC iSBX-TS3000-12XXU series has been upgraded to the latest Intel® 12th Gen Alder Lake-U Core™ i3/i5/i7 platforms, delivering significantly enhanced performance and efficiency. The iSBX-TS3000-12XXU is a newly released fanless industrial Vision Box PC powered by the Intel® Core™ i7/i5/i3 processor, purpose-built for machine vision and industrial networking applications that demand high computing power and reliable connectivity.

Designed with extensive I/O capabilities, the system features 5x Gigabit LAN ports (4x with PoE support), 4x USB 3.1 ports, 2x USB 2.0 ports, 1x RS232, and 1x RS485. An optional 32x GPIO configuration (TBOX-3D30D model) further enhances flexibility for customized industrial control applications. The wide-range 9~36V DC power input, combined with over-current, over-voltage, and reverse-polarity protection, ensures stable and secure operation in demanding industrial environments.

Built with a fully sealed, fanless enclosure, the iSBX-TS3000-12XXU effectively prevents dust intrusion while ensuring reliable long-term operation. Its rugged design makes it ideal for continuous use in harsh environments, including intelligent transportation systems, machine vision inspection, medical equipment, textile machinery, rail transit, and industrial automation.

## Specification

System	
Processor	<ul style="list-style-type: none"> <li>• Intel 12<sup>th</sup> Gen. Core i3-1215U processor 6C/8T 1.20Ghz</li> <li>• Intel 12<sup>th</sup> Gen. Core i5-1235U processor 10C/12T, 1.20Ghz</li> <li>• Intel 12<sup>th</sup> Gen. Core i7-1255U processor 10C/12T, 1.70Ghz</li> <li>• TDP 15W</li> </ul>
BIOS	• SPI AMI EEI BIOS
Memory	• SO-DIMM, DDR5-4800 Mhz, Dual channels, Max. up to 64GB
Storage	• 1x M.2 M-Key 2280 (PCIe x4 Gen.IV, NVMe) slot SSD, Optional support 1x 2.5" SATA III SSD
Graphic	• Intel Iris Xe Graphics eligible (Up to 80 EUs, 1.25Ghz)
Network	• 5x Intel I226V
Audio	• On-board Realtek ACL897 Audio controller
Expansion	• 1x Full length Mini-PCIe (Default), or 1x M.2 2230 E-key
TPM	• Intel® PTT TPM2.0
Watchdog	• 0~255 seconds programmable
Operating system	• Win10, Win11, Linux
IO Interface	
COM	• COM1: RS232; COM2: RS485
Network	• 5x RJ45, 10/100/1000 Mbps, LAN1~LAN4 support PoE 802.3AF (Single port max. up to 15.4W, total less than 45W)
Audio	• 1x Mic-in/Line-out (2 in 1, 3.5mm Jack)
USB	• 4x USB3.1, 2x 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

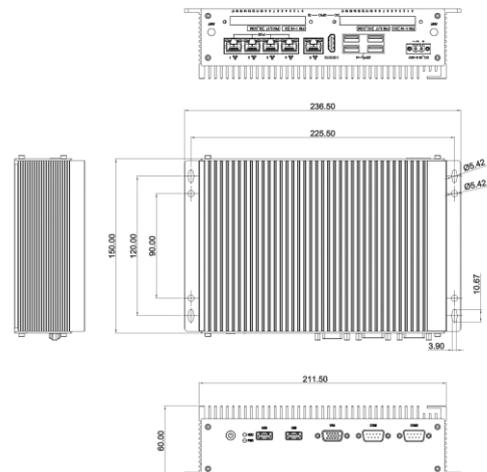
Voltage Input	• DC terminal 9~36V range
Power Consumption	• 25W
EMC	• CE/FCC/RoHS
Working temperature	• -20 ~ + 60 (°C)
Storage temperature	• -40 ~ + 70 (°C)
Relative humidity	• 10~95%@10°C (No condensation)
Vibration	• 50~500Hz, 1.5G, 0.15mm peak to peak
Shock	• 10G/Peak (11 ms)

## Ordering Information

iSBX-TS3000-1215	Intel® Alder Lake 12 <sup>th</sup> Gen Core i3-1215U processor, Fanless Embedded Computer with 1x HDMI / 1x VGA/ 6x USB / 2x COM/ 5x GIGA LAN/DC 9~36 V Input
iSBX-TS3000-1235	Intel® Alder Lake 12 <sup>th</sup> Gen Core i5-1235U processor, Fanless Embedded Computer with 1x HDMI / 1x VGA/ 6x USB / 2x COM/ 5x GIGA LAN/DC 9~36 V Input
iSBX-TS3000-1255	Intel® Alder Lake 12 <sup>th</sup> Gen Core i7-1255U processor, Fanless Embedded Computer with 1x HDMI / 1x VGA/ 6x USB / 2x COM/ 5x GIGA LAN/DC 9~36 V Input



Front View



Dimension

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