

NISE 54-A01/02/03

Intel Atom® x7433RE/N97 Quad Core Fanless System
(Preliminary)



Main Features

- Onboard Intel Atom® X7433RE/N97 Quad Core Processor
- 1 x HDMI output
- 3 x Intel® 2.5GbE LAN ports, supports WoL and PXE
- 2 x M.2 Key B (1 x 3042/3052 + 1 x 2242)
- 1 x M.2 Key E 2230 for Wifi/BT
- 2 x USB 3.2 Gen 1
- 1 x DB9 for RS232/422/485
- Optional 2 x USB Type C (1 w/ PD + Alt Mode)
- Optional 4 x USB 3.2 Gen 1 + 2 x COM port
- Support -40°C~60°C extended operating temperature
- Support 12~24V DC input; support ATX power mode

Product Overview

Powered by Intel Atom® Amston Lake or Alder Lake CPUs, the NISE54 gateway supports up to 16GB of DDR5-4800MHz SO-DIMM memory with In-Band Error Correction Code (IB ECC) capability, to boost multitasking performance, reliability, and safety. Applications include factory AI, gateway and edge AI, automation, and embedded computing. The NISE54 gateway brings AI to the edge, with deep learning inference capabilities, including integrated Intel UHD Graphics up to 32EUs (Execution Units), Intel Deep Learning Boost (Intel DL Boost), Intel Advanced Vector Extensions (Intel AVX2) with INT8 support, and OpenVINO toolkit support.

Specifications

CPU Support

- Onboard Intel® Atom® Quad Core Processor
 - N97, 12W, 2.0GHz
 - x7433RE, 9W, 1.5GHz

Main Memory

- 1 x DDR5 4800 SO-DIMM, supports up to 16GB

Display Option

- 1 x HDMI

I/O Interface-Front

- ATX power on/off switch
- 2 x USB3.2 Gen 1, Type A
- 1 x DB9 for COM1, supports RS232/422/485 with auto flow control
 - BIOS setting on RS232/422/485
- 1 x HDMI
- 3 x 2.5GbE LAN port, RJ45 (1 x Intel® i226IT, 2 x Intel® i226V)
- 1 x 3-pin DC input, supports +12 to 24VDC input

I/O Interface-Top

- LED indicator: RTC battery low, PG0/PG1 programmable LEDs

I/O Interface-Rear (Optional)

- Optional 2 x USB Type C (1 w/ PD + Alt Mode)
- Optional 4 x USB 3.2 Gen 1 + 2 x COM port

I/O Interface - Internal

- 1 x M.2 Key B for storage 2242/2280 (SATA)
- 1 x M.2 Key B for 5G/LTE 3042/3052 (PCIe x1, USB 3.0, USB 2.0, SATA)
- 1 x M.2 Key E for Wi-Fi/BT 2230 (PCIe x1, USB 2.0)
- 1 x Mic in, 1 x Line out pin header
- 4 x GPI, 4 x GPO pin header
- 1 x nano SIM slot

Storage Device

- 2 x M.2, supports Key B, B+M module (2242)

Power Requirements

- Power input: +12 to 24 Vdc
- 1 x Optional 24V, 60W power adapter

Dimensions

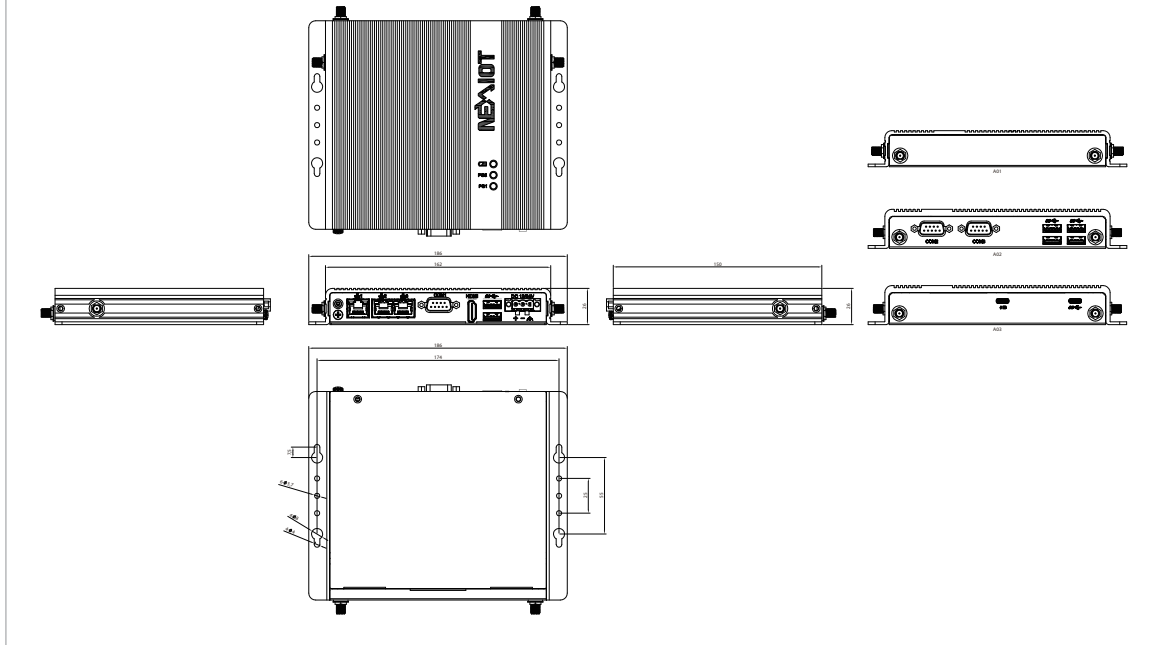
- 186mm (W) x 150mm (D) x 26mm (H) without wall-mount bracket

www.nexaiot.com



Dimension Drawing

Reference only



Construction

- Aluminum chassis with fanless design

Environment

- Operating temperature: Ambient with air flow: -40°C to 60°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 80°C
- Relative humidity: 95% at 40°C

Support OS

- Windows 10
- Windows 11

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

US

sales@assured-systems.com

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave
Ste 1200
Sheridan
WY 82801
USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park
Stone Business Park
Stone
ST15 0YJ
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660