NISE50 A04-04

Intel® Processor N series

N97 Fanless System





Main Features

- Onboard Intel® Processor N97 quad-core 2.0GHz
- 1 x HDMI®
- 3 x 2.5GbE LAN; supports WoL, teaming, PXE, and EtherCAT
- Storage supports 2 x M.2 SATA SSD
- 1 x M.2 2230 Key A for Wi-Fi 4/5/6E module
- 1 x M.2 3042/3052 Key B for 4G/5G module
- 2 x USB 3.2 Type-A, 2 x USB 3.2 Type-C
- 1 x DB9 for RS-232/422/485
- Support 12~24V DC input and AT/ATX power modes

Product Overview

NISE 50 A04-04 is a fanless PC powered by the latest generation Intel® N97 processor. It delivers power-efficient performance designed for next-generation industrial edge embedded systems that require high-resolution graphics and low power consumption - such as industrial automation, intelligent transportation, retail, and smart city IoT solutions.

NISE 50 A04-04 supports an operating temperature range of -20°C to 60°C, ensuring reliable performance in industrial environments. It features strong connectivity with 3 x 2.5GbE LAN ports and 1 x COM port, ideal for Modbus TCP and Modbus RTU communication. The system supports scalable networks and flexible storage configurations with 1 x M.2 slot for 5G/LTE, 1 x M.2 slot for Wi-Fi and Bluetooth, and 1 x M.2 slot for storage. It also supports 12V DC/24V DC power input and features onboard TPM 2.0 for enhanced security. NISE50 A04-04 supports up to 2 display outputs simultaneously and delivers superior graphics capabilities via Intel® UHD graphics. NISE50 A04-04 supports USB C PD with DC output or DC input with power redundant.

Specifications

Model

- Intel® Processor N97 (embedded), with USB-C PD board

Main Memory

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

Display Option

- 1 x HDMI®
- 1 x USB Type-C (DP Alt Mode)

LED indicator

- 1 x Battery low Status
- 2 x GPO

I/O Interface - Front

- ATX power on/off switch
- 1 x Intel® I226-IT 2.5GbE TSN LAN ports, supports WoL, teaming, PXE, and EtherCAT
- 2 x Intel® I226-V 2.5GbE LAN ports, supports WoL, teaming, PXE, and EtherCAT
- 2 x USB 3.2
- 1 x HDMI®
- 1 x DB9 for COM1, supports RS-232/422/485 with auto flow control, BIOS setting
- 1 x 3-pin DC input, supports +12/24V DC

I/O Interface - Rear

- 2 x USB 3.2 Type-C
  - 1 x USB C: USB 3.2 (5V/900mA)
  - 1 x USB C:
    - Support Alt mode (DP1.4 HBR3) & DP3.0,
    - PD Power output: Support 5V/3A; 9V/3A; 15V/3A;
    - 20V/5A (depends on Terminal Block DC input)
      - 12V DC input: Support 40W output
      - 24V DC input: Support 80W output
    - PD Power input: 15V/5A; 20V/5A

I/O Interface - Internal

- 1 x nano-SIM holder
- TPM 2.0

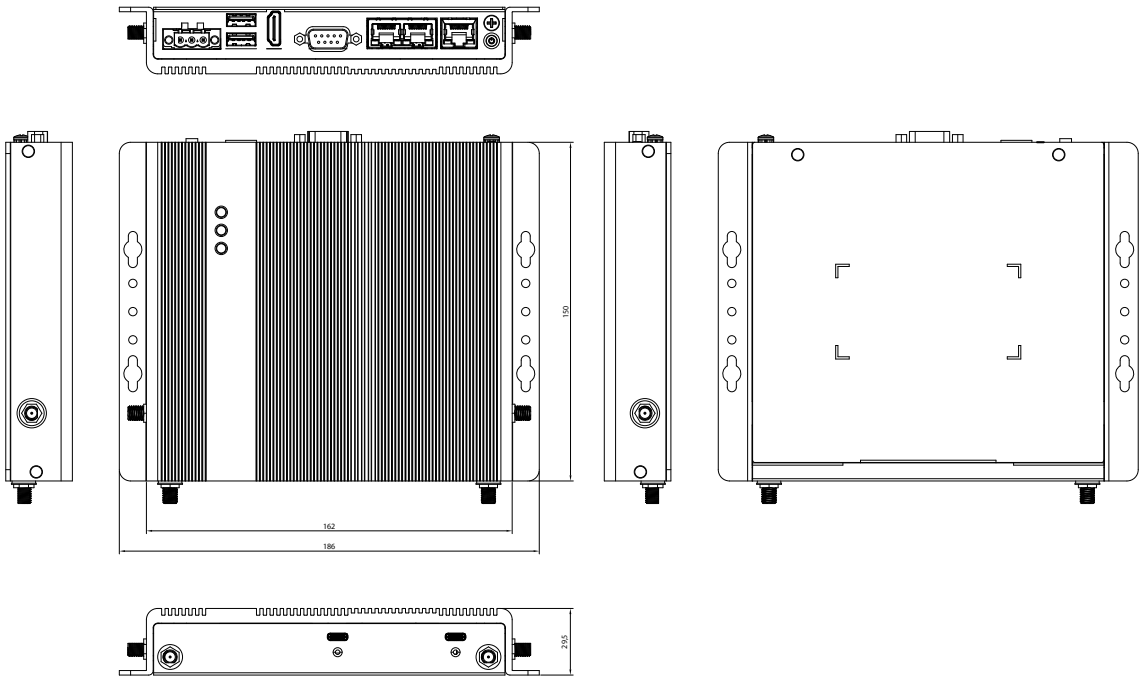
Expansion Slot

- 1 x M.2 2230 Key A, supports optional Wi-Fi 4/5/6E module
- 1 x M.2 2242/2280 Key B, supports optional SATA Storage module
- 1 x M.2 2242/3042/3052 Key B, supports optional 4G/5G/SATA storage module

Power Requirement

- Power input: +12/24V DC
- Optional 24V, 60W/120W power adapter or USB C 60W power adapter

Dimension Drawing



Construction
- Aluminum top cover and metal chassis with fanless design

Environment
- Operating temperature: Ambient with air flow(according to IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14): -20°C~60°C
- Storage temperature: -20°C~80°C
- Relative humidity: 95% at 40°C
- Shock protection:
  - M.2: 50G@wall mount, half sine, 11ms(operation) , IEC 60068 2-27
- Vibration protection w/ M.2 & SSD condition:
  - Random: 2Grms@5~500Hz, IEC 60068-2-64
  - Sinusoidal: 2Grms@5~500Hz, IEC 60068-2-6

Dimensions
- 186mm (W) x 150mm (D) x 29.5mm (H)

Weight Information
- 1kg

Certifications
- CE
- FCC Class A

Support OS
- Windows 11
- Windows 10 IoT Enterprise, 64-bit
- Linux Kernel version 4.1

Ordering Information

- **NISE50 A04-04 (P/N: 10J00005064X0)**
  Intel® Processor N97 2.0GHz, with USB-C PD board
- 24V, 60W AC to DC power adapter w/o power cord (P/N: 7400060054X00)
- 24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120029X00)
- 65W AC to DC USB-C PD 3.0 DC power adapter w/o power cord (P/N: 7400065041X00)