NISE 3910R

14th/13th/12th Generation Intel® Core™ i9/i7/i5/i3
Fanless System





Main Features

- Support 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 processor (LGA1700)
- Intel® Q670E PCH
- Support 2 x DDR5 SO-DIMM socket, up to 64GB
- Four Intel® i226-IT LAN ports, support WoL and PXE
- 1 x DP, 1 x HDMI®, and 1 x VGA with independent display
- 1 x M.2 3042/3052 Key B support LTE/5G module
- 1 x Outside accessible M.2 2242 Key M with PCIe x4, support NvME
- 6 x USB 3.2 Gen 1, 4 x USB 2.0
- 2 x Isolated RS-232/422/485 with auto-flow
- 1 x Mini PCIe slot, support optional Wi-Fi, 3.5G, 4G LTE
- 2 x 2.5" SATA HDD/SSD
- TPM 2.0 default onboard

Product Overview

Integrated with 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 processor, NISE 3910 series is the fanless PC designed for industrial automation and edge computing which demand high CPU and graphics performance. NISE 3910 series supports up to 64G DDR5 memory and have several options on storage devices like M.2, HDD or SSD, and mSATA. NISE 3910 series supports wide range of DC input from +12V to 30V DC input, and can be operated in an extended operating temperature range between -20 to 60 Celsius degree. For extended module availability, NISE 3910 series also designed one internal Mini PCIe sockets to support IoT wireless connectivity applications (support optional Wi-Fi, 3.5G, 4G LTE modules), also 5G module via M.2 3052 Key B.

Specifications

Processor

- 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 processor (LGA1700)
  - Intel® Core™ i7-14700T, 8P+12E, 1.3GHz, 33 MB Cache
  - Intel® Core™ i5-14500T, 6P+8E, 1.7GHz, 24 MB Cache
  - Intel® Core™ i3-14100T, 4P+4E, 2.7GHz, 12 MB Cache
  - Intel® Core™ i9-13900TE, 8P+16E, 1.0GHz, 36M Cache
  - Intel® Core™ i7-13700TE, 8P+8E, 1.1GHz, 30M Cache
  - Intel® Core™ i5-13500TE, 6P+8E, 1.3GHz, 24M Cache
  - Intel® Core™ i3-13100TE, 4P+4E, 2.4GHz, 12M Cache
  - Intel® Core™ i9-12900TE, 8P+8E, 1.1GHz, 30M Cache
  - Intel® Core™ i7-12700TE, 8P+4E, 1.4GHz, 25M Cache
  - Intel® Core™ i5-12500TE, 6P+6E, 1.9GHz, 18M Cache
  - Intel® Core™ i3-12100TE, 4P+4E, 2.1GHz, 12M Cache
  - Intel® Processor 300T, 2P, 3.4GHz, 6 MB Cache

Memory

- DDR5 4800 SO-DIMM socket, support up to 64GB

Display Interface

- Three independent display: HDMI®, DP, VGA

I/O Interface Front

- 1 x ATX power on/off switch
- LED indicators :
  - 4 x LAN active
  - 1 x GPO status
  - 4 x COM Tx/Rx
  - 1 x HDD/SSD status
  - 1 x Battery low
  - 1 x M.2
- 1 x DP
- 2 x Antenna hole
- 1 x Outside accessible M.2 2242 Key M (PCIe x4, SATA)
- 1 x SIM card holder
- 4 x USB 2.0 Type-A (500mA/port)
- 1 x Line out and 1 x Mic in

I/O Interface Rear

- 1 x HDMI®
- 1 x VGA port
- 6 x USB 3.2 Gen1 Type A (900mA per each)
- 4 x Intel® I226-IT 2.5GbE LAN ports; support WoL & PXE
- 2 x Isolated RS-232/422/485
- 1 x 3-pin DC input, support +12 to 30V DC input
- 1 x 3-pin remote power on/off switch

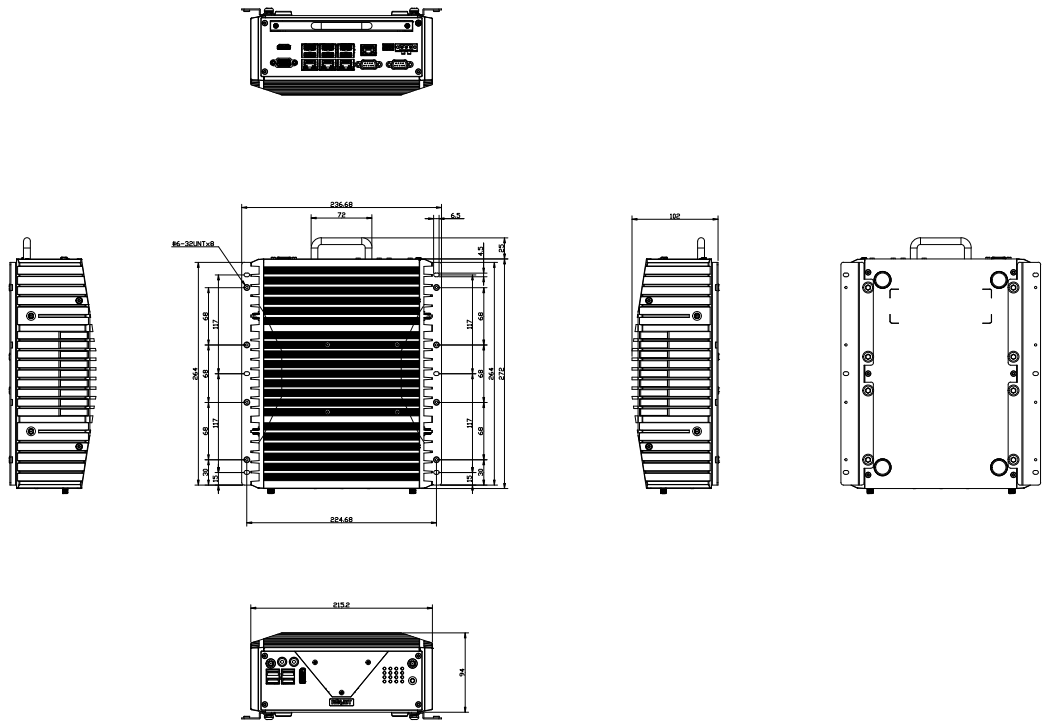
I/O Interface Internal

- 8 x GPI and 8 x GPO (5V, TTL type)
- 1 x M.2 Key B 2242/3042/3052 (PCIe x2, SATA, USB3.0)
- 1 x Mini PCIe (PCIe x1, USB 3.0, SATA)

Storage

- 2 x 2.5" HDD/SSD
- 1 x M.2 2242 Key M, 1 x M.2 2242 Key B
- 1 x mSATA

Dimension Drawing



Power Requirements
- AT/ATX power mode (Default ATX mode)
- Power input: +12 to 30V DC

Dimensions
- 215mm (W) x 272mm (D) x 94mm (H) without wall-mount bracket (8.46" x 10.7" x 3.7")

Weight
- Net Weight: 5.3kg
- Gross Weight: 7.2kg

Construction
- Aluminum chassis with fanless design

Environment
- Operating temperature: Ambient with air flow: -20°C~60°C (according to IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14)
- Storage temperature: -20°C~80°C
- Relative humidity: 10%~95% (non-condensing)
- Shock protection:
  - HDD: 20G@wallmount, half sine, 11ms(operation), IEC 600682-27
  - SSD: 50G@wallmount, half sine, 11ms(operation), IEC 600682-27
- Vibration protection w/ HDD condition:
  - Random: 0.5Grms@5~500Hz, IEC 60068-2-64
  - Sinusoidal: 0.5Grms@5~500Hz, IEC 60068-2-6
- Vibration protection w/ SSD condition:
  - Random: 2Grms@5~500Hz, IEC 60068-2-64
  - Sinusoidal: 2Grms@5~500Hz, IEC 60068-2-6

Certifications
- CE
- FCC Class A
- UL

Operating System
- Windows 11
- Windows 10 IoT Enterprise, 64-bit
- Linux for Ubuntu

Ordering Information

- **NISE 3910R (P/N: 10J00391005X0)**
  Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 fanless system with two outside accessible 2.5" HDD/SSD tray, support RAID 0/1
- **24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120029X00)**
- **24V, 180W AC to DC power adapter w/o power cord (P/N: 7400180012X00)**