NISE 3910R

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

Main Features

- Support 14th/13th/12th Gen Intel® Core™ i3/i5/i7/i9 LGA1700 socket type embedded processor
- 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 USB2.0
- 2 x Isolated RS232/422/485 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 processors, 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

CPU Support

- Support 14th/13th/12th Intel® Core™ i3/i5/i7/i9 LGA1700 socket type embedded processors
  - Intel® Core™ i7-14700T, 8P+12E, 1.3GHz, 33M Cache
  - Intel® Core™ i5-14500T, 6P+8E, 1.7GHz, 24M Cache
  - Intel® Core™ i3-14100T, 4P+4E, 2.7GHz, 12M 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

Main Memory

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

Display Option

- 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 holes
- 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 RS232/422/485
- 1 x 3-pin DC input, support +12 to 30VDC input
- 1 x 3-pin remote power on/off switch

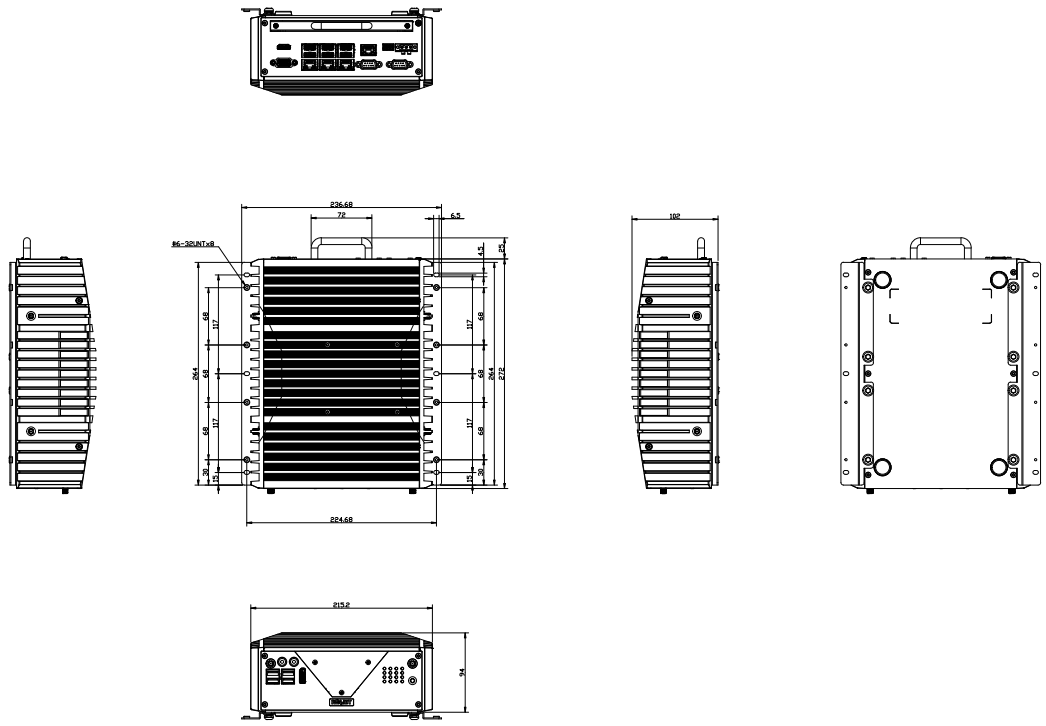
I/O Interface-Internal

- 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, USB3.0, SATA)

Storage Device

- 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 30 VDC

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 to 60°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 80°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
  - HDD: 20G@wallmount, half sine, 11ms(operation), IEC600682-27
  - SSD: 50G@wallmount, half sine, 11ms(operation), IEC600682-27
- Vibration protection w/ HDD condition:
  - Random: 0.5Grms@5~500Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms@5~500Hz, IEC60068-2-6
- Vibration protection w/ SSD condition:
  - Random: 2Grms@5~500 Hz, IEC60068-2-64
  - Sinusoidal: 2Grms@5~500 Hz, IEC60068-2-6

Certifications
- CE
- FCC Class A
- UL

OS Support Lists
- Windows 11
- Windows 10 IoT Enterprise, 64-bit

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)**