NISE 3910E16/E2/P2/P2E

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
- 2 x DDR5 4800 SO-DIMM, up to 64GB
- 4 x 2.5GbE RJ45 port, Intel® I226-IT, supports WoL and PXE
- 1 x DP, 1 x HDMI, and 1 x VGA with independent display
- 1 x M.2 Key B 3042/3052, supports LTE/5G module
- 1 x M.2 Key M 2242 with PCIe x4, supports NVMe, outside accessible
- 6 x USB 3.2 Gen 1, 4 x USB 2.0
- 2 x Isolated RS232/422/485 with auto-flow and 2 x RS232
- 1 x mini-PCIe slot, supports optional Wi-Fi, 3.5G, 4G LTE
- 1 x 2.5" SATA 3.0 HDD/SSD, an additional 2.5" tray available upon request
- TPM 2.0

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 Key B 3052.

Specifications

CPU Support

- 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 processor (LGA1700)
  - 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 processor 13900TE, 24 cores, 1.0GHz
  - Intel® Core™ i9 processor 12900TE, 16 cores, 1.1GHz
  - Intel® Core™ i7 processor 13700TE, 16 cores, 1.1GHz
  - Intel® Core™ i7 processor 12700TE, 12 cores, 1.4GHz
  - Intel® Core™ i5 processor 13500TE, 14 cores, 1.3GHz
  - Intel® Core™ i5 processor 12500TE, 12 cores, 1.9GHz
  - Intel® Core™ i3 processor 13100TE, 8 cores, 2.4GHz
  - Intel® Core™ i3 processor 12100TE, 8 cores, 2.1GHz

Main Memory

- 2 x DDR5 4800 SO-DIMM, up to 64GB

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 1.4a, up to 4K@60Hz
- 2 x Antenna hole
- 1 x M.2 Key M 2242 (PCIe x4, SATA 3.0), outside accessible
- 1 x SIM card holder
- 4 x USB 2.0 Type-A (500mA/per each)
- 1 x Line out
- 1 x Mic in

I/O Interface-Rear

- 1 x HDMI 2.0 up to 4K@60Hz
- 1 x VGA, up to 1920x1080
- 6 x USB 3.2 Gen1 Type-A (900mA per each)
- 4 x 2.5GbE Intel® I226-IT port; supports WoL & PXE
- 2 x COM Port (DB9), supports RS-232/RS422/RS485 (2.5KV isolation)
- 2 x COM Port (DB9), supports RS-232
- DC 12V to 30V input
- 1 x 3-pin remote power on/off switch

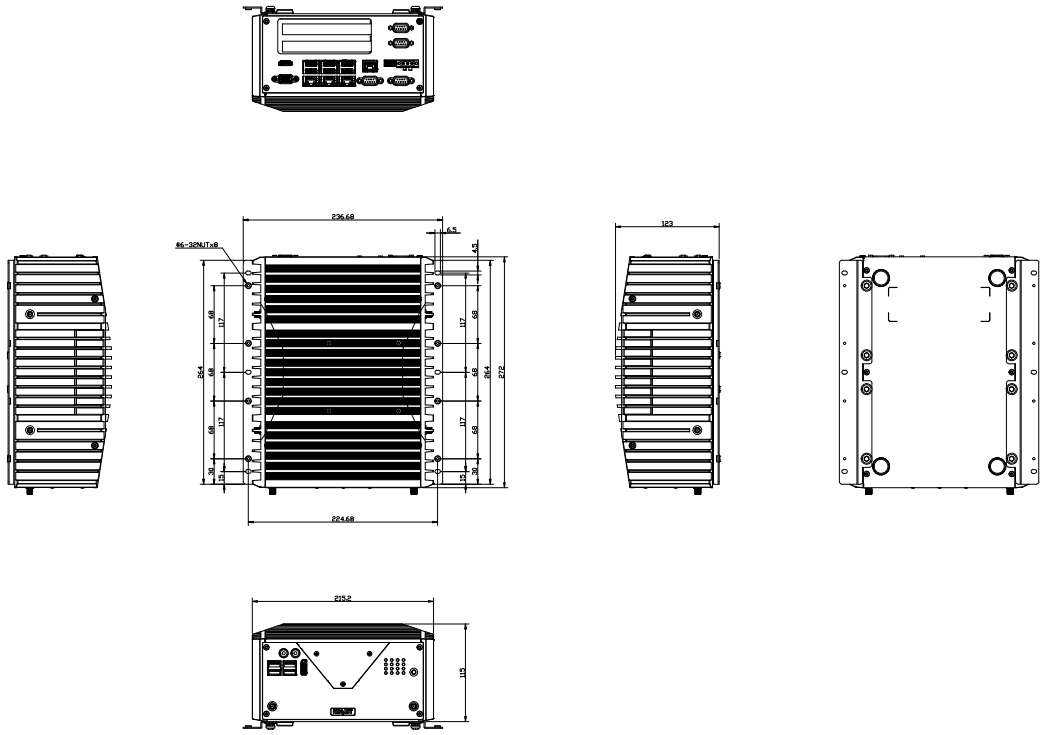
I/O Interface-Internal

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

Storage Device

- 1 x 2.5" SATA 3.0 HDD/SSD, an additional 2.5" tray available upon request
- 1 x M.2 Key M 2242
- 1 x M.2 Key B 2242
- 1 x mSATA

Dimension Drawing



Expansion Slot
- 1 x PCIe 4.0 x16 (NISE 3910E16) slot up to 75W, 240mm Max. length
- 2 x PCIe 4.0 x4 (NISE 3910E2) slot up to 10W, 169mm & 240mm Max. length
- 2 x PCI (NISE 3910P2) slot up to 10W, 169mm & 240mm Max. length
- 1 x PCIe 3.0 x4 + 1 x PCI (NISE 3910P2E) slot up to 10W, 169mm & 240mm Max. length

Power Requirements
- AT/ATX power mode
- DC 12V to 30V input

Dimensions
- 215mm (W) x 272mm (D) x 115mm (H) without wall-mount bracket (8.46" x 10.7" x 4.5")

Weight
- Net Weight: 5.5kg (NISE 3910E2/P2/P2E), 5.6kg (NISE 3910E16)
- Gross Weight: 7kg (NISE 3910E2/P2/P2E), 7.4kg (NISE 3910E16)

Construction
- Aluminum chassis with fanless design

Environment
- Temperature :
  - Ambient with air flow: -20°C ~ 60°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
  - Storage temperature: -20°C ~ 80°C
- Relative humidity:
  - 10% ~ 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@5~500Hz, IEC60068-2-64
  - Sinusoidal: 2Grms@5~500Hz, IEC60068-2-6

Certifications
- CE
- FCC Class A
- UL compliance

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

Ordering Information

- **NISE 3910E16 (P/N: 10J00391002X0)**
  Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 fanless system with one PCIe x16 expansion
- **NISE 3910E2 (P/N: 10J00391001X0)**
  Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 fanless system with two PCIe x4 expansions
- **NISE 3910P2 (P/N: 10J00391003X0)**
  Intel® 14th/13th/12th Core™ i9/i7/i5/i3 fanless system with two PCI expansions
- **NISE 3910P2E (P/N: 10J00391004X0)**
  Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 fanless system with one PCI & one PCIe x4 expansions
- **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)**