



## Main Features

- ♦ Support 13/12th Gen Intel® Core™ i9/i7/i5/i3 LGA1700 socket type embedded processor
- ♦ Intel® Q670E PCH
- ♦ Support 2 x DDR5 SO-DIMM, up to 64GB
- ♦ 4 x Intel® I226-IT LAN ports, supports WoL, teaming, and PXE
- ♦ 1 x DP, 1 x HDMI®, and 1 x VGA with independent display
- ♦ 1 x M.2 3042/3052 Key B supports LTE/5G module
- ♦ 1 x Outside accessible M.2 2242 Key M with PCIe x4, supports NVMe
- ♦ 6 x USB 3.2 Gen 1, 4 x USB 2.0
- ♦ 2 x Isolated RS-232/422/485 with auto-flow and 1 x RS-232
- ♦ 1 x Mini PCIe slot, supports optional Wi-Fi, 3.5G, 4G LTE
- ♦ 1 x 2.5" SATA HDD/SSD
- ♦ Support +24V DC input; support ATX power mode
- ♦ TPM 2.0 default onboard

## Product Overview

Integrated with 13/12th Gen Intel® Core™ i9/i7/i5/i3 processor, NISE 3910E-A is the fanless PC designed for industrial automation and edge computing which demand high CPU and graphics performance. NISE 3910E-A supports up to 64G DDR5 memory and have several options on storage devices like M.2, HDD or SSD. NISE 3910E-A supports wide range of DC input from +12V to 30V DC input, and can be operated in an extended temperature range between -20 to 60 Celsius degree. For extended module availability, NISE 3910E-A is also equipped with 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 13th/12th Gen Intel® Core™ i9/i7/i5/i3 processor (embedded)
  - 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, supports up to 64GB

### Display Option

- ♦ Three independent display: HDMI®, DP, VGA

### Audio

- ♦ HD Audio Codec, Realtek ALC897

### 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
  - 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 2.5GbE RJ45 port, Intel® I226-IT, supports WoL, teaming & PXE
- ♦ 2 x Isolated RS-232/422/485
- ♦ 1 x RS-232
- ♦ 1 x 3-pin DC input, supports +12 to 30V DC input
- ♦ 1 x 3-pin remote power on/off switch

### I/O Interface-Internal

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

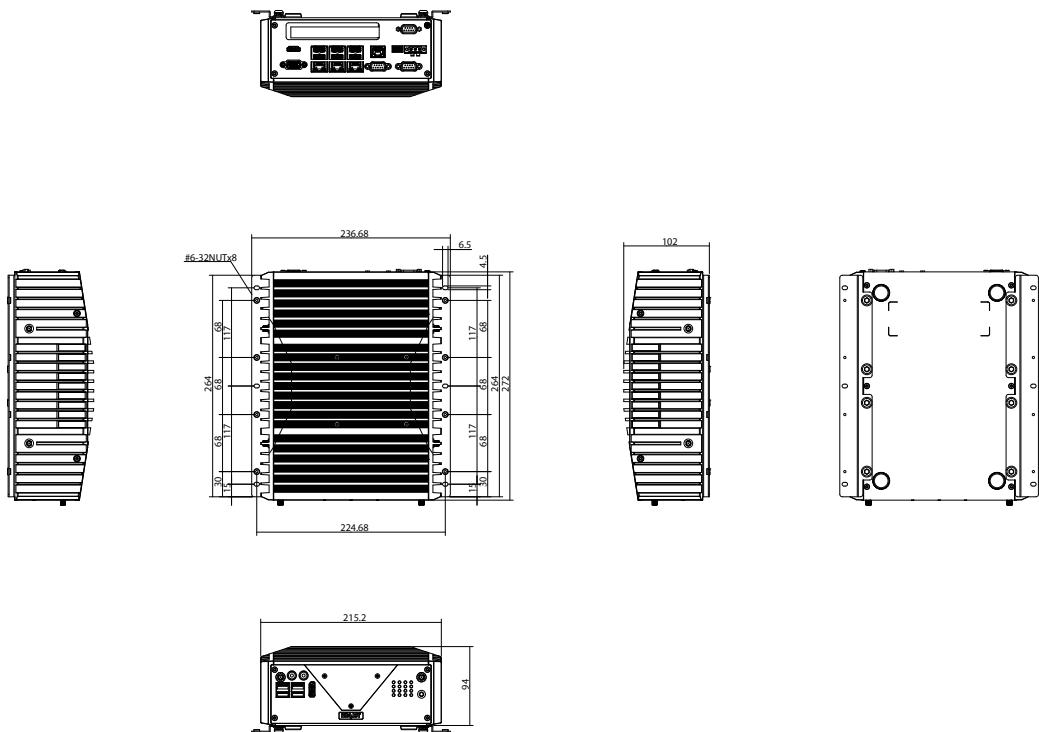
### Storage Device

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

### Expansion Slot

- ♦ 1 x PCIe x4 up to 25W/slot, 169mm Max. length
- ♦ 1 x Mini PCIe (PCIe x1, USB 3.0)

## Dimension Drawing



### Power Requirements

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

### Dimensions

- ♦ 215mm (W) x 272mm (D) x 102mm (H) without wall-mount bracket (8.46" x 10.7" x 4.02")

### Construction

- ♦ Aluminum and metal 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 60068-27
  - SSD: 50G@wallmount, half sine, 11ms (operation), IEC 60068-27
- ♦ Vibration protection:
  - Random: 0.5Grms@5~500Hz, IEC 60068-2-64
  - Sinusoidal: 0.5Grms@5~500Hz, IEC 60068-2-6

### Certifications

- ♦ CE
- ♦ FCC Class A

### OS Support Lists

- ♦ Windows 11
- ♦ Windows 10 Enterprise, 64-bit

## Ordering Information

- ♦ **NISE 3910E-A (P/N: 10J00391011XE)**  
Intel® 13th/12th Gen Core™ i9/i7/i5/i3 fanless system with one PCIe x4 expansion
- ♦ **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)**