NISE 3800E

6th Generation Intel® Core™ i7/i5/i3 LGA
Fanless System with Expansion





Main Features

- Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
- Intel® Q170 PCH
- Support 1 x 2.5" SATA HDD
- 1 x DVI-D, 1 x DP, and 1 x HDMI with independent display support
- Three Intel® GbE LAN ports; support WoL, teaming and PXE
- 1 x External M.2 socket and 1 x SIM card socket
- 4 x USB 3.0, 2 x USB 2.0, 2 x RS232/422/485 with auto flow contol
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/ Fieldbus
- Support +9V to 30VDC input; ATX power mode
- One PCIe x4 expansions

Product Overview

Integrated with 6th generation Intel® Core™ i7/i5/i3 processors, NISE 3800 series is the fanless PC designed for industrial applications which demand high CPU and graphics performance. NISE 3800 supports up to 32G DDR4 memory and have several options on storage devices like M.2, HDD, mSATA or SSD. NISE 3800 supports wide range of DC input from +9V to 30V DC input, and can be operated in an extended operating temperature range between -5 to 55 Celsius degree. For extended module availability, NISE 3800 also designed two internal mini-PCIe sockets to support IoT applications (integrate with optional GbE LAN, Wi-Fi, 3.5G module) and common communication applications (integrate with optional GPIO, RS232/422/485 module).

Specifications

CPU Support

- Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
  - Core™ i7-6700TE, Quad Core, 2.4GHz, 8M Cache
  - Core™ i5-6500TE, Quad Core, 2.3GHz, 6M Cache
  - Core™ i3-6100TE, Dual Core, 2.7GHz, 4M Cache
  - Intel® Pentium® Processor G4400TE 2.4GHz , 3M Cache
  - Intel® Celeron® Processor G3900TE 2.3GHz , 2M Cache
- Turbo-boost disabled by default

Main Memory

- 2 x DDR4 SO-DIMM socket, support up to 32GB with un-buffered and non-ECC

Display Option

- Three independent display
  - HDMI + DP+ DVI-D
- Dual independent display
  - HDMI + DP
  - HDMI + DVI-D
  - DP + DVI-D

Front I/O Interface Status LEDs

- 3 x LAN active LEDs
- 2 x GPO status/COM1/2 TX/RX LEDs
- 1 x HDD access LEDs

Front I/O Interface

- 1 x ATX power on/off switch
- 1 x DP
- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes
- 1 x External M.2 socket
- 1 x SIM card holder

Rear I/O Interface

- 2 x DB9 for COM1 & COM2
  - COM1: RS232/422/485 auto flow control
  - COM2: RS232/422/485 auto flow control
- 4 x USB 3.0 ports (900mA per each)
- 2 x USB 2.0 ports (500mA per each)
- 1 x DVI-D port
- 1 x HDMI port
- 3 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 1 x 2-pin remote power on/off switc
- +9V to 30V DC input

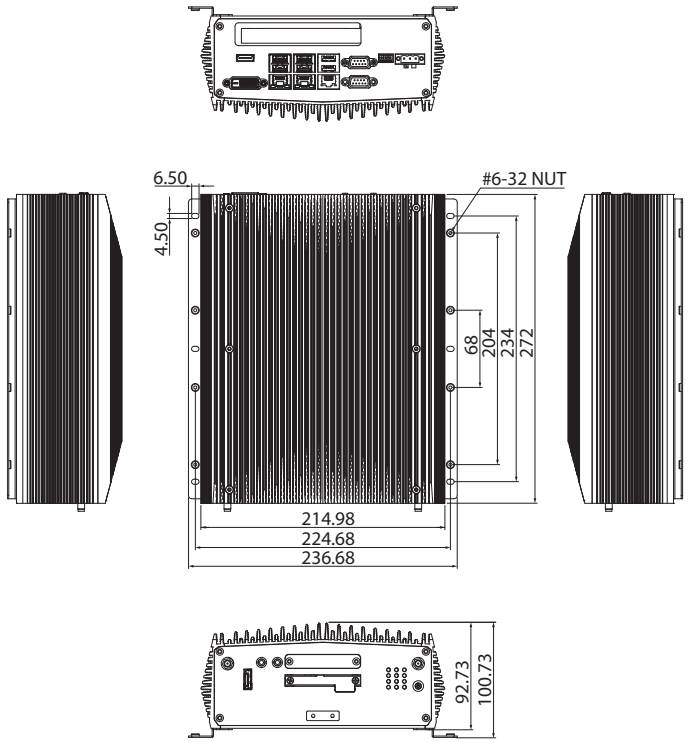
Storage Device

- 1 x M.2 (SATA 3.0)
- 1 x mSATA (SATA 3 0)
- 1 x 2.5" HDD (SATA 3.0)

Expansion Slot

- One PCIe x4 expansion slot
  - Add-on card length: 169mm max.
  - Power consumption: 10W/slot max.
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/ Fieldbus

Dimension Drawing



Power Requirements
- AT/ATX power mode (default: ATX power mode)
- Power input: +9 to +30V DC
- Power adapter: optional AC to DC power adapter (24V DC, 120W)

Dimensions
- 215 mm(W) x 272mm (D) x 93mm (H) without wall mount bracket (8.5" x 10.7" x 3.7")

Construction
- Aluminum and metal chassis with fanless design

Environment
- Operating temperature:
  Ambient with air flow: -5°C to 55°
  (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 85°C
- Relative humidity: 10% to 93% (non-condensing)
- Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-2-27
  - M.2: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection with HDD condition:
  - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6

Certifications
- CE approval- EN61000-6-2- EN61000-6-4
- FCC Class A
- UL

OS Support Lists
- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit
- Windows 10 64 bits

Weight Information
- Gross weight: 5.9kg
- Net weight: 4.5kg

Ordering Information
- **NISE 3800E System (P/N: 10J00380003X0)**
  6th generation Intel® Core™ i7/i5/i3 fanless system with one PCIe x4 expansion
- **24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120023X00)**

We reserve the right to change specifications and product descriptions at any time without prior notice.