



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 control
- 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™ i processors, NISE 3800 series is the Google Cloud IoT ready edge controller with fanless PC designed for an open real-time industrial applications which demand high CPU and graphics performance. NISE 3800 offers comprehensive and easy-to-use application configurator for system development and debugging to speed up development period.

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 16GB with un-buffered an 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

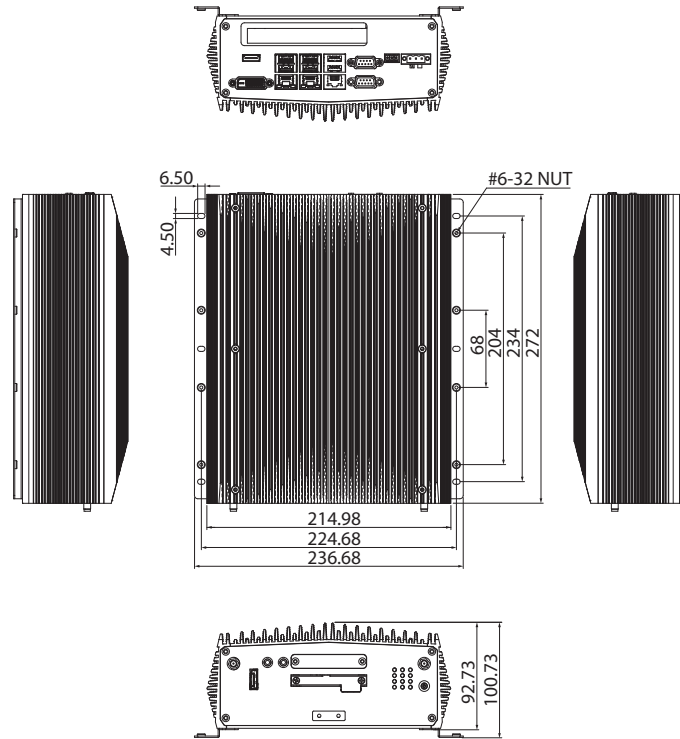
Storage Device

- 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, IEC60068-27
 - M.2: 50G, half sine, 11ms, IEC60068-27
- 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

OS Support Lists

- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit
- Windows 10 64-bit

Weight Information

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

Ordering Information

- NISE 3800E-GCIOT (P/N: TBC)
Google Cloud IoT Ready i4.0 Edge Controller
- 24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120023X00)