

Main Features

- Support 6th generation Intel® Core™ i5/i3 BGA type embedded processor
- Intel® QM170/HM170 PCH
- Support 1 x 2.5" SATA HDD or SSD
- 1 x DVI-D, 2 x DP with independent display support
- 2 x Intel® GbE LAN ports; support WoL, iAMT (for SKU NISE 4200Q-6442EQ)
- 1 x 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, 4 x RS232
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/LTE/mSATA
- Support 12V +/- 20% and 24V +/- 20% DC input; ATX power mode

Product Overview

Integrated with 6th generation Intel® Core™ i5/i3 processors, NISE 4200 series is the fanless PC designed for industrial applications which demand high CPU and graphics performance. NISE 4200 supports up to 32G DDR4 memory and have several options on storage devices like M.2, HDD, mSATA or SSD. NISE 4200 supports 12V +/- 20% and 24V +/- 20% DC input, and can be operated in an extended operating temperature range between -20 to 70 Celsius degree. For extended module availability, NISE 4200 also designed two internal mini-PCIe sockets to support IoT applications (integrate with optional GbE LAN, Wi-Fi, 3.5G, LTE module) and common communication applications (integrate with optional GPIO, RS232/422/485 module).

Specifications

CPU Support

- Support 6th generation Intel® Core™ i5/i3 BGA type embedded processor
 - Core™ i5-6442EQ, Quad Core, 1.9GHz, 6M Cache
 - Core™ i3-6102E, Dual Core, 1.9GHz, 4M Cache
- Turbo-boost disabled by default

Main Memory

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

Display Option

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

Front I/O Interface Status LEDs

- 2 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
- 2 x DP 1.2
- 1 x Line-out
- 1 x DB9 for COM1
 - COM1: RS232/422/485 (BIOS selectable)

- 4 x USB 3.0 ports (900mA per each)
- 2 x USB 2.0 ports (500mA per each)
- 12V +/- 20% and 24V +/- 20% DC input
- LAN1: Intel® I210-IT GbE LAN ports; support WoL and PXE
- LAN2: 1 x Intel® I219-LM GbE LAN, support Intel® AMT 11 (NISE 4200Q-6442EQ)

Rear I/O Interface

- 5 x DB9 for COM2 & COM3~6
 - COM2: RS232/422/485 auto flow control
 - COM3: RS232
 - COM4: RS232
 - COM5: RS232
 - COM6: RS232
- 1 x DVI-D port

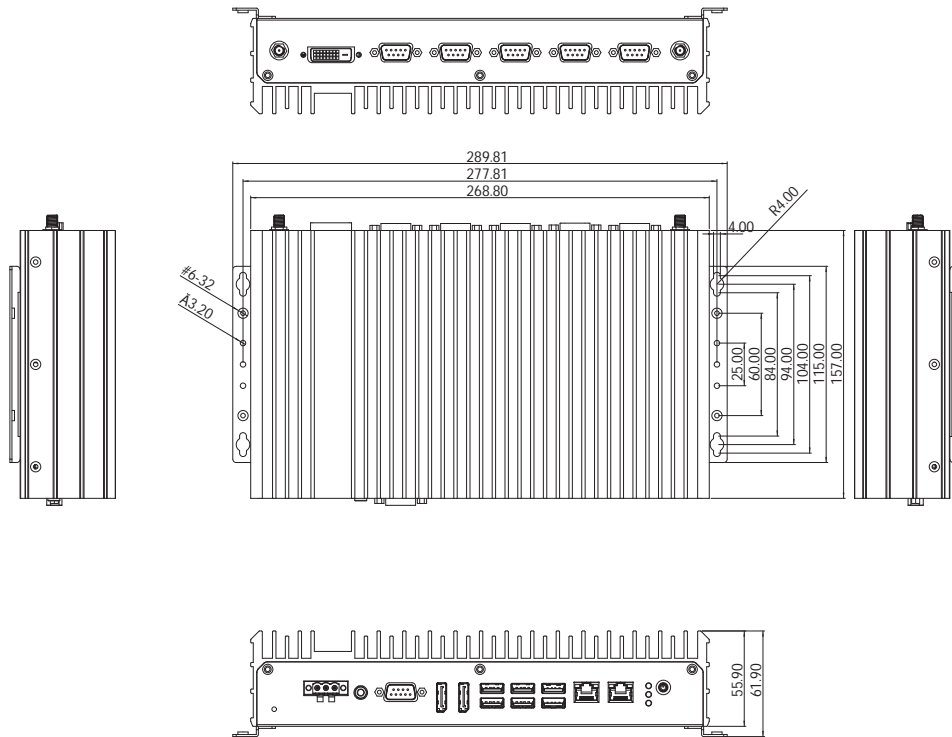
Internal I/O

- 1 x USB 2.0 type A connector
- 1 x USB 2.0 box header
- 16CH GPIO: internal pin header, support 8x GPO and 8x GPI, TTL 5V level
- On-board TPM2.0 (SLB9665) for data encryption purpose

Storage Device

- 1 x mSATA (SATA 3.0)
- 1 x 2.5" HDD (SATA 3.0)

Dimension Drawing



Expansion Slot

- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA
- 1 x 2280 or 2240 B+M Key M.2 slot

Power Requirements

- AT/ATX power mode (default: ATX power mode)
- Power input: 12V +/- 20% and 24V +/- 20% DC input
- Power adapter: optional AC to DC power adapter (24V DC, 120W)

Dimensions

- 269 mm(W) x 157mm (D) x 56mm (H) without wall mount bracket

Construction

- Aluminum chassis with fanless design

Environment

- Operating temperature:
 - Ambient with air flow: -20°C to 70°
 - (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 80°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
- Vibration protection with SSD & M.2 condition:
 - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
 - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE approval-EN55032/EN55024
- FCC Class A

OS Support Lists

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

Weight Information

- Gross weight: 2.8kg
- Net weight: 2.1kg

Ordering Information

- **NISE 4200Q-6442EQ System (P/N: 10J00420002X0)**
6th generation Intel® Core™ i5 fanless system with iAMT supported
- **NISE 4200H-6102E System (P/N: 10J00420005X0)**
6th generation Intel® Core™ i3 fanless system w/o iAMT supported
- **24V, 120W AC to DC power adapter w/o power cord (P/N: TBD)**