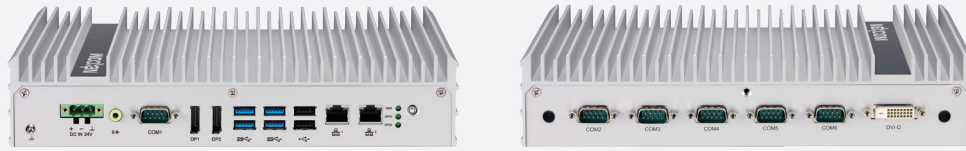


# NISE 4200

6th Generation Intel® Core™ i5/i3 BGA Fanless System



## Main Features

- Support 6th Generation Intel® Core™ i5/i3 BGA type embedded processor
- Intel® QM170 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 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 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 2400 SO-DIMM socket, support up to 32GB with un-buffered and 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)
- 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

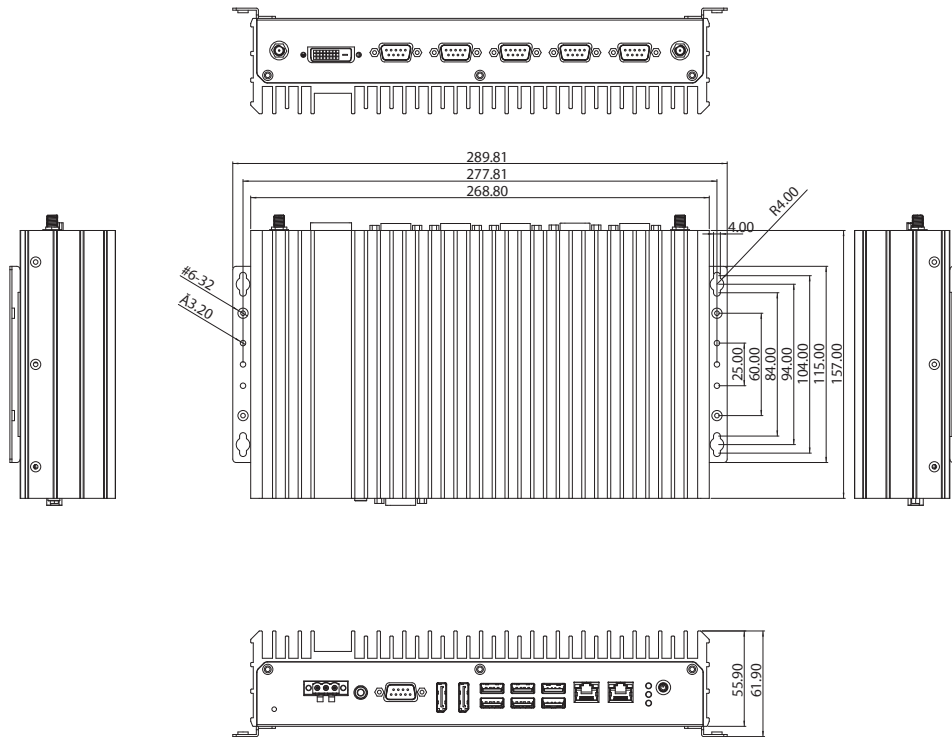
### Internal I/O

- 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: 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 4200Q-6102E System (P/N: 10J00420004X0)**  
6th Generation Intel® Core™ i3 fanless system w/o iAMT supported
- **24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120023X00)**