# NISE 300

**4th Generation Intel® Core™ i5 Fanless System with 6 mini-PCIe Expansion and User-Friendly Front I/O Design**

## Main Features

- Onboard BGA type 4th Generation Intel® Core™ i5 Processor
- Mobile Intel® QM87 PCH
- 2 x USB 3.0; 2 x USB 2.0
- 6 x mini-PCIe, 2 x RS232/ 422/ 485 with Auto Flow
- Support 1 x mSATA, 1 x CFast and 2 x 2.5" SATA
- User-friendly I/O Design; All I/O Interface at Front
- Support Wireless Communication; Optional for Wi-Fi or 3G Modules
- Support +9V and +30V DC Input; Support ATX Power Mode
- Easy Replacement for RTC Battery
- Dual Intel® GbE LAN Ports, Support WoL, Teaming & PXE

## Product Overview

The high performance NISE 300, which is integrated with 4th generation Intel® Core™ i5 processor and Lynx Point QM87 PCH, can provide outstanding system performance and presents a brand new opportunity for both intelligent and industrial computing solutions. NISE 300 supports up to 8G un-buffered and non-ECC DDR3/ DDR3L memory, CFast , SATAIII, the latest USB 3.0 technology. Support both +12 and +24 DC input and the operating temperature range is from -5 Celsius degree to 55 Celsius degree. NISE 300 comes with user-friendly I/O design; all I/O interfaces are at front panel and it makes system much easier to use and to expand the functionalities. It's mechanical design also fits with 2U 19" rack-mount dimension. NISE 300 also integrates with 6 mini-PCIe sockets and 2 COM Port interfaces, which makes it a real versatile box for various applications such as factory automation applications (PROFIBUS, DEVICE NET, EtherCAT, PROFINET, Ethernet IP), network applications (GbE LAN, Wi-Fi, GSM), and storage devices (mSATA). With the latest features and flexible module expansions, NISE 300 is definitely the top choice for M2M intelligence and factory automation platforms.

## Specifications

### CPU Support
- Onboard BGA type 4th generation Intel® Core™ i5 processor
- Core™ i5-4402E, Dual Core™, 1.6GHz

### Main Memory
- 2 x DDR3/ DDR3L SO-DIMM Socket, support up to 8GB DDR3/ DDR3L 1333/ 1600 RAM, un-buffered and non-ECC

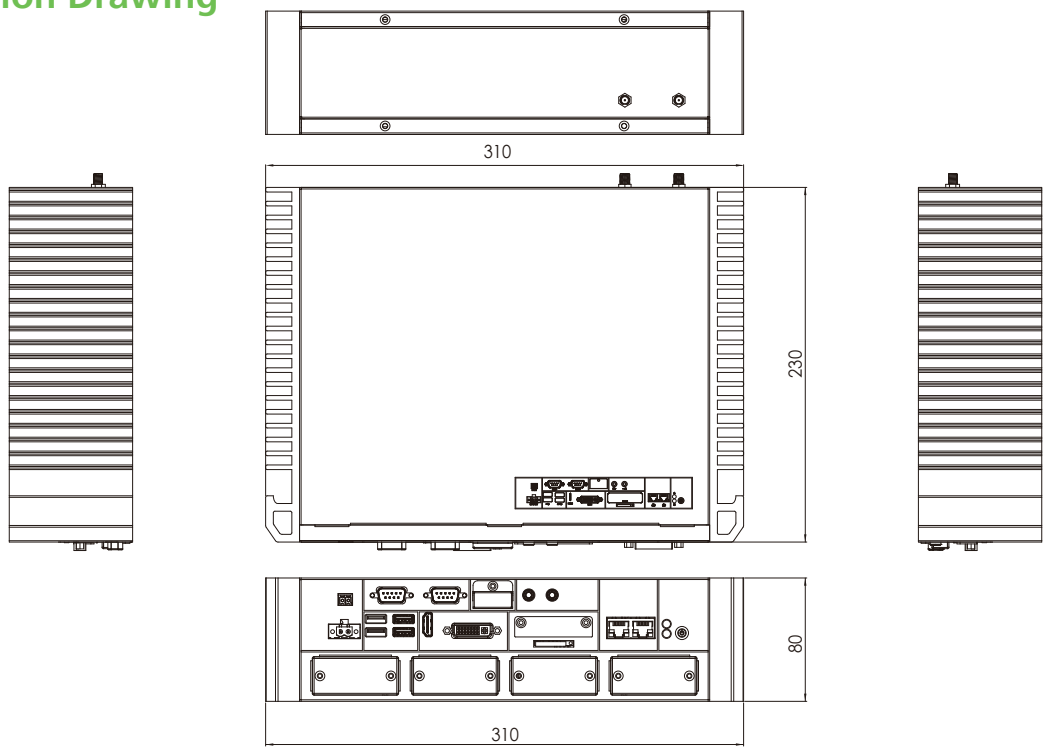
### Display Option
- Three Independent Display
  - VGA+DVI-D (Through DVI-I Y Cable) + HDMI
- Dual Independent Display
  - DVI-D + VGA
  - HDMI + VGA

### Front I/O Interface
- ATX power on/ off switch
- 1 x Remote Power ON/ OFF Switch
- 1 x Power Status/ 1 x HDD Access LEDs
- 2 x USB3.0 ports (Blue Color, 900mA per each)
- 2 x USB2.0 Ports (500mA per each)
- 1 x DVI-I, 1 x HDMI
- 2 x DB9 for COM1 & COM2
  - support RS232/ 422/ 485 with Auto Flow Control
  - support 5V/ 12V/ Ring function by jumper setting
- 2 x Intel® 82574L GbE LAN Ports, Support PXE / Teaming / WoL
- 1 x External CFast socket
- 1 x SIM Card holder
- 1 x External RTC Li-ion Battery holder
- 1 x Line out and 1 x Mic-in

### Internal I/O Interface
- 4 x GPI and 4 GPO (5V, TTL Type)
- 4 x COM Ports Box Header (RS232 only)
- 1 x USB 2.0 Internal Connector, for USB dongle
- 2 x USB 2.0 Internal Box Header

### Storage Device
- 1 x CFast (SATA 3.0)
- 1 x mSATA (SATA 3.0)
- 2 x 2.5" HDD (SATA 3.0)

## Dimension Drawing




### Expansion Slot
- 1 x mini-PCIe socket for GSM/ Wi-Fi
  1 x mini-PCIe socket for mSATA
  4 x mini-PCIe socket for expansion modules

### Power Requirement
- ATX Power Mode
- Power input: +9V and +30V DC input
- Power adapter: Optional AC to DC power adapter (+19Vdc, 120W)

### Dimensions
- 310mm (W) x 230mm (D) x 80mm (H) without Wall-Mount bracket (TBC)

### Construction
- Aluminum and Metal Chassis with fanless design

### Environment
- Operating Temperature:
  Ambient with air flow: -5°C to 55°C
  (According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage Temperature: -40°C to 85°C
- Relative Humidity: 95% at 40°C
- Shock Protection:
  HDD: 20G, half sine, 11ms, IEC60068-27
  CFast: 50G, half sine, 11ms, IEC60068-27
- Vibration Protection w/ HDD Condition:
  Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6

### Certifications
- CE
- FCC Class A

## Ordering Information

### Barebone
- **NISE 300 System (P/N: 10J00030000X0)**
- **19V, 120W AC to DC power adapter w/o power core (P/N: TBD)**