



## Optional Module kit



NISK2U Tray



FBI90E Series  
Fieldbus Card



NISKLAN01  
1 x GbELAN



NISKLAN02  
2 x GbELAN



NISKECOM3/ECOM4  
4 x COM



Mobile Wireless



Wi-Fi

## 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 +30VDC 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 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, SATA 3.0, the latest USB 3.0 technology. Support +9V to +30VDC 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. Its 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, DeviceNet, 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™ i7/i3/i5 processors
  - Core™ i7-4712HQ, Quad Core™, 3.3GHz
  - Core™ i5-4402E, Dual Core™, 1.6GHz (Onboard Default)
  - Core™ i3-4112E, Dual Core™, 1.8GHz
  - Celeron 2002E, Dual Core™, 1.5GHz
- Mobile Intel® QM87 PCH

### 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-H 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 USB 3.0 ports (Blue Color, 900mA per each)
- 2 x USB 2.0 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

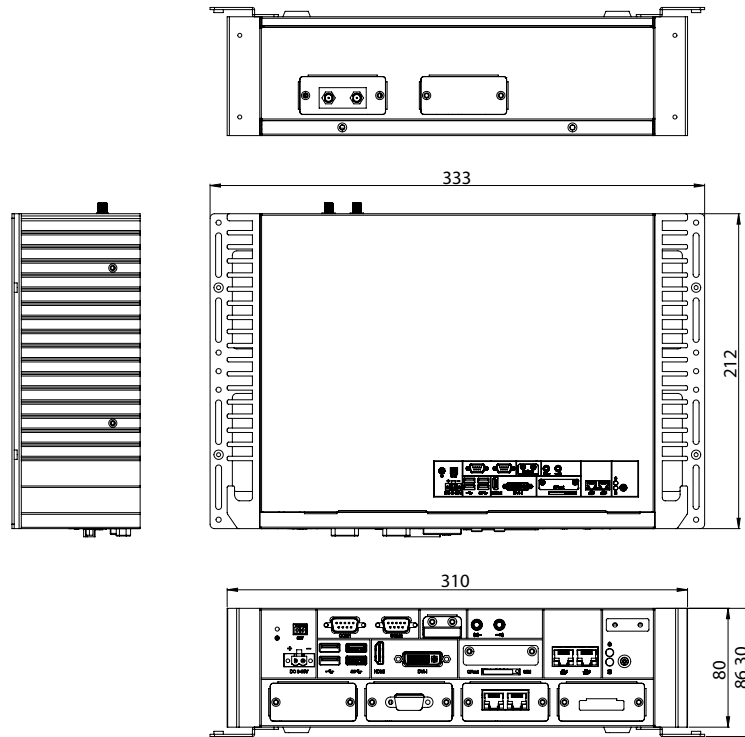
### Internal I/O Interface

- 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
- Typical +9V to +30VDC Input
- Power adapter: Optional AC to DC power adapter (+19VDC, 120W)

### Dimensions

- 310mm (W) x 212mm (D) x 80mm (H) without Wall-Mount bracket

### 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
- Operating humidity: 10% to 90% relative humidity, non-condensing Limits to be at 90% RH at max 40C
- Shock Protection: HDD: 20G, half sine, 11ms, IEC60068-2-27  
CFast: 50G, half sine, 11ms, IEC60068-2-27
- Vibration Protection w/ HDD Condition: Random: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-64  
Sinusoidal: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-6

### Certifications

- CE/FCC Class A

### OS Support Lists

- Windows 7 32bits and 64bits
- Windows 8.1 32bits and 64bits

## Ordering Information

### Barebone

- NISE 300 System (P/N: 10J00030000X0)
- 19V, 120W AC to DC power adapter w/ o power core (P/N:7400120013X00)

### Optional Fieldbus kit

88J50090E00X0	FBI 90E-PNM KIT (w/25 cm Cable)	ProFINET Master Module Kit
88J50090E01X0	FBI 90E-EP KIT (w/25 cm Cable)	Ethernet IP Master Module Kit
88J50090E02X0	FBI 90E-ECM KIT (w/25 cm Cable)	EtherCAT Master Module Kit
88J50090E03X0	FBI 90E-PBM KIT (w/25 cm Cable)	Profibus Master Module Kit
88J50090E04X0	FBI 90E-DNM KIT (w/25 cm Cable)	DeviceNet Master Module Kit
88J50090E13X0	FBI 90E-COM KIT (w/25 cm Cable)	CANopen Master Module Kit
88J50090E15X0	FBI 90E-S3M KIT (w/25 cm Cable)	SERCOSIII Master Module Kit

### Optional Module kit

88J00030004X0	NISE300 3.5G Module Kit SIERRA: MC8090(SMS)	US
88J00030009X0	NISE300 3.5G Module Kit SIERRA: MC8092(SMS)	EU
88J00030009X0	NISE300 Wifi Module Kit INTEL: 7260.HMWWB.R	Dual Band Wireless-AC 7260, 2x2 AC+BT, HMC
88J00030002X0	NISE300 Wifi Module Kit INTEL: 7260.HMWBWB.R	WLAN+ BLUETOOTH COMBO MODULE
88JK0ECOM03X0	NISKECOM3 UNIVERSAL KIT (w/25 cm DB26 cable)	miniPCIe to 4xCOM Module W/ ISOLATION RS232/422/485 Auto Flow Control w/Universal Bracket
88JK0ECOM07X0	NISKECOM4 UNIVERSAL KIT (w/25 cm DB26 cable)	miniPCIe to 4 PORT RS232 MODULE w/ Universal Bracket