



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 and 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. 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®, 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™, 2.3GHz, Max Turbo Frequency 3.3 GHz
 - Core™ i5-4402E, Dual Core™, 1.6GHz, Max Turbo Frequency 2.70 GHz (onboard default)
 - Core™ i3-4112E, Dual Core™, 1.8GHz
 - Celeron 2002E, Dual Core™, 1.5GHz
- Mobile Intel® QM87 PCH
- Turbo-boost disabled by default

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 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 WoL, teaming and PXE
- 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

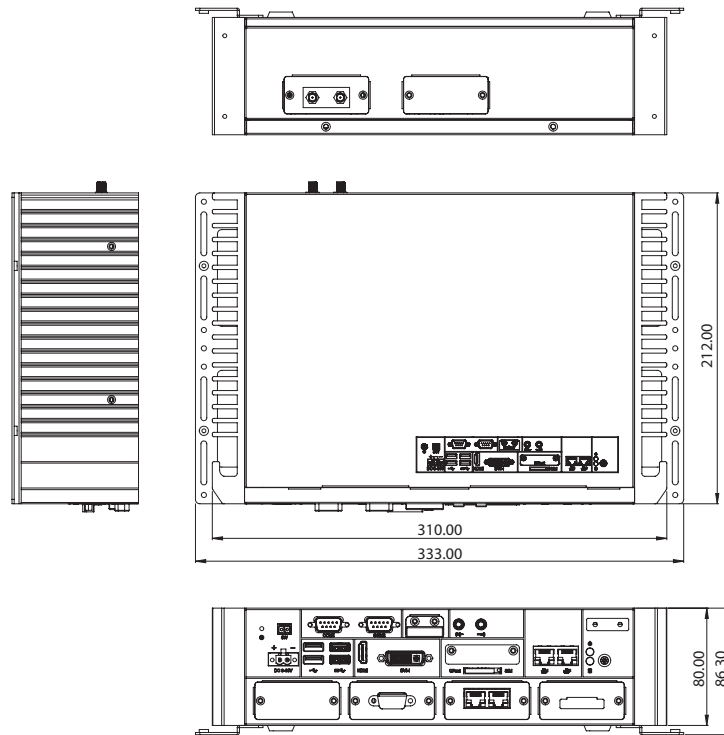
Internal I/O Interface

- 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 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

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)	SERCOS III 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 Wi-Fi module kit Intel: 7260.HMWWB.R	Dual band wireless-AC 7260, 2x2 AC+BT, HMC
88J00030002X0	NISE300 Wi-Fi module kit Intel: 7260.HMWBNWB.R	WLAN+ bluetooth combo module
88JK0ECOM03X0	NISKECOM3 universal kit (w/ 25 cm DB26 cable)	mini-PCIe to 4xCOM module w/ isolation RS232/422/485 Auto flow control w/ universal bracket
88JK0ECOM07X0	NISKECOM4 universal kit (w/ 25 cm DB26 cable)	mini-PCIe to 4 port RS232 module w/ universal bracket