NISE 107

Main Features

- Onboard Intel Atom® x5-E3930 Dual Core processor, 1.80 GHz
- 2 x Display output, 1 x DVI-D and 1 x DP port
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- Support both 2.5" HDD and M.2 (front access)
- 1 x mini-PCIe Wi-Fi/LTE wireless module

- 4 x USB 3.0
- 2 x DB9 for RS232/422/485
- 2 x optional DB9 for RS232 by request
- Support -20°C~70 °C extended operating temperature
- Support 9~30V DC input; support ATX power mode

Product Overview

Powered by Intel Atom® x5-E3930 processor Dual Core, 1.80 GHz (formerly codenamed "Apollo Lake "), NISE 107 presents IoT gateway for factory automation. Up to 8G DDR3L memory, the NISE 107 supports operating temperature from -20 up to 70 degree C with typical DC input 9~30V. The NISE107 has high integration ability with 2 x COM ports (RS232/422/485), optional mini-PCIe module and 2 x optional COM ports (RS232) which makes it a reliable connection with devices in factory automation applications, IoT applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NISE 107 is definitely the top choice for M2M intelligent system as a factory automation controller and gateway.

Specifications

CPU Support
- Onboard Intel Atom® x5-E3930 Dual Core processor, 1.80 GHz, 2M Cache

Main Memory
- 1 x DDR3L SO-DIMM socket, support DDR3L 1866 8GB RAM max., un-buffered and non-ECC

Display Option
- Dual independent display: DVI-D + DP

I/O Interface-Front
- ATX power on/off switch
- LED indicator: power status, HDD access, RTC battery low, Tx/Rx, GPO programmable LEDs
- 2 x DB9 for RS232/422/485 with auto flow control
- 1 x External M.2 socket support B, B+M key module
- 1 x SIM card holder
- 1 x Optional I/F opening for optional function output or module interface use

I/O Interface-Rear
- 1 x Display port
- 1 x DVI-D port
- 4 x USB 3.0 ports (900mA per each)
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE

- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes for optional Wi-Fi/3.5G antenna
- 1 x 3-pin DC input, support +9 to 30VDC input
- 1 x 3-pin remote power on/off switch

I/O Interface - Internal
- 4 x GPI and 4 x GPO (5V, TTL type)

Storage Device
- 1 x 2.5" HDD (SATA 3.0)
- 1 x M.2, support B, B+M key module (2242)

Expansion Slot
- 1 x mini-PCIe socket support optional Wi-Fi/4G LTE/3.5G modules

Power Requirements
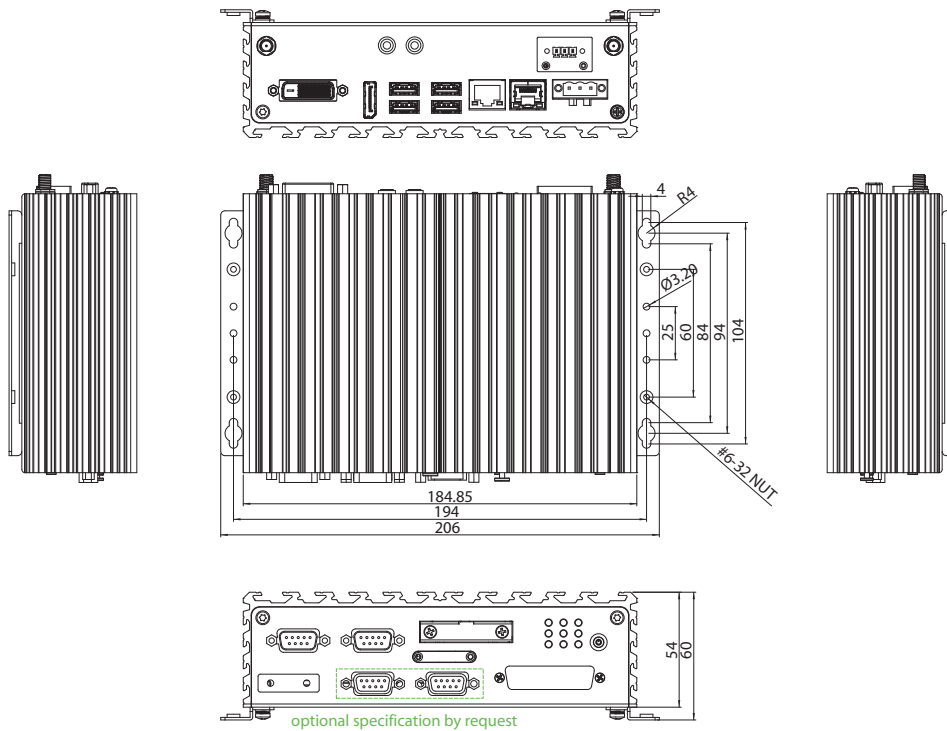- Power input: +9 to 30 Vdc
- 1 x Optional 24V, 60W power adapter

Dimensions
- 185mm (W) x 131mm (D) x 54mm (H) without wall-mount bracket

Construction
- Aluminum chassis with fanless design

Dimension Drawing

optional specification by request

Environment

- Operating temperature:
  Ambient with air flow: -20°C to 70°C
  (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 80°C
- Relative humidity: 95% at 40°C
- Shock protection:
  - HDD: 20G @ wall mount, half sine, 11ms(operation), IEC60068 2-27
  - M.2: 50G @ wall mount, half sine, 11ms(operation) , IEC60068 2-27
- Vibration protection w/ HDD condition:
  - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6
- Vibration protection w/ M.2 & SSD condition:
  - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE approval
  - EN61000-6-2
  - EN61000-6-4
- FCC Class A

Support OS

- Windows 10 IoT Enterprise, 64-bit
- Linux Kernel version 4.1

Ordering Information

- **NISE 107 (P/N: 10J00010701X0)**
  Intel Atom® x5-E3930 Dual Core, 1.80GHz fanless system

- **NISE 107-E3940 (P/N: 10J00010700X0)**
  Intel Atom® x5-E3940 Quad Core, 1.80GHz fanless system

- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060033X00)**