

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

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

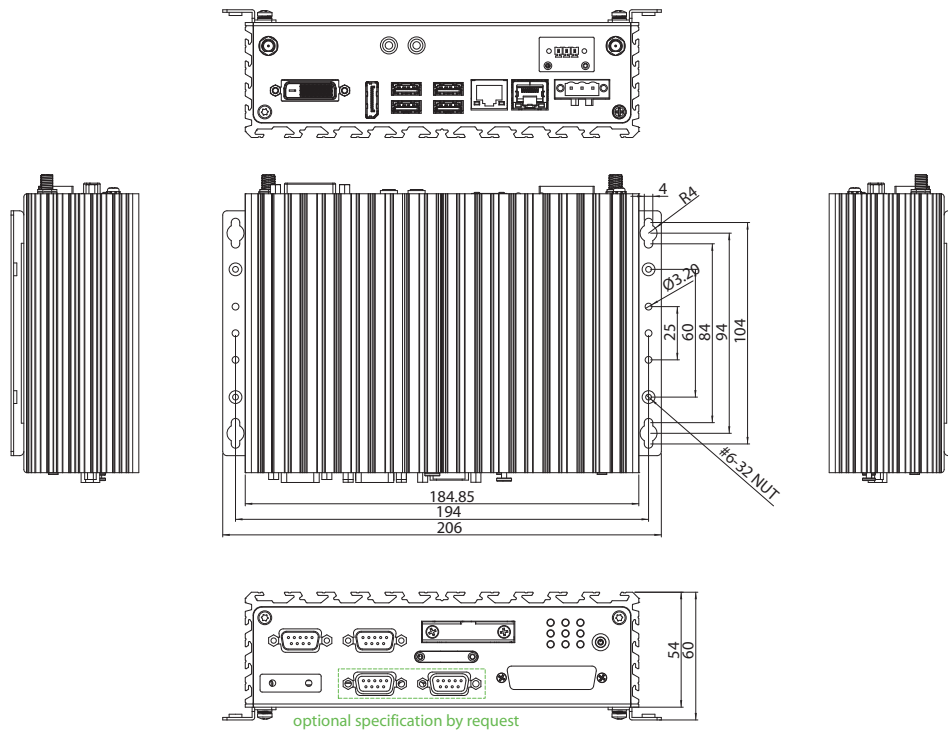
Dimensions

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

Construction

- Aluminum chassis with fanless design

Dimension Drawing



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)**