NISE 107-POE

Intel Atom® x5-E3940 Quad Core Fanless System

Main Features

- Onboard Intel Atom® x5-E3940 Quad 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, LAN1 with PoE function (802.3af compliance)
- Support both 2.5" HDD and M.2 (front access)
- 1 x mini-PCIe slot support Wi-Fi/LTE wireless module

- 4 x USB 3.0
- 2 x DB9 for RS232/422/485
- 2 x DB9 for RS232
- Support -5~55 degree C operating temperature
- Support 9~30V DC input; support ATX power mode

Product Overview

Powered by the latest generation of Intel Atom® x5-E3940 processor Quad Core, 1.80 GHz (formerly codenamed "Apollo Lake "), NISE 107-POE presents IoT gateway for factory automation. Up to 8G DDR3L memory, the NISE 107-POE supports operating temperature from -5 up to 55 degree C with typical DC input 9~30V. The NISE 107-POE has high integration ability with 4 x COM ports (2x RS232/422/485 + 2x RS232) and optional mini-PCIe module which makes it a reliable connection with devices in factory automation applications, IoT applications (with optional GbE LAN, Wi-Fi, 3.5G, LTE module) and communication applications (with optional GPIO, RS232/422/485). NISE 107-POE offers a PoE port to power a device such as IP camera, sensor, machine vision systems…etc. and a GbE port for data communication. NISE 107-POE is definitely the top choice for M2M intelligent system as a factory automation controller and gateway.

Specifications

CPU Support
- Onboard Intel Atom® x5-E3940 Quad 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
- 2 x DB9 for RS232
- 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, LAN1 with PoE function (802.3af compliance)
- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes for optional Wi-Fi/3.5G/LTE 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
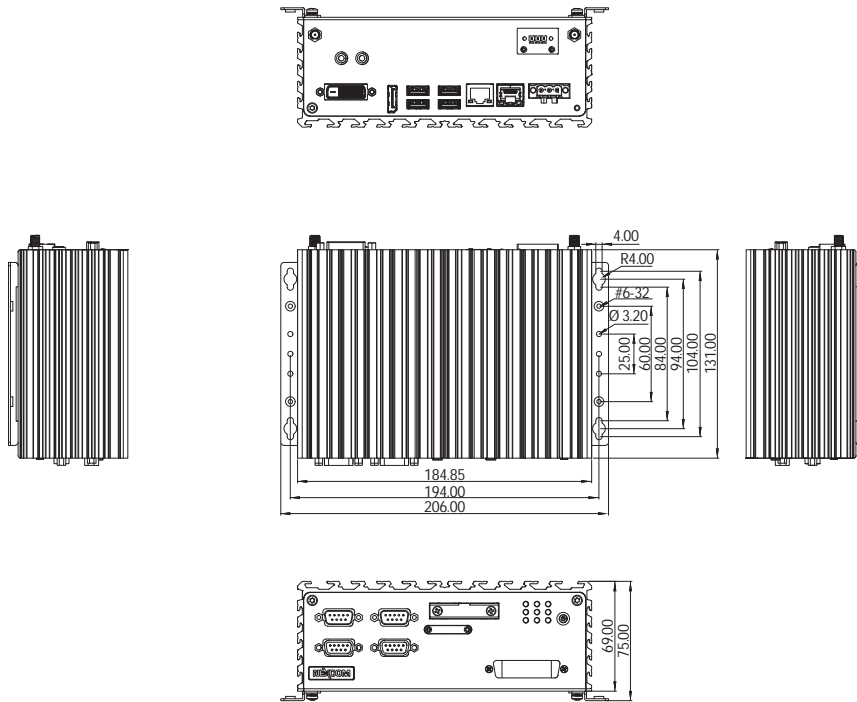- 1 x mini-PCIe socket support optional Wi-Fi/4G LTE/3.5G modules

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

Dimensions
- 185mm (W) x 131mm (D) x 69mm (H) without wall-mount bracket

NEXCOM

Dimension Drawing

Construction
• Aluminum 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: -20°C to 80°C
• Relative humidity: 95% at 40 degree 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-POE (P/N: 10J00010702X0)**
Intel Atom® x5-E3940 Quad Core, 1.80GHz fanless system

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