NISE 2420

Intel® Atom™ Processor E3845 Quad Core Fanless System

Main Features

- Onboard Intel® Atom™ processor E3845 Quad core, 1.91GHz
- Dual independent display from DVI-I and HDMI
- 2 x Intel® I210IT GbE LAN ports; Support WoL, Teaming and PXE
- 2 x RS232 & 2 x RS232/RS422/RS485 with auto flow control

- 4 x USB 2.0 & 1 x USB 3.0
- 2 x Mini-PCIe socket for optional mSATA/Wi-Fi/4G LTE/3.5G
- Support -20 to 70 degree Celus extended operating temperature
- Support 9-30V DC input

Product Overview

Powered by Intel® Atom™ Bay Trail Quad core processor E3845, 1.91GHz. Driven by the latest Dual Core Intel® Atom™ processor, NISE 2420 can provide excellent computing power and is more power-efficient than the platforms based on the previous generation Intel® Atom™ product family.

NISE 2420 supports up to 8G DDR3L memory and have several options on storage devices like CFast, HDD, SSD or mSATA . The NISE 2420 comes with 1 x HDMI, 1 x DVI-I, 2 x GbE LAN ports, 2x COM port with RS232/422/485 and 5x USB ports including one USB 3.0. NISE 2420 supports 9 ~ 30V DC input, and can be operated in an extended operating temperature range from -20 to 70 degrees Celsius. This Fanless system supports two Mini-PCIe modules, Which can be an excellent platform for IOT applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and factory automation applications with optional fieldbus module expansion versatility makes NISE 2420 a perfect platform for factory automation and M2M intelligent computing applications.

Specifications

CPU Support
- Onboard Intel® Atom™ E3845 Quad core, 1.91GHz
- Support Intel® Atom™ E3800 processor family from single core E3815, dual core E3825/E3826/E3827 and quad core E3845 with difference SKUs

Main Memory
- 2 x DDR3L SO-DIMM socket, support DDR3L 1066/1333 8GB RAM max., un-buffered and non-ECC

Display Option
- Dual independent display
  - HDMI and DVI-D
  - HDMI and VGA (via DVI-I connector)

Front I/O Interface
- ATX power on/off switch
- 1 x Power Status, 1 x HDD access, 1 x battery low, 4 x programming LEDs, 4 x Tx/Rx LEDs, 2 x LAN LEDs
- 2 x DB9 RS232 for COM3 & COM4
- 1 x External CFast socket
- 1 x SIM card holder
- 1 x USB 3.0 (900mA Max.)
- 1 x Mic-in & 1 x Line-out

- 2 x antenna holes for optional Wi-Fi/3.5G antenna

I/O Interface - Rear
- 4 x USB 2.0
- 1 x DVI-I display output
- 1 x HDMI display output
- 1 x remote power on/off switch
- 2 x Intel® I210IT GbE LAN ports; Support WoL, Teaming and PXE
- 2 x DB9 for COM1 & COM2, both support RS232/422/485 with auto flow control
  - Jumper-free setting on RS232/422/485
- 1 x 3-pin DC input, support +9 to 30VDC input

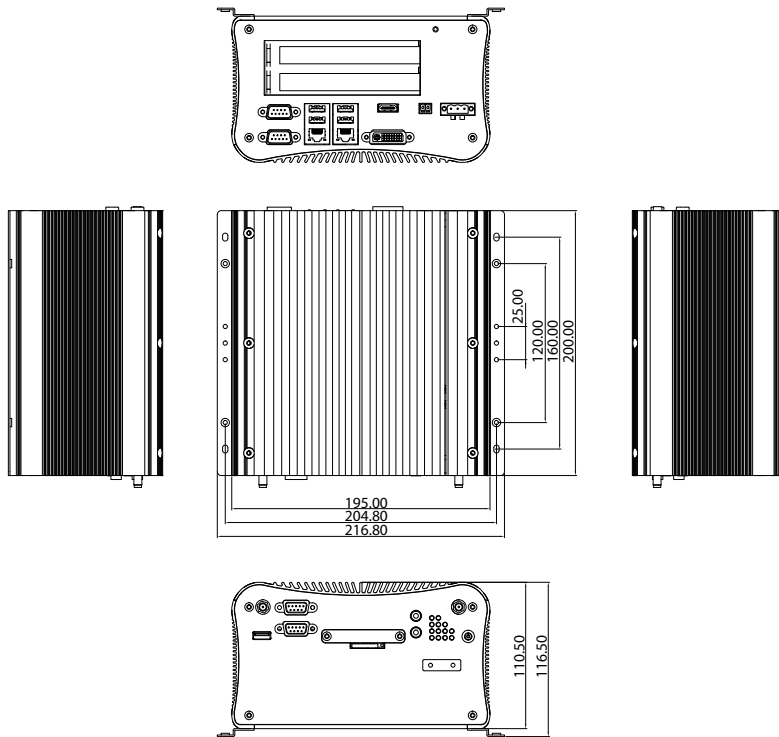### I/O Interface - Internal
- 4 x GPI and 4 GPO (5V, TTL Type)

Storage Device
- 1 x CFast card socket (SATA 2.0)
- 1 x 2.5" HDD space (SATA 2.0)
- 1 x mSATA from Mini-PCIe socket if SATA HDD is not installed

Expansion Slot
- 2 x Mini-PCIe socket for optional Wi-Fi/4G LTE/3.5G
- NISE 2420: Two PCI Expansion

NEXCOM

Dimension Drawing

- Add-on card length: 176mm max.
- Power consumption: 10W/ slot max.

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

Dimensions
- 195mm (W) x 200mm (D) x 111mm (H) without wall-mount bracket

Construction
- Aluminum and metal chassis with fanless design

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: -30°C to 85°C
- Relative humidity: 10% to 95% (non-condensing)
- 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
- Vibration protection w/ CFast & SSD condition:
  Random: 2Grms @ 5 ~ 500Hz, IEC60068-2-64
  Sinusoidal: 2Grms @ 5 ~ 500Hz, IEC60068-2-6

Certifications
- CE
- FCC Class A

OS Support Lists
- Windows 8, 32bit/64bit
- Windows Embedded Standard 8, 32bt/64bit
- Windows 7, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Linux Kernel version 3.8.0
- Android 4.4, 64bit
- Moon Island

Ordering Information

- **NISE 2420 (P/N: 10J00242000X0)**
  Onboard Intel® Atom™ processor E3845 Quad core, 1.91GHz with Two PCI expansion

- **24V 60W AC/DC power adapter w/ o power cord**

  (P/N: 7400060024X00)