

Main Features

- Onboard Intel Atom® processor E3826 dual core, 1.46GHz
- Dual independent display from DVI-I and HDMI
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 2 x USB 2.0, 1 x USB 3.0
- 4 x COM ports (COM1 & COM2 with RS232/422/485, jumper-free setting)
- 1 x Optional interface for optional Wi-Fi/3.5G modules
- External RTC battery holder for easy replacement
- Support -20 to 70°C extended operating temperature
- Support 9-30VDC input (nominal DC input: 24V)

Product Overview

Powered by the latest generation of Intel Atom® processor E3826 (formerly codenamed "Bay Trail-I"), the NISE 105 provides outstanding performance not only on computing but also on graphics, and it presents a brand new opportunity for both intelligent and industrial computing solutions. NISE 105 support ACP ThinManager that offers management solutions for the modern factory by simplifying management and also support Indusoft for HMI and SCADA. Up to 8G DDR3L memory, NISE 105 have several options on storage devices like CFast, HDD and SSD. The NISE 105 is also the 1st system in compact NISE 100 series to support extended operating temperature from -20 to 70 degrees Celsius. In addition to no cable connection on the NISE 105, it brings NISE 105 the sustainability to work in harsh environment both with temperature and vibration concern. The NISE 105 has high integration ability with optional mini-PCIe module and 4 x COM ports, which makes it a real intelligent system for various applications such as factory automation applications (with optional PROFIBUS®, PROFINET®, DeviceNET®, EtherCAT®, EtherNet/IP™ Master module), network applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NISE 105 is definitely the top choice for M2M intelligent system and factory automation platforms.

Specifications

CPU Support

- Onboard Intel Atom® processor E3826 Dual Core, 1.46GHz
- Support Intel Atom® E3800 processor family from Single Core E3815, Dual Core E3825/E3826/E3827 and Quad Core E3845 with difference SKUs

Main Memory

- 1 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 to VGA converter)

I/O Interface-Front

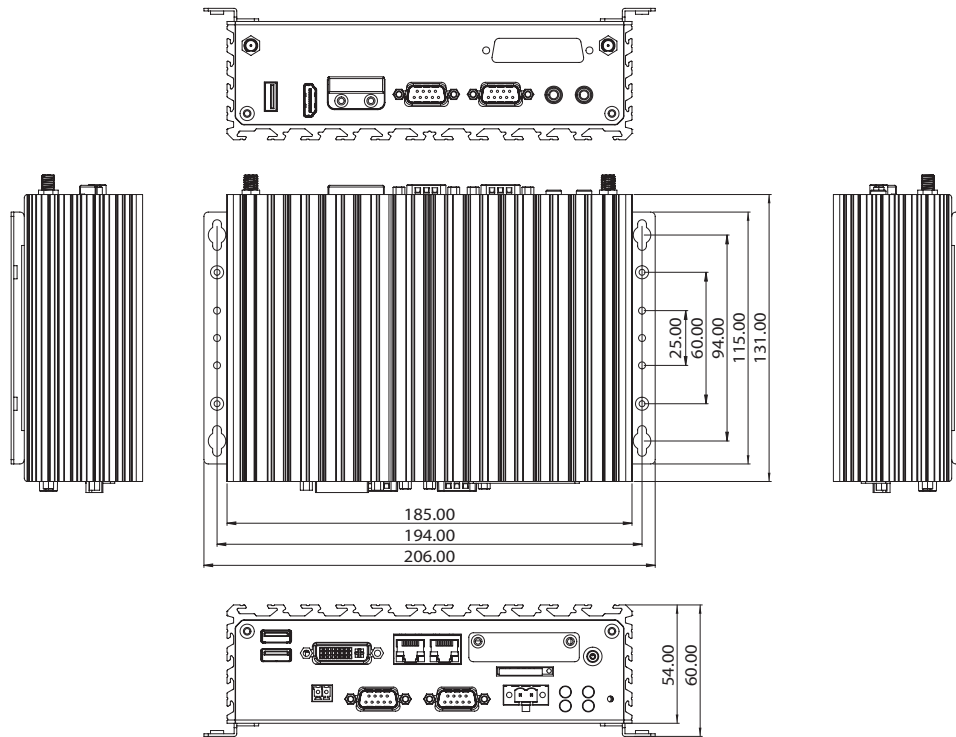
- ATX power on/off switch
- 1 x Power status/1 x HDD access/1 x battery low/1 x programming LEDs
- 1 x External CFast socket
- 1 x SIM card holder
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE

- 1 x DVI-I display output
- 1 x USB 3.0 (900mA per each)
- 1 x USB 2.0 (500mA per each)
- 2 x DB9 for COM1 & COM2, both support RS232/422/485 with auto flow control
 - Jumper-free setting on RS232/422/485
 - Support 5V/12V/Ring function by jumper setting, ring as the default (COM2 only)
- 1 x Remote power on/off switch
- 1 x 2-pin DC input, support +9 to 30VDC input (nominal DC input: 24V)

I/O Interface - Rear

- 1 x USB 2.0
- 1 x HDMI
- 1 x RTC battery
- 2 x DB9 for COM3 & COM4 support RS232 only
- 1 x Mic-in & 1 x Line-out
- 2 x Antenna holes for optional Wi-Fi/3.5G antenna
- 1 x Optional I/F for optional mini-PCIe Wi-Fi/3.5G modules

Dimension Drawing



I/O Interface - Internal

- 4 x GPI and 4 GPO (5V, TTL type)

Storage Device

- 1 x CFast (SATA 2.0)
- 1 x 2.5" HDD (SATA 2.0)

Expansion Slot

- 1 x mini-PCIe socket for optional Wi-Fi/3.5G modules

Power Requirement

- Power input: +9VDC to +30VDC (nominal DC input: 24V)
- 1 x Optional 24V, 60W power adapter

Support OS

- Windows 8, 32-bit/64-bit
- Windows Embedded Standard 8, 32-bit/64-bit
- Windows 7, 32-bit/64-bit
- Windows Embedded Standard 7, 32-bit/64-bit
- Windows Embedded Compact 7, 32-bit
- Windows 10 IoT Enterprise, 64-bit
- Linux Kernel version 3.8.0

Dimensions

- 185mm (W) x 131mm (D) x 54mm (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 with industrial grade device (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
- UL/cUL

Ordering Information

- **NISE 105 (P/N: 10J00010501X0)**
Intel Atom® processor E3826 Dual Core Fanless system
- **24V, 60W AC/DC power adapter w/o power cord (P/N: 7400060032X00)**