

# NISE 105-E3845

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 USB 2.0 & 1 x USB 3.0
- 4 x COM ports (support 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 -5~55 degree C operating temperature
- Support 9-30VDC input (nominal DC input: 24V)

## Product Overview

Powered by the latest generation of Intel Atom® processor E3845 (formerly codenamed "Bay Trail-I"), the NISE 105-E3845 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-E3845 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-E3845 have several options on storage devices like CFAST, HDD and SSD. In addition to no cable connection on the NISE 105-E3845, it brings NISE 105-E3845 the sustainability to work in harsh environment both with temperature and vibration concern. The NISE 105-E3845 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, network applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NISE 105-E3845 is definitely the top choice for M2M intelligent system and factory automation platforms.

## Specifications

### CPU Support

- Onboard Intel Atom® processor E3845 Quad Core, 1.91GHz

### 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 programing 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)

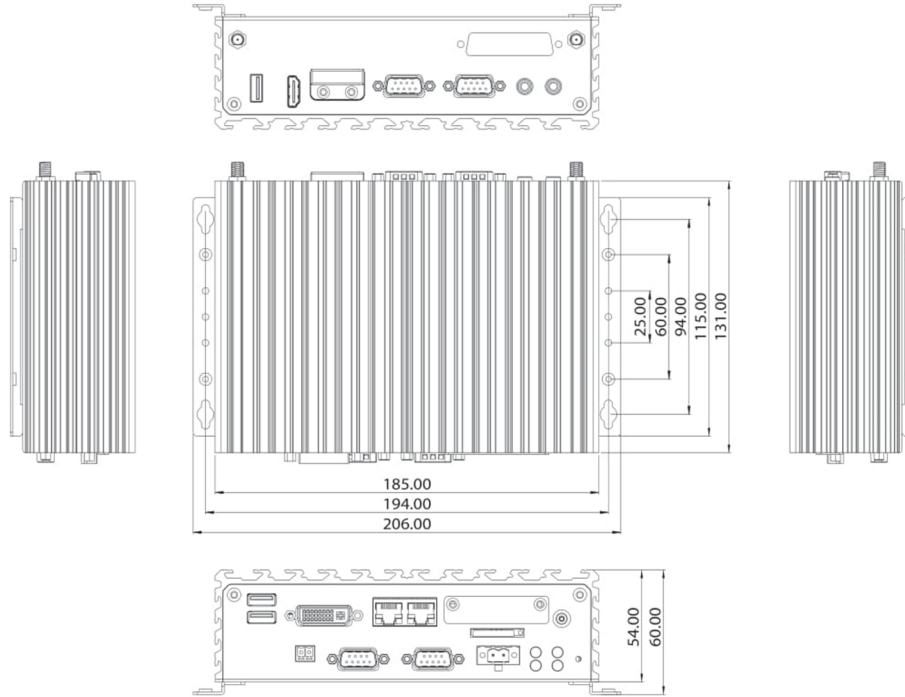
### I/O Interface - Rear

- 1 x USB 2.0
- 1 x HDMI
- 1 x RTC battery
- 2 x DB9 for COM3 & COM4, both support RS232/422/485 with auto flow control
  - Jumper-free setting on RS232/422/485
- 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

### I/O Interface - Internal

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

## Dimension Drawing



### 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: -5°C to 55°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 @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6
- Vibration protection w/ CFast & SSD condition:
  - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

### Certifications

- CE
- FCC Class A
- UL/cUL

## Ordering Information

- **NISE 105-E3845 (P/N: 10J00010503X0)**  
Intel Atom® processor E3845 Quad Core fanless system
- **24V, 60W AC/DC power adapter w/o power cord**  
(P/N: 7400060032X00)