

NISE 3700E2/P2/P2E

4th Generation Intel® Core™ i7/i5/i3 LGA
Fanless System with Expansion



Main Features

- Support 4th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
- Intel® Q87 PCH
- Support 1 x 2.5" SATA HDD
- 1 x DVI-I, 1 x DVI-D, and 1 x HDMI with independent display support
- Three Intel® GbE LAN ports; support WoL, teaming and PXE
- 1 x External CFast socket and 1 x SIM card socket
- 4 x USB 3.0, 4 x USB 2.0, 1 x RS232 and 2 x RS232/422/485 with auto flow control
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/Fieldbus
- Support +9V to 30VDC input; ATX power mode
- 2 x PCI or PCIe x4 expansions

Product Overview

Integrated with 4th generation Intel® Core™ i7/i5/i3 processors, NISE 3700 series is the fanless PC designed for industrial applications which demand high CPU and graphics performance. NISE 3700 supports up to 8G DDR3 or DDR3L memory and have several options on storage devices like CFast, HDD, mSATA or SSD. NISE 3700 supports wide range of DC input from +9V to 30V DC input, and can be operated in an extended operating temperature range between -5 to 55 Celsius degree. For extended module availability, NISE 3700 also designed two internal mini-PCIe sockets to support IoT applications (integrate with optional GbE LAN, Wi-Fi, 3.5G module) and common communication applications (integrate with optional GPIO, RS232/422/485 module).

Specifications

CPU Support

- Support 4th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
 - Core™ i7-4770TE, Quad Core, 2.3GHz, 8M Cache, Max Turbo Frequency 3.3 GHz
 - Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache, Max Turbo Frequency 3.0 GHz
 - Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache
 - Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache
 - Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache
- Turbo-boost disabled by default

Main Memory

- 2 x DDR3/DDR3L SO-DIMM socket, support up to 8GB with un-buffered and non-ECC

Display Option

- Three independent display
 - HDMI + DVI-I + DVI-D
- Dual independent display
 - HDMI + DVI-I
 - HDMI + DVI-D
 - DVI-I + DVI-D

Front I/O Interface Status LEDs

- 3 x LAN active LEDs/1x CFast access LEDs
- 3 x GPO status/COM1/2 TX/RX LEDs
- 1 x HDD access LEDs

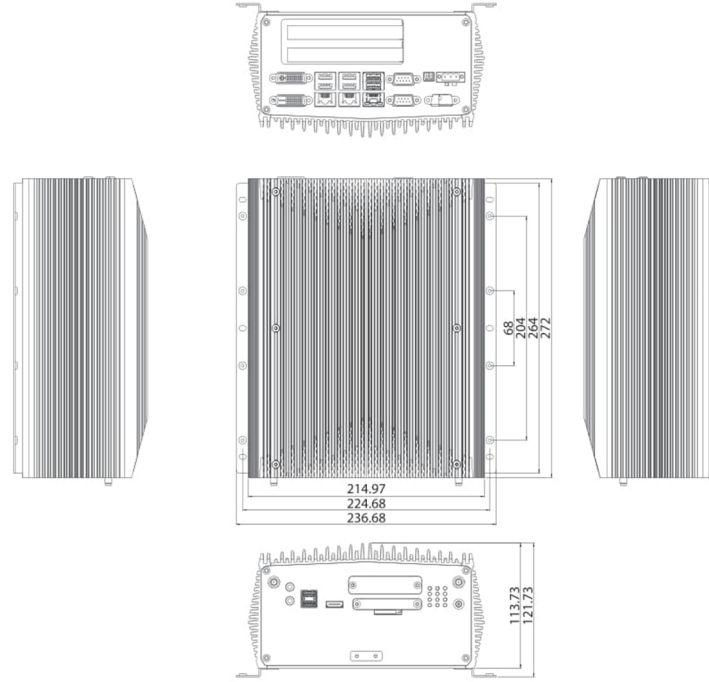
Front I/O Interface

- 1 x ATX power on/off switch
- 1 x HDMI
- 2 x USB 3.0 ports (900mA per each)
- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes
- 1 x External CFast socket
- 1 x SIM card holder

Rear I/O Interface

- 3 x DB9 for COM1 & COM2 & COM3
 - COM1: RS232/422/485 auto flow control
 - COM2: RS232/422/485 auto flow control
 - COM3: RS232
- 2 x USB 3.0 ports (900mA per each)
- 4 x USB 2.0 ports (500mA per each)
- 1 x DVI-D port
- 1 x DVI-I port
- 3 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 1 x 2-pin remote power on/off switch
- +9V to 30V DC input

Dimension Drawing



Storage Device

- 1 x CFast (SATA 3.0)
- 1 x 2.5" HDD (SATA 3.0)
- 1 x mSATA (internal mini-PCIe socket)

Expansion Slot

- NISE 3700E2: two PCIe x4 expansion slots
 - Add-on card length: one 169mm max, and one 240mm max.
 - Power consumption: 10W/slot max
- NISE 3700P2: two PCI expansion slots
 - Add-on card length: one 169mm max, and one 240mm max.
 - Power consumption: 10W/slot max
- NISE 3700P2E: one PCIe x4 and one PCI expansion slot
 - Add-on card length: one 169mm max for PCIe x4, and one 240mm max for PCI
 - Power consumption: 10W/slot max
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/Fieldbus

Power Requirement

- AT/ATX power mode (default: ATX power mode)
- Power input: +9 to +30V DC
- Power adapter: optional AC to DC power adapter (24V DC, 120W)

Dimensions

- 215 mm(W) x 272mm (D) x 114mm (H) without wall mount bracket (8.5" x 10.7" x 4.5")

Construction

- Aluminum and metal 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 85°C
- Relative humidity: 10% to 93% (non-condensing)
- Shock protection:

- HDD: 20G, half sine, 11ms, IEC60068-27
- CFast: 50G, half sine, 11ms, IEC60068-27
- Vibration protection with HDD condition:
 - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
 - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE approval
- FCC Class B

OS Support Lists

- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

Weight Information

- Gross weight: 6.4kg
- Net weight: 5.0kg

Ordering Information

- **NISE 3700E System (P/N: 10J00370000X0)**
4th generation Intel® Core™ i7/i5/i3 fanless system with one PCIe x4 expansion
- **NISE 3700E2 System (P/N: 10J00370001X0)**
4th generation Intel® Core™ i7/i5/i3 fanless system with two PCIe x4 expansions
- **NISE 3700P2 System (P/N: 10J00370002X0)**
4th generation Intel® Core™ i7/i5/i3 fanless system with two PCI expansions
- **NISE 3700P2E System (P/N: 10J00370003X0)**
4th generation Intel® Core™ i7/i5/i3 fanless system with one PCI and one PCIe x4 expansion
- **24V, 120W AC to DC power adapter w/o power cord (P/N: 7400120015X00)**