NISE 3640M

Medical Grade 3rd Generation Intel® Core™ i7 Fanless System

Certified by TUV/RH Certificate: EN60601-1:2006





Main Features

- Onboard 3rd generation Intel® Core™ i7 BGA processor
- Mobile Intel® QM77 PCH
- Support 1 x 2.5" SATA HDD or 2 x SATA DOM
- 2 x Display port; 1 x VGA; 1 x DVI-D; 2 x USB 3.0; 2 x USB 2.0
- 4 x Intel® 82574IT GbE LAN ports; support WoL, teaming and PXE
- 2 x DB9 for RS232/422/485; 1 x DB44 serial port for 4 x RS232
- 1 x Internal mini-PCIe socket supports optional Wi-Fi or 3.5G module
- 1 x CFast socket; 1 x SIM card socket
- Support +24VDC input; support ATX power mode
- TUV/RH certificate: EN60601-1:2006

Product Overview

Compliant with TUV/RH Certificate: EN60601-1:2006, NISE 3640M series designed specifically for medical applications in hospital, clinics, or any medical environments. This fanless system integrated with 3rd generation Intel® Core™ i7 with QM77 PCH platform and brings great processing power to all medical equipments.

With 4x Intel® 82574IT GbE LAN controllers which can support up to 4 cameras and better throughput; besides, NISE 3640M series also supports WoL, LANTeaming and PXE function. With computing and graphic performance enhancement, NISE 3640M series support 3 independent display and deliver a level of performance ideal for image and vision measurement on traffice control, overspeed monitoring, real time update and ePlice. More, NISE 3640M seires support 2x RS232/422/485, 4x RS232, 2x USB 3.0, 2x USB 2.0, 1x CFast socket, 1x SIM card socket, and 1x internal mini-PCIe socket supports optional Wi-Fi or 3.5G module.

Leveraging a reliable fanless, durable cable-free design and wide operating temperature, NISE 3640M series can be exhibited in harsh environments, where severe temperature variation and vibration may exist.

Specifications

CPU Support

- Onboard 3rd generation Intel® Core™ i7 BGA processor
  Core™ i7-3517UE, Dual Core, 1.7GHz, 4M Cache, Max Turbo Frequency 2.8 GHz
- Mobile Intel® QM77 PCH
- Turbo-boost disabled by default

Main Memory

- Onboard 2x DDR3/DDR3L SO-DIMM, supports up to 8GB DDR3/ DDR3L 1333/1600 SDRAM, with un-buffered and non-ECC
- Pre-install 4G industrial grade memory as the manufacture configuration for shipment

Display Option

- Three independent display
  (only support on 3rd generation processor)
  - Two display port and 1 x VGA
  - Two display port and 1 x DVI-D
- Dual independent display
  - VGA and DVI-D
  - Display port and VGA

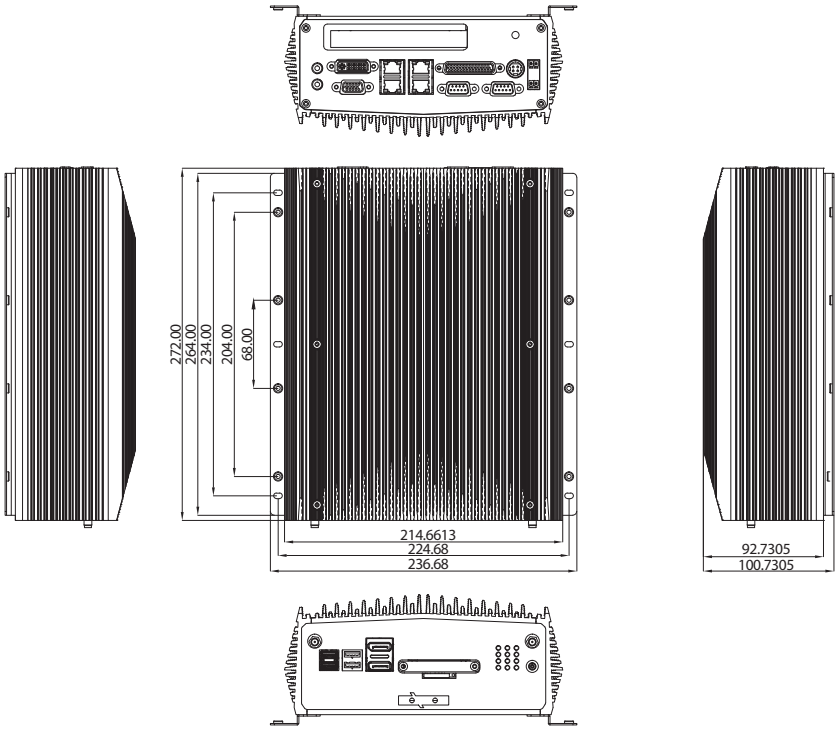
I/O Interface-Front

- ATX power on/off switch
- HDD access/power status/LAN status LEDs
- 2 x USB 3.0 (blue color)
- 2 x USB 2.0
- 2 x Display port (can be converted to DVI-D or HDMI via active cables)
- 1 x CFast socket
- 1 x SIM card socket
- 2 x Antenna holes

I/O Interface-Rear

- 2 x DB9 for RS232/422/485
- 1 x DB44 for 4 x RS232
- 4 x Intel® 82574IT GbE LAN ports; support WoL, teaming and PXE
- 1 x VGA and 1 x DVI-D
- 1 x Potential equalization connector (M6 type)
- 1 x Line-out and 1 x Mic-in
- 2-pin remote power on/off switch
- +24VDC input

Dimension Drawing



Storage Device
- 1 x 2.5" SATA HDD or 2 x SATA DOM (support 90°C horizontal type only)
- 1 x CFast socket

Expansion Slot
- One PCIe x4 expansion slot
  - Add-on card length: 169mm max.
  - Power consumption: 10W/slot max.
- 2 x mini-PCIe sockets (top side mini-PCIe socket support optional Wi-Fi or 3.5G module)

Power Requirements
- ATX power mode
- Support +24VDC input
- Optional medical AC/DC power adapter

Dimensions
- 215mm (W) x 272mm (D) x 93mm (H) without wall mount bracket (8.5" x 10.7" x 3.7")

Construction
- Aluminum Chassis with fanless design

Environment
- Operating temperature:
  Ambient with air flow: -20°C to 45°C
  (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -30°C to 85°C
- Operating humidity:
  - 10% to 90% relative humidity, non-condensing Limits to be at 90% RH at max. 40C
- 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 according to IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500Hz according to IEC60068-2-6

Certifications
- CE/FCC Class B
- TUV/RH certificate: EN60601-1:2006

OS Support Lists
- Windows XP 32-bit and 64-bit
- Windows 7 32-bit and 64-bit
- Windows 8.1 32-bit and 64-bit

Ordering Information

Barebone

- **NISE 3640M (P/N: 10J00364006X0)**
  3rd generation Intel® Core™ i7 fanless system with one PCIe x4 expansion
- **NISE 3640M2 (P/N: 10J00364008X0)**
  3rd generation Intel® Core™ i7 fanless system with two PCI expansion
- **NISE 3640M2E (P/N: 10J00364009X0)**
  3rd ggeneration Intel® Core™ i7 fanless system with one PCIe x4 expansion and one PCI expansion
- **NISE 3640ME2 (P/N: 10J00364007X0)**
  3rd generation Intel® Core™ i7 fanless system with two PCIe x4 expansion
- **Optional medical AC/DC power adapter**
  SINPRO HPU101-108 24V/4.16A w/ EN60601-1
  (P/N: 7400100006X00)

We reserve the right to change specifications and product descriptions at any time without prior notice.