



## Main Features

- OnBoard 3rd generation Intel® Core™ i7 BGA processor
- Mobile Intel® QM77 PCH
- Support 1x 2.5" SATA HDD or 2x SATA DOM
- 2x Display Port; 1x VGA; 1x DVI-D; 2x USB 3.0; 2x USB 2.0
- 4x Intel® 82574IT GbE LAN ports; Support WoL, Teaming and PXE
- 2x DB9 for RS232/422/485; 1x DB44 Serial Port for 4x RS232
- 1x internal Mini-PCIe socket supports optional Wi-Fi or 3.5G module
- 1x CFAST socket; 1xSIM 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, LAN Teaming 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 traffic control, overspeed monitoring, real time update and ePlice. More, NISE 3640M series 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
- Mobile Intel® QM77 PCH

### Main Memory

- On-board 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 1x VGA
  - Two Display Port and 1x 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
- 2x USB 3.0 (Blue color)
- 2x USB 2.0
- 2x Display Port (Can be converted to DVI-D or HDMI via active cables)
- 1x CFAST socket
- 1x SIM card socket
- 2x Antenna holes

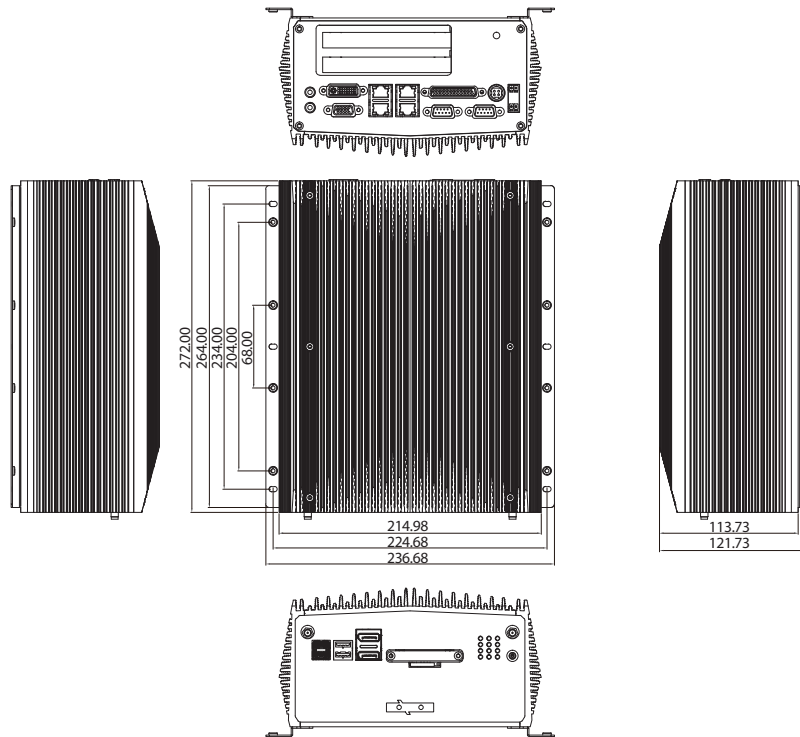
### I/O Interface-Rear

- 2x DB9 for RS232/422/485
- 1x DB44 for 4x RS232
- 4x Intel® 82574IT GbE LAN ports; Support WoL, Teaming and PXE
- 1x VGA and 1x DVI-D
- 1x Potential Equalization Connector (M6 Type)
- 1x Line-out and 1x Mic-in
- 2-pin Remote Power on/off switch
- +24VDC Input

### Storage Device

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

## Dimension Drawing



### Expansion Slot

- NISE 3640ME2: Two PCIe4 expansion
  - Add-on card length: One 169mm max. and One 240mm max.
  - Power consumption: 10W/ slot max.
- NISE 3640M2: Two PCI expansion
  - Add-on card length: One 169mm max. and One 240mm max.
  - Power consumption: 10W/ slot max.
- NISE 3640M2E: One PCI expansion and One PCIe4 expansion
  - Add-on card length: 169mm max. for PCIe4 and 240mm max. for PCI expansion
  - 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 114mm (H) without wall mount bracket  
(8.5" x 10.7" x 4.5")

### 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 32bits and 64bits
- Windows 7 32bits and 64bits
- Windows 8.1 32bits and 64bits

## 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 Generation 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)