

# NISE 3640E

3rd Generation Intel® Core™ i7 Fanless System with  
4x LANs, 6x COMs and 3x Independent Display



## 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 USB3.0; 2x USB2.0
- ♦ 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 Wifi or 3.5G module
- ♦ 1x CFast socket; 1xSIM card socket;
- ♦ Support +24VDC input; Support ATX Power mode
- ♦ 1x PCIe x4 expansion

## Product Overview

Integrated with 3rd generation Intel® Core™ i7 with QM77 PCH platform, NISE 3640E series designed with 4x Intel® 82574IT GbE LAN controllers which can support up to 4 cameras and better throughput; besides, NISE 3640E series also supports WoL, LAN teaming and PXE function. With computing and graphic performance enhancement, NISE 3640E 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 ePolice. More, NISE 3640E series support 2x RS232/422/485, 4x RS232, 2x USB3.0, 2x USB2.0, 1x CFast socket, 1x SIM card socket, and 1x internal Mini-PCIe socket supports optional Wifi or 3.5G module.

Leveraging a reliable fanless, durable cable-free design and wide operating temperature, NISE 3640E 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, 6M Cache
- ♦ Mobile Intel® QM77 PCH

### Main Memory

- ♦ 2x DDR3 SO-DIMM socket, supports up to 8GB DDR3/DDR3L 1333/1600 SDRAM, with un-buffered and non-ECC

### 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 USB3.0 (Blue color)
- ♦ 2x USB2.0

- ♦ 2x Display Port (Can be converted to DVI-D or HDMI via active cables)
- ♦ 1x CFast socket
- ♦ 1x SIM card socket
- ♦ 2x Antenna holes

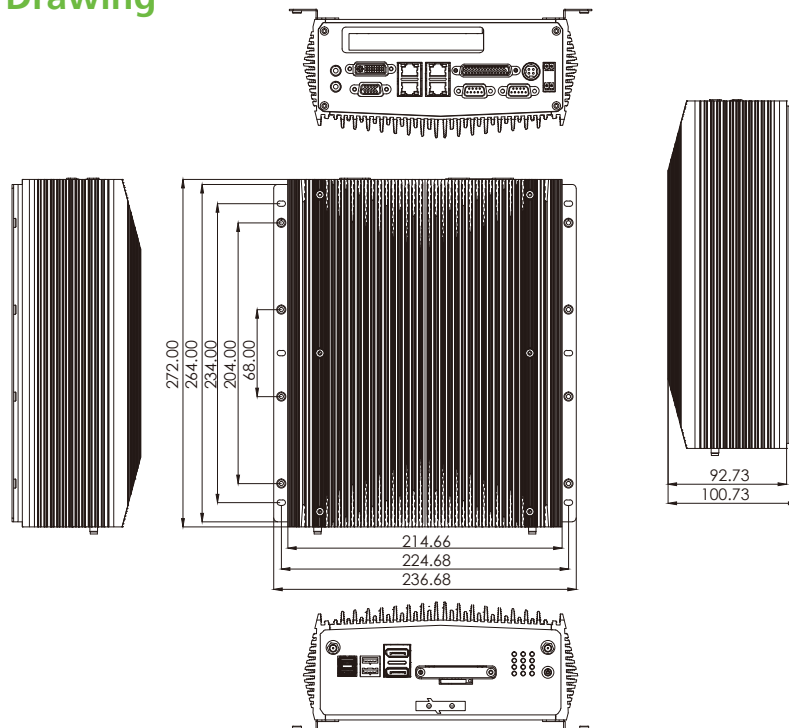
### I/O Interface-Rear

- ♦ 2x DB9 for RS232/422/485
- ♦ 1x DB44 for 4x RS232
- ♦ 4x Intel® 82574IT GbE LAN ports; Support WoL, teaming and PXE
- ♦ 1x DB15 VGA port
- ♦ 1x DVI-D
- ♦ 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

- One PCIe x4 Expansion Slot
  - Add-on card length: 169mm max.
  - Power consumption: 10W/slot max.
- 1x Mini-PCIe socket (support optional WiFi or 3.5G module)

### Power Requirements

- ATX Power mode
- Support +24VDC Input
- Optional 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 60°C (According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -30°C to 85°C
- Relative humidity: 95% at 40°C
- 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 according to IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz according to IEC60068-2-6

### Certifications

- CE approval
- FCC Class A

## Ordering Information

### Barebone

- **NISE 3640E (P/N: TBD)**  
3rd Generation Intel® Core™ i7 Fanless System with One PClex4 Expansion
- **NISE 3640E2 (P/N: TBD)**  
3rd Generation Intel® Core™ i7 Fanless System with Two PClex4 Expansion
- **NISE 3640P2 (P/N: TBD)**  
3rd Generation Intel® Core™ i7 Fanless System with Two PCI Expansion
- **NISE 3640P2E (P/N: TBD)**  
3rd Generation Intel® Core™ i7 Fanless System with One PCI Expansion and One PClex4 Expansion
- **24V, 120W AC/DC power adapter w/o power core (P/N: TBD)**