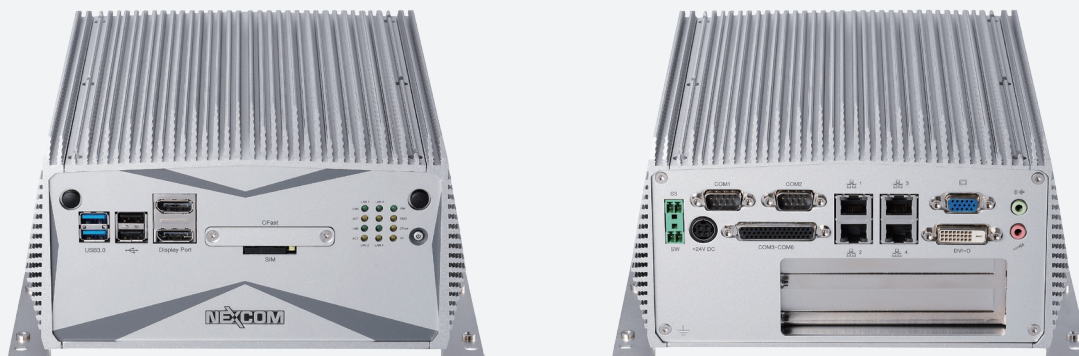


# NISE 3640E2/P2/P2E

3rd Generation Intel® Core™ i7 Fanless System  
with 4 x LANs, 6 x COMs and PCI/PCIe Expansion



## 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
- 2 x Mini-PCIe sockets  
(Top side Mini-PCIe Socket support optional Wi-Fi or 3.5G module)
- 1 x CFast socket; 1 x SIM card socket
- Support +24VDC input; Support ATX Power mode
- Support PCI or PCIe expansion

## Product Overview

Integrated with 3rd generation Intel® Core™ i7 with QM77 PCH platform, NISE 3640E2/P2/P2E designed with 4 x Intel® 82574IT GbE LAN controllers which can supports up to 4 cameras and better throughput; besides, 3640E2/P2/P2E also supports WoL, LAN Teaming and PXE function. With computing and graphic performance enhancement, NISE 3640E2/P2/P2E supports 3 independent display and delivers a level of performance ideal for image and vision measurement on traffic control, overspeed monitoring, real time update and ePlice. More, NISE 3640E2/P2/P2E supports 2 x RS232/422/485, 4 x RS232, 2 x USB 3.0, 2 x USB 2.0, 1 x CFast socket, 1 x SIM card socket, and 1 x internal Mini-PCIe socket supports optional Wi-Fi or 3.5G module. In NISE 3640E series, multiple chooses for PCI or PCIe expansion is also supported here.

Leveraging a reliable fanless, durable cable-free design and wide operating temperature, 3640E2/P2/P2E can be exhibited in harsh environments, where severe temperature variation and vibration may exist.

## Specifications

### CPU Support

- Onboard BGA 3rd generation Intel® Core™ i7/i5/i3 processors
  - Core™ i7-3517UE, Dual Core, 1.7GHz, 4M Cache (Onboard Default)
  - Core™ i5-3437U, Dual Core, 2.9GHz, 3M Cache
  - Core™ i3-3217UE, Dual Core, 1.6GHz, 3M Cache
  - Celeron 1047UE, Dual Core, 1.4GHz, 2M Cache
- Mobile Intel® QM77 PCH

### Main Memory

- On-board 2 x 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

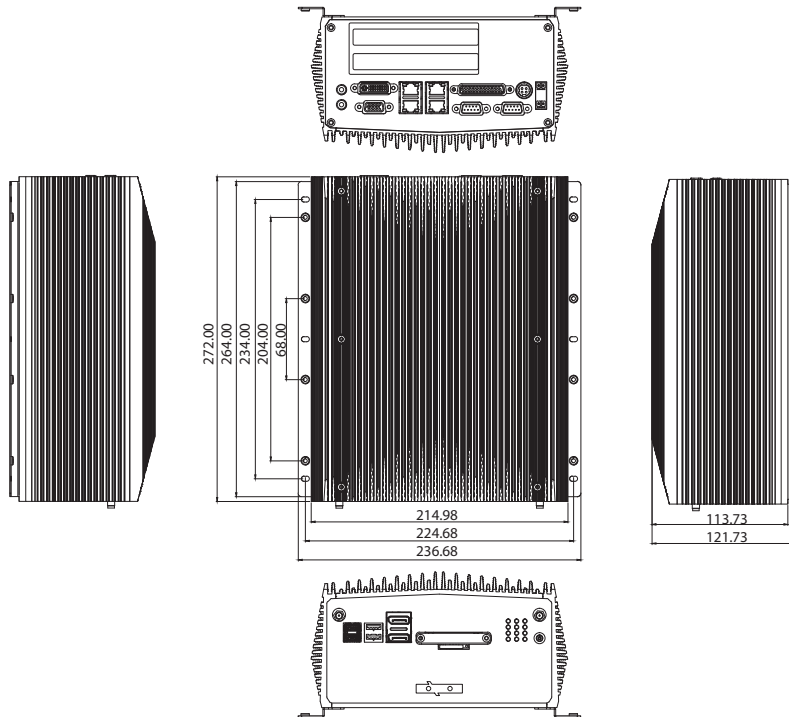
### I/O Interface-Rear

- 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 DB15 VGA port
- 1 x DVI-D
- 1 x Line-out and 1 x Mic-in
- 2-pin Remote Power on/off switch
- +24VDC Input

### Storage Device

- 1 x 2.5" SATA HDD or 2 x SATA DOM

## Dimension Drawing



(support 90°C horizontal type only)

- 1 x CFast socket

### Expansion Slot

- NISE 3640E2: Two PCIe4 expansion
  - Add-on card length: One 169mm max. and One 240mm max.
  - Power consumption: 10W/ slot max.
- NISE 3640P2: Two PCI expansion
  - Add-on card length: One 169mm max. and One 240mm max.
  - Power consumption: 10W/ slot max.
- NISE 3640P2E: 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 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 60°C with industrial grade device (According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
  - Ambient with air flow: -20°C to 70°C with industrial grade SSD
- Storage temperature: -20°C to 80°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 ~ 500Hz according to IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5 ~ 500Hz according to IEC60068-2-6

### Certifications

- CE approval
- FCC Class A

### OS Support Lists

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

## Ordering Information

### Barebone

- **NISE 3640E (P/N: 10J00364000X0)**  
3rd Generation Intel® Core™ i7 Fanless System with One PCIe4 Expansion
- **NISE 3640E2 (P/N: 10J00364001X0)**  
3rd Generation Intel® Core™ i7 Fanless System with Two PCIe4 Expansion
- **NISE 3640P2 (P/N: 10J00364002X0)**  
3rd Generation Intel® Core™ i7 Fanless System with Two PCI Expansion
- **NISE 3640P2E (P/N: 10J00364003X0)**  
3rd Generation Intel® Core™ i7 Fanless System with One PCI Expansion and One PCIe4 Expansion
- **24V, 120W AC/DC power adapter w/o power cord (P/N: 7400120001X00)**