

## Main Features

- Support socket LGA1155 for 3rd/2nd generation Intel® Core™ i7/i5/i3 processors and Intel® Celeron® processors
- 4 x DDR3 DIMM socket up to 32GB
- Support dual/triple independent display: 3 x HDMI/VGA
- 2 x GbE, 5 x SATA 3.0/2.0, 10 x USB 3.0/2.0, 5 x COM, 4-in/4-out GPIO, HD Audio
- 1 x PCIe x16, 1 x PCIe x4, 2 x PCI
- TPM onboard
- Support AT/ATX mode by ATX power input

## Product Overview

NEX 810 is an industrial motherboard with Micro-ATX form factor, which support 3rd and 2nd generation Intel® Core™ i7/i5/i3 processor and Intel® Celeron® processors. NEX 810 supports dual channel DDR3 1600/1333MHz memory in four long DIMM slots up to 32GB system memory and PCIe x16 (3.0/2.0 by CPU).

The B75 PCH supports multiple displays by three DDI (digital display interfaces) using among three HDMI and one VGA ports. Intel® B75 PCH manages up to 1 x SATA 3.0/4 x SATA 2.0 and performs up to 10 x USB (4 x USB 3.0/ 6 x USB 2.0) ports, dual Realtek RTL8111F GbE ports and up to 6 Series ports including 4 x RS232 and 1 x RS-232/422/485. NEX 810 supports PCIe x4, 2 x PCI slots and onboard TPM. NEX 810 could be integrated into 1U/2U/4U rack mounted chassis or Desktop Tower as completed system solution for widely industrial applications in the new era of digital infrastructure with NEXCOM.

## Specifications

### CPU Support

- Socket LGA1155, Intel® 3rd or 2nd generation Core™ i7/i5/i3 processors and Intel® Celeron® processors

### Main Memory

- 4 x 240-pin dual channel long DIMMs support DDR3 1600/1333MH up to 32GB, non-ECC, un-buffered system memory

### Chipset

- Intel® B75 PCH

### BIOS

- AMI system BIOS
- Plug and play support

### On-board LAN

- 2 x Realtek RTL8111F GbE controller
- Support PXE boot from LAN, wake on LAN function
- 2 x RJ45 connectors with LED

### Display

- 3 x HDMI connector (resolution up to 1920 x 1080@60Hz)
- 1 x VGA (resolution up to 1920 x 1200@60Hz)

### Expansion Slot

- 1 x PCIe x16 (gen. 3.0/2.0 by CPU)
- 1 x PCIe x4
- 2 x PCI

### Edge I/O Interfaces

- 3 x HDMI
- 1 x VGA
- 2 x RJ45 with dual stack USB 3.0 (blue) and dual stack USB 2.0 (black) connectors
- 1 x Keyboard connector
- 1 x Mouse connector
- 1 x Audio Jack: Line-in/Line-out/Mic-in

### I/O Interface

- USB 3.0: 4 ports (2 x USB 3.0 on edge I/O, 2 x internal pin-header)
- USB 2.0: 6 ports (2 x USB 2.0 on edge I/O, 4 x internal pin-header)
- Serial: 5 ports (1 x RS232/422/485, 4 x RS232 by internal pin-header)
- SATA HDD: 5 ports (1 x SATA 6.0Gb/s, 4 x SATA 3.0Gb/s)
- GPIO: supports 4 x GPI and 4 x GPO

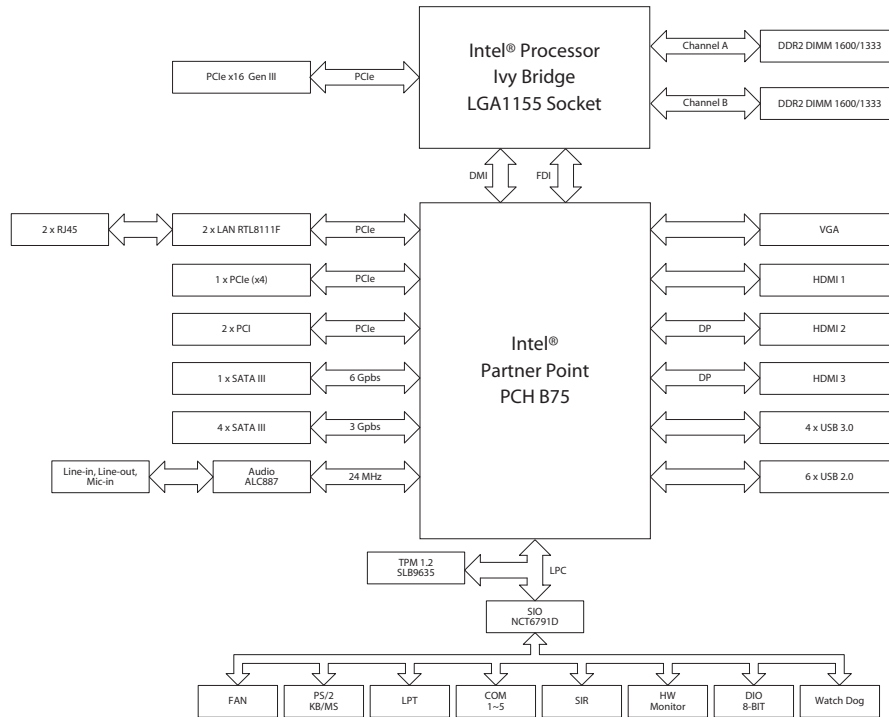
### Interface

- 1 x LPT connector, support SPP/EPP/ECP mode
- 1 x 4-pin CPU fan connector; 1 x 4-pin chassis fan connector
- 2 x front panel header; 1 x IrDA header; 1 x CMOS jumper,
- 1 x BIOS flash header (2 x 4P, P=1.27mm)

### System Monitor

- 4 voltage (for +3.3V/+5V, +12V, Vcore)
- 2 temperatures (CPU, system temperatures)
- 2 fans speed (CPU and system fans)

## Block Diagram



### Power Requirements

- 1 x 24-pin ATX connector,
- 1 x 8-pin ATX 12V power connector

### Dimensions

- Micro ATX
- Dimension: 244mm (L) x 244mm (W) (9.6" x 9.6")

### Environment

- Board level operating temperatures: 0°C to 60°C
- Storage temperatures: -40°C to 85°C
- Relative humidity:
  - 0% to 90% (operating, non-condensing)
  - 5% to 95% (non-operating, non-condensing)

### Certifications

- Meet CE/ FCC Class A

## Ordering Information

- **NEX 810 (P/N: 10G00081000X0)**

Micro-ATX, socket LGA1155 3rd/2nd gen. Intel® Core™ & Celeron® processor product family with B75, 4 x DDR3, VGA/3 x HDMI, PCIe x16/ PCIe x4/2 x PCI, 2 x GbE /10 x USB/5 x COM