

## Main Features

- Intel® Q87 support socket H3/LGA1150 for 4th generation Intel® Core™ i7/i5/i3 processors
- 4 x DDR3 DIMM socket up to 32 GB
- Support 2 x HDMI/DisplayPort/VGA up to three independent displays
- 2 x Intel® GbE, 6 x SATA 3.0, 3 x USB 3.0/2.0, 4 x USB 2.0/4 x COM, 8 x GPIO
- 1 x PCIe x16, 3 x PCIe x4
- Support AT/ATX mode by ATX power input

## Product Overview

NEX 885 is an industrial motherboard with Micro-ATX form factor, build-in Intel® Q87 desktop PCH to support socket H3/LGA1150 as 4th generation Intel® Core™ i7/i5/i3 and Celeron® processors which are designed specially to optimize the power savings and performance benefits on the improved 22 nm process. NEX 885 support dual channel DDR3 1600/1333/1066MHz memory in four long DIMM slots up to 32GB. NEX 885 support three independent displays by 2 x HDMI, DisplayPort and VGA. Intel® Q87 PCH manages up to 6 x SATA 3.0 to support software RAID 0/1/5/10 and performs up to 10 x USB (3 x USB 3.0/USB 2.0 and 4 x USB 2.0) NEX 885 support 1 x PCIe x16, 3 x PCIe x4, dual Intel® GbE ports and up to 4 x series ports incl. 1 x RS-232/422/485 pre-selected in the BIOS. NEX 885 could be integrated into 1U/2U/4U by 19" rack mounted chassis or desktop tower as completed system solution for widely industrial applications in the new era of digital infrastructure.

## Specifications

### CPU Support

- Socket H3/LGA1150, 4th generation Intel® Core™ i7/i5/i3 processors

### Main Memory

- 4 x 240-pin dual channel long DIMMs support DDR3 1066/1333/1600MHz up to 32GB system memory

### Chipset

- Intel® Q87 platform controller Hub

### BIOS

- AMI BIOS UEFI
- Plug and play support

### On-board LAN

- ETH 0: Intel® I217LM PHY for AMT 9.0
- ETH 1: Intel® I211 PCI express Gigabit Ethernet
- Both ETH0 and ETH1 support boot from LAN (PXE) when +5Vsb power available
- 2 x GbE RJ45 with LEDs

### Display

- 4th generation Intel® Core™ socket H3/LGA1150 processors Integrated gen. 7.5 HD Graphics
- 2 x HDMI
- 1 x DisplayPort
- 1 x VGA

### Expansion

- 1 x PCIe x16 (gen. 3.0)
- 3 x PCIe x4

### Edge I/O Interfaces

- 1 x Combo for PS2 KB/MS
- 1 x Stack DB9 for COM1, and 1 x stack DB15 for VGA
- 1 x HDMI, 1 x stack combo of 2nd HDMI and 1 x DisplayPort
- 1 x RJ45 (ETH 0) with dual stack USB 3.0 (blue)/USB 2.0 connectors
- 1 x RJ45 (ETH 1) with dual stack USB 2.0 (black) connectors
- 1 x Stack Line-In/Line-out/Mic-in phone jack

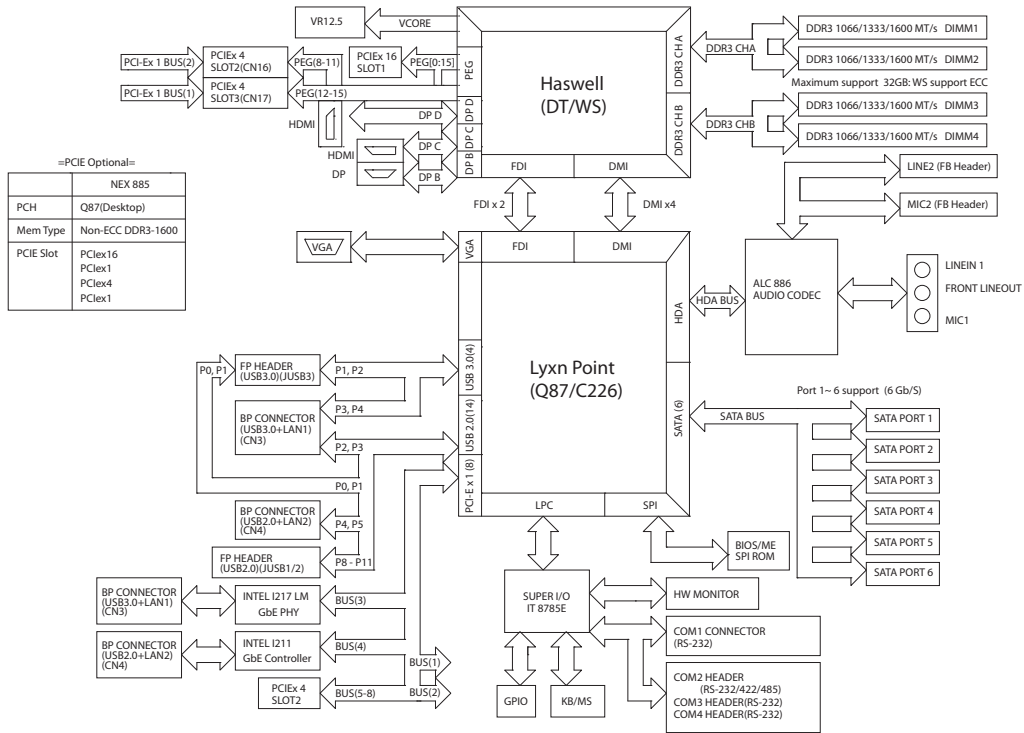
### I/O Interface

- USB3.0: 3 ports (2 x USB3.0 on edge I/O, 1 x internal box-header)
- USB2.0: 7 ports (4 x USB2.0 on edge I/O, 3 x internal box-header)
- Serial: 4 ports (default COM1/RS-232, pre-selected 1 x RS232/422/485, 2 x RS-232 by internal)
- SATA HDD: 6 ports, SATA 3.0, support software RAID 0/1/5/10 and Intel® Matrix Storage
- GPIO: supports 4 x GPI and 4 x GPO with TTL level (0- 5V), 2 x 6-pin header, 2.54mm

### Interface

- One onboard buzzer
- One 4-pin fan connector for CPU, Two 3-pin fan connector x 2 (for system)

## Block Diagram



- One 2 x 4/2.54mm pin header for: power LED/storage LED/reset/ power on-off
- One 2 x 4/2.54mm pin header for : Mic-in/Line-out
- Front panel I/O: HDD LED (1-3 pin); power LED (2-4 pin)
- Reset (5-7 pin); power button (6-8 pin)
- Onboard pin header for IrDA Tx/Rx (option)
- On-chip RTC with back-up battery/CR2032 holder onboard

### System Monitor

- Derived from super IO ITE IT8785E to support system monitor
- Monitoring of voltages, 2 temperatures and 3 fans speed
- 4 voltage for 3.3V, 5V, 12V, Vcore
- 2 temperatures (CPU, one external temperature sensor)
- 3 fans speed
- Watchdog timeout can be programmable by Software from 1 second to 255 seconds/minutes

### Power Input

- Support AT/ATX mode
- Standard ATX 24-pin connector for +12V/+5V/+3.3V/+5Vsb/-12V
- ATX 8-pin connector for +12V power connector

### Dimensions

- Micro-ATX/dimension: L x W, 244mm x 244mm; 9.6" x 9.6"

### Environment

- Board level operating temperatures: -15°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: operating 10% to 90%, (non-condensing)

### Certifications

- Meet CE
- FCC Class A

## Ordering Information

### • NEX 885 (P/N: 10G00088500X0)

Micro ATX, onboard Q87 to support socket H3/LGA1150, 4th generation Intel® Core™ i7/i5/i3 processors 4DDR3/DIMM, 2HDMI/DP/VGA, 1 x PCIe x16, 3 x PCIe x4, 6 x SATA 3.0, 3 x USB 3.0/2.0, 7 x USB 2.0, 2 x GbE, 4 x COM, ATX power input