NEX 885

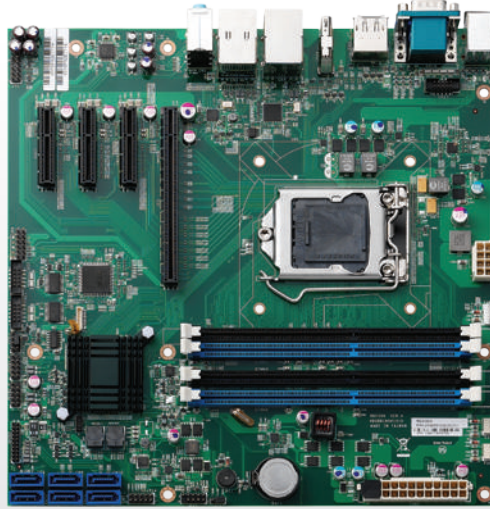**Micro-ATX, Socket H3/ LGA1150, 4th Generation Intel® Core™ i7/i5/i3, Q87**
4DDR3, 2HDMI/ DP/ VGA, PCIex16/ 2x PCIex1/ PCIex4, 2x GbE/ 6x SATA3.0/ 4x COM/ 10x USB

Main Features

- Intel® Q87 support Socket H3/ LGA1150 for 4th Generation Intel® Core™ i7/ i5/ i3 processors
- 4x DDR3 DIMM Socket up to 32 GB
- Support 2x HDMI/ DisplayPort/ VGA up to three independent displays

- 2x Intel® GbE, 6x SATA 3.0, 3x USB 3.0/ 2.0, 4x USB2.0/ 4x COM, 8x GPIO
- 1x PCIex16, 2x PCIex1, 1x PCIex4
- 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 2x HDMI, DisplayPort and VGA. Intel Q87 PCH manages up to 6x SATA 3.0 to support software RAID 0/ 1/ 5/ 10 and performs up to 10x USB (3x USB3.0/ USB2.0 and 4x USB 2.0) NEX 885 support PCIex16, 2x PCIex1, PCIex4 slots, dual Intel GbE ports and up to 4x Series ports incl. 1x RS-232/ 422/ 485 pre-selected in the BIOS. NEX885 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
- 4x 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
- 2x GbE RJ45 with LEDs

Display
- 4th Generation Intel® Core™ socket H3/ LGA1150 processors Integrated Gen. 7.5 HD graphics
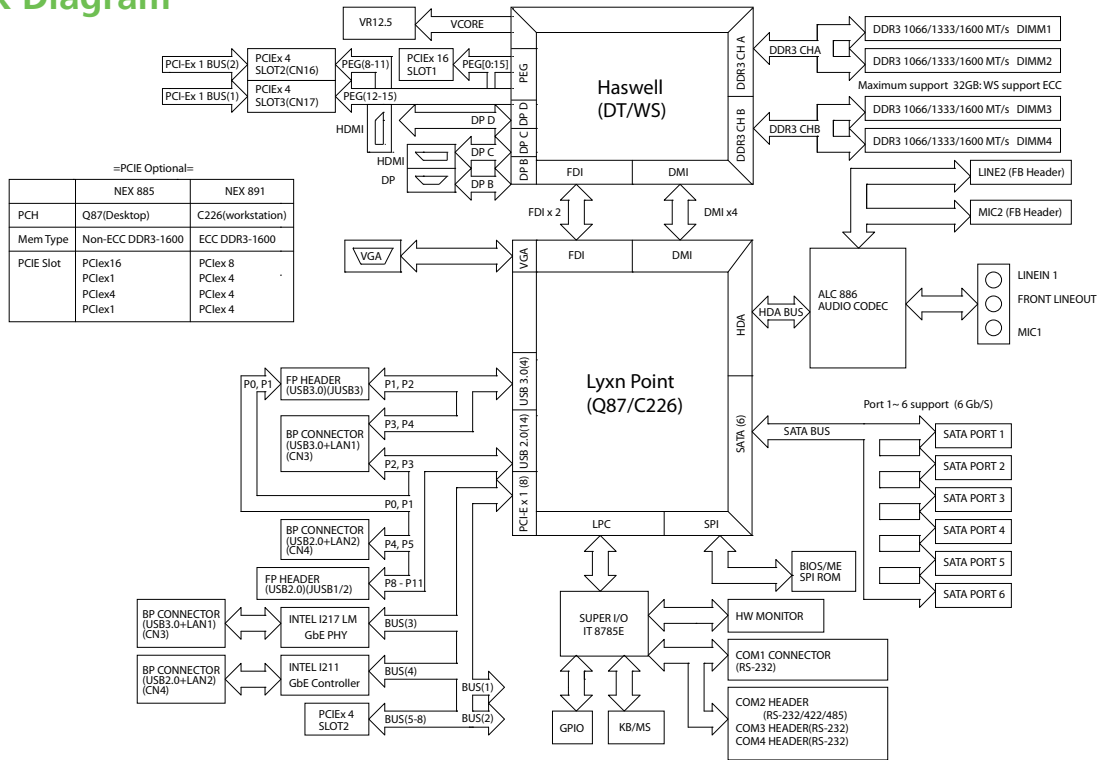- 2x HDMI
- 1x DisplayPort
- 1x VGA

Expansion
- 1x PCIex16 (Gen. 3.0)
- 2x PCIex1
- 1x PCIex4

Edge I/O Interfaces
- 1x Combo for PS2 KB/MS
- 1x stack DB9 for COM1, and 1x stack DB15 for VGA
- 1x HDMI, 1x stack combo of 2nd HDMI and 1x Display port
- 1x RJ45 (ETH 0) with dual stack USB 3.0 (blue)/ USB 2.0 connectors
- 1x RJ45 (ETH 1) with dual stack USB 2.0 (black) connectors
- 1x Stack Line-In/ Line-Out/ MIC-in phone Jack

Block Diagram

=PCIE Optional=	NEX 885	NEX 891
PCH	Q87(Desktop)	C226(workstation)
Mem Type	Non-ECC DDR3-1600	ECC DDR3-1600
PCIE Slot	PCIex16 PCIex1 PCIex4 PCIex1	PCIex 8 PCIex 4 PCIex 4 PCIex 4

I/O Interface

- USB 3.0: 3 ports (2x USB3.0 on edge I/O, 1x internal box-header)
- USB 2.0: 7 ports (4x USB2.0 on edge I/O, 3x internal box-header)
- Serial: 4 ports (default COM1/ RS-232, pre-selected 1x RS232/422/485, 2x RS-232 by internal
- SATA HDD: 6 ports, SATA 3.0, Support Software RAID 0/ 1/ 5/ 10 and Intel® Matrix Storage
- GPIO: Supports 4xGPI and 4x GPO with TTL level (0- 5V), 2x6 pin header, 2.54 mm

Interface

- One on-board buzzer
- One 4-pin FAN connector for CPU, Two 3-pin FAN connector x 2 (for System)
- One 2x4/2.54mm pin header for: Power LED/ Storage LED/ Reset/ Power On-Off
- One 2x4/2.54mm 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)
- On board 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: Lx 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: TBD)**

  Micro ATX, onboard Q87 to support Socket H3/ LGA1150, 4th Generation Intel® Core™ i7/ i5/ i3 Processors 4DDR3/ DIMM, 2HDMI/ DP/ VGA, PCIex16/ 2PCIex1/ PCIex4, 6x SATA 3.0, 3x USB 3.0/2.0, 7x USB 2.0, 2x GbE, 4x COM, ATX Power Input

Indutrial Mother Board

We reserve the right to change specifications and product descriptions at any time without prior notice.

Last update: 06/17/2013