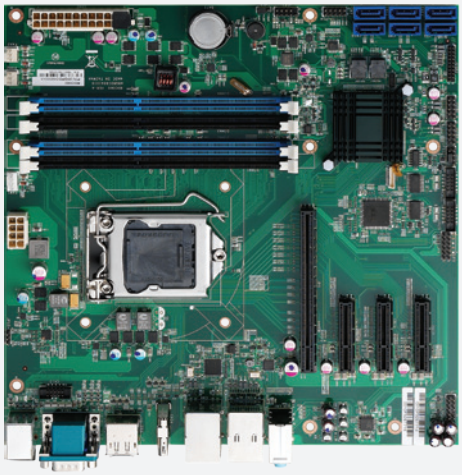
NEX 885

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



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 USB3.0/2.0, 4 x USB2.0/4 x COM, 8 x GPIO
- 1 x PCIex16, 2 x PCIex1, 1 x 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 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 USB3.0/USB2.0 and 4 x USB2.0) NEX 885 support PCIex16, 2 x PCIex1, PCIex4 slots, 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

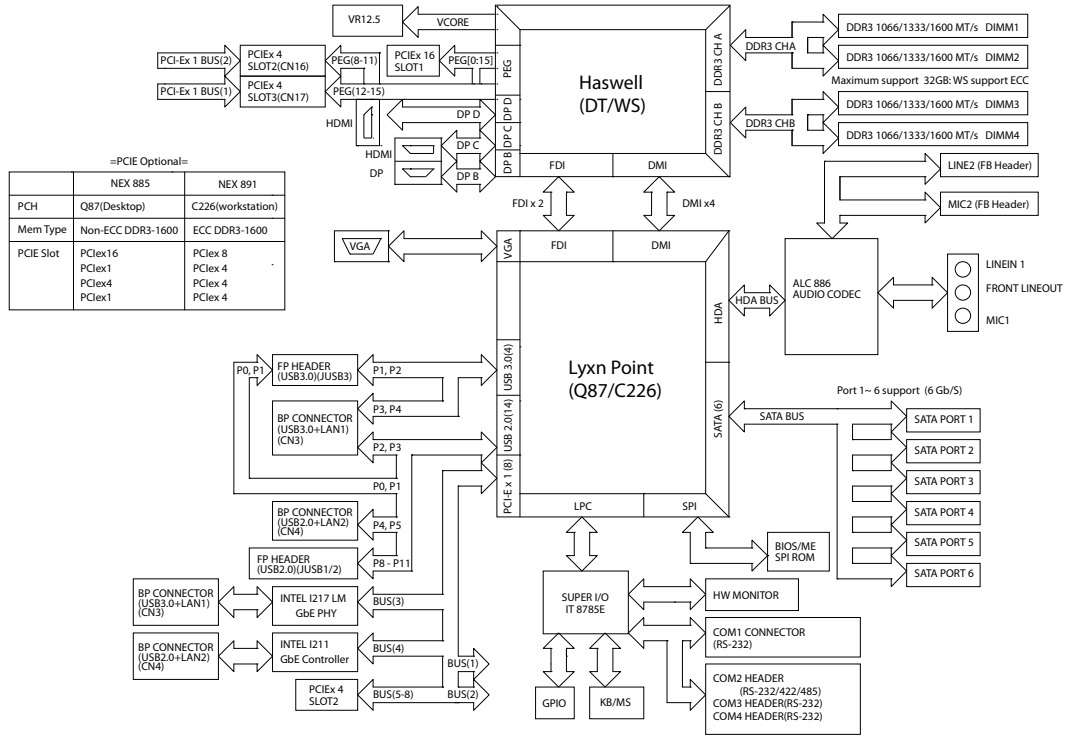
Display
- 4th Generation Intel® Core™ socket H3/LGA1150 processors Integrated Gen. 7.5 HD graphics
- 2 x HDMI
- 1 x DisplayPort
- 1 x VGA

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

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 Display port
- 1 x RJ45 (ETH 0) with dual stack USB3.0 (blue)/USB2.0 connectors
- 1 x RJ45 (ETH 1) with dual stack USB2.0 (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 xGPI and 4 x GPO with TTL level (0- 5V), 2 x 6 pin

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

header, 2.54mm

Interface

- One on-board buzzer
- One 4-pin FAN connector for CPU, Two 3-pin FAN connector x 2 (for System)
- One 2 x4/2.54mm pin header for: Power LED/Storage LED/Reset/ Power On-Off
- One 2 x4/2.54mm 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, 6 x SATA 3.0, 3 x USB3.0/2.0, 7 x USB2.0, 2 x GbE, 4 x COM, ATX Power Input

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