NEX 613

Main Features

- 4th Generation Intel® Core™ processor family
- Intel® Q87 chipset
- 2x204-pin SO-DIMM support DDR3 1333/1600Mhz up to 16GB system memory
- Support DisplayPort/ HDMI/ DVI-I three displays

- 2x Intel® GbE, 4x SATA3.0, 1x mSATA, 12x USB3.0/ 2.0, 7x COM, 8x GPIO
- 1x PCIe x16 (Gen. 3.0), 1x mPCIe
- Support AT/ ATX mode by ATX Power Input

Product Overview

NEX 613 is a Mini-ITX form factor with 4th generation Intel® Core™ processor family, which support DDR3 1600/1333MHz memory, along with integrated graphics controller, Intel® HD Graphic 4600, along with integrated graphics for large display application to support three display output simultaneously.

Intel® Q87 chipset provides 4x SATA 3.0, 1x mSATA(share with mPCIe), 12x USB (4x USB3.0/ 8x USB2.0) ports, 7x COM, 2x GbE. 1x PCIex16 (Gen. 3.0) and 1x mPCIe. NEX 613 could be integrated into 1U/ 2U/ 4U rack mounted chassis or Desktop Towers as completed system solution for widely industrial applications in the new era of digital infrastructure with NEXCOM.

Specifications

CPU Support
- Socket LGA1150, 4th generation Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® processors

Main Memory
- 2x 204-pin SO-DIMM support DDR3 1333/1600Mhz up to 16GB system memory

Chipset
- Intel® Q87 Platform Controller Hub

BIOS
- AMI BIOS UEFI
- Plug and play support

On-board LAN
- 1x Intel® I217LM PHY for AMT 9.0
- 1x Intel® I210 PCI Express Gigabit Ethernet
- Support boot from LAN (PXE)
- 2x RJ45 with LEDs

Display
- 4th generation Intel® Core™ socket LGA1150 processors Integrated HD 4600 graphics engine
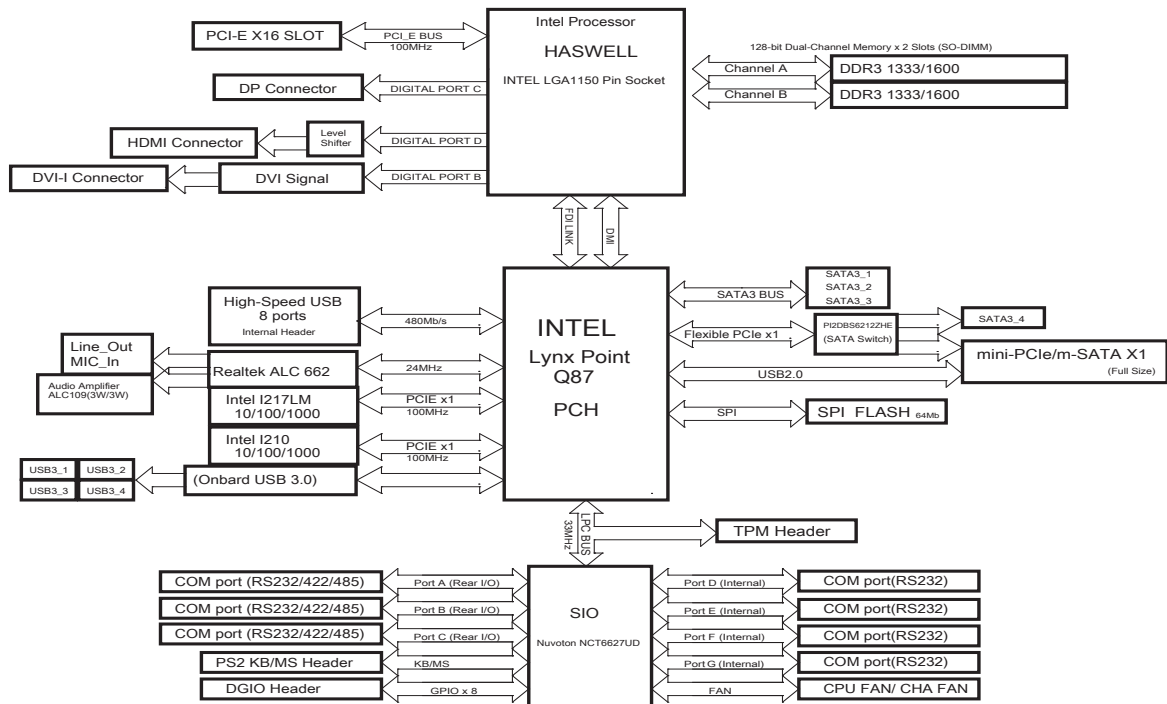- 1x HDMI
- 1x DisplayPort
- 1x DVI-I

Expansion
- 1x PCIex16 (Gen. 3.0)
- 1x mPCIe

I/O Interface
- Serial port : 7 ports
  COM1/2/3 : RS232/422/485 with DB9 male connector on edge I/O
  COM4/5/6/7 : RS232 2x 5/ 2.54mm box header
- USB 2.0/ 3.0 : 12 ports
  4x USB 3.0 ports by edge connectors
  8x USB 2.0 ports by 2x 5-pin header pitch 2.54mm
- GPIO : Support 4 x GPI and 4 x GPO with TTL level (0/5V)
- Onboard Power LED and HDD Active LED Pin Header
- 1x 4-pin fan connector (for CPU)
- 1x 4-pin fan connector (for System)
- 1x 18-pin header for TPM
- 1 x Keyboard/ Mouse pin header
- Onboard Buzzer/ SMBus2.0/ reset SW/ On &Off switch button

Block Diagram

Edge I/O Interfaces
- 1x DisplayPort + HDMI
- 2x stack DB9 connector for COM1 & COM2
- 1x DB9 male connector for COM3 + DVI-I connector
- 2x RJ45 with dual stack USB 3.0 (blue)
- Line-out/ MIC-in phone jack

Watchdog Timer
- Watchdog timeout can be programmable by Software from 1 second to 255 seconds and from 1 minute to 255 minutes (Tolerance 15% under room temperature 25°C)

Storage
- 4x SATA3.0 ports with RAID 0,1,5,10 function

System Monitor
- Monitoring of 4 voltages and 2 temperatures and 2 fan speed detection
- 4 voltages (Vcore, +12V, +3.3V, 5V)
- 2 temperatures (CPU, System)
- 2 fan speed detection

On-board RTC
- On-chip RTC with battery backup
- 1x External Li-Ion battery

Power Input
- Support AT and ATX mode

Power Requirements
- Power requirement: ATX Input, jumper AT/ ATX (default) mode
- Onboard 2x 12-pins standard ATX version 2.0 power connector

Dimensions
- Mini-ITX M/B form factor
- 170mm (L) x 170mm (W)

Environment
- Operating temperatures: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: operating 10% to 90%, non-condensing

Certifications
- CE approval
- FCC Class A

Ordering Information

- **NEX 613-20PBK (P/N: 10G00061300X0)**
  Bulk-Packed 20 x pcs Mini-ITX, LGA1150 of 4th Generation Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® processors, Q87 with 2x DDR3/ SO-DIMM ,HDMI/ DP/ DVI-I, PCIex16/ mPCIe, 4x SATA3.0, 4x USB 3.0/ 8x USB 2.0, 2x GbE, 7x COM, mSATA, and ATX Power Input

Last update: 08/07/2013