

Main Features

- ◆ Supports Intel® Core™ 2 Duo Processor E6000 and E4000 Series
- ◆ Supports PCIe x16
- ◆ Q965 Express Chipset
- ◆ Up to 4 GB Un-buffer DIMM DDR2 Memory
- ◆ Dual Realtek RTL8110SC Gigabit Ethernets
- ◆ 4 x USB Ports/ 2 x COM Ports/ Touch Screen

Product Overview

The NEX 660 features the latest Intel's processor technology energy-saving Intel® Core™ 2 Duo processor E6000 and E4000 series based on Q965 Express chipset, which includes the Intel® 82Q965 Graphics and Memory Controller Hub and the Intel I/O Controller Hub ICH8. Furthermore, NEX 660 supports PCIe x 16 slot which is widely applied in versatile applications such as PCIe x 16 Graphic cards, Advanced Digital Display 2 (ADD2) cards and PCIe x1 and SDVO proprietary add-on cards for specific purpose. With the Mini-ITX form factor, the NEX 660 has a rugged design to operate in a wide range of temperature for product reliability and long life support. The NEXCOM's NEX 6xx series provide an off-the-shelf solution for embedded market such as Kiosk, POS, and Gaming.

Specifications

CPU Support

- ◆ Supports Intel® LGA775 Core 2 Duo / Pentium® 4 / Pentium® D / Celeron® D processors
- ◆ Intel® Embedded Processor List (Intel® Longevity CPU):
Intel® Core™ 2 Duo Processor E6400 & E4300
Intel® Pentium® 4 Processor 651 & 551
Intel® Celeron® D Processor 352 & 341
Intel® Celeron® Processor 440
- ◆ 533/800/1066 MHz FSB support

Main Memory

- ◆ 2 x 240-pin DIMM sockets, up to 4 GB Dual channel unbuffered non-ECC DDR2 533/667 MHz
- Note: Maximum 4GB. Actual memory size is dynamic based on the OS I/O resource allocation.*

Chipset

- ◆ Intel® Q965 Graphics Memory Controller Hub (GMCH)
- ◆ Intel® ICH8 I/O Controller Hub

BIOS

- ◆ Award System BIOS
- ◆ 8M-bit flash ROM

- ◆ Supports Soft off, Wake on LAN, Power On by PS2 Keyboard Function Key, RTC Alarm Power On and Power on after power failure

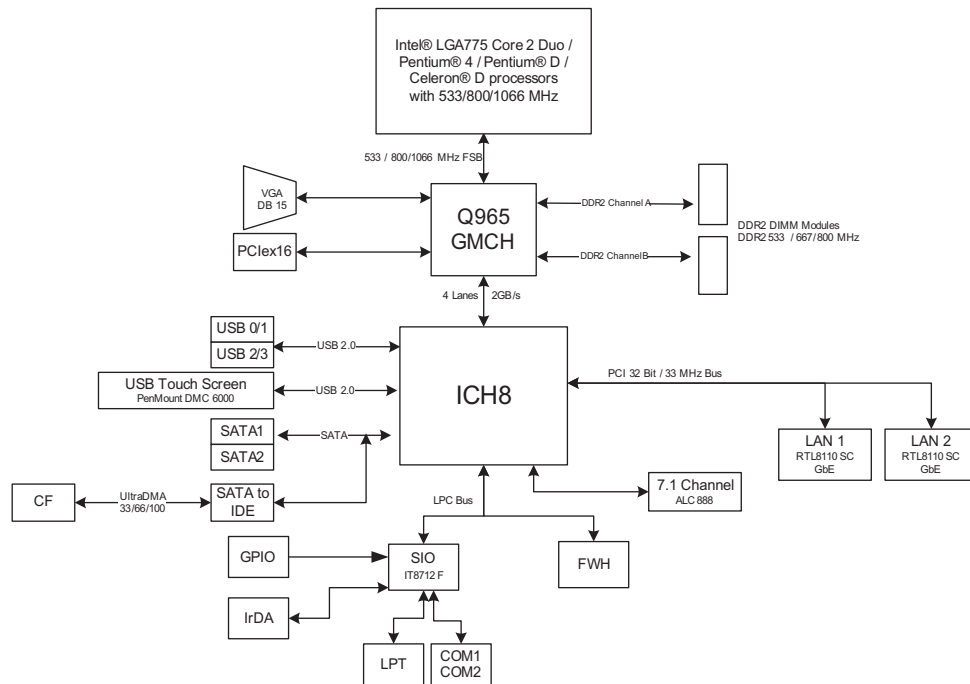
On-board LAN

- ◆ 2 x Realtek® RTL8110SC Gigabit Ethernet
- ◆ Supports Boot from LAN (PXE) and Wake on LAN (When 5Vsb power available)
- ◆ 2 x RJ-45 Jack with LED

Display

- ◆ Intel® Q965 GMCH Integrated Intel® GMA 3000, Max 256 MB of DVMT for graphics memory allocation
- ◆ 1 x DB15 VGA port
- ◆ PCIe16 Slot Display Options
 - ◆ PCIe16 Graphic cards
 - ◆ ADD2 cards
 - ◆ PCIe x1 Add-ons
 - ◆ SDVO interface proprietary Add-on Modules (by DMS)
- ◆ Display Touch screen
 - ◆ PenMount 6500 (USB)
 - ◆ With 1x9-pin JST (2.0 mm)
 - ◆ Can be selected to support 4/5/8-wired touch screen

Block Diagram



Audio

- Chipset: High Definition audio codec, REALTEK, ALC888-GR
- Digital 7.1 Channel output

I/O Interface

- USB 2.0: 4 ports
- Serial port: 2 ports, with DB9 connectors support RS-232 only
- Parallel port: 1 port, with 26-pin box header (2.0 mm), Bi-directional, EPP/ECP
- GPIO: Support 8 sets general purpose I/O each with TTL level (0V/5V) interface
- FAN : 3 x fan JST (1x for CPU cooler, 2 x for system)
- 1 x on-board buzzer
- 1 x 2-pin power on switch
- 1 x 2-pin header for reset
- 1 x 2-pin header for power LED
- 1 x 2-pin header for HDD LED
- 4 x 2-pin header for LAN LNK / ACT LEDs

Storage

- CF (optional): 1 x Internal CompactFlash socket Support One Type I & II Compact Flash Card (PrimaryMaster)
- 2 ports SATA II

Watchdog Timer

- Watchdog Timer is programmable by software from 1 second to 255 seconds (Tolerance 15% under room temperature 25°C)

On-board RTC

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

System Monitor

- 4 voltages: +3.3V, +5V, +12V, Vcore
- 3 temperature: CPU, two external Temperature Sensors
- 3 fans Speed: CPU and System FANS

Dimensions

- Mini-ITX
170 mm (L) x 170mm(W) (6.7" x 6.7")

Power Input

- Supports 20 pin ATX power input connector

CPU: Core 2 Duo 2.93GHz /1066MHz FSB	+12 V	+5 V	3.3V
Memory: 2 x DDR2 800 1GB			
Full-Loading Mode	5.03 A	4.98 A	1.19 A
Light-Loading Mode	2.45 A	3.49 A	0.36 A

NOTE:

1. 5VSB is depending on stand by power inquire.
2. Full Loading: Utilize CPU 100% with Burn-in test running
3. Light Loading: Utilize CPU loading below 5% without data or application running.

Environment

- Board level operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 80°C
- Relative humidity:
Operating 10%~90%, non-condensing
Non-operating 5%~95%, non-condensing

Certifications

- CE approval
- FCC Class A

Ordering Information

- **NEX 660-SKT (P/N: 10G00066000X0)** RoHS Compliant
Mini-ITX Embedded Board with Intel® Q965 Chipset, support LGA775 socket Intel® Core™ 2 Duo processor w/ dual GbE LAN/4 USB/Dual COM/VGA