



## Main Features

- Support Intel® Atom™ Dual Core D525 Processor
- Support DDR3 SO-DIMM SDRAM, up to 2GB
- Support VGA/ LVDS 18/ 24-bit Display
- Three Gigabit Ethernet
- Support SATA RAID 0/ 1
- 4x COMs, 6x USB 2.0, 1x LPT
- Single 24VDC Power Input

## Product Overview

The NEX 608 is a Mini-ITX board with an on-board Intel® Atom™ Dual Core D525 with L2 cache 1MB and DDR3 SO-DIMM SDRAM module. It features dual display application to support independent CRT and LVDS 18/ 24-bit interface, SATA RAID 0/ 1, three gigabit Ethernet, one PCI slot and one Mini-PCI Express slot.

## Specifications

### CPU Support

- On-board Intel® Atom® Dual Core D525 (1.8GHz, 1M Cache) processor

### Main Memory

- 1x 204-pin DDR3 SO-DIMM socket, DDR3 800 2GB max., non-ECC and un-buffered

### Platform Control Hub

- Intel® NH82801HBM (ICH8M)

### BIOS

- AMI System BIOS
- Plug and play support

### On-board LAN

- 3x Realtek 8111L Gigabit Ethernet controller
- Support boot from LAN and wake on LAN
- 3x RJ45 with LED

### Display

- Intel® D525 integrated graphic engine, support Directx\*9, with Intel® Clear Video Technology on MPEG2 hardware acceleration
- Analog VGA interface: 1x DB15 VGA port, support up to 2048 x 1563 @ 60Hz
- LVDS interface: support single 18/ 24-bit LVDS channel

### Audio

- Realtek ALC888 CODEC for High Definition
- 1x phone jack for Line-out
- 1x phone jack for Mic-in

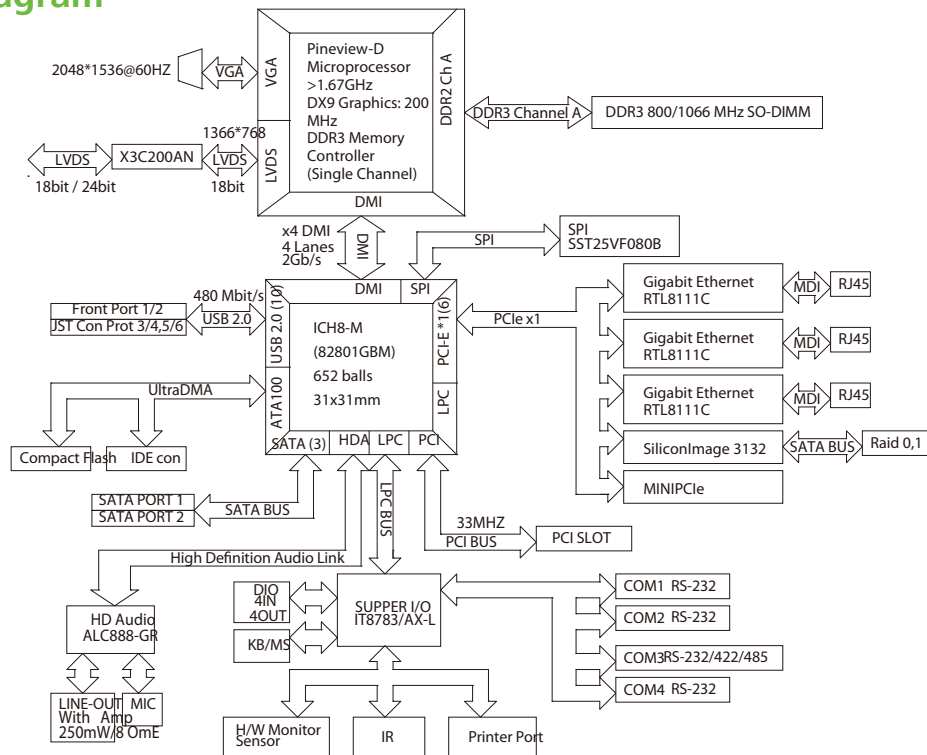
### Expansion

- 1x Mini-PCIe socket
- 1x PCI32 slot

### I/O Interface

- Serial port: 4 ports
- 2x RS232 DB9 connector (COM1, 2)
- 1x RS232/422/485 DB9 connector (COM3)
- 1x RS232 2x 5 pin box header connector (COM4)
- USB 2.0: 6 ports
- 2 ports with USB 2.0 connector
- 4 ports with 1 x 6-pin JST connector
- 8x GPIO, 10-pin pin header, (GPI 0~3 and GPO0~3) with TTL Level (0/ 5V)
- Onboard power LED and HDD active LED pin header
- 1x 26-pin connector for parallel port
- 1x 3-pin fan connector (for CPU)
- 1x Mini-din connector for PS2 keyboard and mouse
- Onboard buzzer/ SMBus2.0/ reset

## Block Diagram



### 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

- 2x SATA connectors (from ICH8M)
- 2x SATA connectors (from Silicon Image 3132 SATA RAID controller, support RAID 0, 1)

### System Monitor

- 4 voltages (+3.3V, +5V, +12V, Vcore)
- 2 temperatures (for CPU and 2 external temperature sensors)
- 2 fan speed monitors

### On-board RTC

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

### Power Input

- Support AT and ATX mode (ATX as the default)

### Power Requirements

- Power requirement: +24V DC Input
- One 4-pin power connector

### Dimensions

- Mini-ITX form factor
- 170mm (L) x 170mm

### Environment

- Operating temperatures: 0°C to 60°C
- Storage temperature: -20°C to 8°C
- Relative humidity: Operating 10% to 90%, non-condensing

### Certifications

- CE approval
- FCC Class A

## Ordering Information

### • NEX 608 (P/N: 10G00060800X0)

Mini-ITX, Intel® Atom™ Dual Core D525 processor, 1x DDR3 SO-DIMM, 3x GbE, 4x COM, 1x Mini-PCle, 1x PCI, 24VDC input

### • CPU Cooler Kit NEX 608 (P/N: 10G00060803X0)

Optional CPU cooler kit for NEX 608