



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 DC24V 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

- ◆ 1 x 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

- ◆ 3 x Realtek 8111L Gigabit Ethernet controller
- ◆ Support boot from LAN and wake on LAN
- ◆ 3 x 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
- ◆ 1 x phone jack for Line-out
- ◆ 1 x phone jack for Mic-in

Expansion

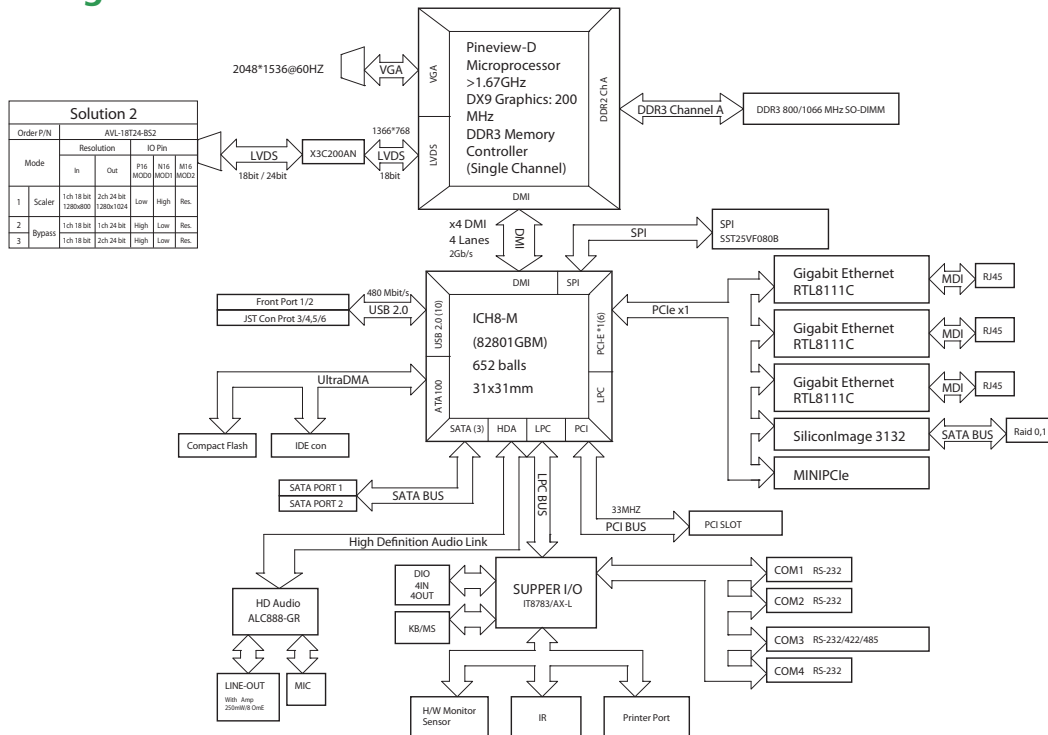
- ◆ 1 x mini-PCIe socket
- ◆ 1 x PCI32 slot

I/O Interface

- ◆ Serial port: 4 ports
- ◆ 3 x RS232 DB9 connector (COM1, 2, 4)
- ◆ 1 x RS232/ 422/ 485 DB9 connector (COM3)
- ◆ USB 2.0: 6 ports
2 ports with USB 2.0 connector
3 ports with 2x5-pin header, 2.0mm pitch
1 port supports USB DOM
- ◆ 8 x GPIO, 10-pin pin header, (GPI 0~3 and GPO0~3) with TTL Level (0/5 V)
- ◆ On-board power LED and HDD active LED pin header
- ◆ 1 x 26-pin connector for parallel port
- ◆ 1 x 3-pin fan connector (for CPU)
- ◆ 1 x mini-din connector for PS2 keyboard and mouse
- ◆ On board 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

- 2 x SATA connectors (from ICH8M)
- 2 x 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
- 1 x 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: TBD)

Mini-ITX, Intel® Atom™ Dual Core D525 processor, 1x DDR3 SO-DIMM, 3x GbE, 4 x COM, 1x mini-PCIe, 1x PCI, DC24V input