NEX 601

Labels on board image:
- ATX Power Con.
- IDE
- Touch panel Con.
- SATA
- PCI
- CCFL
- LVDS
- GbE LAN2 (Top) / GbE LAN1 (Bottom)
- Intel® ICH7-M
- Intel® Core 2 Duo, Core Duo,Core Solo family processors with 533/667 MHz
- DDR2, Max 4 GB
- Intel® 945GME
- PIO
- COM
- COM
- COM 2 (Top) / COM 1 (Bottom)
- VGA (top) / DVI-D (Bottom)
- Digital 5.1 Channel output
- 4 x USB 2.0

Main Features

- Supports Intel® Core™ 2 Duo, Core™ Duo & Core™ Solo Processor Family
- Intel® 945GME Chipsets
- 2 x Intel® 82573L PCI Express Gigabit LAN
- 2 x 240-pin DDR2 DIMM Sockets Support Un-buffered Non-ECC DDR2 400/533/667 up to 4GB

Product Overview

The Mini-ITX Main-board form factor is a highly integrated Embedded Board measuring only 170mm x 170mm and provides the System Integrator easy for system development and off-the-shell Chassis/Enclosure solution from the current industry market. The Mini-ITX Main-Board was successfully integrates various combinations of readily-available chipset and processor components from VIA, but NEXCOM decide to develop the series model comes base on Intel and AMD chipset embedded solution to enrich and separate the market segment for different application price performance requirement!

The NEX 601 provides cost-effective versatile functionality and high performance by utilizing Intel Core 2 Duo / Core Duo / Core Solo family processors at Intel 945GME Chipset. It is an ideal for high-end and trusted embedded applications under Intel Longevity products strategy.

Specifications

CPU Support

- Single mPGA478 ZIF Socket
- Supports Intel® Core 2 Duo, Core Duo,Core Solo family processors with 533/667 MHz
- Intel® Embedded Processor List (Intel® Longevity CPU):
  Core 2 Duo Processor (T7400)
  Core Duo Processor (T2500)
  Core Solo Processor (Celeron® M440)

Chipset

- Intel® 945GME Graphics Memory Controller Hub (GMCH)
- Intel® 82801 GHM ICH7 Mobile Digital Home (ICH7-M DH)

Main Memory

- 2 x 240-pin DDR2 DIMM socket, up to 4GB un-buffered non-ECC DDR2 533/667 SDRAM

BIOS

- Award system BIOS
- Supports Soft off, Wake on LAN, Power On by PS2 Keyboard Function Key, RTC alarm Power On, Power on after power failure, Plug & Play
- 4M bits flash ROM

On-board LAN

- 2 x Intel® 82573L PCI Express Gigabit Ethernet
- Supports Boot From LAN (PXE)
- Supports Wake on LAN (When 5Vsb power available). (LAN1 only)
- 2 x RJ45 with LED
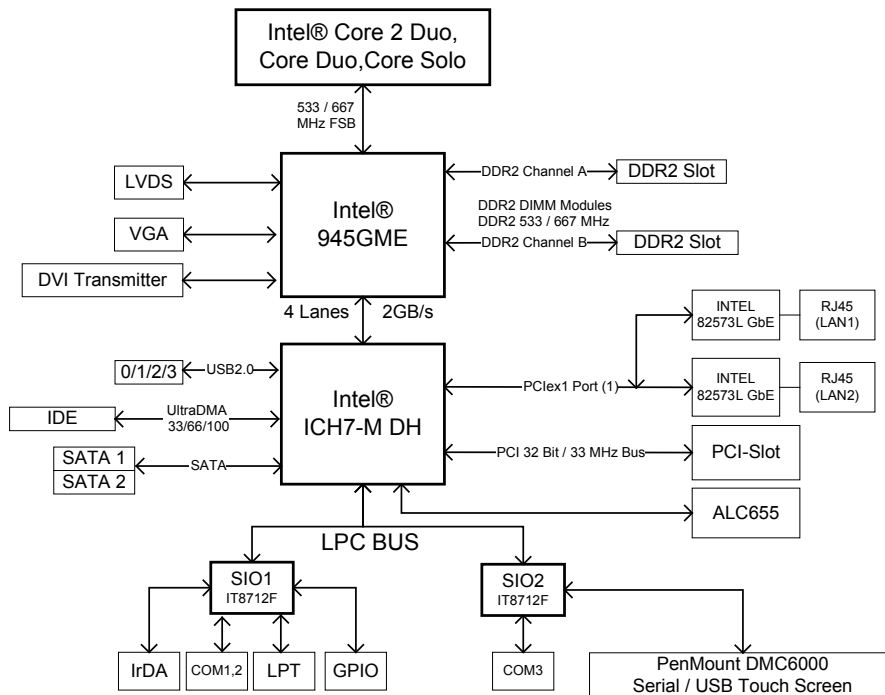
Expansion

- 1 x PCI slot

Storage

- SATA: 2 ports, support RAID 0,1
- IDE:1 x 40 pin IDE connector

Display

- Intel® 945GME chipset with integrated graphics controller, up to 64 MB of dynamic video memory allocation
- Analog VGA interface:
  1 x DB15 VGA connector
  Resolution up to 2048x1536
- LVDS interface:
  2 x DF13 20-pin LVDS connector for internal connection
  Single (18bit) or dual pixel (36bit) LVDS panel

Block Diagram

- CCFL interface :
  1 x CCFL for LCD Panel Backlight Inverter Power Pin 2,3 support 12VDC power source for inverter (Max. 12VDC@2A for each)

Display Touch screen

- PenMount 6500 (USB)
- With 1x9-pin JST (2.0mm)
- Can be selected to support 4/5/8-wired touch screen

Audio

- Realtek RTL655 CODEC for AC97 v2.1 CODECI
- Interface: Mic in and Speaker out connector, Line in with pin header

I/O Interface

- USB 2.0: 4 ports connector on front
- Serial ports: 4 ports , 2 ports on edge, 2 port with 2x5 box header (2.0 mm) support RS-232 only
- Parallel port: 1 port, with 2x13 box-header (2.0 mm)
- GPIO: Support 4 sets of general purpose I/O each with TTL level (5V) interface
- FAN: 2x FAN connector (one for CPU, one for system)
- On-board buzzer /SMBus2.0 / Reset

Dimensions

- Mini-ITX:170 mm (L) x 170mm(W) (6.7" x6.7")

Power Input

- Supports ATX Mode only

Environment

- Board level operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity:
  Operating 10%~90%, non-condensing
  Non-operating 5%~95%, non-condensing

Certifications

- CE approval
- FCC Class A

Ordering Information

- **NEX 601-SKT (P/N: 10G00060100X0)** RoHS Compliant
  Mini-ITX Embedded Board supporting Intel® Core™ 2 Duo, Core™ Duo and Core™ Solo CPU w/VGA/ LVDS/Audio/4 COMs/4 USB2.0 /Dual Gigabit LAN