

### Main Features

- Supports Intel® Pentium® M/Celeron® M Processor with 400MHz FSB
- Intel® 852GM + Intel® 82801DB (ICH-4) Chipset
- Dual Realtek RTL8110SC Gigabit Ethernet
- Various Display I/O via VGA / Dual pixels LVDS / DVI
- One PCI-slot for Expansion, Optional Extra Mini-PCI Socket Support
- 4x USB, 4x COMs, and CF Socket / SATA Interface

### Product Overview

The Mini-ITX Main-board form factor has a compact embedded board measuring only 170 mm x 170 mm to enhance the system development for System Integrator. The NEX 600 offers an off-the-shelf chassis/enclosure solution for the industrial market.

The NEX 600 provides cost-effective with versatile function and high performance by utilizing Intel® 852GM Chipset, which supports Intel® Pentium® M / Celeron® M processors. Moreover, the NEX 600 is an ideal off-the-shelf solution for entry and reliable embedded applications.

### Specifications

#### CPU Support

- Intel® Pentium® M / Celeron® M processor with 400MHz FSB  
Intel® Embedded Processor List (Intel® Longevity CPU):  
Celeron® M Processor (320 & 370)  
Pentium® M Processor (745)  
Pentium® M Processor 1.6GHz
- 400 MHz FSB support

#### Main Memory

- 2 x 184-pin DIMM, Support Non-ECC / Non-Register DDR memory up to 2 GB

#### Chipset

- Intel® 852GM Graphics Memory Controller Hub (GMCH)
- Intel® ICH4 I/O Controller Hub

#### BIOS

- Award System BIOS
- 4M-bit flash ROM
- Supports Soft off, Wake on LAN, 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® 852GM GMCH Integrated, Max 64 MB of DVMT for graphics memory allocation
- Analog VGA interface:  
1x DB15 VGA port  
Resolution up to 1600x1200 at 85 Hz, 1920 x 1400 at 60Hz
- LVDS interface:  
• 2 x DF13 20-pin LVDS connector for internal connection  
Single (18bit) or dual pixel (36bit) LVDS panel support up to UXGA panel resolution (1600x1200)
- CCFL interface: 1x7-pin JST (2.54mm) for LCD Panel Backlight Inverter Power
- DVI interface:  
1 x DVI-I connector, output Digital LCD signals (DVI-D)  
Support up to UXGA panel resolution (1600x1200)
- Display Touch screen  
PenMount 6500 (USB)  
With 1x9-pin JST (2.0mm)  
Can be selected to support 4/5/8-wired touch screen

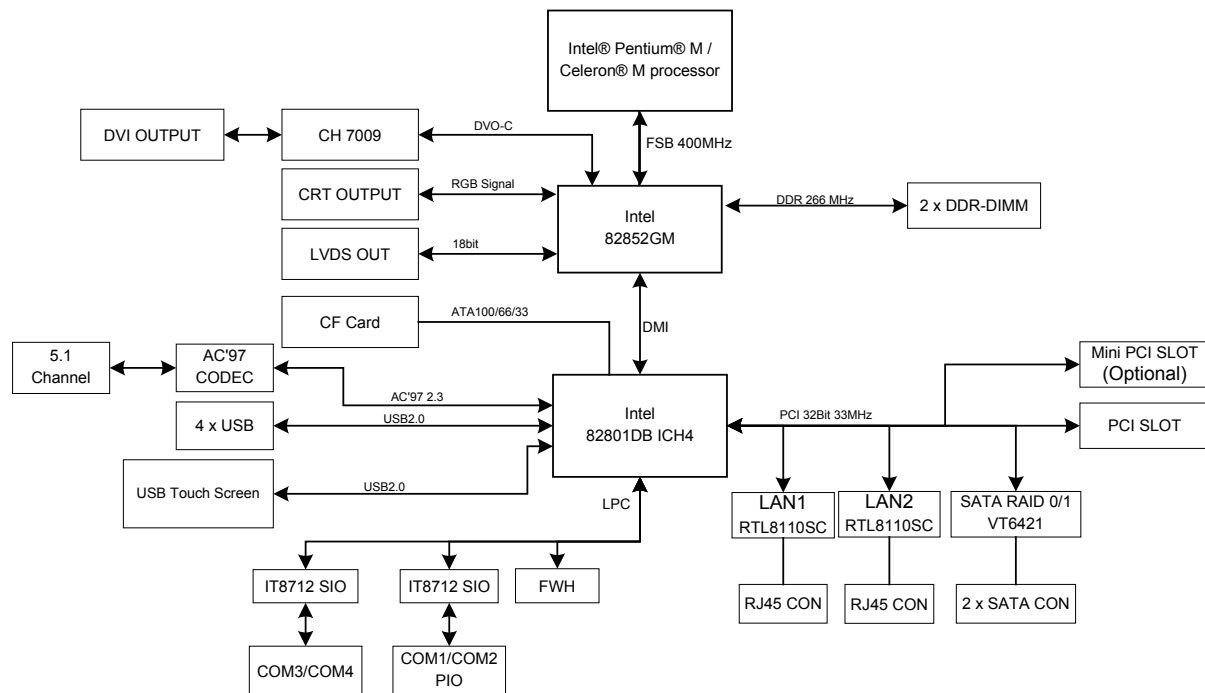
#### Audio

- Realtek ALC655 CODEC for AC97 v2.1 CODEC
- Digital 5.1 Channel output
- Line in, Line out, MIC-in, Surround out, Aux in, Center out with phone jack

#### I/O Interface

- USB 2.0: 4 ports
- Serial port: 4 ports, 2 with DB9, 2 with 2x5-pin box header (2.0mm) support RS-232 only.
- Parallel port: 1 port, with 26-pin box header (2.0 mm) , Bi-directional, EPP/ECP
- GPIO: Support 8 general purpose I/O each with TTL level (0V/5V) interface

## Block Diagram



- FAN : 3 x fan JST (1x for CPU cooler, 2 x for System)
- 1 x 5-pin header for IrDA Tx / Rx
- 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

### Storage

- CF : 1 x Internal CompactFlash socket Support One Type I& II Compact Flash Card (Primary Master)
- SATA: 2 ports, support RAID 0,1

### Expansion

- 1 x PCI slot
- 1 x Mini-PCI (optional)

### 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" x6.7")

### Power Input

- Supports 20 pin ATX power input connector

CPU: Pentium M 1.7GHz / 400Mhz FSB	+12 V	+5 V	3.3V
Memory: 2 x DDR 333 1GB			
Full-Loading Mode	0.15 A	5.17 A	0.35 A
Light-Loading Mode	0.15 A	2.89 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 85°C
- Relative humidity:  
Operating 10%~90%, non-condensing  
Non-operating 5%~95%, non-condensing

### Certifications

- CE approval
- FCC Class A

## Ordering Information

- **NEX 600-SKT (P/N: 10G00060001X0)** RoHS Compliant Mini-ITX Embedded Board with Intel® 852GM Chipset, support µFC-PGA Socket type Pentium® M / Celeron® M Processor, 2 x Realtek GbE / CF socket/ DVI