# NEX 852VL2

- IrDA
- COM x 1
- IDE x 2
- 20-pin ATX Power Connector
- DDR 200/266/333 SDRAM DIMM x 2 up to 2 GB
- Supports Intel® Pentium® M processor, 400 MHz FSB
- CompactFlash Socket x 1
- Intel® ICH4
- Intel® 852GM/GME
- PCI Slot x 4
- LVDS (DF13-20DP, 20-pin connector x 2 supports single or dual channel LVDS panels up to UXGA (1600 x 1200) resolution
- PS2 KB/Mouse
- COM port x 1 VGA port x 1 PIO X 1
- USB 2.0 x 4 LAN x 2
- Audio Phone Jack

## Main Features

- **Supports Intel® Pentium® M/Celeron® M Processors with 400 MHz FSB**
- **Supports LV/ULV Pentium® M/Celeron® M with 400 MHz FSB**
- **Intel® 852GM/GME Chipset**
- **Supports 2 x 184-pin DIMM DDR 200/266 SDRAM Memory Up to 2 GB**
- **Supports Single and Dual Pixel LVDS Panel Displays, CRT and LVDS Dual Display**
- **2 x Marvell Gigabit LAN**

## Product Overview

The NEX 852VL2 is an industrial micro ATX mother board supporting Intel® Pentium® M/Celeron® M or ULV Intel® Pentium® M/Celeron® M processors with 400 MHz FSB up to 2MB L2 cache.

Incorporate an Intel® 852GM/GME and ICH4 chipset, the NEX 852VL2 supports un-buffered non-ECC DDR 200/266 memory up to 2 GB maximum, LVDS LCD and dual display. NEX 852VL2 also supports four PCI slots, two 40-pin IDE connectors, floppy port, and one CompactFlash socket. The versatile I/O port supports a parallel, an audio, two serial, six USB 2.0, and two Gigabit Ethernet LAN.

The industrial Micro ATX NEX 852VL2 series with superior Pentium® 4 processing power offer a compact solution for most of space-critical projects.

## Specifications

### CPU Support
- Socket 478uFCPGA/479uFCBGA
- Supports Intel® Pentium® M: 2 MB on Die L2 Cache, 400 MHz FSB, speed up to 2.0 GHz
- Supports Intel® Pentium® M: 1 MB on Die L2 Cache, 400 MHz FSB, speed up to 1.7 GHz
- Supports Intel® Celeron® M: 512 KB on Die L2 Cache, 400 MHz FSB, speed up to 1.5 GHz

### Main Memory
- Two 184-pin DDR DIMM support up to 2 GB unbuffered non-ECC DDR SDRAM memory

### Chipset
- Intel 852GM
- Intel ICH4

### BIOS
- Award System BIOS
- ACPI Support
- Advanced Power Management support
- 4 Mbit Flash ROM

### On-board LAN
- Marvell Gigabit Ethernet LAN 8001 x 2 (one is optional)
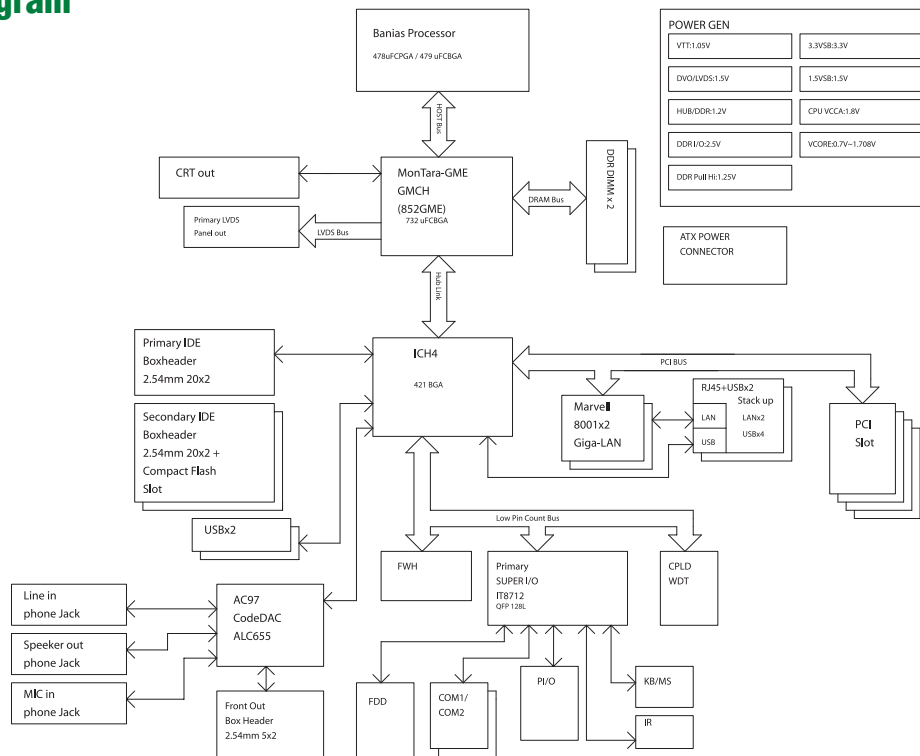- RJ45 x 2 with LED

### Display
- Intel® 852GM integrated dynamic video shared memory, 64 MB max, adjustable by OS
- Resolution: Up to 1600 x 1200 for CRT or up to 1280 x 1024 for TFT
- D-sub 15-pin VGA port x 1
- Internal LVDS: Supports 18-bit single pixel or 18-bit dual pixel LVDS panels (Resolution support up to 1400 x 1050)
- Dual display: Simultaneous Scan-CRT + LVDS LCD, Dual View-CRT + LVDS LCD

### I/O Interface
- Serial port x 2, with 2 x 16C550 UARTs. (9-pin D-sub connector x 1, 10-pin header x 1)
- USB 2.0: 6 ports (4 from combo connector with RJ45, 2 from 6-pin header)
- HDD: 40-pin connector x 2, supports ultra ATA 33/66/100 (Default: IDE channel 1)
- Optional CompactFlash socket: Internal CompactFlash socket x 1 (Default: IDE channel 2 master), Type-II CompactFlash cards supported
- Parallel: 25-pin D-sub connector, bi-directional, EPP/ECP support

# Block Diagram



- Floppy: 34-pin connector x 1
- PS/2 Keyboard/Mouse: Mini-DIN connector x 2
- AC' 97 audio: Phone jack x 1 (Line-in / Line-out / Mic-in)
- On-board CD-in and Aux-in
- GPIO: 4 in, 4 out
- IrDA: On-board 5-pin header for IrDA Tx Rx

## Watchdog Timer

- Programmable via GAL by Software from 1-127 sec. Or 1-127 min.

## On-board RTC

- On-chip RTC with external Lithium battery back up

## ISA Support

- Through PCI to ISA Interface
- No support for ISA DMA

## System Monitor

- Driver support for WIN2000, XP, XPe, Linux
- Voltage, temperature and fan monitoring

## Power Input

- Standard ATX 20-pin power connector

## Power Requirements

- Measured with Intel Pentium M 2.0 GHz
- +12 V: 0.5 A
- +5 V: 5.5 A
- +3.3 V: 1 A
- +5 Vsb: 0.1 A

## Dimensions

- Micro ATX 9.6" x 9.6"

## Environment

- Board Level Operating Temperature: 0°C to 60°C
- Storage Temperature: -20°C to 80°C
- Relative Humidity: 10% to 90% non-condensing

## Certifications

- CE approval
- FCC Class A

# Ordering Information

- **NEX 852VL2 (LF) (P/N: 10G00085200X0)** RoHS Compliant Micro ATX Socket 478 Intel® Pentium® M/Celeron® M processor, Marvell GbE LAN x 2 and CF Socket

NEXCOM

**Industrial ATX Motherboards**

We reserve the right to change specifications and product descriptions at any time without prior notice.

Last update: Jan-25-2008