ETX-CV

ETX® Module with Dual Core Intel® Atom™ Processor

Features

- Dual core Intel® Atom™ Processor D2550/ N2x00 with Intel® NM10 Express Chipset
- Up to 4GB Single Channel DDR3 SDRAM at 1066MHz
- Dual channel 24-bit LVDS
- 2x SATA 3x Gb/s, 2x IDE (PATA), LAN, 4 USB 2.0
- Extreme Rugged operating temperature: -40°C to +85°C (build option)

Specifications

Core System

CPU	Dual-core Intel® Atom™ Processor N2600 1.66GHz (1MB L2 cache, 3.5W)
	Dual-core Intel® Atom™ Processor N2800 1.83GHz (1MB L2 cache, 6.5W)
	Dual-core Intel® Atom™ Processor D2550 1.86GHz (1MB L2 cache, 10W)
Memory	Single SODIMM socket supporting non-ECC DDR3 at 800/1066 MHz on N2800 and D2550 (max. 4 GB), at 800 MHz on N2600 (max. 2GB)
Chipset	Intel® NM10
BIOS	AMI APTIO UEFI in 16 Mbit SPI flash
Hardware Monitor	Supply voltages and CPU temperature
Watchdog Timer	Programmable timer range to generate RESET
Expansion Busses	PCI 32-bit: PCI ver 2.3 at 33MHz, support 4 bus masters
	ISA 16-bit (through PCI/ISA bridge), no DMA support
	SMBus (system), I²C (user)

Video

GPU Core	Integrated in CPU, supports dual independent displays
VGA Interface	Analog VGA support by 400 MHz RAMDAC, resolutions up to 1920 x 1200 (WUXGA)
LVDS Interface	Single or dual-channel x 18/24 bpp
DisplayPort	Connector on the module

Audio

Chipset	Integrated on Intel® NM10
Audio Codec	Realtek ALC 262 HDA compatible

Ethernet

Chipset	Realtek RTL8111
Interface	10/100 Mbps Ethernet

I/O Interfaces

IDE (PATA)	Dual channel IDE with UDMA 33
SATA	Two channels SATA 3 Gb/s with connectors on module
USB	Supports up to four ports USB 2.0

Super I/O

Chipset	W83627DHG-PT
Serial	Two high speed RS-232C ports (COM1/COM2)
IrDA	Supports SIR IrDA 1.1 compliant
Parallel	SPP, EPP and ECP mode (pin out share with FDD)
FDD	One drive (pin out shared with LPT)
Keyboard & Mouse	One PS/2 keyboard and one PS/2 mouse

TPM (build option)

Chipset	Atmel AT97SC3204
Type	TPM 1.2

Power

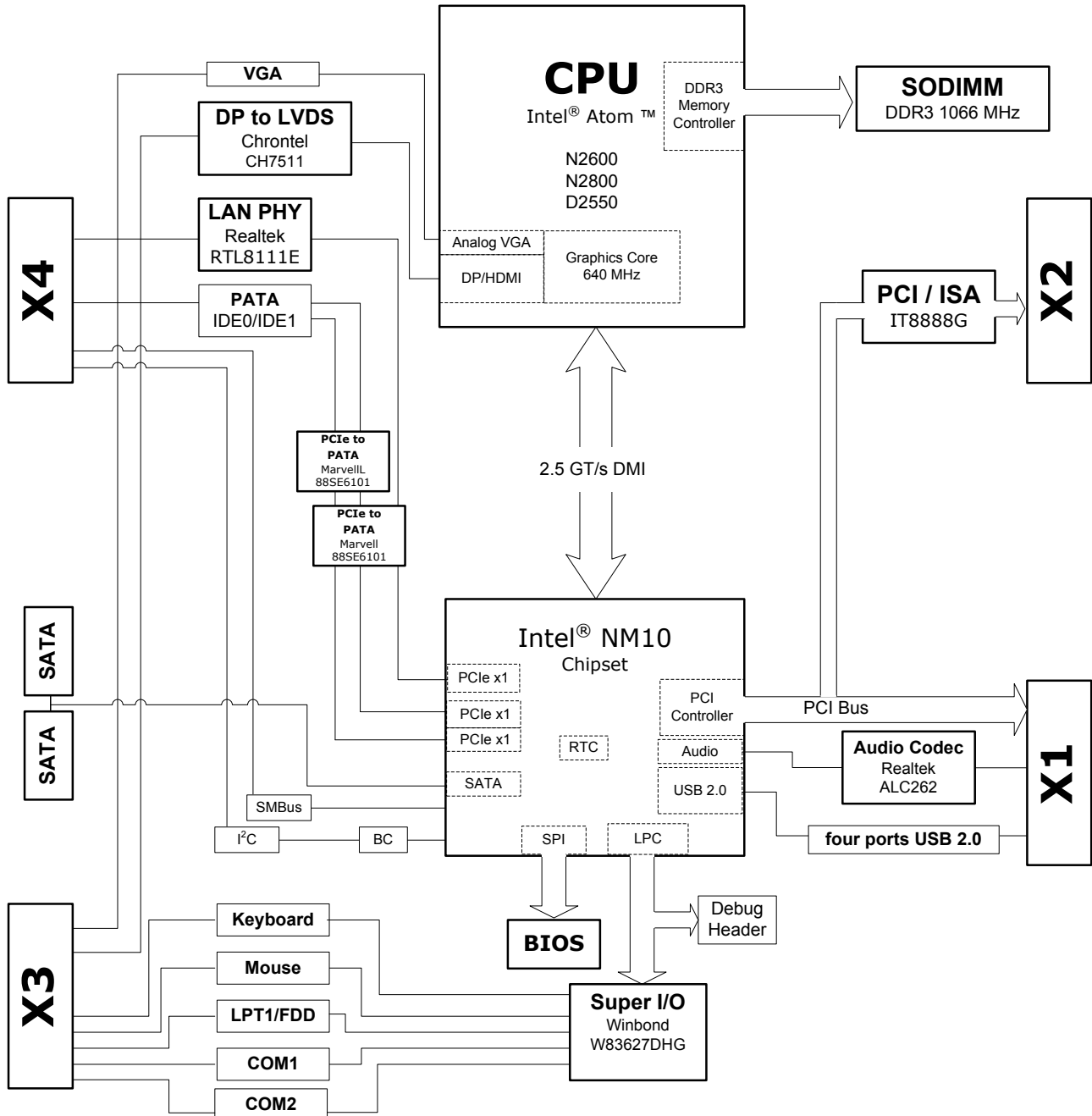|	
Input Power	AT mode (5V only) and ATX mode (5V and 5 Vsb)
Power States	Supports S0, S1, S3, S4, S5
Power Consumption	8W with N2600 and 4GB memory typical

Mechanical and Environmental

Form Factor	ETX® Rev 3.02
Dimension	95 mm x 114 mm
Operating Temperature	Standard: 0°C to +60°C
	Extreme Rugged™: -40°C to +85°C (build option)
Storage Temperature	-55°C to +85°C
Humidity	90% at +60°C
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation:1.88Grms, 5-500Hz, each axis
Operation	0.5Grms, 5-500Hz, each axis
Certification	CE, FCC, HALT

Operating Systems

Standard Support	Windows XPe / Windows 7, Linux
Extended Support (BSP)	Embedded XP/2009, WinCE 7.0, Linux 2.6.x BSP, VxWorks 6.x (on request), AIDI I²C Library for Windows and Linux

Note: "Build option" indicates an alternative BOM configuration to support additional or alternative functions that are not available on the standard product. Be aware that part numbers for SKUs with "build options" will need to be created and may cause production lead times.

Functional Diagram

Ordering Information

Modules

Model Number	Description/Configuration
ETX-CV-D2550	ETX® Module with Dual Core Intel® Atom™ Processor D2550 1.86GHz with Intel® NM10 Chipset
ETX-CV-N2600	ETX® Module with low power Dual Core Intel® Atom™ Processor N2600 1.66GHz with Intel® NM10 Chipset
ETX-CV-N2800	ETX® Module with low power Dual Core Intel® Atom™ Processor N2800 1.83GHz with Intel® NM10 Chipset

Accessories

Model Number	Description/Configuration
Heat Spreaders	
HTS-CV-B	Heatspreader for ETX-CV with threaded standoffs for bottom mounting
HTS-CV-BT	Heatspreader for ETX-CV with through hole standoffs for top mounting
Passive Heatsink	
THS-CV-BT	High profile heatsink for ETX-CV with threaded standoffs
Active Heatsink	
THSF-CV-B	High performance heatsink with Fan for ETX-CV with threaded standoffs