

TTCM-0XXX

Enter

PCI/104-Express module based on high-performance Intel® Atom™ N450 or D510 processors

Features

- Intel® Atom™ CPU & GMCH 1.66 GHz
- Intel® ICH8M
- Supports up to 1 GB DDR2 SDRAM 667 MHz on-board SSD up to 8 GB
- IDE port for external HDD
- Gigabit Ethernet port
- 5x USB 2.0
- 2x RS-232 serial ports
- only 5V or 5/12V supplies



Overview

The TTCM-0XXX - a highly integrated Single Board Computer based on the latest Intel® platform technology with the popular PC/104 form factor.

The TTCM-0XXX is based on the low-power, high-performance Intel® Atom™ processors N450 or D510 (single and dual core respectively) with integrated graphics and memory controllers.

These processors are clocked at 1.66GHz and paired with the Intel® 82801HM I/O controller. This newly released platform from Intel is notable for its rich I/O capabilities and high-bandwidth interfaces.

The integrated graphics engine runs up to 400 MHz. The unit provides high-performance graphics that can be used with applications where 2-D and 3-D highend visualization together with high-resolution graphics functions is required.

In addition, the unit features PCI and PCI Express interfaces that make TTCM-0XXX ideal for applications requiring significant data exchange and processing such as those in the industrial, medical, telecommunications and other markets.

The TTCM-0XXX Single Board Computer featuring a common footprint is notable for its scalability, which makes it possible to migrate easily to the new Intel® Atom[™] processors N450 or D510.

The Embedded Flexible Design by Intel® makes it possible to choose between the Intel® Atom™ N450 or D510 processors.

Since these processors integrate Northbridge functionality, which is for example availability of memory and graphics controllers, they require reduced on-board footprint.

Thus this flexible architecture combining two chips allows to design products that are even smaller and more mobile than those designed based on the solutions with three chips.

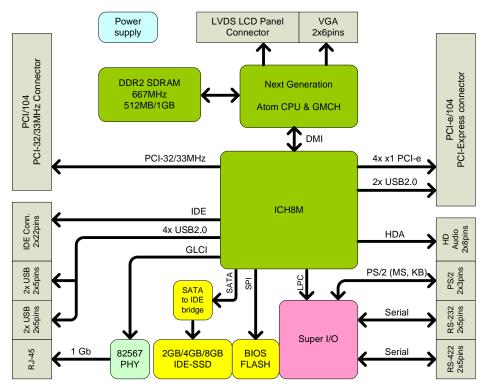
OSs supported: Windows XP, Windows 7, Windows CE 6.0, Windows Embedded Standard, Wind River Linux and VxWorks.



TTCM-0XXX

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TTCM-0XXX Block Diagram



Processor

- Intel® Atom™ N450 CPU (Single Core M) with integrated GMCH at 1.66GHz 512KB L2 Cache
- Intel® Atom™ D510 CPU (Dual Core DC) with integrated GMCH at 1.66GHz 1MB L2 Cache.

I/O Controller HUB

Intel® ICH8M

RAM

Soldered DDR2 SDRAM 667 MHz (512MB/1GB)

Graphics

- 200MHz graphics engine for N450 CPU
- VGA CRT interface
- 18-bit LVDS flat panel interface

Storage

- Soldered 2GB IDE SSD
- Removable USB 2.0 2/4 SSD (optional)

IDE interface

- 1x Ultra ATA/100 interface
- Supports two devices (Master/Slave)

Communications & IO

- 1x Gigabit Ethernet port based on Intel 82567
- HD Audio, digital interface
- 2x RS-232 serial ports
- PS/2 keyboard and mouse
- 5x USB 2.0 ports

Dual System Expansion Buses

- 32-bit/33 MHz PCI bus
- 4 PCI masters supported
- 4x x1 PCI-e ports

Power

- 6 W 9 W for Single Core version
- 10 W 15 W for Dual Core version

Physical Specifications

- Dimension 108x115 mm, PC/104 form factor
- Temperature range 0 °C to + 70 °C
- Power supply 5 V (+/- 5 %) only or 5 V / 12 V DC

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