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300MHz Vortex86SX

The Vortex86SX System-on-Chip was originally designed, with Long-Product-Life-Cycle support, to provide a product migration path to the existing user of the DMP M6117D chip, a 40MHz 386SX System-on-Chip introduced to the market in the early 1990s, reaching end-of-life in 2007.

The Vortex86SX is a 32-bit 300MHz x86 System-on-Chip (SoC), built with 0.13 micron process and ultra low power consumption design (less than 1 watt). The Vortex86SX SoC integrated many of the common computing I/O and peripherals into a single chip design, a 27 mm x 27 mm 581-pin BGA package.

The Vortex86SX SoC supports Windows Embedded CE, Linux, DOS, and other Operating Systems. The SoC design integrates 32 KB write through direct map L1 cache, native 16-bit ISA bus, PCI Rev. 2.1 32-bit bus interface at 33MHz, SDRAM, DDR2, ROM controller, IPC (Internal Peripheral Controllers with DMA and interrupt timer/counter included), SPI (Serial Peripheral Interface), Fast Ethernet MAC, FIFO UART, USB 2.0 Host, IDE controller, and more into a System-on-Chip (SoC) design.

With its core design based on the matured x86 CPU architecture and rich set of integrated I/O peripherals and designed to function in harsh temperature ranges of -45 °C to +85 °C, the Vortex86SX SoC provides the ideal hardware platform to design new generations of Industrial Single Board Computers and embedded controllers to build Automation Control, Medical, Automotive, Utility Metering, Firewall Router, Security Access, Thin Client, Intelligent RFID reader, RS-232 to TCP protocol converter, Home and Building Automation, and other devices.

FEATURES

- 300MHz x86 Processor Core
- SDRAM and DDR2 Memory Control Interface
- Built-in 256 KB BIOS Flash eliminates the need for external flash for the BIOS
- Built-in ISA Bus, PCI Bus, LPC Bus, SPI, and JTAG
- Built-in 10/100 Fast Ethernet MAC/PHY
- MTBF Counter and Hardware Redundancy Support
- Five FIFO UARTs enable support for 5 serial ports without additional UART chip
- Four USB v2.0 host interfaces
- 40-bits GPIOs
- Support DOS, Linux, Window CE 5.0, Windows Embedded CE 6.0, and other RTOS
- -40 °C to +85 °C Operating Temperature
- 10 Year Life-Cycle-Support, 2007 to 2016

For more information, contact: info@vortex86sx.com

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