



DSTni EX System on Chip

The DSTni EX System on a Chip (SOC) is a high performance, highly integrated single chip running at 30 MIPS at the maximum clock speed. The EX integrated 16-bit processor (x86) has been enhanced with a maximum memory space of 16M bytes, many on-chip internal peripherals, 256K bytes of on-chip SRAM, and a single clock instruction execution.

The DSTni EX is used in many high performance networking applications as the main processor with its integrated memory and Ethernet, USB, and serial ports. The Lantronix XPort, WiPort, and MatchPort are based on the DSTni EX chip.

The DSTni EX is designed for high performance; old x86 designs can be ported to the EX with a minimum of changes. The EX chip runs the same opcodes as the Intel/AMD 80186 family of chips, but faster!

With the EX's on chip peripherals and on chip SRAM the applications that can run in 256K bytes can all be on chip. Applications that require more

memory can add external SRAM, FLASH, or SDRAM to bring the total memory up to 16M bytes.

The two integrated 10/100 Ethernet channels and one integrated Ethernet PHY allow for a minimum chip count design. The smallest EX design requires the EX, a serial Flash, and a crystal/oscillator.

Grid Connect (formerly Lantronix) and Lantronix provide the DSTni EX chip and development kits along with complete technical support and the DSTni OS royalty free operating system.

Providing quality
Network products
and the best service
to our customers.

- Chips
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- Products

DSTni EX System on a Chip

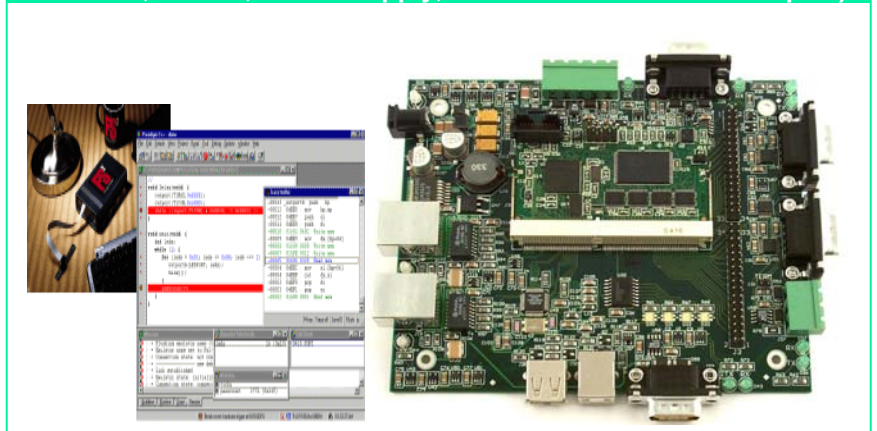
Features

- SOC 16 bit 30MIPs Processor
- 25-128Mhz software controlled PLL
- Intel/AMD x186 compatible
- On Chip Memory and Peripherals
 - 256K bytes SRAM
 - 2x 10/100M Ethernet MACs
 - 1x 10/100M Ethernet PHY
 - 4x UARTs rates up to 920K
 - SPI, I2C
 - 2x CAN controllers
 - 1x USB 1.1 host/slave controller
 - SDRAM controller
 - 3 timers, 1 watchdog timer
 - 4 DMA channels
 - JTAG, break point, trace registers
 - Interrupt controller
- Boot controller (SPI, Flash, Serial or Ethernet)
- 12mm x 12mm 184 pin BGA, RoHS (lead free)
- Wide temperature range
-40 to 85 degrees C
- 1.8V core, 2.5V I/O
- .18 micron technology
- TSMC Foundry
- Guaranteed Life Cycle
- Includes DSTni OS royalty free operating system

DSTni EX Evaluation Kit \$349 (simple board, 14 day Paradigm SW, Cables, Power Supply, CD w/ DSTni OS and examples)



DSTni EX Development Kits (full board, Full Paradigm SW, JTAG Emulator, Cables, Power Supply, CD w/ DSTni OS and examples)



Order On-Line at www.gridconnect.com

Part Numbers:

GC-EX-184B-LF

DSTni EX chip, BGA, RoHS

GC-DK-EX

Evaluation Kit

GC-DK-EX3

Development Kit w/o JTAG Emulator

GC-DK-EX4

Development Kit with JTAG Emulator