



## DSTni LX System on Chip

The DSTni LX System on a Chip (SOC) is a high performance, highly integrated single chip running at 12.5 MIPS. The LX's integrated 16-bit processor (x86) has been enhanced with a maximum memory space of 16MB, many on-chip internal peripherals, 256kB of on-chip SRAM, and a single clock instruction execution. The LX has three versions – LX-001 (QFP w/o PROFIBUS), LX-002 (QFP with PROFIBUS), and the LX-180BP (BGA with PROFIBUS).

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The DSTni LX is used in many high performance networking applications as the main processor with its integrated memory and Ethernet, Siemens PROFIBUS Controller, dual port memory and serial ports.

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

With the LX's on-chip peripherals and on-chip SRAM, applications that can run in 256K bytes can reside on-chip so that no external memory is

needed! Applications requiring more memory can add external SRAM, or FLASH to bring the total memory up to 16MB.

The integrated 10/100 Ethernet, Profibus, and dual port memory make the LX chip the choice for many embedded industrial automation controllers. If PROFIBUS and/or dual port memory are not required, we recommend using the DSTni EX chip.

Grid Connect (formerly Lantronix) and Lantronix provide the DSTni LX chips and development kits along with complete technical support and royalty-free DSTni OS and TCP/IP Stack.

## DSTni LX System on a Chip

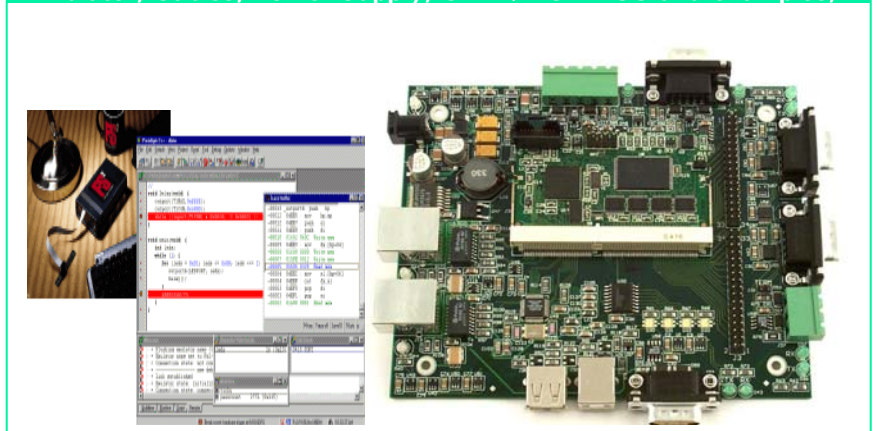
### Features

- SOC 16 bit 12.5MIPs Processor
- 25 & 48Mhz Crystal/Oscillator
- Intel/AMD x186 compatible
- On Chip Memory and Peripherals
  - 256K bytes SRAM
  - 8K bytes Dual Port SRAM
  - 1x 10/100M Ethernet MACs
  - 2x UARTs rates up to 230K
  - SPI
  - 2x CAN controllers
  - 1x Profibus Siemens ASPC2 Controller (LX-002, LX-180BP)
  - 3 timers, 1 watchdog timer
  - 4 DMA channels
  - JTAG, break point, trace registers
  - Interrupt controller
- Boot controller (SPI, Flash, Serial)
- LX-001, LX-002 24mm x 24mm .5mm pitch, 160 pin QFP RoHS (lead free)
- LX-180BP 12mm x 12mm 180 pin BGA, RoHS (lead free)
- Wide temperature range -40 to 85 degrees C
- 3.3V core
- .25 micron technology
- Atmel Foundry
- Guaranteed Life Cycle
- Includes DSTni OS royalty free operating system

### DSTni LX Evaluation Kit (simple board, 14 day Paradigm SW, Cables, Power Supply, CD w/ DSTni OS and examples)



### DSTni LX 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](http://www.gridconnect.com)

#### Part Numbers:

GC-LX-001-LF	DSTni LX chip, 160 pin QFP, RoHS
GC-LX-002-LF	DSTni LX chip, 160 pin QFP, RoHS
GC-LX-180BP-LF	DSTni LX chip, 180 pin BGA, RoHS
GC-DK-LX	Evaluation Kit
GC-DK-LX3	Development Kit w/o JTAG Emulator
GC-DK-LX4	Development Kit with JTAG Emulator