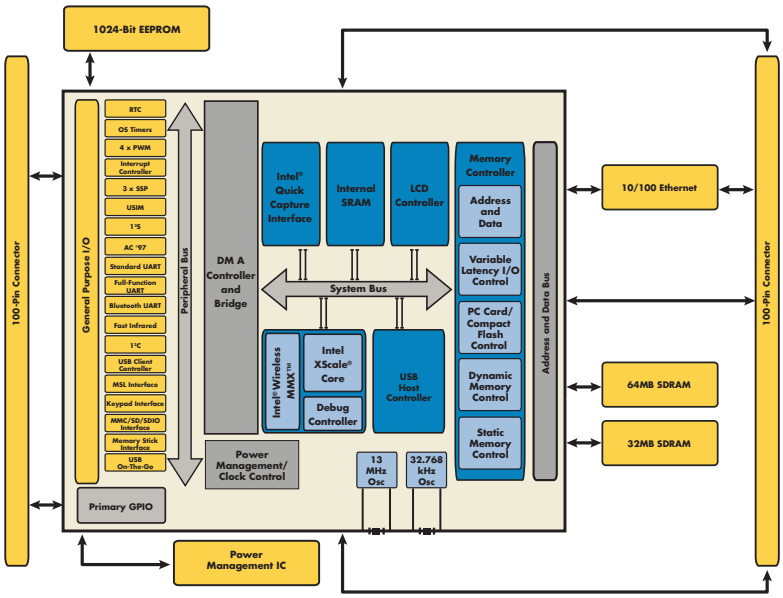
**Product Brief**

# ConnectCore™ XP

Powerful PXA270 Core Module




High-performance core module with Intel XScale processor provides complete embedded platform support, combining industry-leading performance, multimedia capabilities and low power requirements in an ulta-compact form factor.



## Features/Benefits

- **Intel PXA270 processor with Intel XScale microarchitecture core**
- **64 MB SDRAM and 32 MB Intel StrataFlash®**
- **Wide variety of I/O connectivity options**
- **Strong multimedia capabilities w/LCD controller and audio interfaces**
- **Comprehensive USB 1.1 host/device interface support, plus USB 2.0 OTG**
- **Memory/expansion card interfaces**
- **External 32-bit memory bus interface**
- **Low-power requirements**
- **Complete embedded software platform offering w/support and design services**
  - **Microsoft Windows CE and Linux**

## Overview

The ConnectCore XP module introduces high-performance Intel XScale technology to the ConnectCore family of network-enabled embedded core processor modules. It provides the core processor platform solution of choice for applications demanding the combination of scalable Intel PXA270 performance at speeds up to 520 MHz, on-chip video and audio capabilities, low power requirements, integrated network connectivity, and complete embedded software platform flexibility.

The ConnectCore XP offers a complete system on a module in an ultra-compact form factor with processor, on-board memory, integrated 10/100 Mbit network interface, LCD controller (VGA/SVGA), AC'97 and I²S audio codec interfaces, plus a complete set of peripheral connectivity options such as SSP/NSSP, I²C, UARTs, and IrDA. The external 32-bit address/ data bus interface provides additional flexibility and almost unlimited design freedom.

Whether you want to leverage the feature-complete selection of the high-level software components and applications in Microsoft® Windows® CE, or take advantage of the open Linux® environment with its community support and comprehensive software library, Digi offers a solution that meets your requirements while also dramatically shortening traditional time-to-market by minimizing the overall software and hardware designs risks.

Complete LxNETES™ Linux and Microsoft Windows CE development kits with module, development board, driver source code, documentation, Flash programming tools, cables and accessories are available for evaluation/development use. In addition, we offer professional support and product design services to assist you with your project-specific needs.

Please contact us at 1-877-OEM-DIGI or 952-912-3444 for additional information or to discuss your specific application requirements.

## Features/Specifications

### HARDWARE

- 32-bit Intel XScale PXA270 high-performance RISC processor @ 520 MHz
- 32 MB Intel StrataFlash and 64 MB SDRAM on-board
- 1024-bit 1-Wire® EEPROM
- Integrated 10/100 Mbps Ethernet MAC/PHY
- On-chip LCD controller for TFT/STN LCD panels
  - Up to SVGA (800x600) resolution w/up to 24 bpp color depth
- On-board USB 1.1 host/device and USB 2.0 OTG interface
  - Full speed (12 Mbps) and low speed (1.5 Mbps) modes
- 2 SSP/NSSP ports
  - Synchronous Serial Protocol (SSP), Serial Peripheral Interface (SPI), Microwire, Programmable Serial Protocol (PSP) modes
- 1 full-function UART w/maximum data rate of 921kbps
  - TX, RX, RTS, CTS, DTR, DSR, DCD, RI
- 1 Bluetooth UART w/maximum data rate of 921kbps
  - TX, RX, RTS, CTS
- Fast Infrared Communications Port (FICP)
  - Up to 4 Mbps half-duplex operation
- 1 I²C bus interface w/fast mode (400 KHz) support
- I²S interface and AC'97 audio controller
- 2 Pulse Width Modulator (PWM) signals
- Memory and expansion card interfaces
  - PCMCIA/CompactFlash®, SD/SDIO, MMC, and Memory Stick
- 32-bit external memory bus interface
- Up to 75 GPIO port options
- On-board JTAG interface

### DEVELOPMENT KITS

- Linux
  - LxNETES 3.x CD
    - GNU toolchain (gcc/binutils/uClibc)
    - Linux kernel 2.6.x w/patches
    - BSP source code
    - Boot loader w/source files
    - Sample files and documentation
  - ConnectCore XP 270 Module
  - Development Board
  - TFT LCD panel w/touch screen
  - Power Supply and Cords
  - JTAG Booster and adapter
    - Flash programming/verification
    - I²C device access
    - CPU signal tests
  - Optional technical support services
- Microsoft Windows CE 5.0 BSP CD
    - BSP source code
    - Boot loader w/source files
    - Microsoft QFEs
    - Sample files and documentation
  - ConnectCore XP 270 Module
  - Development Board
  - TFT LCD panel w/touch screen
  - Power Supply and Cords
  - JTAG Booster and adapter
    - Flash programming/verification
    - I²C device access
    - CPU signal tests
  - One year of technical support

Requires Microsoft Platform Builder 5.00 (not included).

### ETHERNET INTERFACE

- Standard: IEEE 802.3
- Physical layer: 10/100Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)

### ENVIRONMENTAL

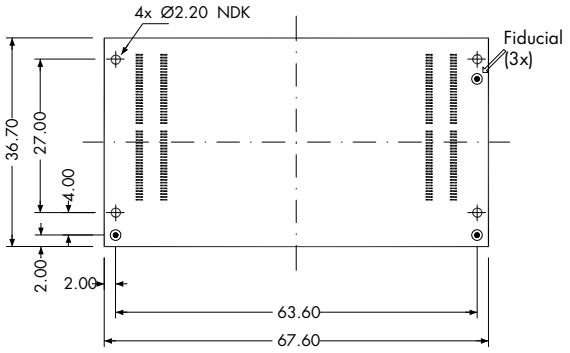
- Storage temperature: -50° C to +125° C (-58° F to +257° F)
- Operating temperature: 0° C to 70° C (32° F to 158° F)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 12,000 feet (3658 meters)

### POWER REQUIREMENTS

- 3.3VDC @ 190/350 mA (min/max)

### DIMENSIONS

- Length: 2.661 in (6.760 cm)
- Width: 1.444 in (3.670 cm)
- Height: 0.192 in (0.490 cm)




### MODEL.....PART NUMBERS

| Model | North America | International |
|---|---|---|
| LxNETES 3.2 Development Kit | FS-9077 | FS-9077 |
| Microsoft Windows CE 5.0 Development Kit with One Year of Technical Support | FS-9078 | FS-9078 |
| ConnectCore XP 270 (520 MHz, 32/64) | FS-377 | FS-377 |

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