Digi - FS-377 Datasheet

Welcome to E-XFL.COM

Understanding **Embedded - Microcontroller, Microprocessor, FPGA Modules**

Embedded - Microcontroller, Microprocessor, and FPGA Modules are fundamental components in modern electronic systems, offering a wide range of functionalities and capabilities. Microcontrollers are compact integrated circuits designed to execute specific control tasks within an embedded system. They typically include a processor, memory, and input/output peripherals on a single chip. Microprocessors, on the other hand, are more powerful processing units used in complex computing tasks, often requiring external memory and peripherals. FPGAs (Field Programmable Gate Arrays) are highly flexible devices that can be configured by the user to perform specific logic functions, making them invaluable in applications requiring customization and adaptability.

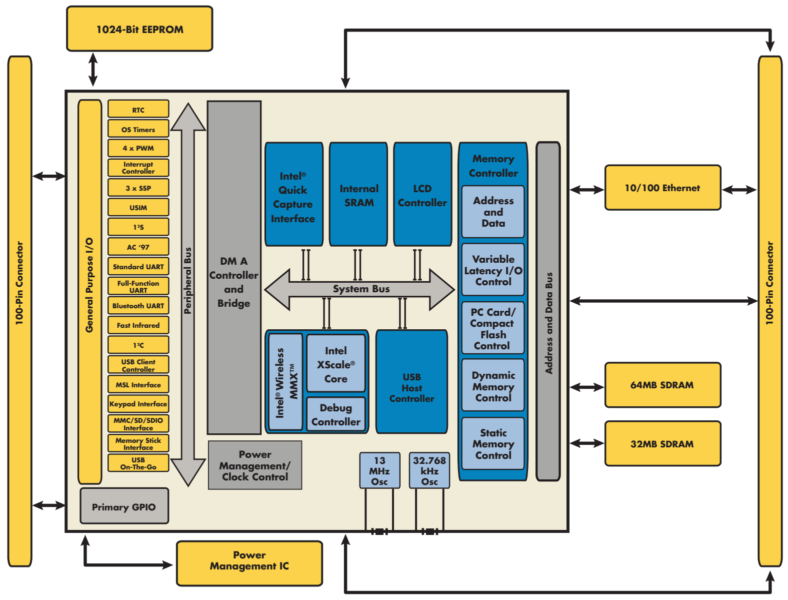
Applications of **Embedded - Microcontroller,**

Details	
Product Status	Obsolete
Module/Board Type	MPU Core
Core Processor	PXA270
Co-Processor	-
Speed	520MHz
Flash Size	32MB
RAM Size	64MB
Connector Type	Board-to-Board (BTB) Socket - 200
Size / Dimension	2.66" x 1.44" (67.6mm x 36.7mm)
Operating Temperature	0°C ~ 70°C
Purchase URL	https://www.e-xfl.com/product-detail/digi-international/fs-377

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 I^{2}S audio codec interfaces, plus a complete set of peripheral connectivity options such as SSP/NSSP, I^{2}C, 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 I^{2}C bus interface w/fast mode (400 KHz) support
- I^{2}S 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
    - I^{2}C 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
    - I^{2}C 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

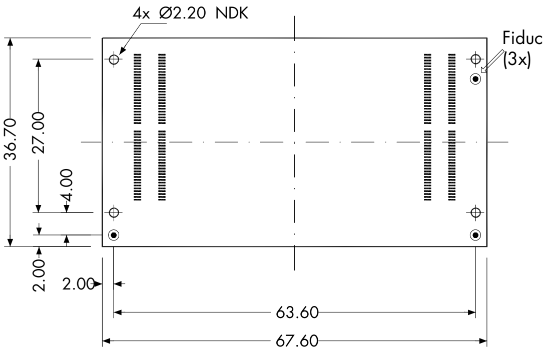
- Storage temperature: -50° C to +125° C (-58° F to +257° F)
- Operating temperature: 0° C to 70° C (32° F to 158° F)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 12,000 feet (3658 meters)

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

DIGI SERVICE AND SUPPORT - You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. www.digi.com/support

WHEN RELIABILITY MATTERS™

Digi International
11001 Bren Road E.
Minnetonka, MN 55343
U.S.A.
PH: 877-912-3444
952-912-3444
FX: 952-912-4952
email: info@digi.com

Digi International France
31 rue des Poissonniers
92200 Neuilly sur Seine
PH: +33-1-55-61-98-98
FX: +33-1-55-61-98-99
www.digi.fr

Digi International KK
NES Building South 8F
22-14 Sakuragaoka-cho,
Shibuya-ku
Tokyo 150-0031, Japan
PH: +81-3-5428-0261
FX: +81-3-5428-0262
www.digi-intl.co.jp

Digi International (HK) Limited
Suite 1703-05, 17/F.,
K Wah Centre
191 Java Road
North Point, Hong Kong
PH: +852-2833-1008
FX: +852-2572-9989
www.digi.cn

Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

www.digiembedded.com

**91001362
B2/408**