

Compact, high-performance Digi 32-bit NET+ARM core processor module combines superior performance, peripheral options and design integration flexibility with complete embedded software platform support.



## Features/Benefits

- 240-pin core processor module in Compact 60 x 40 mm form factor
- Powerful 32-bit Digi NS9360 processor with 177 MHz ARM9
- Up to 128 MB Flash/128 MB RAM
- On-board 10/100 Ethernet MAC/PHY
- Up to 4 UART/SPI ports
- USB host and device mode
- External 32-bit memory bus
- Up to 73 shared GPIO ports
- On-chip LCD controller
- On-board real-time clock w/external backup
- Complete embedded software platform offering w/support and design services
  - ThreadX®-based NET+OS®, Microsoft Windows® CE, Linux
- Digi's ARM processor technology for true long-term product availability
- Seamless migration path to fully integrated Digi NET+ARM system-on-chip solution

## Overview

The ConnectCore 9P 9360 module is part of the ConnectCore embedded core processor module family. It combines superior performance and a complete set of integrated peripherals and component connectivity options in a very compact and versatile form factor. It is the ideal solution for a variety of applications including medical devices, security/access control, building and industrial automation, warehousing, retail systems, transportation, networked displays and more.

Built on leading Digi 32-bit NET+ARM processor technology, the network-enabled ConnectCore 9P 9360 module provides a modular and scalable core processor solution. It significantly minimizes software and hardware design risk by simplifying the overall design process and dramatically improving the time-to-market aspects of your product development.

The easy-to-use, cost-effective and complete Digi JumpStart Kit development solutions enable you to begin your embedded product development right out of the box. The support for a wide range of embedded software platform options offers unique software design flexibility, whether your application requires the small footprint, fast response time and secure networking offered by our ThreadX-based NET+OS platform, the comprehensive and scalable set of feature-complete high-level software components and applications of Microsoft Windows Embedded CE 6.0, or the flexibility and power of the open Linux environment, its extensive software library, and strong community support.

For your project-specific development needs Digi also offers professional technical support as well as a wide range of hardware and software design services.

### DIGI JUMPSTART KIT FOR NET+OS: OVERVIEW

Based on the ThreadX Real-Time Operating System (RTOS), the ConnectCore 9P 9360 Digi JumpStart Kit for NET+OS delivers a royalty-free turnkey solution for embedded software development. With over 400 million deployments in products worldwide, it is one of most reliable and field-proven RTOS solutions available on the market. In addition to ThreadX, NET+OS provides the integrated building blocks needed to create secure and fully network-enabled product solutions using Digi embedded modules and microprocessors. This includes an IPv4/IPv6 dual-mode TCP/IP stack, integrated web server, SSL/TLS with 256-bit AES encryption, SNMPv3, LDAP, XML, PPP, SMTP/POP mail, and more.

For professional NET+OS software development, the Microsoft Windows-based “Digi ESP for NET+OS” Integrated Development Environment (IDE) with graphical user interface and a high-speed USB 2.0 hardware debugger are provided out-of-the-box.

### DIGI JUMPSTART KIT FOR EMBEDDED LINUX: OVERVIEW

Built around a standard Linux 2.6 kernel distribution, the ConnectCore 9P 9360 Digi JumpStart Kit for Embedded Linux is tailored to the specific needs of Embedded Linux development and provides an easy-to-use, complete off-the-shelf development platform. It includes all components that are required to build secure network-enabled embedded products. This includes software components such as a customizable boot loader, a web server, file system support, SSL/TLS, and others. These come without the complexities typically associated with Linux development, such as building and maintaining tool chains or kernel environments.

Based on the open Eclipse™ framework, the powerful and fully Linux-hosted Integrated Development Environment (IDE) “Digi ESP for Embedded Linux” (included in the kit) significantly improves software design productivity by accelerating and simplifying the application development process through a user-friendly graphical interface.

### DIGI JUMPSTART KIT FOR MICROSOFT WINDOWS EMBEDDED CE 6.0: OVERVIEW

Windows Embedded CE 6.0 is a highly componentized operating system offering pre-tested technology components designed to create sophisticated embedded applications with minimized design effort and risk. It includes a wide range of ready-to-use components such as a graphical user interface, networking, web browser and multimedia. The professional Microsoft Visual Studio 2005 development tools also support native and managed code applications using various programming languages.

The Digi JumpStart Kit for Microsoft Windows Embedded CE 6.0 provides all hardware and software components needed to start immediate software development on the ConnectCore 9P 9360 core module platform. Included are a module with development board, Board Support Package (BSP) sources, a customizable boot loader, Ethernet-based debugging, documentation, and a 180-day trial of Windows Embedded CE 6.0 with development tools. A VGA interface on the development board also allows utilizing standard monitors rather than costly LCD panels for initial evaluation/prototyping.



- **Royalty-free turnkey solution for embedded software development**
- **Built on field-proven and compact ThreadX Real-Time Operating System**
- **Integrated secure networking support**
- **Professional software development using Microsoft Windows-based Digi ESP or optional Green Hills MULTI\* development tools**



- **Off-the-shelf development platform for network-enabled embedded systems**
- **Royalty-free and with optimized 2.6 kernel and services support**
- **Full source code included**
- **Linux-based Digi ESP Integrated Development Environment for highly accelerated application development**



- **Complete kit for immediate Windows Embedded CE 6.0 development**
- **Ethernet-based debugging capabilities**
- **Seamless integration into Microsoft Windows Embedded CE environment**
- **Full Digi Board Support Package (BSP) related source code included**
- **Includes free 180-day Visual Studio 2005 and Windows Embedded CE 6.0 evaluation**

\*Requires purchase of third party product.  
See website for additional information.

### DIGI JUMPSTART KIT FOR NET+OS: OVERVIEW

- ConnectCore 9P 9360 module
  - 128MB NAND Flash, 64 MB SDRAM
- Digi JumpStart Kit development board
  - 4 serial ports (1 x RS-232/422/485, 1 x RS-232, 2 x TTL), VGA interface, LCD/Touchscreen connector, user/application connectors, PCI Express Mini Card socket, I<sup>2</sup>C/SPI headers, screw terminal for access to GPIO signals, 2 user push-buttons, 2 user LEDs, test points, current measurement option, 9-30VDC power supply, power switch
- Digi JTAG link USB 2.0 hardware debugger
- Digi NET+OS CD
  - NET+OS 7.x, Digi ESP IDE, BSP source code, sample code, optional Green Hills MULTI\* IDE support, documentation
- Documentation
  - Quick start guide, Digi ESP tutorial, NET+OS porting guide, NET+OS API documentation, Advanced Web Server, hardware reference manual, development board schematics
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), JTAG adapter, Ethernet cable, serial cable

### DIGI JUMPSTART KIT FOR EMBEDDED LINUX: OVERVIEW

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- Digi JumpStart Kit development board
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- Digi Embedded Linux DVD
  - Digi Embedded Linux, Digi ESP IDE, Linux and platform specific source code, Universal boot loader source code (U-Boot), sample code, documentation
- Documentation
  - Quick start guide, Digi Embedded Linux user's guide, hardware reference manual, development board schematics
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), Ethernet cable, serial cable

### DIGI JUMPSTART KIT FOR MICROSOFT WINDOWS EMBEDDED CE 6.0: OVERVIEW

- ConnectCore 9P 9360 module
  - 128 MB NAND Flash, 64 MB SDRAM
- Digi JumpStart Kit development board
  - 4 serial ports (1 x RS-232/422/485, 1 x RS-232, 2 x TTL), VGA interface, LCD/Touchscreen connector, user/application connectors, PCI Express Mini Card socket, I<sup>2</sup>C/SPI headers, screw terminal for access to GPIO signals, 2 user push-buttons, 2 user LEDs, test points, current measurement option, 9-30VDC power supply, power switch
- Digi Microsoft Windows Embedded CE 6.0 CD
  - Microsoft Windows Embedded CE 6.0 BSP w/source code, Universal Boot Loader (U-Boot) source code, sample code, documentation
- Microsoft Windows Embedded CE 6.0 evaluation CD
  - 180-day trial of Microsoft Embedded Windows CE 6.0, Platform Builder, Visual Studio 2005
- Documentation
  - Quick start guide, Digi Windows CE 6.0 BSP user's guide, hardware reference manual, development board schematics
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), Ethernet cable, serial cable

\*Requires purchase of third party product. See website for additional information.

## Features/Specifications

### HARDWARE

- 32-bit Digi NS9360 high-performance RISC processor
  - 177 MHz ARM926EJ-S
- Up to 128 MB Flash and 128 MB SDRAM on-board
- 8 KB serial EEPROM for configuration storage
- Integrated 10/100 Ethernet MAC/PHY
- Up to 4 high-speed UARTs
  - Maximum data rate 921 kbps
- Up to 4 Serial Peripheral Interface (SPI) ports
  - Master data rate up to 11.25 Mbps
  - Slave data rate up to 5.5 Mbps
- I<sup>2</sup>C v1.0 bus interface
  - Fast mode (400 kHz) and normal mode (100 kHz) support
  - 7-bit and 10-bit address modes
- 28-bit address and 32-bit address bus interface
- USB 2.0 Host/Device low/full speed interface
- On-chip LCD controller for TFT / STN LCD panels
  - Up to SVGA resolution with up to 18 bpp color depth
- Up to 8 independent 16-/32-bit programmable timers/counters
- Up to 4 PWM functions
- 4 programmable external interrupts
- Up to 55 shared General Purpose Input/Output (GPIO) ports
  - Up to 7 high-current (8 mA) pins
- Real-time clock w/support for external battery backup

### NETWORK 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

- Operating temperature: 0° C to 70° C (32° F to 158° F)  
Extended temperature version available
- Storage temperature: -50° C to 125° C (-58° F to 257° F)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 12,000 feet (3,658 meters)

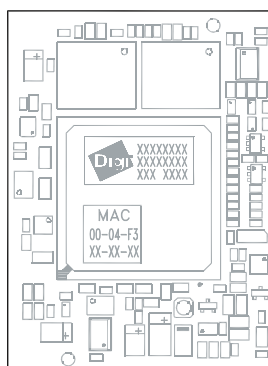
### POWER REQUIREMENTS

- Module**
- 3.3VDC @ 400 mA max.
- USB Host (optional)**
- 5VDC  $\pm$  10% @ 1A max.

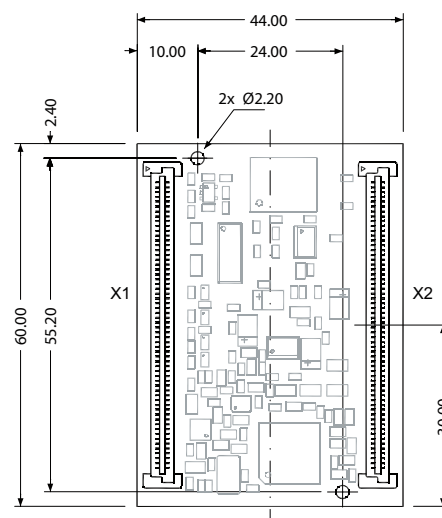
### DIMENSIONS

- Length: 2.362 in (60.0 mm)
- Width: 1.732 in (44.0 mm)
- Height: 0.0395 in (10.0 mm)

TOP View



BOTTOM View



### MODEL.....PART NUMBERS

ConnectCore 9P 9360 Digi JumpStart Kit for NET+OS

ConnectCore 9P 9360 Digi JumpStart Kit for Embedded Linux

ConnectCore 9P 9360 Digi JumpStart Kit for Microsoft Windows Embedded CE 6.0

Please visit our website for a complete list of available part numbers and accessories.

**Worldwide**  
CC-9P-NET

CC-9P-LX

CC-9P-CE6



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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](http://www.digiembedded.com)

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