#### PRELIMINARY Product Brief



# ConnectCore<sup>™</sup> 9P

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



## Features/Benefits

- 240-pin core processor module in compact 60 x 44 mm form factor
- Powerful 32-bit NET+ARM processor
   NS9750/9360 with ARM926EJ-S core
- Up to 128 MB Flash / 128 MB RAM
- On-board 10/100 Ethernet MAC/PHY
- Up to 4 high-speed serial ports - UART and SPI configurations
- USB host and device mode support
- Fast-mode I<sup>2</sup>C hardware interface
- On-chip LCD controller (TFT/STN)
- Integrated Real-Time Clock w/support for external battery backup
- Up to 73 shared GPIO port options
- External memory bus interface
- PCI v2.2/Cardbus option (NS9750)
- Complete development platform support offers software design flexibility
- NET+OS<sup>®</sup>, LxNETES<sup>™</sup> Linux and Microsoft<sup>®</sup> Windows<sup>®</sup> CE 5.0

### www.digi.com

## Overview

The ConnectCore 9P modules are part of the ConnectCore embedded core processor module family combining superior performance and a complete set of integrated peripherals and component connectivity options in a compact and versatile form factor.

Built on leading NetSilicon<sup>®</sup> 32-bit NET+ARM technology, the network-enabled ConnectCore 9P family provides a modular and scalable core processor solution that significantly minimizes software and hardware design risk and dramatically improves the time-to-market aspects of your product development process.

The wide range of available embedded software platform options makes it the ideal choice for your network-enabled product solutions, whether your application requires the small footprint, fast response time, and secure networking offered by our ThreadX<sup>®</sup>-based NET+OS environment, the comprehensive and scalable set of feature-complete high-level software components and applications of Microsoft Windows CE, or the flexibility and power of the open Linux environment and its extensive software library.

Complete and royalty-free development kits supporting the NET+OS, LxNETES Linux, and Microsoft Windows CE environments are available for platform evaluation and product development use. All development kits include a development board, hardware debugging options, board support packages,

sample code, documentation, cables, and related accessories.



20	HARDWARE		ENVIRONMENTAL
	ConnectCore 9P 9750 • 32-bit NET+ARM (ARM926EJ-S) high-performance RISC processor NS9750 @ 200 MHz · Up to 128 MB NAND Flash and 64 MB SDRAM - Standard population 32 MB Flash and 16 MB RAM • Integrated 32-bit PCI v2.2/Cardbus Bridge (33 MHz) • 16 General Purpose Timers/Counters • Up to 50 GPIO port options		<ul> <li>Storage temperature: -50° C to +125° C (-58° F to +257° F)</li> <li>Operating temperature: 0° C to +70° C (+32° F to +158° F)</li> <li>Relative humidity: 5% to 90% (non-condensing)</li> <li>Altitude: 12,000 feet (3658 meters)</li> </ul>
	ConnectCore 9P 9360		
	<ul> <li>32-bit NET+ARM (ARM926EJ-S) high-performance RISC processor NS9360 @ 177 MHz</li> <li>Up to 128 MB NAND Flash and 128 MB SDRAM <ul> <li>Standard population 32 MB Flash and 32 MB RAM</li> <li>8 General Purpose Timers/Counters or 4 PWM functions</li> <li>Up to 73 GPIO port options</li> </ul> </li> </ul>		POWER REQUIREMENTS ConnectCore 9P 9750 • 3.3VDC @ 600 mA (max)
	ConnectCore 9P Family		ConnectCore 9P 9360
	Integrated 10/100 Mbps Ethernet M	AC/PHY	<ul> <li>3.3VDC @ 400 mA (max)</li> </ul>
	<ul> <li>Up to four serial interfaces w/UAR1 and SPI mode</li> <li>Integrated USB 2.0 compliant host/device interface <ul> <li>Full speed (12 Mbps) and low speed (1.5 Mbps) mode</li> </ul> </li> <li>On-chip I<sup>2</sup>C bus interface (100/400 kHz)</li> <li>Flexible LCD controller with support for TFT/STN displays <ul> <li>Up to SVGA resolution with up to 18/24 bpp</li> </ul> </li> <li>External memory bus interface <ul> <li>32-bit data bus and 28-bit address bus</li> </ul> </li> <li>Real-Time Clock (RTC) w/support for external battery back</li> <li>8 KB serial EEPROM for configuration storage</li> <li>On-board JTAG interface</li> </ul>	and SPI mode evice interface ed (1.5 Mbps) mode Hz) for TFT/STN displays 18/24 bpp bus r external battery backup on storage	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)
20	DEVELOPMENT KITS		DIMENSIONS
	NET+OS 6.1     Hardware debugger     GNU development tool chain     gcc v3.2.1, Insight v5.1.1     binutils v2.13.1, newlib v1.11.0     ThreadX™ RTOS     Fusion™ TCP/IP stack     DNS, SNMPv2, LDAP, POP, SN     PPP, FTP, SNTP, Teinet, FastIF     Fast Sockets, Multi-Horning     Universal IP address assignment         • Static IP, DHCP, BOOTP, Auto-     Allegro embedded web server         SSL/TLS with DES/3DES/AES em         Flash/RAM file system with wear-         SMICng SNMP MIB compiler	<ul> <li>Microsoft Windows CE 5.0         <ul> <li>Complete BSP (Board Support Package for Microsoft Windows CE 5.0 w/source</li> <li>Boot loader (U-Boot)</li> <li>On-chip Ethernet</li> <li>USB Host</li> <li>Display driver (LCD)</li> </ul> </li> <li>TTP, Touch Screen</li> <li>PCI</li> <li>LxNETES 3.1         <ul> <li>Linux kernel v2.6.11</li> <li>GNU development tool chain</li> <li>gcc v3.3.3, gdb v6.2</li> <li>cryption</li> <li>File system support for JFFS2 and NFS</li> <li>1<sup>2</sup>C, USB, PCI , EEPROM support</li> </ul> </li> </ul>	e) code • Length: 2.362 in (6.0 cm) • Width: 1.732 in (4.4 cm) • Height: 0.395 in (1.0 cm) Bottom View • • • • • • • • • • • • • • • • • • •

- Micro XML SAX parser
- All development kits provide sample code and documentation, development board with hardware support for

MODEL.....PART NUMBERS Model North America CC9P 9750 NET+OS 6.1 Development Kit CC9P 9750 LxNETES 3.1 Development Kit FS-9053 with 5.7" LCD (TFT) and touch screen FS-9033 CC9P 9750 Microsoft Windows CE 5.0 Kit with 5.7" LCD (TFT) and touch screen FS-9034 CC9P 9360 LxNETES 3.1 Development Kit with 5.7" LCD (TFT) and touch screen FS-9065 CC9P 9360 Microsoft Windows CE 5.0 Kit with 5.7" LCD (TFT) and touch screen FS-9066

Please contact us for additional part number information or visit our website.

Ethernet, RS232, USB, CAN bus, audio, LCD, touch screen, Mini PCI, CompactFlash, and a power supply.

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International

FS-9053

FS-9033

FS-9034

FS-9065

FS-9066

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HREAD

TTT

35.60

All measurements in millimeter

6.00

Side Vew

80 75

NetSilicon

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- max 3.0mm

max 2.2mm

Microsoft® Windows

Embedded

Partner

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