### duct Brief



-Pin Connector



#### **Features/Benefits**

- Highly integrated 32-bit network co-processor module
- Family of interchangeable and pin-compatible solutions
- 2/4 MB Flash and 8MB RAN
- High-speed serial interfactup to 230 kbps throughpt
- 5 shared GPIO port opt
- 10/100 Mbit Ethernet WLAN with WPA2/80
- Fully pre-certified overall design cost time-to-market
- Industrial operation
  FCC Class B low-
- NIST-certified 7 encryption ba
- ThreadX<sup>®</sup>/ba software de
- Digi plugoption e<sup>j</sup> develor
- Digi's WLA Ion

/s

### DIGI PLUG-AND-PLAY INTEGRATION KIT: OVERVIEW

Digi Integration Kits provide everything needed for evaluation, rapid prototyping and integration of Digi Connect embedded modules using the feature-rich and field-proven Digi plug-and-play firmware.

The Digi plug-and-play firmware in combination with the design of the Digi Connect ME and Digi Connect Wi-ME modules dramatically reduces time-to-market by eliminating time-consuming embedded hardware and software development. They deliver instant and fully transparent wired and wireless device server networking functionality for all existing and new product designs, and allow you to quickly network enable your products while focusing on your core product design competency.

Digi plug-and-play firmware offers industry-leading features such as a robust TCP/IP stack with support for IPv4 and IPv6, universal IP address assignment, integrated web server (HTTP/HTTPS), web user interface with private labeling/branding options, user management, custom Java applet support, user file system, NIST-certified 256-bit AES encryption (plus DES and 3DES), SSL/TLS, SSH, Modbus, intelligent device management via SNMP, email alarms, XML-based configuration options, and Digi's patented RealPort® COM/TTY port redirection. These features make it an ideal solution for every network-enabled application that requires ready-made versatility and performance.



- Complete kit for product evaluation, rapid prototyping, and integration
- Transparent wired and wireless device server functionality
- Digi plug-and-play firmware eliminates embedded software development effort
- Strong, standards-based wired and wireless security out-of-the-box
- Full private-labeling/branding supported out-of-the-box



#### DIGI JUMPSTART KIT FOR NET+OS 7.X: OVERVIEW

The easy-to-use, cost-effective and complete Digi JumpStart Kits for NET+OS deliver a royalty-free turnkey solution for embedded software development based on the ThreadX Real-Time Operating System (RTOS).

With over 400 million deployments in products worldwide, ThreadX is one of the most reliable and field-proven RTOS solutions available. 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 a dual-mode IPv4/IPv6 TCP/IP stack, integrated web server, SNMPv3, POP/SMTP mail, PPP, XML, LDAP, SSL/TLS, and support for enterprise-grade WPA2/802.11i wireless LAN security.

The Digi JumpStart Kit for NET+OS minimizes product design risks and dramatically shortens traditional time-to-market aspects of your C-based embedded product development by providing all needed software and hardware components right out of the box.

Digi ESP for NET+OS, the Microsoft Windows-based Integrated Development Environment (included), offers an easy-to-use graphical interface with editor, single-step debugging, managed make files, build environment, online help, and innovative features like the Digi project builder wizard. Through simple point-and-click operation it generates a completely functional, customized application framework with ready-to-use software components such as web-based network interface configuration, FTP-based firmware upgrade, SSL/TLS, serial and Telnet Command Line Interface (CLI), and more.



- Royalty-free turnkey solution for embedded software development
- Built on field-proven and compact ThreadX Real-Time Operating System
- Fully integrated, standards-based secure wired and wireless networking
- Professional state-of-the-art software development using Digi ESP or Green Hills MULTI\* development tools
- Seamless migration to other Digi NET+ARM module platforms and fully integrated system-on-chip solutions
- \* Requires purchase of third party product. See website for additional information.

#### **Development Kits**

#### DIGI PLUG-AND-PLAY INTEGRATION KIT: CONTENTS

- Digi Connect ME or Digi Connect Wi-ME module
- 4 MB Flash, 8 MB SDRAM, 2 dBi dipole antenna (Digi Connect Wi-ME)
- Development board
  - 1 RS-2323 serial port, GPIO configuration/test switches (hi/lo), screw terminal for GPIO signals, status LEDs (serial, GPIO, power), logic signal header, test points, reset button, 9-30VDC power supply w/Power-over-Ethernet support (mid-span), JTAG header and RS-232 console/debug port (JTAG modules)
- Digi Connect Integration Kit CD
  - Device discovery tool w/source code, device configuration wizard w/source code, RCI library, device discovery (ADDP) library, Java applet sample source code, C/C++ sample source code (TCP, UDP, SSL)
- Documentation
  - Getting started, hardware reference manual, development board schematics Digi Connect user's guide, command line reference, RCI specification
- 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, crossover serial cable, Ethernet cable (Digi Connect ME)

#### NET+OS 7.X DIGI JUMPSTART KIT: CONTENTS

- Digi Connect ME or Digi Connect Wi-ME module
  - 2 MB Flash, 8 MB SDRAM, 2 dBi dipole antenna (Digi Connect Wi-ME)
- Development board
  - 1 RS-2323 serial port, GPIO configuration/test switches (hi/lo), screw terminal for GPIO signals, status LEDs (serial, GPIO, power), logic signal header, test points, reset button, 9-30VDC power supply w/Power-over-Ethernet support (mid-span), JTAG header and RS232 console/debug port (JTAG modules)
- Digi JTAG link USB 2.0 hardware debugger
- Digi NET+OS CD
  - NET+OS 7.x, Digi ESP IDE, BSP source code, sample code, 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, crossover serial cable, Ethernet cable (Digi Connect ME)

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

### Features/Specifications

#### HARDWARE

- 32-bit Digi NET+ARM high-performance **RISC** processor
  - NS7520 @ 55 MHz
- Digi Connect ME on-board memory 2/4 MB Flash and 8 MB RAM
- Digi Connect Wi-ME on-board memory 4 MB Flash and 8 MB RAM
- On-board power supervisor
- High-speed TTL serial interface
- Throughput up to 230 Kbps
- Full signal support for TXD, RXD,
- RTS, CTS, DTR, DSR and DCD
- Hardware/Software flow control
- 5 shared GPIO ports
- Wave-solderable design (no clean flux process)

#### NETWORK INTERFACE

# Wired

- Standard: IEEE 802.3
- Physical layer: 10/100Base-T
- Data rate: 10/100 Mbps
- (auto-sensing) Mode: Full or half duplex (auto-sensing)
- Connector: RJ-45 w/magnetics
- 802.3af mid-span power

## pass-through

- Wireless LAN
- Standard: IEEE 802.11b
- Frequency: 2.4 GHz
- Data rate: Up to 11 Mbps w/fallback
- Modulation: DBPSK (1 Mbps), DQPSK (2 Mbps), CCK (11,5.5 Mbps)
- Transmit power: 16 dBm typical
- Receive sensitivity: -82 dBm @ 11 Mbps
- Connector: 1 x RP-SMA

Model Digi Connect ME Family Integration Kit Digi Connect ME Family Digi JumpStart Kit for NET+OS See Digi website for complete list of available part numbers.

Digi Connect ME DC-ME-KT DC-ME-NET

Digi Connect Wi-ME DC-WME-KT DC-WME-NET

MODEL.....PART NUMBERS

ENVIRONMENTAL

Operating temperature:

Storage temperature:

Relative humidity:

**Digi Connect Wi-ME** 

Operating temperature:

Storage temperature:

Relative humidity:

WLAN SECURITY

WPA/WPA2/802.11i

encryption

REQUIREMENTS

Digi Connect Wi-ME

**Digi Connect ME** 

POWFR

-40° C to 85° C (-40° F to 185° F)

-50° C to 125° C (-58° F to 257° F)

Altitude: 12,000 feet (3,658 meters)

-30° C to 75° C (-22° F to 167° F)

-50° C to 125° C (-58° F to 257° F)

Altitude: 12,000 feet (3,658 meters)

5% to 90% (non-condensing)

WEP (Wired Equivalent Privacy)

64/128-bit encryption (RC4)

128-bit TKIP/CCMP (AES)

Enterprise mode (802.1X)

TTLS, TLS

LEAP (WEP only), PEAP,

MSCHAP, MSCHAPv2,

TTLS-MSCHAPv2

3.3VDC @ 250 mA typical (825 mW)

3.3VDC @ 400 mA max (1.32 W)

GTC, MD5, OTP, PAP, CHAP,

5% to 90% (non-condensing)

**Digi Connect ME** 

## REGULATORY APPROVALS

- FCC Part 15 Class B, EN 55022 Class B
- EN 61000-3-2 and EN 61000-3-3
- ICES-003 Class B, VCCI Class II, AS 3548
- FCC Part 15 Sub C Section 15.247
- IC RSS-210 Issue 5 Section 6.2.2(0)
- EN 300 328, EN 301 489-17
- UL 60950-1, EN 60950 (EU)
- CSA C22.2, No. 60950
- EN 55024



- Length: 1.445 in (36.7 mm)
- Width: 0.75 in (19.05 mm)
- Height: 0.735 in (18.67 mm)

#### **Digi Connect Wi-ME**

- Length: 1.945 in (49.4 mm)
- Width: 0.75 in (19.05 mm)
- Height: 0.735 in (18.67 mm)



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

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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 www.digi.cn

#### 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.

WHEN

RFI

www.digiembedded.com

MATTERS

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