



Highly integrated 802.11b/g WLAN card with USB interface for embedded applications offering secure wireless network connectivity and long-term product availability.



Features/Benefits

- Highly integrated PCI Express Mini Card form factor
- Specifically designed for use in embedded applications
- Easy and reliable software and hardware integration
 - Microsoft Windows CE 5.0/6.0
 - ARM and x86 target platforms
- USB 2.0 full- and high-speed device interface support
- AES hardware accelerator off-loads target system
- Full driver support for strong WPA2/802.11i security
- Extended operating temperature range
- FCC Class B low emissions
- Pre-certified radio design reduces design risk and accelerates time-to-market
- Digi's own WLAN technology for true long-term product availability

Overview

Built using Digi's own 802.11b/g wireless LAN technology, the Digi Connect Wi-Wave offers the industry's first off-the-shelf WLAN radio card meeting the long-term product availability and specific operating temperature requirements of embedded designs and their extended product life cycles.

The Digi Connect Wi-Wave delivers a pre-certified, flexible and secure WLAN radio solution for a wide variety of sophisticated embedded applications. These include medical devices, retail systems, transportation, security/access control, building and industrial automation, networked displays, warehousing, gaming, and more.

Combined with complete software platform support and easy hardware integration through the ubiquitous USB 2.0 interface, the Digi Connect Wi-Wave provides the ideal long-term WLAN connectivity solution for embedded systems.

The Digi Connect Wi-Wave card offers complete out-of-the box support for Microsoft® Windows® CE 5.0 and Microsoft Windows Embedded CE 6.0 platforms on ARM® and x86 target systems. This allows customers to leverage the feature-complete selection of high-level software components and applications in Microsoft Windows Embedded CE combined with secure wireless networking for a wide range of today's target hardware platforms.

The Digi Connect Wi-Wave development and evaluation kit contains everything required to quickly start the development/evaluation process. This includes documentation, a development board for easy connection to the target host system through a standard USB interface cable, out-of-the-box antenna options, the Digi software platform support CD, and other accessories.

For your project-specific development needs Digi also offers professional technical support and complete hardware and software design services.

Features/Specifications

HARDWARE

- Compliant with PCI Express Mini Card form factor and electrical specification
- USB 2.0 full-/high-speed interface to target host
- Digi 802.11b/g WLAN technology
 - DSSS/OFDM baseband processor with MAC assist
 - AES encryption engine

WLAN SECURITY

- WEP (Wired Equivalent Privacy)
 - 64/128-bit encryption (RC4)
- WPA/WPA2/802.11i
 - 128-bit TKIP/CCMP (AES) encryption
 - Enterprise mode (802.1X)
 - LEAP (WEP only), PEAP, TTLS, TLS
 - GTC, MD5, OTP, PAP, CHAP, MSCHAP, MSCHAPv2, TTLS-MSCHAPv2
 - Pre-shared key mode (PSK)

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 7 Section 6.2.2(o)
- EN 300 328, EN 301 489-17
- UL 60950-1, EN 60950 (EU)
- CSA C22.2, No. 60950
- EN 55024

NETWORK INTERFACE

- Standard: IEEE 802.11b/g
- Frequency: 2.4 GHz
- Data rate: Up to 54 Mbps with automatic rate fallback
- Modulation:
 - DBPSK (1 Mbps),
 - DQPSK (2 Mbps),
 - CCK (11,5.5 Mbps),
 - BPSK (6,9 Mbps),
 - QPSK (12,18 Mbps),
 - 16-QAM (24,36 Mbps),
 - 64-QAM (48, 54 Mbps)
- Transmit power:
 - 15 dBm ± 2 dBm
- Receive sensitivity:
 - 71 dBm @ 54 Mbps
 - 81 dBm @ 11 Mbps
 - 88 dBm @ 6 Mbps
 - 93 dBm @ 1 Mbps
- Connectors: 2 x U.FL

DEVELOPMENT KIT CONTENTS

- Quick start guide
- Digi software platform support CD
 - Drivers, tools and documentation
- Digi Connect Wi-Wave card
 - Socket with retaining clip
 - 2 x U.FL connectors
 - 2 x RP-SMA connectors
 - USB type B connector
 - Signal headers
 - Status LEDs
 - Power connector
- 2 x U.FL cables (board-to-board)
- 2 x 2 dBi dipole antennas
- 2 x 5 dBi dipole antennas
- Power supply with country/region specific plugs

ENVIRONMENTAL

- Operating temperature:
 - 30° C to 60° C
- Storage temperature:
 - 40° C to 125° C
- Relative humidity:
 - 5% to 90% (non-condensing)
- Altitude:
 - 12,000 feet (3,658 meters)

SOFTWARE PLATFORM SUPPORT

- Microsoft Windows CE 5.0
 - Microsoft Windows Embedded CE 6.0
- ARM and x86 target platforms supported.

POWER REQUIREMENTS

- Module**
- 3.3VDC ± 9% (3.00 to 3.60V)
 - 750 mA max

DIMENSIONS

- Length: 2.006 in (50.95 mm)
- Width: 1.181 in (30.00 mm)
- Height: 0.187 in (4.75 mm)
- Top: 0.095 in (2.40 mm)
- Bottom: 0.053 in (1.35 mm)
- Weight: 0.28 oz (8.00 g) - approximate

MODEL.....PART NUMBERS

Model

Digi Connect Wi-Wave Development/Evaluation Kit

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

North America

DC-WWV-EKIT

International

DC-WWV-EKIT



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 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.

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