

# **D-Link *Air* DCF-660W**

## **2.4 GHz Wireless Compact Flash Adapter**

### **Manual**

*Rev. 041202*

**D-Link**<sup>®</sup>  
Building Networks for People

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## Package Contents



### Contents of Package:

- D-Link Air DCF-660W 2.4GHz Wireless Compact Flash Adapter
- Manual, Drivers, and Utility on CD
- Quick Installation Guide (printed)

*If any of the above items are missing, please contact your reseller.*

### System Requirements:

- PDA with Windows CE 3.0/Pocket PC 2002 with at least 32 MB of memory
- Compact Flash Type I or Type II slot
- A computer with **Microsoft Active Sync** installed
- An 802.11b Access Point (e.g., DWL-1000AP for **Infrastructure Mode**) or another 802.11b wireless adapter (e.g., DWL-650 for **Ad-Hoc mode**.)

## Introduction

The D-Link *Air* DCF-660W 2.4GHz Wireless Compact Flash Adapter is a standard Type II CF interface adapter (backwards compatible to Type I) integrated with WLAN (**W**ireless **L**ocal **A**rea **N**etwork) technology.

It provides an easy and quick way to access a wireless network.

With up to 11 Mbps connection speed, the DCF-660W provides a fast connection when accessing a corporate network or the Internet in a wireless environment. When installed, the DCF-660W is able to communicate with existing 802.11b wireless networks at home, at the office, or in public areas such as airports and coffee shops where wireless networks have been deployed.

## Product Features

- Provides speeds of 1Mbps, 2Mbps, 5.5Mbps and 11 Mbps
- Working range up to 1,311 ft. (400 meters) in an open environment
- Supports Ad-Hoc and Infrastructure modes for easy wireless connection
- Uses Direct Sequence Spread Spectrum (DSSS) modulation technology in the 2.4 GHz frequency range
- Maximum 15dBm output power
- Supports Win CE/Pocket PC 2002
- Supports RC4 128-bit WEP (Wired Equivalent Privacy) Encryption
- Compatible to IEEE 802.11b standard
- Power Save mode of 80mA

## LED

**LED** stands for **L**ight-**E**mitting **D**iode. The DCF-660W has one LED:

**Link/Power** - a solid **Green** light indicates proper installation and a wireless connection. A flashing **Green** light indicates proper installation, but no link established.



## Wireless Basics

D-Link *Air* wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link *Air* wireless family of products will allow you to access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Access Point (AP) is a device used to provide this link.

## Wireless Basics

### Installation Flexibility

The D-Link *Air* DCF-660W offers a fast, reliable, cost-effective wireless solution for client access to the network in a wide variety of scenarios and applications:

- 1. Remote access to corporate network information**  
E-mail, file transfer and terminal emulation
- 2. In difficult-to-wire environments**  
Such as historical or old buildings, asbestos installations, and open areas where wiring is difficult to deploy
- 3. In frequently changing environments**  
Retail, manufacturing and other workplaces that undergo frequent changes of worker locations
- 4. Temporary LANs for special projects or peak time**  
At trade shows, exhibitions and construction sites that may require a temporary network; retailers, airlines or shipping companies that need additional workstations during peak periods; or auditors that may set up workgroups at customer sites
- 5. Access to databases for mobile workers**  
Hospital clinical staffs or retailers that may require access to their databases while maintaining mobility throughout a building or campus
- 6. For Small Office and Home Office users**  
Users who need an easy and quick installation of a small computer network
- 7. Secure communication**  
For those companies or organizations that require a measure of security to transmit information or communicate.

Other D-Link *Air* Wireless LAN products include:

- ◆ 2.4GHz Wireless Cardbus Adapters used with laptop computers (DWL-650)
- ◆ 2.4GHz Wireless PCI cards used with desktop computers (DWL-520)
- ◆ 2.4GHz Wireless Access Points (DWL-1000AP)
- ◆ 2.4GHz Wireless Routers (DI-714 and DI-713P)

## Wireless Basics

## **Installation Considerations**

Designed to go up to 1,311 feet (approximately 400 meters), the D-Link *Air* DCF-660W lets you access your network from virtually anywhere. Keep in mind, however, that the number, thickness and location of walls, ceilings or other objects that the wireless signals must pass thru may limit range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing range is to follow these basic principles:

1. Keep the number of walls and ceilings between the wireless Access Point and your receiving device (i.e., the DCF-660W) to a minimum - Each wall or ceiling can reduce your D-Link *Air* Wireless product's range from 3-90 feet (1-30 meters.) Position your Access Points, Residential Gateways, and computers so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between Access Points, Residential Gateways, and computers. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Try to position the Access Points and adapters so that the signal will travel straight through a wall or ceiling for better reception.
3. Building Materials make a difference - A solid metal door or aluminum studs may have a negative effect on range. Try to position Access Points, and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.
4. Make sure that the device's antenna is positioned for best reception by using the software signal strength tools included with your product.
5. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that may generate extreme RF noise.

For the average home, range should not be a problem. If you experience low or no signal strength in areas of your home that you wish to access, consider positioning the Access Point in a location directly between the computers with wireless adapters. Additional Access Points can be connected to provide better coverage in rooms where the signal does not appear as strong as desired.

## Getting Started

Right out of the box, with its default settings, the DCF-660W will automatically connect with other D-Link *Air* products.

On the following pages we will show you an example of two modes of networking:

- 1 **Infrastructure** – using an Access Point, such as the DWL-1000AP
- 2 **Ad-Hoc** – directly connecting to another computer, in a peer-to-peer mode, using a wireless network adapter, such as the DWL-650 in a laptop computer and the DCF-660W in a PDA.

An **Infrastructure** network contains an Access Point. The **Infrastructure Network** example shown on the following page contains the following D-Link network devices:

A wireless **DHCP** Router/Access Point/Print Server - **D-Link Air DI-713P**

A laptop computer with a wireless network adapter - **D-Link Air DWL-650**

A desktop computer with an Ethernet adapter - **D-Link DFE-530TX+**

A desktop computer with a wireless network adapter- **D-Link Air DWL-520**

A Cable modem - **D-Link DCM-200**

A PDA with a wireless compact flash adapter - **D-Link Air DCF-660W**

***DHCP** stands for Dynamic Host Configuration Protocol.  
It is a protocol for assigning dynamic IP addresses “automatically.”  
With a DHCP-capable gateway/router, there is no need  
to manually assign an IP address.*

*Please refer to the following sections of this manual for additional information about setting up a network:*

**Networking Basics-** *learn how to check your IP Address; share printers and files.*

**Using the Configuration Utility-** *learn the settings you must use on each computer in your network for successful communication.*

**Troubleshooting** – *learn how to check for the proper installation of the network adapters’ drivers and other tips for troubleshooting the network.*



## Getting Started

### Setting Up an Infrastructure Network



Please remember that **D-Link Air** wireless devices are pre-configured to connect together, right out of the box, with the default settings.

- 1** You will need a broadband Internet access (Cable/DSL) subscription.
- 2** Consult with your Cable/DSL provider for proper installation of the modem.
- 3** Connect the modem to a wireless Broadband router (such as the **D-Link Air DI-713P**.) See the installation instructions included with the router.
- 4** Install the drivers for the wireless network adapter (such as the **D-Link Air DWL-650**) into the laptop computer. See the **Quick Installation Guide** included with the **DWL-650**.
- 5** If an Ethernet port is available on the router, connect a computer that is equipped with an Ethernet Network adapter (such as the **DFE-530TX+**) to the router.
- 6** If you have a desktop computer in your network, install the drivers for the **D-Link Air DWL-520** wireless network adapter. See the **Quick Installation Guide** included with the **DWL-520**.
- 7** Install the **D-Link Air DCF-660W** into your PDA. See the **Quick Installation Guide** included with the **DCF-660W**. In all the above installations, the LEDs will light ON to show connection.

## Getting Started

### Setting up a Wireless Ad Hoc Network



- 1** Install a network adapter into one computer. In the example above, a **D-Link Air DWL-120** USB Wireless Network adapter is installed. A **DWL-520** Wireless PCI Adapter could also be installed in a desktop computer. See the **Quick Installation Guide** included with the product for installation instructions.
- 2** Install a wireless cardbus adapter (such as the **DWL-650**) into a laptop computer. See the **Quick Installation Guide** included with the network adapter. Set the wireless configuration for the adapters to Ad-Hoc mode, set the adapters to the same channel, and assign an IP Address to each computer on the Ad-Hoc network. (See box below.)
- 3** Install and configure the DCF-660W. See the **Quick Installation Guide** included with the product.

### IP Address

When assigning IP Addresses to the computers on the network, please remember that the **IP Address for each computer must be in the same IP Address range as all the computers in the network**, and the subnet mask must be exactly the same for all the computers in the network.

For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP Address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

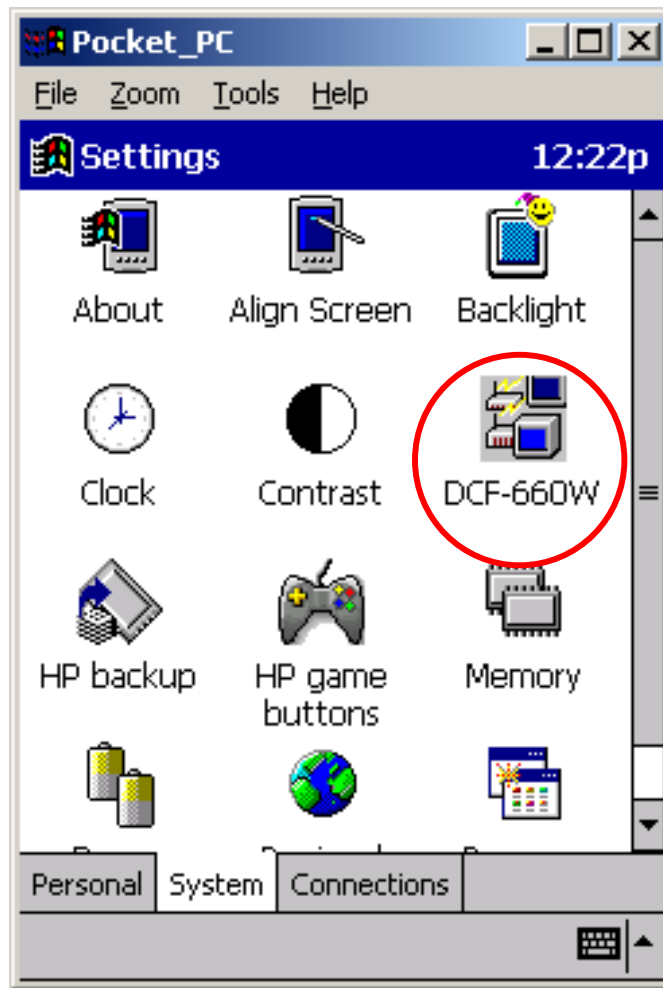
**IMPORTANT:** If computers or other devices are assigned the same IP Address, one or more of the devices may not be visible on the network.

## Using the Configuration Utility

### Using the Utility in Windows CE 3.0 / Pocket PC 2002

**Please note:** The **DCF-660W Wireless Compact Flash Adapter** is a **ready-to-use** device. Its default settings are compatible with a typical **Infrastructure WLAN (Wireless Local Area Network)**. If you choose to adjust the settings, please see the following instructions:

On the PDA, go to **Start > Settings > System** tab



Click on the **DCF-660W**

## Using the Configuration Utility STATUS

The **STATUS** tab displays the DCF-660W Compact Flash Adapter's current status and includes information on the following items:

**Adapter** - Displays the name of the Wireless Compact Flash Adapter

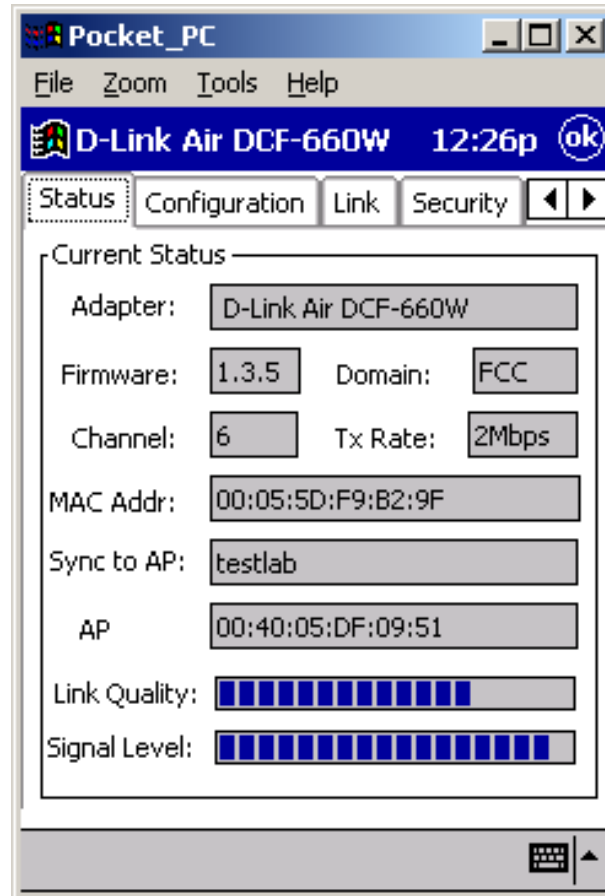
**Firmware** – Displays the firmware version of the DCF-660W

**Domain** – Specifies the regulating organization of the wireless bandwidth

**Channel** – Displays the selected channel setting

**MAC Address** – Displays the Media Access Control identifier for the DCF-660W

**AP MAC ID** - Shows the MAC address of the Access Point that is associated with the D-Link Air DCF-660W Compact Flash Adapter



**Link Quality** – Monitors the quality of the data transmission between the Wireless Compact Flash adapter and the Access point

**Signal Level** – This bar graph displays signal strength as reported by the radio, averaged over all frames that are received from the Access Point

## Using the Configuration Utility

## CONFIGURATION

Select the **CONFIGURATION** tab to view the current settings for:

### SSID

(Service Set Identifier) is a name that identifies a wireless network. Access Points and wireless clients attempting to connect to a specific WLAN (Wireless Local Area Network) must use the same SSID. The default setting is **default**.

*Note: To perform an automatic search of available wireless network, change the SSID setting to **Auto Detect**.*

### Network Type

Use **Infrastructure** mode if you will be using an Access Point in your network.

Use **Ad-Hoc**, if you will not be using an Access Point. Ad-hoc requires the same channel and the same SSID for wireless devices on the network.

### 802.11 Ad-hoc

requires the same channel and SSID among the wireless clients.

The screenshot shows the configuration interface for a D-Link Air DCF-660W device. The window is titled 'Pocket\_PC' and has a menu bar with 'File', 'Zoom', 'Tools', and 'Help'. The status bar displays 'D-Link Air DCF-660W' and the time '12:27p'. The 'Configuration' tab is active, showing the following settings:

- SSID:** 'Specify SSID' is selected with a text box containing 'default'. 'Auto Detect' is unselected.
- Network Type:** 'Infrastructure' is selected. '802.11 Ad-Hoc' is unselected. The 'Ad-Hoc' option is also unselected. The 'Channel' is set to '06'.
- Power Saving Mode:** 'Disable' is selected. 'Enable' is unselected.
- Tx Rate:** Set to 'Auto'.

At the bottom of the configuration area, there are 'Apply' and 'Default' buttons.

**Power Save Mode** – The Power Save mode is used to extend battery life.

*Note: In Power Save mode, the Access Points used must support Power Saving for communication to be established.*

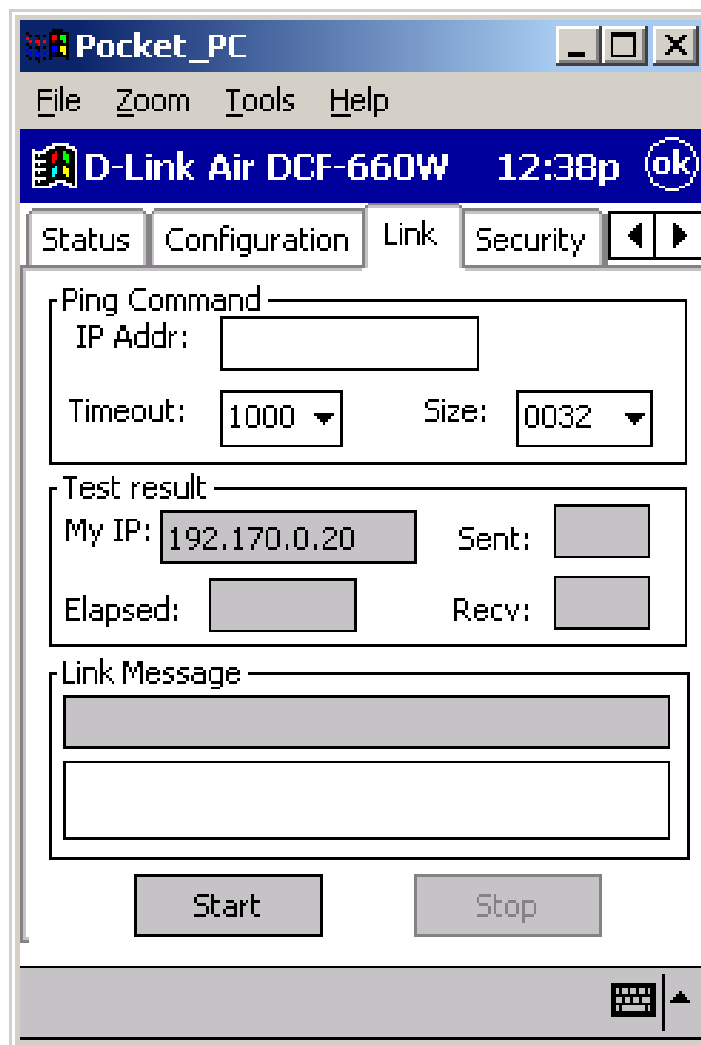
**Tx Rate** (Transmission rate) – The default transfer rate is **Auto** which allows the **DCF-660W** to adjust to the most optimal transfer rate available. However, the settings can be set at a fixed transfer rate.

**NOTE:** Click **Apply** to save any changes.

## Using the Configuration Utility

### LINK

The **LINK** tab is similar to the Ping Command. It allows you to monitor transmission quality between two stations. Enter the IP address of another station, set the timeout and packet size to see if the communication was sent successfully.



## Using the Configuration Utility SECURITY

If an additional measure of security is desired on the wireless network, WEP (Wired Equivalent Privacy) encryption can be enabled.

- Select **Enable** to activate encryption.
- Select **64 Bit** or **128 Bit WEP Key Length**
- Select **WEP Key Type: Character or Hexadecimal**
- Select **Authentication Type: Open, Shared or Auto**

*Please note that all devices must share the same Encryption settings to communicate on the network.*

Input 4 different **Key Settings** in the fields provided.

- **For 64 Bit WEP encryption**, you may enter **5** characters in the range of **a-z** and **0-9** (for example: **MyKey**); or a **10** digit hexadecimal value in the range **A-F**, **a-f**, and **0-9**. (For example: 11AA22BB33).
- **For 128 Bit WEP encryption**, you will enter **13** characters in the range of **a-z**, **A-Z** and **0-9** (for example: MyKey12345678); or a **26** digit hexadecimal number for 128-bit encryption. If the number is entered incorrectly the function will not work.

After entering the WEP keys, choose the WEP key you wish to use and click **Apply** for the configuration to take effect.

The screenshot shows a window titled "Pocket\_PC" with a menu bar (File, Zoom, Tools, Help) and a status bar (D-Link Air DCF-660W, 12:39p, ok). The "Security" tab is selected, showing the following settings:

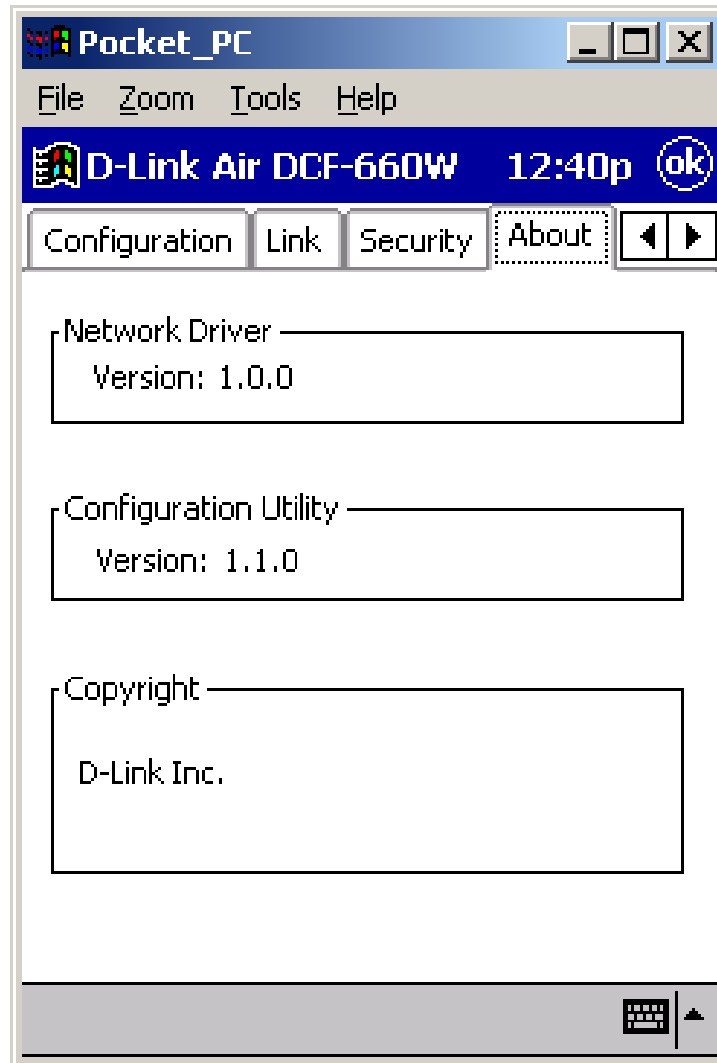
- Encryption (WEP):  Disable  Enable
- WEP Key Length:  64  128-bit
- WEP Key Type: Char (dropdown)
- Authentication Type: Open System (dropdown)
- Key Setting:
  - Key 1: \*\*\*\*\*
  - Key 2: \*\*\*\*\*
  - Key 3: \*\*\*\*\*
  - Key 4: \*\*\*\*\*

Buttons for "Apply" and "Undo" are visible at the bottom.

## Using the Configuration Utility

### ABOUT

The **About** tab shows the driver and utility version for the DCF-660W Wireless LAN Compact Flash Card.





## Troubleshooting

### Tips to Configure the PDA for accessing the Internet

To Configure the following:	Go to:
The Access Point's SSID	Settings>System>Wireless LAN Setting>Configuration
WEP keys (if required)	Settings>System>Wireless LAN Settings>WEP
DHCP/Fixed IP (under IE browser)	Setting>Connections>Network (select the Wireless LAN CF Card. Set the IP Address and Name Servers accordingly.)
IP Addresses for device, Proxy server (under IE browser)	Tools>Options>Connections (enter desired Proxy's IP address and port#.)
If DNS, WINS is needed (most IP addresses are automatically assigned.)	(Under IE browser) Tools>Internet Options>Connections (enter desired Proxy address and port #.)

**After you shut down your PDA**, when you **power on** the PDA again, it will open to the last application in use when it was **shut down**. If you are unable to navigate out of the **Utility** program, you may use the PDA's reset button to terminate the program. You can open the program again when needed.

**If your wireless connection to the Access Point gets disconnected** for any reason, you can reset and force a connection request by going to the utility program, selecting **Configure**, checking parameters, then selecting **Modify** to force a re-scan.

**If your device roams to a new Access Point** which is in a different subnet, you may need to do one or both of the following: (1) Unplug and re-insert the Wireless LAN Compact Flash Adapter, or (2) Hard reset your device to force a **release and renew** of a re-assignment of the IP address in a DHCP Access Point environment.

# Technical Specifications

## Standards

- IEEE 802.11b
- Wi-Fi Compatible

## Host interface

- Compact Flash V1.4, CF+ I/O interface, Type I & Type II compliant

## Protocols

- TCP/IP

## Data Security

- 64/128-bit WEP (Wired Equivalent Privacy) Encryption

## Data Rate & Modulation

- 11Mbps: CCK
- 5.5Mbps: CCK
- 2Mbps: DQPSK
- 1Mbps: DBPSK
- Auto Fall-Back

## Range Coverage (Open Environment)

- 460 feet (140 m) @ 11Mbps
- 656 feet (200 m) @ 5.5Mbps
- 885 feet (270 m) @ 2Mbps
- 1311 feet (400 m) @ 1Mbps

## Supported OS

- Windows CE version 3.0 / Pocket PC 2002

## Diagnostic LED

- Link/Power

## Power Consumption

- TX power consumption: <350mA
- RX power consumption: <250mA
- Sleep Mode power consumption: 17mA

## Output Power

- 12 dBm

## Voltage

- 3.3 VDC  $\pm$  5%

## Network Architecture Types

- Supports Ad-Hoc and Infrastructure Modes

- Roaming (standard IEEE 802.11 compliant)

### **Operating Channels**

- 11 North America (FCC)

### **Antenna**

- PIFA (Patched Inverse "F" Antenna) Type Antenna

### **Sensitivity @ PER<0.08**

- 11Mbps < -83dBm
- 5.5Mbps < -86dBm
- 2 Mbps < -89dBm
- 1 Mbps < -91dBm

### **Frequency Range**

- 2.412-2.462 GHz, Direct Sequence Spread Spectrum (DSSS)

### **Temperature**

- Operating Temperature 32° ~ 131°F (0 ~ 55°C)
- Storage Temperature -4° ~ 176°F (-20 ~ 80 °C)

### **Humidity**

- 5~90% Non-condensing

### **Physical Dimensions**

- L = 4.45 inches (113 mm)
- W= 2.13 inches (54 mm)
- H= 0.21 inches (5.3 mm)
- Weight = 0.04 lbs (<20g)

### **Compatibility:**

#### **Pocket PC**

Compaq	IPAQ 36xx/37xx/38xx series (CPU: Strong ARM)
Casio	E125, E200, BE300, BE500 (MIPS R4000)
HP	Jornada 535, 540, 548 (CPU: SH3), 565 (Strong Arm: SA1110)

#### **Handheld PC**

Sharp	Telios (MIPS R3000)
HP	Jornada 720 (Strong ARM)
Intel	Pentium/X86 CPU

### **Warranty**

- One Year Limited Warranty  
\*Check <http://support.dlink.com> for newest releases of drivers.

## Contacting Technical Support

You can find the most recent software and user documentation on the D-Link website.

D-Link provides free technical support for customers within the United States for the duration of the warranty period on this product.

U.S. customers can contact D-Link technical support through our web site, or by phone.

### **D-Link Technical Support over the Telephone:**

(800) 758-5489

24 hours a day, seven days a week.

### **D-Link Technical Support over the Internet:**

<http://support.dlink.com>

*When contacting technical support, please provide the following information:*

- *Serial number of the unit*
- *Model number or product name*
- *Software type and version number*

## Limited Warranty and Registration

D-Link Systems, Inc. ("D-Link") provides this 1-Year warranty for its product only to the person or entity who originally purchased the product from:

- D-Link or its authorized reseller or distributor.
- Products purchased and delivered with the fifty United States, the District of Columbia, US Possessions or Protectorates, US Military Installations, addresses with an APO or FPO.

**1-Year Limited Hardware Warranty:** D-Link warrants that the hardware portion of the D-Link products described below ("Hardware") will be free from material defects in workmanship and materials from the date of original retail purchase of the Hardware, for the period set forth below applicable to the product type ("Warranty Period").

### 1-Year Limited Warranty for the Product(s) is defined as follows

- Hardware

D-Link's sole obligation shall be to repair or replace the defective Hardware at no charge to the original owner. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or of an identical make, model or part; D-Link may in its discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. The Warranty Period shall extend for an additional ninety (90) days after any repaired or replaced Hardware is delivered. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

**Limited Software Warranty:** D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original delivery of the Software for a period of ninety (90) days ("Warranty Period"), if the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. The Warranty Period shall extend for an additional ninety (90) days after any replacement Software is delivered. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

### **What You Must Do For Warranty Service:**

Registration is conducted via a link on our Web Site (<http://www.dlink.com/>). Each product purchased must be individually registered for warranty service within ninety (90) days after it is purchased and/or licensed.

FAILURE TO PROPERLY TO REGISTER MAY AFFECT THE WARRANTY FOR THIS PRODUCT.

**Submitting A Claim.** Any claim under this limited warranty must be submitted in writing before the end of the Warranty Period to an Authorized D-Link Service Office.

- The customer must submit as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.
- The original product owner must obtain a Return Material Authorization (RMA) number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package.
- The customer is responsible for all shipping charges to and from D-Link. (No CODs allowed). Products sent COD will become the property of D-Link Systems, Inc. Products should be fully insured by the customer and shipped to **D-Link Systems Inc., 53 Discovery Drive, Irvine CA 92618.**

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The

product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

**What Is Not Covered:**

This limited warranty provided by D-Link does not cover: Products that have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; and Any hardware, software, firmware or other products or services provided by anyone other than D-Link.

**Disclaimer of Other Warranties:** EXCEPT FOR THE 1-YEAR LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

**Limitation of Liability:** TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT.

**GOVERNING LAW:** This 1-Year Warranty shall be governed by the laws of the state of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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**CE Mark Warning**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**To Register Your D-Link Product, register online at <http://www.dlink.com/sales/reg>**