D-Link

D-Link *Air* DCF-650W/K

Wireless Compact Flash Kit
with PC Card converter

Manual

Table of Contents

Package Contents

DCF-650W High Speed Wireless Compact Flash Adapter Kit

Package Contents

- DCF-650W 11Mbps High Speed Wireless LAN
   Compact Flash Adapter

- Drivers on CD-ROM

- User's Manual

- Quick Install Guide

- DCF-653 Compact Flash/PC Card Converter

Introduction

The D-Link *Air* DCF-650W is an IEEE 802.11b Wireless Compact Flash Adapter that uses a standard Type II CF adapter interface. It provides the easiest and fastest way to access the Internet via a wireless network. The Wireless Compact Flash technology in the DCF-650W allows the user to easily install devices such as PDAs (Personal Digital Assistants) or other devices equipped with a Type II CF slot. The D-Link DCF-650W is 802.11b compliant and capable of connecting at data rates of up to 11Mbps. The 11Mbps capability of the DCF-650W is comparable to existing Ethernet network settings and provides the user the necessary bandwidth to access and download files directly from the Internet or a Local Area Network environment.

Features and Benefits

1. Supports 1, 2, 5.5 and 11 Mbps data rates

2. Working range is up to 800 ft. (243.84 meters) in an open environment

3. Supports point-to-point and point-to-multipoint access

4. Seamless connectivity to wired Ethernet and PC network LANs augments existing networks quickly and easily

5. Direct Sequence Spread Spectrum (DSSS) technology provides robust, interference-resistant, and secure wireless connection

6. Wireless connection without the cost of cabling

7. Supports WinCE 3.0 Handheld/Pocket PC

8. Supports high security WEP encryption (64-bit and 128-bit)

9. Supports Plug and Play

10. Easy Step-by-Step installation

Wireless Solutions

IEEE 802.11b Wireless LAN products offer a fast, reliable, cost-effective solution for wireless client access to the network in applications like these:

1. **Remote access to corporate network information**
    E-mail access and file transfers

2. **Difficult-to-wire environments**
    Historical or old buildings, asbestos installations, and open areas where wiring is difficult to deploy

3. **Frequently changing environments**
    Retailers, manufacturers, and companies that require constant change in both location and the working environment

4. **Temporary LANs for special projects or peak time**
    - Trade shows, exhibitions, and construction sites that require a temporary network
    - Retailers, airlines, and shipping companies needing additional workstations during peak periods
    - Auditors that may set up workgroups at customer sites

5. **Access to the database for mobile workers**

    Doctors, nurses, and retailers, may access their databases while maintaining mobility in their work environments

6. **Small Office or Home Office users**
    Provides an easy and quick installation of a computer network

7. **High security connection**
    The secure wireless network is installed quickly and provides flexibility

System Requirements

In order to use the D-Link *Air* DCF-650W Wireless Compact Flash Adapter, the desktop or laptop computer used to "sync" the PDA must be equipped with the following:

"Microsoft Active Sync" software

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 or business. Strictly adhering to IEEE 802.11b, the D-Link *Air* wireless family of products will allow you to access the data you want, when and where you want it. No longer will you be tethered to a workstation or forced to run new wiring through your home or office. You will be able to enjoy the freedom that wireless networking delivers.

A wireless LAN (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

WLAN users can use the same network applications they use on an Ethernet LAN.   WLAN adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards. For most users, there is no noticeable functional difference between a wired Ethernet desktop computer and a mobile WLAN workstation other than the added benefit of the ability to roam within the WLAN-cell. 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.

People use wireless LAN technology for many different purposes.

Mobility - Productivity increases when people have access to data in any location within the operating range of the WLAN. Ad-hoc management decisions based on real-time information can significantly improve worker efficiency.

Low Implementation Costs - WLANs are easy to set up, manage, change and relocate. Networks that frequently change, both physically and logically, can benefit from WLANs ease of implementation. WLANs can operate in locations where installation of wiring may be impractical. Furthermore, IEEE standardization mandates interoperability of all WLAN devices that conform to the 802.11b set of standards.

Installation Speed and Simplicity - Installing a wireless LAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings.

Installation Flexibility - Wireless technology allows the network to go where wires cannot go.

Reduced Cost-of-Ownership - While the initial investment required for wireless LAN hardware might be higher than the cost of wired LAN hardware, overall installation expenses and life-cycle costs will be significantly lower. Long-term cost benefits are greatest in dynamic environments requiring frequent moves, adds, and changes.

Scalability - Wireless LAN systems can be configured in a variety of topologies to meet the needs of specific applications and installations. Configurations are easily changed and range from peer-to-peer networks suitable for a small number of users to full infrastructure networks of thousands of users that allow roaming over a broad area.

The full range of D-Link *Air* Wireless LAN products include:

◆ Wireless PC cards used with laptop computers

◆ Wireless PCI cards used with desktop computers

◆ Wireless Access Points

◆ Wireless Home Gateways

Standards - Based Technology

The IEEE 802.11b standard designates that devices operate at an optimal data rate of 11 Megabits per second. This means you will be able to transfer large files quickly or even watch a movie in MPEG format over your network without noticeable delays. This technology works by using multiple frequencies in the 2.4GHz range utilizing Direct Sequence Spread Spectrum (DSSS) technology. D-Link *Air* products will automatically sense the best possible connection speed to ensure the greatest speed and range possible with the technology.

Installation Considerations

Designed to go up to 300 feet (100 meters) indoors and up to 900 feet (273 meters) outdoors, D-Link *Air* DWL-120 lets you access your network from virtually anywhere you want. Keep in mind, however, that the number and thickness 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 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 access point and your receiving device to a minimum - Each wall or ceiling can reduce your D-Link *Air* Wireless product's range from 3-90 feet (1-30 meters.)   For some businesses or for a large residential home deployment, it may be more beneficial to have more than one access point with overlapping coverage.

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 make sure that the Access Points and Adapters are positioned 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, Residential Gateways, and Computers so that the signal passes through drywall or open doorways and not other materials.

4. Make sure that the 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 that generate RF noise, like microwaves, monitors, electric motors, etc.

For the average residence, 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 Residential Gateways and/or Computers that will be connected. Additional Access Points can be connected to provide better coverage in rooms where the signal does not appear as strong as desired.

Using radio frequency (RF) technology, WLANs transmit and receive data over the air, minimizing the need for wired connections. Thus, WLANs combine data connectivity with user mobility, and, through simplified configuration, enable movable LANs.

Network Topology

Ad-Hoc Wireless Network

Desktop with
Wireless NIC

Notebook with
Wireless NIC

**Ad-Hoc Wireless
LAN1**

Notebook with
Wireless NIC

Desktop with
Wireless NIC

Desktop with
Wireless NIC

**Ad-Hoc Wireless
LAN2**

Notebook with
Wireless NIC

Desktop with
Wireless NIC

Desktop with
Wireless NIC

Notebook with
Wireless NIC
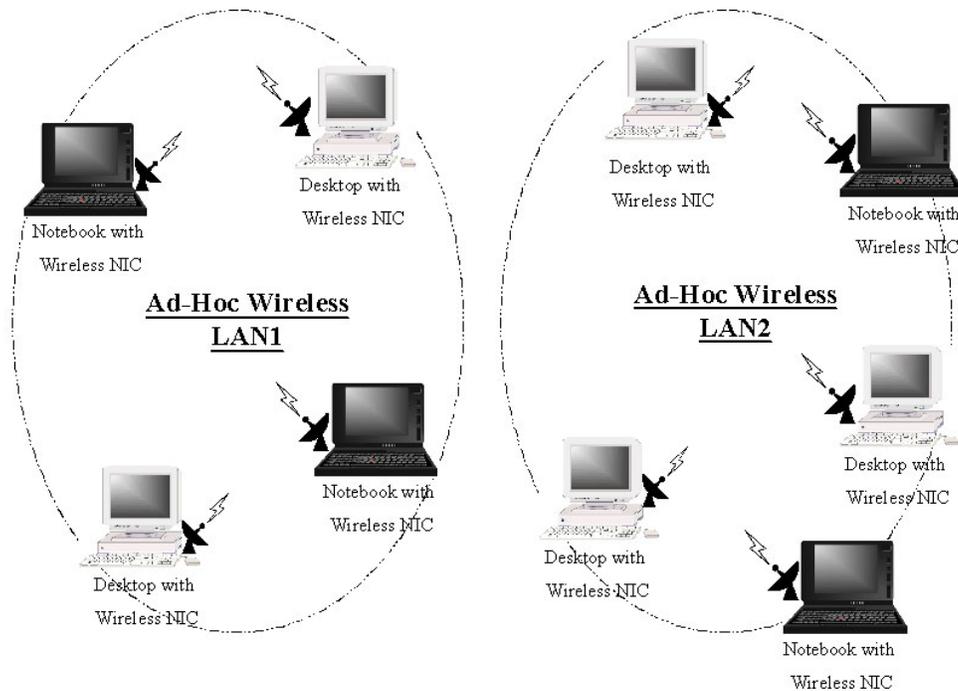
An Ad-Hoc wireless LAN is a group of computers as well as PDAs that are equipped with wireless adapters and connected as an independent wireless LAN (Local Area Network).

802.11 Ad-Hoc is a version of Ad-Hoc networking that allows wireless adapters from different manufacturers to work together. Both the **radio channel** and the **ESSID** must be the same for each computer or PDA.

Infrastructure Wireless Network
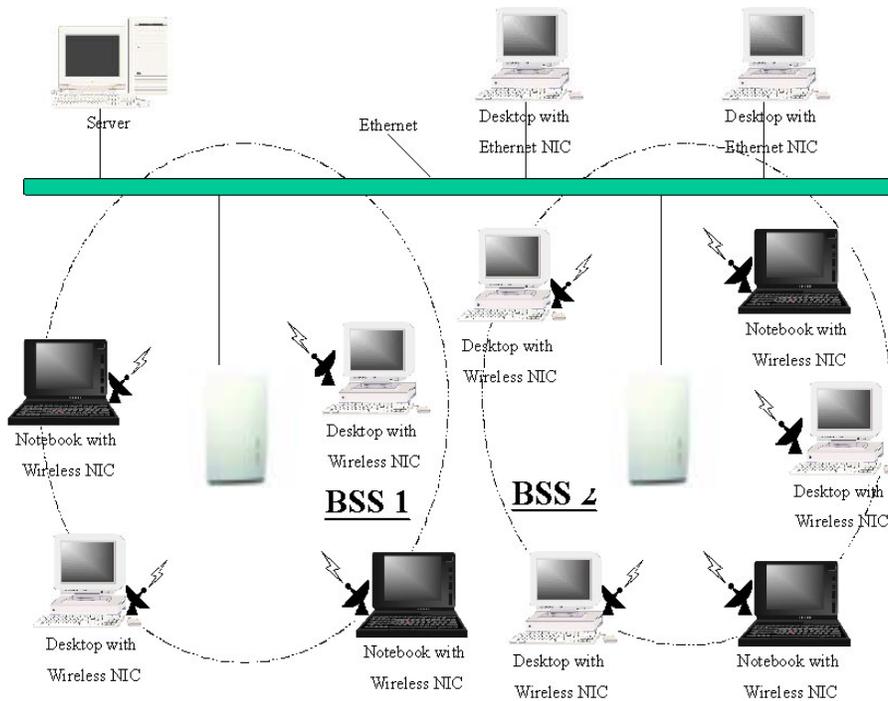
The D-Link *Air* DCF-650W provides access to a wired LAN through the wireless extension of the local network. An integrated wireless and wired LAN using the deployment of Access Points is called an Infrastructure configuration. A group of wireless LAN PC users and an Access Point construct a Basic Service Set (BSS). Each wireless-equipped PC or PDA in this BSS will be able to communicate to any computer in the wired LAN infrastructure via the Access Point.

Infrastructure configuration will extend the accessibility of a wireless station or PDA (Personal Digital Assistant) to the wired LAN. Multiple Access Points will allow roaming and will increase the effective transmission range. Also, the Access Point is capable of forwarding data within its Basic Service Set. Consequently, the effective transmission range in an infrastructure LAN is **doubled** with the introduction of wireless products into a local wired network.

Wireless LAN Settings

Using the Wireless LAN Utility on the DCF-650W

*Note: The **DCF-650W Wireless Compact Flash Adapter** is a ready-to-use device. Its default settings are compatible with a typical **Infrastructure Wireless LAN. (Refer to the Quick Install Guide for instructions on Installing the Wireless LAN Utility on the DCF-650W.)***

If you choose to adjust the settings, please see the following instructions:

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

Click on **DCF-650W CF Card**

The INFO Tab

The **INFO** Tab displays the Wireless 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 that is equipped with your hardware

Domain –
The regulated operating frequency per country

Channel –
Displays the current channel that the Wireless Compact Flash is using

MAC Address –
The hardware identification number that distinguishes the unit from others

BSSID -
Shows the MAC address of the Access Point that is associated with the Wireless LAN Compact Flash Adapter

ESSID –
Displays the Access Point that is associated with the Wireless LAN 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

The CONFIGURE Tab

-11-

The **CONFIGURE** Tab displays the following items:

ESSID –
The ESSID is a unique ID given to the Access Point. Wireless clients using the same Access Point, must have the same ESSID as the Access Point.

Note: Specifying an ESSID will prevent you from inadvertently connecting to a different wireless network.

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

Use **Ad-Hoc** mode, if you will **not** be using an Access Point. There are two types of Ad-Hoc network:

> **Ad-Hoc** requires the same channel for all computers on the network.

> **802.11 Ad-Hoc** requires the same channel **and** the same ESSID among all wireless stations.

PS Mode –
The **Power Save** mode is used to save battery life while the Wireless Compact Flash Adapter goes into sleep mode.

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

Tx Rate –
The default transfer rate of **Fully Auto** or **Auto Rate** is the most efficient choice since it will allow the **DCF-650W** to adjust to the most optimal transfer rate available. However, options are provided for setting a fixed transfer rate.

You may make modifications to these settings if needed.
***Click Modify** after you make the changes.*

-12-
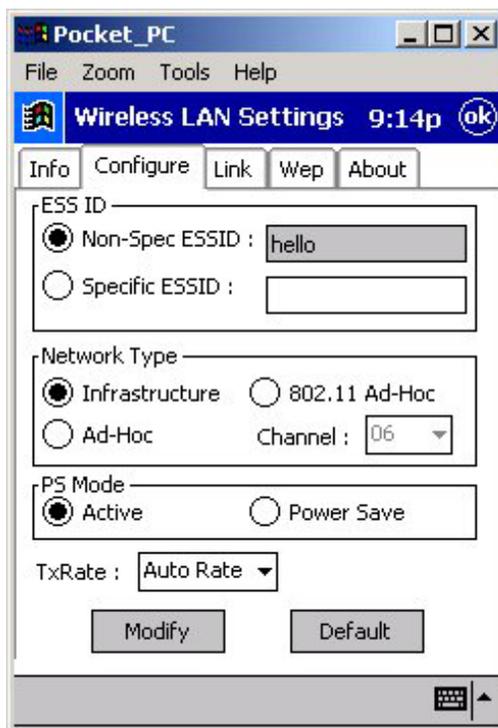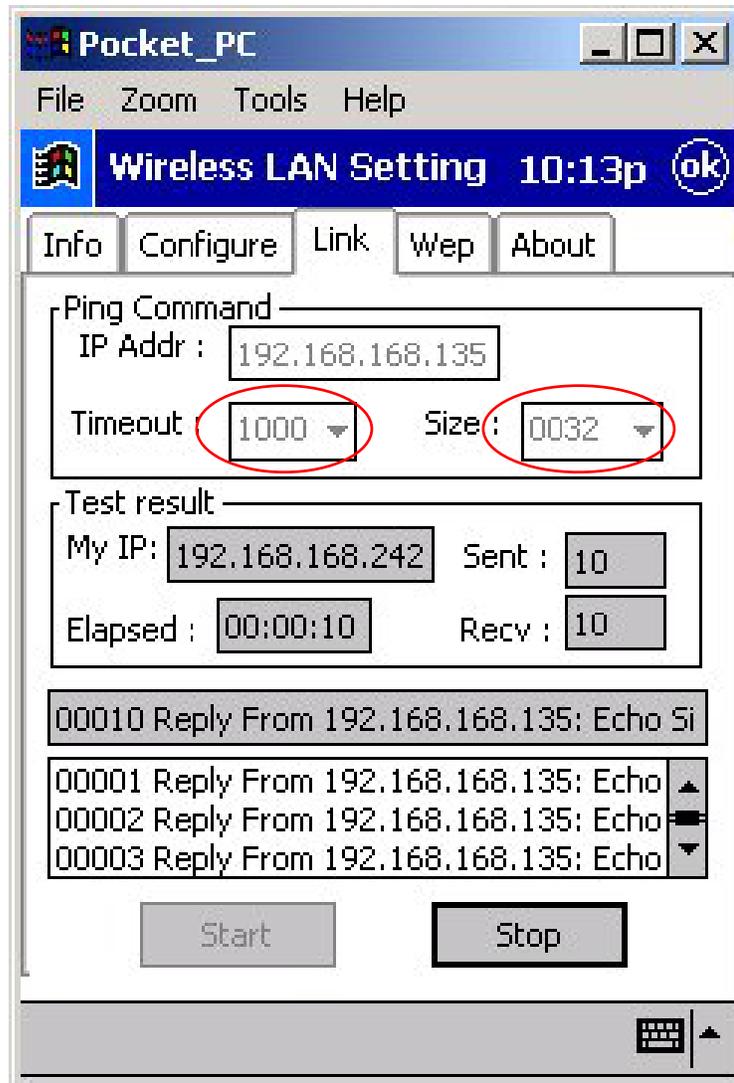
The LINK Tab

The **LINK** Tab is similar to the Ping Command used in computers to verify that an Ethernet connection has been established. It allows you to monitor transmission quality between two stations. Enter the IP address of another station and set the **Timeout** and packet **Size** to see if the communication was sent successfully.

The WEP Tab

If an additional measure of security is desired on the wireless network, **WEP** (Wired Equivalent Privacy) encryption can be enabled. Please select **Enable** in the above screen, if you wish to activate encryption.

To activate WEP encryption, you will also need to select the **Key Length.** You may select either **64 Bits** or **128 Bits.** *__Please choose the Key Length that is the same as your Access Point.__*

Input 4 different **Key Settings** in the fields provided. For **64 Bits** WEP encryption, you may enter **5** characters in the range of "a-z", "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 Bits** WEP encryption, you will enter **13** characters in the range of "a-z", "A-Z" and "0-9" (for example: MyKey12345678); or **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.   Make a note of the character and digit string you used for each key.   If you forget your settings, you can change them by selecting **Disable** and entering new keys.

-14-

Using the WLAN Utility on Your Laptop Computer

The WLAN Utility consists of a window with 5 items with which to monitor and configure the 11Mbps Wireless LAN CF Card: **Configuration**, **Loop Back**, **AP Browser**, **Site Survey** and **About**.

Configuration:

The **Configuration Tab** allows you to modify the configuration parameters for the 11Mbps Wireless LAN CF Card in these fields: **Profile**, **Network Type**, **Channel**, **Transmit Rate**, **ESSID**, and **WEP**. You may also monitor the current status of these Wireless LAN CF Card properties: **State**, **Current Channel**, **Current Tx Rate**, **Throughput**, **Link Quality** and **Signal Strength**. To configure advanced properties, **Click Advance**.
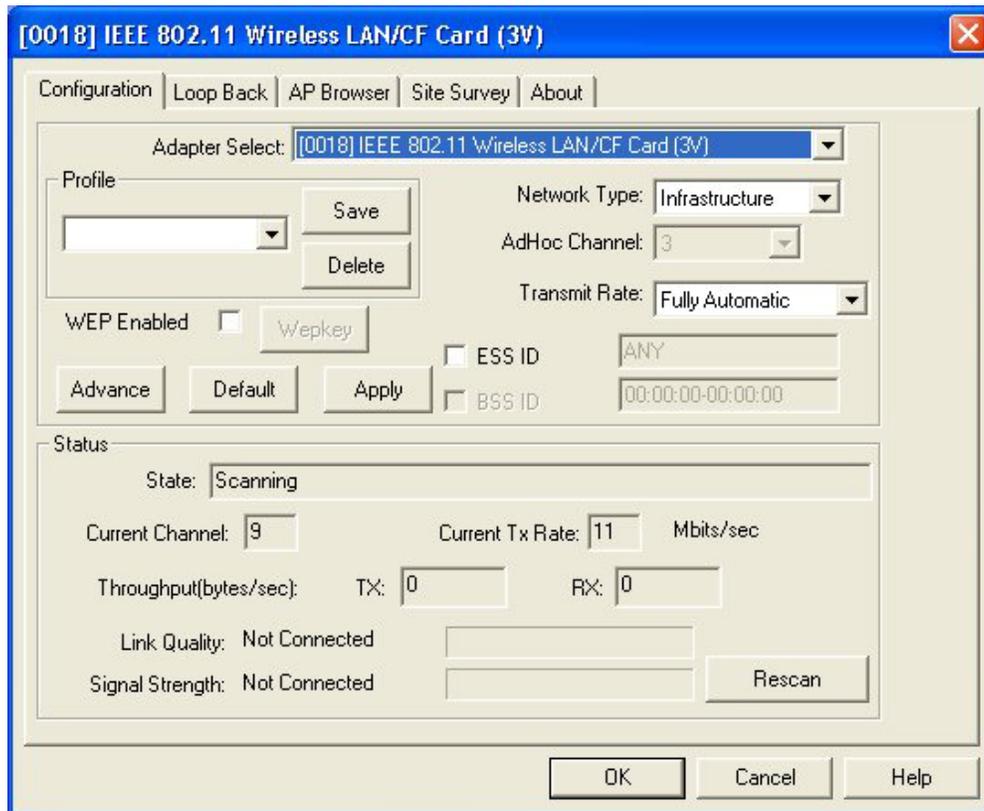
In the **Advanced Configuration** window you can configure the following fields: **Power Save** mode, **RTS Threshold, Frag Threshold, IRQ number and IO Address.   Click OK** after you have made your changes.

Advanced Configuration

Advanced Config

☐ Power Save Enabled

RTS Threshold

⦿ Disable

○ Enable   2432

Frag Threshold

⦿ Disable

○ Enable   2432

IRQ NO.: [   ]

IO Address: [   ]

[OK]

[Cancel]

Loop Back:

The **Loop Back** tool helps you examine point-to-point data transmission quality between your 11Mbps Wireless LAN CF Card and any workstation on the network.   By entering the IP address of a remote station, setting ping interval and packet size, you can find out if communication has been made successfully.   Additionally, you may run the loopback test by clicking the **Loop Back** button to verify the communication quality between your wireless station and your Access Point. The **Refresh** button is used for setting counters back to 0.

AP Browser:

By clicking the **Rescan** button, the AP Browser will display Access Points around the working environment.   Besides showing the ESSID of each Access Point, it also displays BSSID, Channel, Signal, Quality and Supported Rates.   To join any of the displayed Access Points, highlight the Access Point to which you wish to connect and then click the **Join BSS** or **Join ESS** button to join the group.

Site Survey:

When the **Site Survey** screen is displayed, the channel quality of all 14 radio channels will be displayed.   The blue bar indicates that the channel quality is clear and good.   The **higher** the blue bar is, the **better** quality you have (i.e., less interference).   The yellow bar indicates that the channel quality is fair, and the red bar indicates the channel is busy or having severe interference.
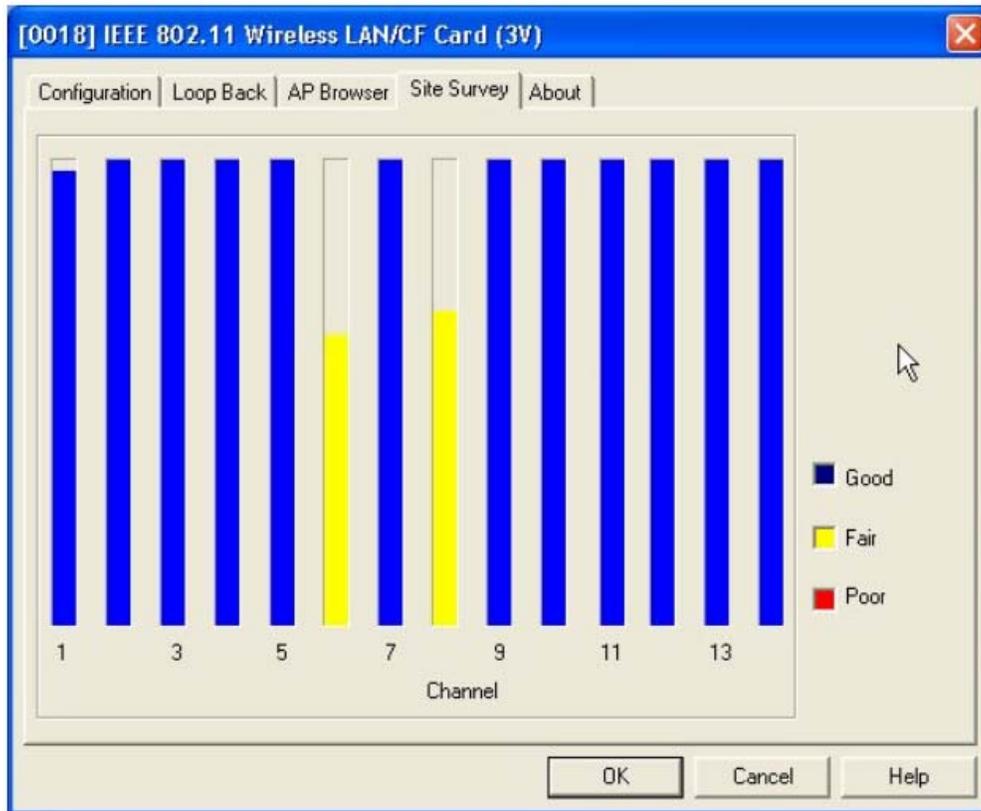
About:

The **About** item shows the versions of the **WLAN Utility**, **Driver**, and **Firmware** of the 11Mbps Wireless LAN CF Card.   The **MAC Address** and **Frequency Domain** are also displayed.
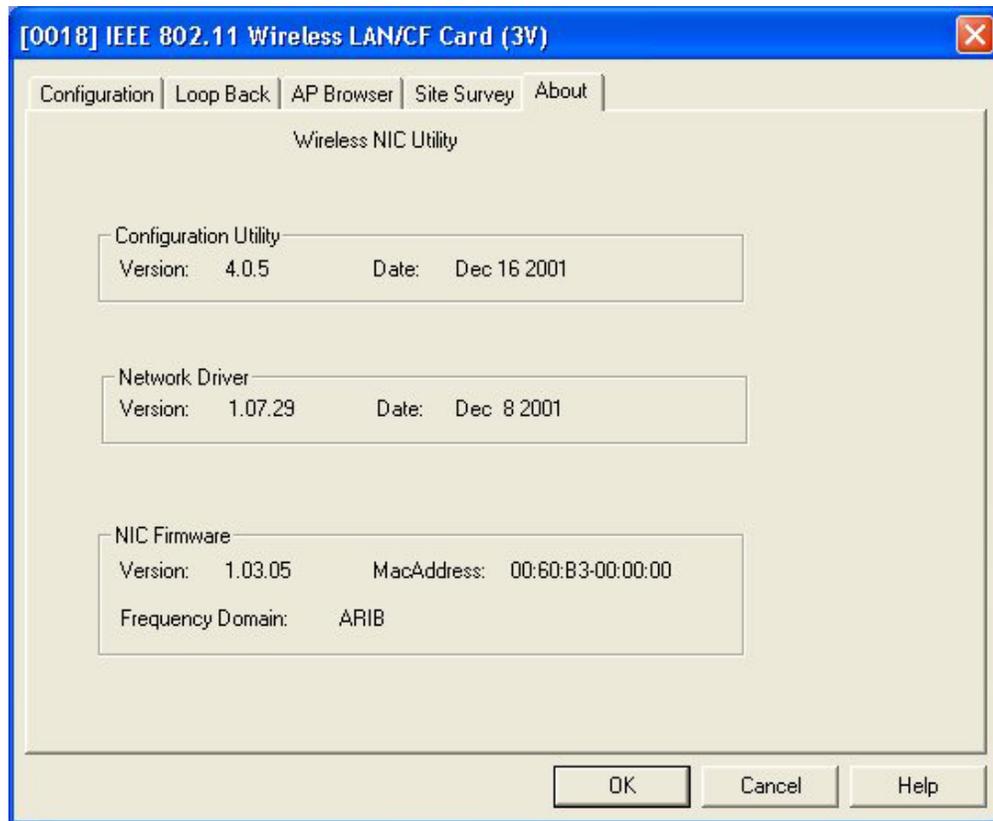
Troubleshooting

Tips to **Configure Your PDA** for accessing the Internet

To Configure the following:	Go to:
The Access Point's ESSID	Settings>System>Wireless LAN Setting>Configure
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, turn 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 activate it 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 the IP address in a DHCP Access Point environment.

Specifications for DCF-650W

Standards
- IEEE 802.11b

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

Protocols
- TCP/IP

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

Data Rate & Modulation
- 11Mbps: CCK
- 5.5Mbps: CCK
- 2Mbps: DQPSK
- 1Mpbs: DBSK
- Auto Fall-Back

Range Coverage   (Open Environment)
- 460 feet @ 11Mbps
- 656 feet @ 5.5Mbps
- 885 feet @ 2Mbps
- 1311 feet @ 1Mbps

Supported OS
- Windows CE version 3.0

Diagnostic LED
- Power, Link

Power Consumption
- TX power consumption: <380mA
- RX power consumption: <280mA
- Sleep Mode power consumption: 170mA

Output Power
- 14 dBm (Max. 18dBm)

Voltage
- 3.3 VDC+-10%

Network Architecture Types
- Supports Ad-Hoc and Infrastructure, 802.11 Ad-Hoc
- Roaming (standard IEEE 802.11 compliant)

Operating Channels
- 11 United States (FCC)
- 11 Canada (DOC)

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

Sensitivity @ PER<0.08
- 11Mbps < -80dBm
- 5.5Mbps < -83dBm
- 2 Mbps < -86dBm
- 1 Mbps < -88dBm

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

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

Humidity
- 5~90% Non-condensing

Physical Dimensions
- L = 3.25 inches
- W= 2.31 inches
- H= 0.44 inches
- Weight = 0.06 lbs.

Compatibility

Pocket PC

Compaq	iPAQ (CPU: Strong ARM)
Casio	E115 and E125 (MIPS R4000)

Handheld PC

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

Warranty
- One Year Limited Warranty
  *Check *http://www.dlink.com* for newest releases of drivers.

Specifications for DCF-653 Converter

Sockets
- 1x Type II PC CARD Converter with 68-pin connector.
- 1x Type I/II Compact Flash Card 50-pin socket.

Interface
- PC Card

Power supply
- DC 3.3V or DC 5V from PC CARD socket directly

Dimensions
- Housing-----W 54.0 x H 5.0 x D 85.6 mm (W 2.12 x H.19 x D 3.36 in.)

Weight
- 23 g (.8 oz.) approx.

Environment Temperature:
- Operating temperature: 0°~70°C (32~158°F)
- Storage temperature: -40°~70°C (-40~158°F)
    - Relative Humidity:
        - Operating RH: 50% (Max. without condensing)
        - Storage RH: 95% (Max. without condensing)

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 during 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 Telephone:
(800) 758-5489
24 hours a day, seven days a week

D-Link Technical Support over the Internet:

http://support.dlink.com

Limited Warranty

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 (excluding power supplies and fans)

- Power Supplies and Fans One (1) Year.

- Spare parts and spare kits Ninety (90) days.

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.

Trademarks
Copyright® 2002 D-Link Corporation. Contents subject to change without prior notice. D-Link is a registered trademark of D-Link Corporation/D-Link Systems, Inc. All other trademarks belong to their respective proprietors.

Copyright Statement
No part of this publication may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems Inc., as stipulated by the United States Copyright Act of 1976.

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

-27-