

D-Link *AirPlus*TM G

DWL-G650X

802.11g (2.4GHz)

Wireless Cardbus Adapter

Manual

D-Link[®]

Building Networks for People

Contents

Package Contents	3
Introduction	4
Wireless Basics	5
Installation Considerations	7
Getting Started	8
Configuring the DWL-G650X	11
Troubleshooting	17
Technical Specifications	19
Contacting Technical Support	21
Warranty	22

Package Contents



Contents of Package:

- **D-Link AirPlus™ G DWL-G650X**
802.11g (2.4GHz) Wireless Cardbus Adapter
- CD-ROM with Manual
- Printed Quick Installation Guide

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

System Requirements for Configuration:

- A Macintosh Powerbook (OS X 10.3.x* or later) with an available 32-bit cardbus slot
- An 802.11g or 802.11b access point (*for Infrastructure mode*), or another 802.11g or 802.11b wireless adapter (*for Ad-Hoc, Peer-to-Peer networking mode.*)

**Please go to <http://support.dlink.com> for a list of compatible OS versions.*

Introduction

The D-Link *AirPlus™* G DWL-G650X Wireless Cardbus Adapter is an 802.11b/802.11g (2.4GHz) wireless adapter that supports high-speed wireless networking at home, at work or in public places.

Unlike most network cards, the DWL-G650X provides a maximum wireless signal rate of up to 54Mbps* (compared to the standard 11Mbps) when used with other D-Link *AirPlus™* G products. The 802.11g standard is backwards compatible with 802.11b products.

Features

- **Faster Wireless Networking** - Faster data transfers mean increased productivity. With the DWL-G650X in your laptop computer, you will have the flexibility of wireless networking speeds that save you time and money.
- **Compatible with 802.11b and 802.11g Devices** - Compatible with the IEEE 802.11b and 802.11g standards, the DWL-G650X can connect with existing 802.11b- or 802.11g- compliant routers, access points and cards. That means you can still communicate with colleagues and friends while you have the ability to link to even more wireless networks.
- **32-bit Cardbus Performance/Plug & Play Connectivity** - The DWL-G650X is a powerful 32-bit cardbus adapter that installs quickly and easily into laptop computers, and when used with other D-Link *AirPlus™* G products will automatically connect to the network out of the box.
- **User-friendly configuration and diagnostic utilities.**

LEDs

LED stands for **L**ight-**E**mitting **D**iode. The **DWL-G650X** has the following LEDs:

Activity

A blinking light indicates data is being transmitted.

Link

A steady light indicates a connection to an access point.



*Maximum wireless signal rate derived from IEEE Standard 802.11b/g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

Wireless Basics

D-Link 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. D-Link wireless products will allow you access to the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking brings.

A wireless local area network (WLAN) is a computer network that transmits and receives data with radio signals instead of wires. WLANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. 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 to many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

People use WLAN technology for many different purposes:

Mobility - Productivity increases when people have access to data in any location within the operating range of the WLAN. 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 can benefit from WLANs ease of implementation. WLANs can operate in locations where installation of wiring may be impractical.

Installation and Network Expansion - Installing a WLAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings. Wireless technology allows the network to go where wires cannot go - even outside the home or office.

Inexpensive Solution - Wireless network devices are as competitively priced as conventional Ethernet network devices.

Scalability - WLANs can be configured in a variety of ways 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 larger Infrastructure networks to accommodate hundreds or thousands of users, depending on the number of wireless devices deployed.

Wireless Basics *(continued)*

The DWL-G650X is compatible with the following wireless products:

- **D-Link AirPlus™ G DWL-G510**
Wireless PCI card used with desktop computers
- **D-Link AirPlus Xtreme G™ DWL-2000AP**
Enhanced 2.4GHz Wireless Access Point
- **D-Link AirPlus Xtreme G™ DI-624**
108Mbps* Wireless Router
- **D-Link AirPlus G™ DI-524**
54Mbps* 11b/g Wireless 4-Port Router
- The DWL-G650X is also interoperable with other 802.11g and 802.11b standards-compliant devices.

Standards-Based Technology

The DWL-G650X Wireless Cardbus Adapter utilizes the **802.11b** and the **802.11g** standards.

The IEEE **802.11g** standard is an extension of the **802.11b** standard. It increases the data rate up to 54 Mbps* within the 2.4GHz band, utilizing **OFDM technology**.

This means that in most environments, within the specified range of this device, 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 transmitting high-speed digital data over a radio wave utilizing **OFDM (Orthogonal Frequency Division Multiplexing)** technology. **OFDM** works by splitting the radio signal into multiple smaller sub-signals that are then transmitted simultaneously at different frequencies to the receiver. **OFDM** reduces the amount of **crosstalk** (interference) in signal transmissions. The D-Link DWL-G650X will automatically sense the best possible connection speed to ensure the greatest speed and range possible.

The DWL-G650X is backwards compatible with 802.11b devices. This means that if you have an existing 802.11b network, the devices in that network will be compatible with 802.11g devices at speeds up to 11Mbps in the 2.4GHz range.

*Maximum wireless signal rate derived from IEEE Standard 802.11b/g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

Wireless Basics *(continued)*

Installation Considerations

The D-Link *AirPlus™* G DWL-G650X lets you access your network, using a wireless connection, from virtually anywhere within its operating range. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the 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 wireless range is to follow these basic guidelines:

- 1** Keep the number of walls and ceilings between the DWL-G650X and other network devices to a minimum - each wall or ceiling can reduce your DWL-G650X's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
- 2** Be aware of the direct line between network devices. 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! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
- 3** Building materials can impede the wireless signal - a solid metal door or aluminum studs may have a negative effect on range. Try to position wireless devices and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.
- 4** Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

Getting Started

There are basically two modes of networking:

- **Infrastructure** – connecting to an access point, or wireless router, such as the DI-624.
- **Ad-Hoc** – directly connecting to another computer, for Peer-to-Peer communication, using wireless network adapters on each computer, such as two or more DWL-G650X Wireless Cardbus Adapters.

On the following pages we will show you an example of an **Infrastructure Network** and an **Ad-Hoc Network**.

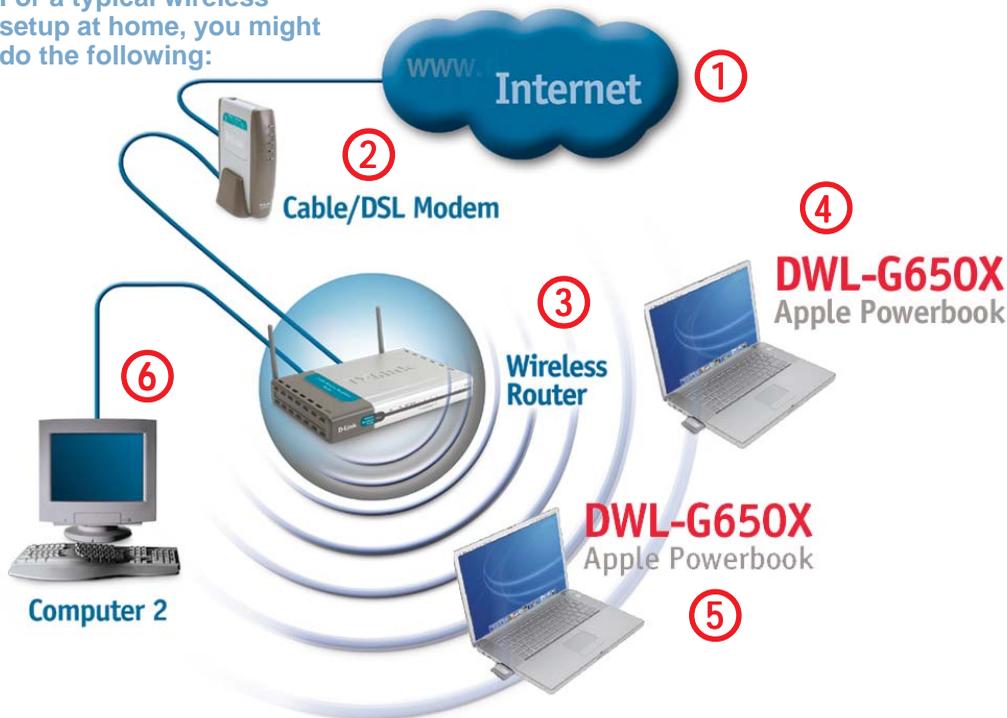
An **Infrastructure** network contains an access point or a wireless router. The **Infrastructure Network** example shown on the following page contains the following D-Link network devices (your existing network may be comprised of other devices):

- A wireless router - **D-Link AirPlus Xtreme™ G DI-624**
- An Apple® PowerBook with a wireless adapter - **D-Link AirPlus™ G DWL-G650X**
- A cable modem - **D-Link DCM-201**

Getting Started (continued)

Setting up a Wireless Infrastructure Network (Example)

For a typical wireless setup at home, you might do the following:



- 1 You will need broadband Internet access (a Cable or DSL-subscriber line into your home or office).
- 2 Consult with your Cable or DSL provider for proper installation of the modem.
- 3 Connect the Cable or DSL modem to your broadband router. (See the *Quick Installation Guide* included with your router).
- 4 Install the D-Link DWL-G650X Wireless Cardbus Adapter into an Apple Powerbook. (See the *Quick Installation Guide* included with the DWL-G650X).
- 5 Install another D-Link DWL-G650X Wireless Cardbus Adapter into a laptop computer. (See the *Quick Installation Guide* included with the DWL-G650X).
- 6 If you wish, you may connect a computer that is equipped with an Ethernet network adapter (such as a DFE-530TX+) to the router also.

Getting Started (continued)

Setting up a Wireless Ad-Hoc Network

1



DWL-G650X
Apple Powerbook

2



DWL-G650X
Apple Powerbook

- 1 Install the **D-Link DWL-G650X** Wireless Cardbus Adapter into one Apple Powerbook. (See the *Quick Installation Guide* included with the product for installation instructions.)
- 2 Install another **DWL-G650X** into an Apple Powerbook. (See the *Quick Installation Guide* included with the product.)
- 3 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 the box below).

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.

Configuring the DWL-G650X

After you have installed the DWL-G650X (please refer to the **Quick Installation Guide** included with the product), follow the steps below to access the configuration settings.

From the **Apple** pull-down menu select **System Preferences**.



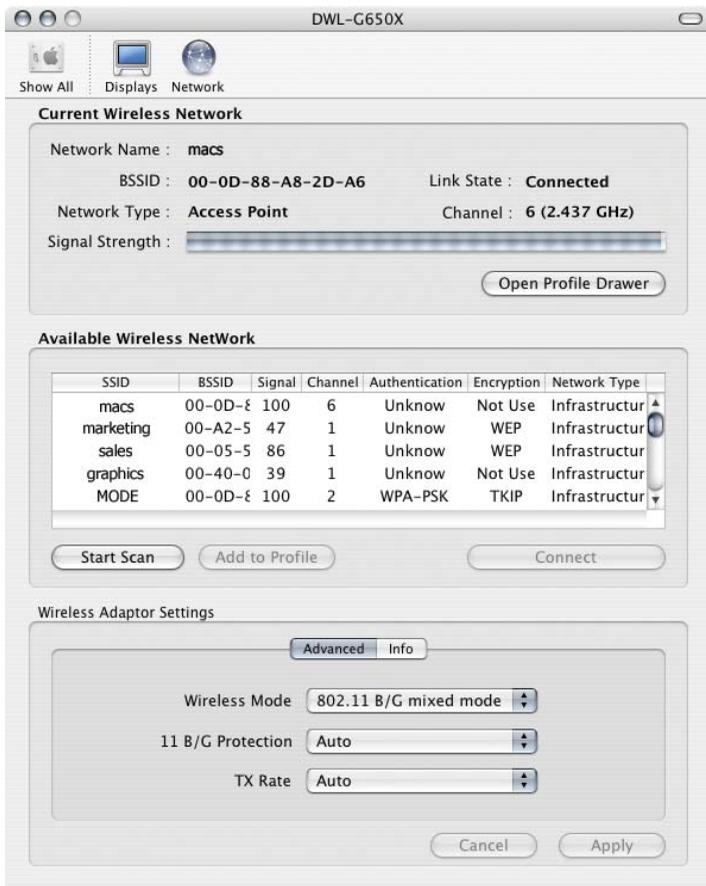
Double-click on the **DWL-G650X** icon.

Configuring the DWL-G650X (continued)

Assigning a dynamic IP address, when a DHCP server is in the network

Scroll through the list of available wireless networks. If the network is not listed, click the **Start Scan** button.

To connect to a wireless network, locate the network in the list of available networks and double-click on it.



If connecting to a network with a DHCP server then your configuration is complete!
If you need to assign a static IP address to your DWL-G650X, then please follow the steps on the following page.

Configuring the DWL-G650X (continued)

Assigning a static IP address

Note: Only perform the following steps if you must assign a static IP address to your DWL-G650X.

Go to the **Apple Menu** and select **System Preferences**.

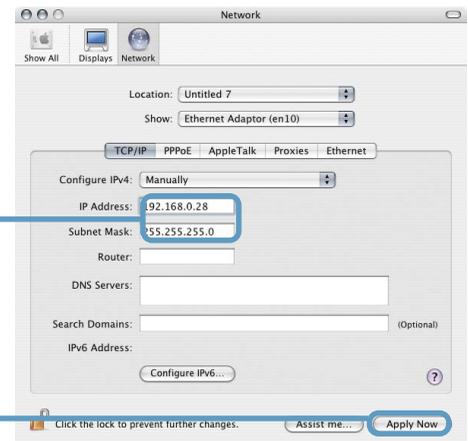
Click **Network**



Select the **Ethernet Adapter**



Enter a unique IP address within the same range as your network. Enter the Subnet Mask of your network.



Click **Apply Now**

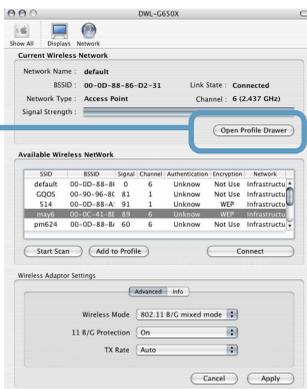
Configuring the DWL-G650X (continued)

Authentication and Security

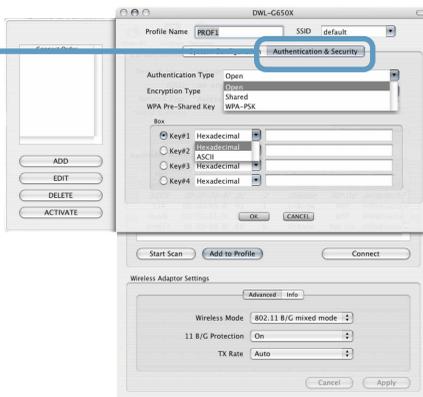
Click DWL-G650X



Click Open Profile Drawer



Select Authentication and Security



Authentication Type:

Open: The DWL-G650X is visible on the network

Shared: Allows communication only with devices with identical WEP settings

WPA-PSK: When you make this selection, please enter the shared key in the field below - **WPA Pre-Shared Key**

Encryption Type:

Select **WEP** or **None**.

Keys 1-4:

When WEP is selected, please select Hexadecimal or ASCII from the pulldown menu for each key.

Click **OK** when you have completed the configuration.

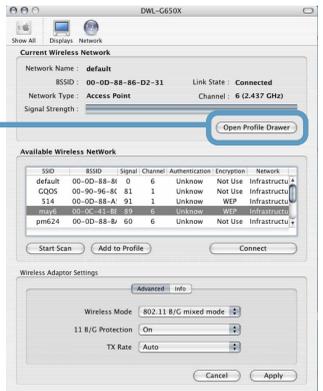
Configuring the DWL-G650X (continued)

System Configuration

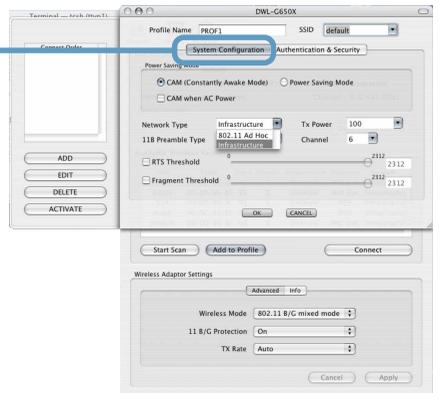
Click DWL-G650X



Click Open Profile Drawer



Select System Configuration



Power Saving Mode:

Make your selection from the following:
CAM (Constantly Awake Mode)
CAM when AC Power
Power Saving Mode

Network Type:

Select **Infrastructure** or **802.11 Ad Hoc**.

Tx Power:

Select the **transmission speed**.

11B Preamble Type:

Select the **preamble type**.

Channel:

Select the **channel**.

RTS Threshold:

Select the **RTS Threshold**.

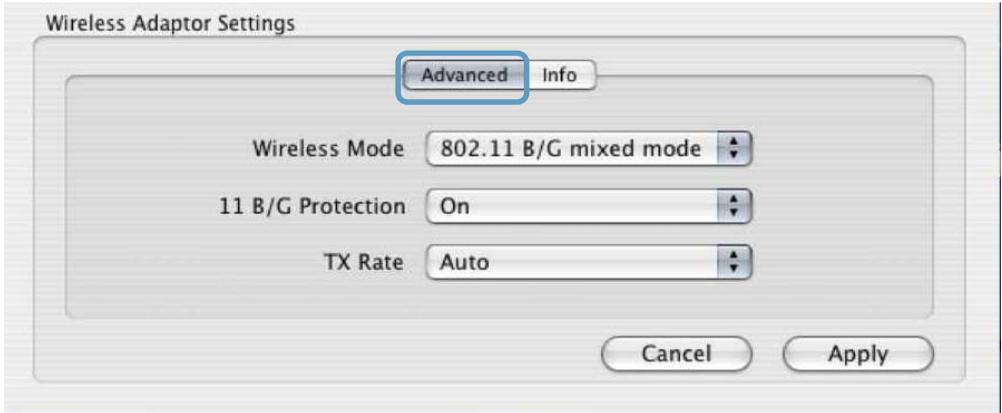
Fragment Threshold:

Select the **Fragment Threshold**.

Configuring the DWL-G650X (continued)

Wireless Adapter Settings

Advanced

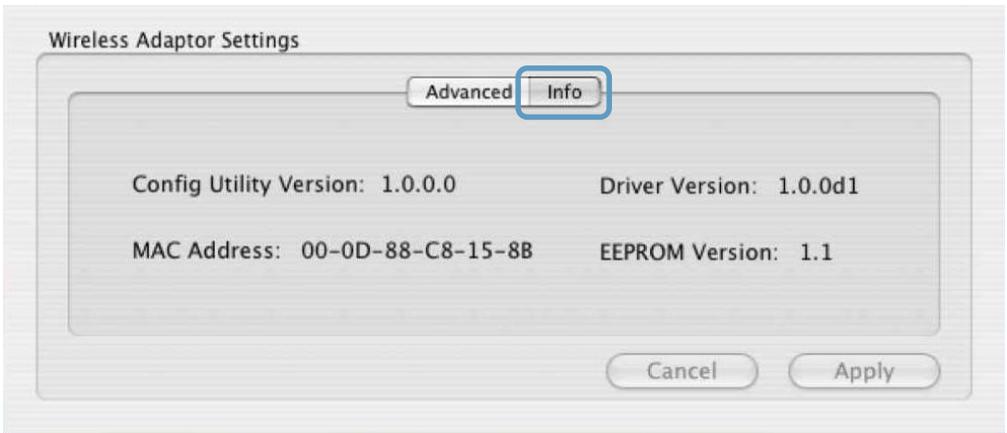


Wireless Mode: Select the **Wireless Mode**.

11 B/G Protection: Make your selection from the pulldown menu.

Wireless Mode: Select the **TX Rate**.

Info



The following information is displayed in this screen.

Config Utility Version

MAC Address

Driver Version

EEPROM Version

Troubleshooting

1. Why can't I connect to the access point or the wireless router?

- Make sure that the SSID on the DWL-G650X Wireless Cardbus Adapter is exactly the same as the SSID on the access point or wireless router.
- Move the DWL-G650X and the access point or wireless router into the same room and then test the wireless connection.
- Disable all security settings on both devices. (WEP, MAC address control, AES).
- Make sure that the access point/router is not set to a different frequency.
- Turn off your access point and the computer with the DWL-G650X. Turn on the access point, and then turn on the computer with the DWL-G650X.

2. Why aren't the Power and Link lights on?

- Check to see if the DWL-G650X Wireless Cardbus Adapter is firmly inserted into the Cardbus slot of your laptop computer.

3. I forgot my Encryption key. What should I do?

- Reset the access point to its factory default settings and restore the DWL-G650X Wireless Cardbus Adapter to the factory default settings.

4. What should I do when the computer does not recognize the DWL-G650X Wireless Cardbus Adapter?

- Make sure that the DWL-G650X Wireless Cardbus Adapter is properly seated in the computer's cardbus slot.
- If the laptop does not detect the hardware upon insertion of the adapter, make sure to completely remove drivers that were previously loaded.

Troubleshooting (continued)

5. What should I do when the computer with the DWL- G650X installed is unable to connect to the wireless network and/or the Internet?

- Check that the LED indicators for the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.
- Check that the LED indicators on the wireless router are functioning properly. If not, check that the AC power and Ethernet cables are firmly connected.
- Check that the IP address, subnet mask, gateway, and DNS settings are correctly entered for the network.
- In **Infrastructure** mode, make sure the same **Service Set Identifier (SSID)** is specified on the settings for the wireless clients and access points. The **SSID** factory default setting for most D-Link products is **default**. (In **Ad-Hoc** mode, both wireless clients will need to have the same **SSID**. Please note that it might be necessary to set up one client to establish a **BSS (Basic Service Set)** and wait briefly before setting up other clients. This prevents several clients from trying to establish a **BSS** at the same time, which can result in multiple singular **BSSs** being established, rather than a single **BSS** with multiple clients associated to it.
- Check that the **Network Connection** for the wireless client is configured properly. Select **Infrastructure** when connecting to an access point and select **Ad-Hoc mode** when connecting without an access point.
- If **Security** is enabled, make sure that the correct encryption keys are entered on both the DWL-G650X and the access point.

6. How can I troubleshoot distance issues using the DWL-G650X?

- Move the DWL-G650X and access point or wireless router into the same room and then test the wireless connection.
- Change the channel of the access point.
- Move devices within the line of sight.

Technical Specifications

Standards

- IEEE 802.11g
- IEEE 802.11b

Diagnostic LED

- Power
- Network

Temperature

- Operating: 0°C to 55°C (32°F to 131°F)

Humidity:

- 95% maximum, non-condensing

Internal Antenna Type:

- Diversity

Bus Type:

- 32-bit Cardbus

Security:

- 64-,128-bit WEP Encryption
- WPA-PSK

Physical Dimensions:

- L = 4.64 inches (114.3mm)
- W = 2.13 inches (54mm)
- H = 0.34 inches (8.7mm)

Weight:

- 0.12 lb. (55 grams)

Warranty:

- 3 years

Technical Specifications (continued)

Data Rates:¹

With Automatic Fallback

- 54Mbps; 48Mbps; 36Mbps; 24Mbps; 18Mbps; 12Mbps; 11Mbps; 9Mbps; 6Mbps; 5.5Mbps; 2Mbps; 1Mbps

Media Access Control:

- CSMA/CA with ACK

Frequency Range:

- 2.4GHz to 2.462GHz

Range:²

- Indoors: Up to 328 feet (100 meters)

Power Consumption:

- PowerSave mode = 28mA
- Standby mode = 4.66mA
- Transmit mode = 248mA

Modulation Technology:

- Orthogonal Frequency Division Multiplexing (OFDM)

Receiver Sensitivity:

- 54Mbps OFDM, 10% PER, -68dBm
- 48Mbps OFDM, 10% PER, -68dBm
- 36Mbps OFDM, 10% PER, -75dBm
- 24Mbps OFDM, 10% PER, -79dBm
- 18Mbps OFDM, 10% PER, -82dBm
- 12Mbps OFDM, 10% PER, -84dBm
- 11Mbps CCK, 8% PER, -82dBm
- 9Mbps OFDM, 10% PER, -87dBm
- 6Mbps OFDM, 10% PER, -88dBm
- 5.5Mbps CCK, 8% PER, -85dBm
- 2Mbps QPSK, 8% PER, -86dBm
- 1Mbps BPSK, 8% PER, -89dBm

Transmitter Output Power:

- 15dBm \pm 2dB

¹Maximum wireless signal rate derived from IEEE Standard 802.11b/g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

²Environmental factors may adversely affect range.

Technical Support

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

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

U.S. and Canadian customers can contact D-Link technical support through our website, or by phone.

Tech Support for customers within the United States:

D-Link Technical Support over the Telephone:

(877) 453-5465

24 hours a day, seven days a week.

D-Link Technical Support over the Internet:

<http://support.dlink.com>

email:support@dlink.com

Tech Support for customers within Canada:

D-Link Technical Support over the Telephone:

(800) 361-5265

Monday to Friday 7:30am to 12:00am EST

D-Link Technical Support over the Internet:

<http://support.dlink.ca>

email:support@dlink.ca

Warranty

(USA only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. (“D-Link”) provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

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

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type (“Warranty Period”), except as otherwise stated herein.

3-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) Three (3) Years
- 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 during the Warranty Period at no charge to the original owner or to refund at D-Link’s sole discretion. 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 have an identical make, model or part. D-Link may in its sole 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. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. 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 retail purchase of the Software for a period of ninety (90) days (“Warranty Period”), provided that 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 or to refund at D-Link’s sole discretion. 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. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. 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.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link’s products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold “As-Is” without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product 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. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery (“COD”) is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.
- Return Merchandise Ship-To Address
USA: 17595 Mt. Herrmann, Fountain Valley, CA 92708-4160
Canada: 2180 Winston Park Drive, Oakville, ON, L6H 5W1 (Visit <http://www.dlink.ca> for detailed warranty information within Canada)

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, if in D-Link’s judgment, 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; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED “AS-IS” WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER 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.

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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.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

FCC Caution:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment; such modifications could void the user's authority to operate the equipment.

(1) The devices are restricted to indoor operations within the 5.15 to 5.25GHz range. (2) For this device to operate in the 5.15 to 5.25GHz range, the devices must use integral antennas.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this equipment must be installed to provide a separation distance of at least eight inches (20 cm) from all persons.

This equipment must not be operated in conjunction with any other antenna.