

## 2.4GHz Wireless LAN

















# **802.11g Wireless LAN CardBus Adapter**

The D-Link AirPlusXtreme $G^{\mathbb{T}}$ DWL-G650 Wireless Cardbus Adapter is an enhanced 802.11g high-performance, wireless adapter for notebook computers. This adapter supports high-speed wireless networking of up to 108Mbps Turbo mode, while providing seamless interoperability with all existing 802.11b wireless equipment. Together with better security, this adapter is the ideal wireless solution that offers an uprgade to a fast, new techology while protecting your past investments through interoperability with your current network equipment.

#### Up to 108Mbps Transmission Speed

Unlike most wireless cards, the DWL-G650 provides speeds of up to 108Mbps Turbo mode when used with other D-Link AirPlusXtremeG products. This compares favorably with 802.11b adapters that offer 11Mbps speed. The DWL-G650 provides all these using a single 2.4GHz wireless frequency, eliminating the complexity of dualband networking.

This enhanced speed and adoption of 2.4GHz frequency, now available for public use in most countries, plus the mobility and convenience inherent in a wireless LAN, make this adapter an ideal solution for bandwidth intensive WLAN applications.

#### Compatible With 802.11b

AirPlusExtremeG 802.11g compability with existing wireless LAN standards means that you do not need to change your entire network to maintain connectivity.

#### Easy Migration to Higher Bandwidth

By maintaining compatibility with your existing wireless network equipment, this adapter lets you upgrade to a higher speed at the pace you want. The DWL-G650 and other 802.11g standard devices can be gradually added to your network, while the rest of your older network remains perfectly connected.

#### **Powerful Performance**

To take full advantage of the new 108Mbps network bandwidth, this adapter uses 32-bit high-speed CardBus design to transfer network data with the computer host. This ensures that no bottlenecks take place between your computer's CPU and your network wireless frequency.

#### **Advanced Security**

In addition to offering faster data transfer speeds, this adapter also provides the newest, strongest, most advanced security features available today. For home users that do not incorporate a radius server in their networks, security is provided in a convenient, automatic way (when used in conjunction with other 802.11g products). No longer will you have to frequently input a new WEP key to execute security operations. With the DWL-G650, you will automatically receive a new key every time you connect, doing away with the inconvenience of manual WEP key input.

#### Easy Installation

With hot swap and plug-and-play capabilities, this adapter can be easily installed into a notebook PC for direct connection to any wireless device in the ad-hoc mode or infra-structure mode. Access to your wired Ethernet servers is also provided through your wireless LAN access points.

#### **Key Features**

- 32-bit high-performance CardBus (PC Card Type II) adapter for notebook computer
- 802.11g industry standard
- Uses popular 2.4GHz frequency band
- Up to 108Mbps Turbo mode network throughput 15 times faster than 802.11b
- Strong 64/128/152-bit WEP data encryption

- WPA security
- Compatible with existing 802.11b wireless devices
- Powerful integrated antenna provides 100 meter indoors, 400 meter operation range\*
- Easy configuration, plug-and-play installation
- Runs Windows 98SE, 2000, ME, XP

<sup>\*</sup> Environmental factors may affect operation range.

# **Technical Specifications**

# 2.4GHz Wireless LAN

#### **System Requirements**

- 32-bit CardBus slot
- 300MHz processor and 32MB memory (minimum)

#### Standards

802.11g wireless LAN

#### Adapter Type

PC Card Type II CardBus

#### Media Access Control Protocol

CSMA/CA with ACK

#### **Network Architecture Types**

- Ad-Hoc mode
- Infrastructure mode

#### Frequency Range

2.4 - 2.4835 GHz

#### **Operating Channels**

- US (FCC): 11
- Europe (ÉTSI): 13
- Canada (D)C): 11

#### Network Transfer Rate/Modulation Technique

- 802.11b:
- 11Mbps, 5.5Mbps: CCK
- 2Mbps: DQPSK
- 1Mbps: DBPSK
- 802.11g:

54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 9Mbps, 6Mbps: OFDM (Othogonal Frequency Division Multiplexing)

# Receive Sensitivity (for 802.11b) - 1Mbps: -92dBm

- 2Mbps: -88dBm
- 5.5Mbps: -86dBm
- 11Mbps: -84dBm

#### Receive Sensitivity (for 802.11g)

- 6Mbps: -88dBm
- 9Mbps: -85dBm
- 12Mbps: -85dBm
- 18Mbps: -81dBm - 24Mbps: -77dBm
- 36Mbps: -73dBm 48Mbps: -71dBm
- 54Mbps: -70dBm

#### Transmit Output Power (for 802.11b)

1Mbps, 2Mbps, 5.5Mbps, 11Mbps: 16dBm to 18dBm

#### Transmit Output Power (for 802.11g)

- 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps: 16dBm to 18dBm
- 36Mbps: 15dBm to 17dBm
- 48Mbps: 14dBm to 16dBm
- 54Mbps, 108Mbps: 13dBm to 15dBm

#### Antenna

Internal patch antenna supporting diversity

#### **Operation Range**

- Indoors: up to 100 meters (328 feet)\*
- Outdoors: up to 400 meters (1,312 feet)\*
- \* Environmental factors may adversely affect range

#### Security

- 64/128/152-bit WEP data encryption
- WPAEAP, WPA PSK

### Physical & Environmental

### **Diagnostic LEDs**

- Link
- Activity

#### **Operating Voltage**

#### **Power Consumption**

- Transmission: 500 mA (max.)
- Reception: 380 mA (max.)

#### **Dimensions**

118 (L) x 54 (W) x 7.4 (H) mm (4.64 x 2.13 x 0.29 inches)

#### **Operating Temperature**

0°- 55°C (32° - 131°F)

#### **Storage Temperature**

-20° - 75° C (-4° - 167° F)

#### Humidity

Up to 95% non-condensing

#### **Emission (EMI)**

- FCC Class B
- CE Class B

#### **OS Support**

Windows 98SE, ME, 2000, XP



# **Ordering Information**

**DWL-G650** 802.11g Wireless LAN CardBus Adapter

Please specify your order as follows:

DWI -G650/NA North American frequency

DWL-G650/EU EU frequency

DWL-G650/CN EU frequency(packaging for China)

U.S.A Canada Germany France Netherlands Belgium Italy Iberia Sweden Norway Denmark Finland Singapore Australia China Turkey

Egypt

Israel Latin America

Brasil

Russia

South Africa

D-Link Corp.

TEL: 1-905-8295033 TEL: 44-20-8731-5555 TEL: 49-6196-77990 TEL: 33-1-30238688 TEL: 31-10-282-1445 TEL: 32(0)2-517-7111 TEL: 39-2-2900-0676 TEL: 34-93-4090770 TEL: 46-(0)8564-61900 TEL: 47-23-897189 TEL: 45-43-969040 TEL: 358-9-2707-5080 TEL: 65-6774-6233 TEL: 61-2-8899-1800 TEL: 86-10-5863-5800 India TEL: 91-022-2652-6696 Middle East (Dubai) TEL: 9714-3916480 TEL: 90-212-335-2553 TEL: 202-414-4295 TEL: 972-9-9715700 TEL: 56-2-232-3185 TEL: 55-11-55039320

TEL: 27-1266-52165

TEL: 7-095-744-0099

TEL: 886-2-2910-2626

TEL: 886-2-2916-1600

TEL: 1-714-885-6000

FAX: 1-866-743-4905 FAX: 1-905-8295223 FAX: 44-20-8731-5511 FAX: 49-6196-7799300 FAX: 33-1-30238689 FAX: 31-10-282-1331 FAX: 32(0)2-517-6500 FAX: 39-2-2900-1723 FAX: 34-93-4910795 FAX: 46-(0)8564-61901 FAX: 47-22-309085 FAX: 45-43-424347 FAX: 358-9-2707-5081 FAX: 65-6774-6322 FAX: 61-2-8899-1868 FAX: 86-10-5863-5799 FAX: 91-022-2652-8914 FAX: 9714-3908881 FAX: 90-212-335-2500 FAX: 202-415-6704 FAX: 972-9-9715601 FAX: 56-2-232-0923 FAX: 55-11-55039322 FAX: 27-1266-52186 FAX: 7-095-744-0099#350 FAX: 886-2-2910-1515

FAX: 886-2-2914-6299

Rev. 05 (Oct. 2004)