



Air Xpert™ 802.11 **AG**
Dualband

Up to
5X
Faster

Up to
54
Mbps
in **A or G!**

— DWL-AG650

802.11a/b/g Tri-Mode Dualband Wireless CardBus Adapter

The D-Link Air Xpert™ DWL-AG650 wireless CardBus adapter is a high-performance, versatile and necessary PC networking solution for companies that need to quickly expand or reconfigure their wireless networks as their organization grows. This tri-mode, dualband available network card inserts into your notebook/laptop PC to provide you with a versatile way to wirelessly connect to any one of three wireless networks -- 802.11b and the newer, faster 802.11g and 802.11a that operate in two discrete, non-interfering frequency bands, 2.4GHz and 5GHz.

Easiest Way to Expand

If you're a network administrator, the versatile 802.11a/b/g-compatible DWL-AG650 adapter gives you an immediate way to expand to your existing 802.11b network and protect your overall wireless network investment. By installing DWL-AG650 adapters in PCs throughout your organization your employees can access wireless Access Points and routers from their PCs. And as your company expands or reorganizes you won't have to keep pulling and plugging Ethernet cables because no matter where the workstation is relocated, it's still connected to the network.

End-to-End Wireless Solution

When you add an 802.11a/b/g access point (D-Link Air Xpert™ DWL-7000AP) or router (D-Link Air Xpert™ DI-774), to your wireless network, you will have an end-to-end wireless solution capable of handling up to four times the user load of your current 802.11b network.

54Mbps Dualband High Speed

In addition to its compatibility with earlier 802.11b networks, the DWL-AG650 offers the robust speed, up to 54Mbps, of the newer 802.11g and 802.11a standards, so everyone can work faster and more efficiently. In addition to the 2.4GHz frequency band operated by 802.11b and g, the 5GHz band used by 802.11a also offers a way to quickly transfer data in a frequency range that does not experience interference or interruptions from cordless phones, microwave ovens and other devices utilizing the 2.4GHz frequency.

WPA Enhanced Security

Wi-Fi™ Protected Access in the DWL-AG650 provides the necessary security protocols and tools, so employees can communicate with colleagues confidentially, access sensitive company information or send data that is dynamically encrypted as it's sent. Wi-Fi™ Protected Access lets you authorize and identify users based on a secret key that changes automatically at a regular interval. Used in conjunction with a RADIUS server, WPA uses TKIP (Temporal Key Integrity Protocol) to change the temporal key every 10,000 packets. This insures much greater security than the standard WEP security, which requires the keys to be changed manually.

802.1x Authentication

The DWL-AG650 supports 802.1x authentication for protection against network intrusion. Used in conjunction with a RADIUS server, this function provides a means to verify the identity of the client before an access to the network is granted.

Pre-Shared Key

This function brings a lot of convenience (when used in conjunction with other 802.11g products) for users that do not incorporate a RADIUS server in their networks. Utilizing the Pre Shared Key mode of WPA, the DWL-AG650 will obtain a new security key every time it connects to the 802.11g network. You only need to input your encryption information once in the configuration menu. With the DWL-AG650, you will automatically receive a new key every time you connect, doing away with the inconvenience of manual WEP key input.

Key Features

- 802.11a/b/g industry standard
- Dual 5GHz and 2.4GHz frequency bands
- Up to 54Mbps network data transfer rate on both frequency bands, 5 times faster than 802.11b
- 32-bit high-throughput CardBus interface to PC host
- Strong 64/128-bit WEP data encryption security
- Compatible with existing 802.11b wireless devices
- Advanced security with WPA, 802.1x authentication, TKIP and Pre-Shared Key function support
- Powerful integrated antennas provide 100-meter indoor, 400-meter outdoor operation range
- Easy configuration, plug-and-play installation
- Runs Windows 98 SE, 2000, ME, XP

DWL-AG650

Technical Specifications

5GHz & 2.4GHz Wireless LAN

System Requirements

- Laptop/notebook PC with 32-bit CardBus slot
- 500MHz processor or above
- 128MB memory or more
- CardBus controller properly installed and working in Win98 SE, ME, 2000, XP computer

Standards

- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g

Bus Type

32-bit CardBus

Media Access Control

CSMA/CA with ACK

Data Rates

(With automatic fallback)
54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 11Mbps, 9Mbps, 6Mbps, 5.5Mbps, 2Mbps, 1Mbps

Modulation Technology

- Orthogonal Frequency Division Multiplexing (OFDM)
- Complementary Code Keying (CCK)
- Direct Sequence Spread Spectrum (DSSS)

Frequency Range *

- 2.4GHz to 2.5GHz
- 5.15GHz to 5.875GHz

* Software configurable as allowable frequency will vary from country to country in the European region.

Transmit Output Power

15 dBm +/- 2dBm

Receiver Sensitivity

- 54Mbps OFDM, 10% PER, -73dBm
- 48Mbps OFDM, 10% PER, -76dBm
- 36Mbps OFDM, 10% PER, -82dBm
- 24Mbps OFDM, 10% PER, -85dBm
- 18Mbps OFDM, 10% PER, -88dBm
- 12Mbps OFDM, 10% PER, -89dBm
- 11Mbps CCK, 8% PER, -91dBm
- 9Mbps OFDM, 10% PER, -90dBm
- 6Mbps OFDM, 10% PER, -91dBm
- 5.5Mbps CCK, 8% PER, -92dBm
- 2Mbps QPSK, 8% PER, -93dBm
- 1Mbps BPSK, 8% PER, -94dBm

Antennas

Diversity switching dual internal antennas

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-WEP data encryption
- 802.1x authentication
- WPA (Wi-Fi Protected Access): 802.1x, Pre Share Key, WEP, TKIP, AES*

* AES support in software will be released in future upgrade

Diagnostic LEDs

- Link
- Activity

Physical & Environmental

Power Consumption

- Power save mode: 70mW
- Transmit mode: 1650mW
- Standby mode: 1250mW

Dimensions

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

Weight

55 grams (0.12 lb.)

Operating Temperature

0° to 55 °C

Storage Temperature

-10° to 60 °C

Humidity

95% maximum (non-condensing)

EMI Certification

- FCC Class B
- CE Class B
- C-Tick

O.S. Support

Windows 98 SE, ME, 2000, XP



ACN 052 202 838



Ordering Information

DWL-AG650 802.11a/b/g Wireless LAN CardBus Adapter

Please specify your order as follows:

DWL-AG650/EU	For UK, Ireland, Denmark, Germany, Iceland, Finland, Netherlands, Norway, Sweden, Poland, Slovenia, Luxembourg, South Africa
DWL-AG650/FR	For France
DWL-AG650/CN	For China (China packaging)
DWL-AG650/AU	For Australia
DWL-AG650/CA	For Canada
DWL-AG650/SG	For Singapore
DWL-AG650/T	For Taiwan
DWL-AG650/LA	For Latin America
DWL-AG650/ME	For the Middle East

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Canada	TEL: 1-905-8295033	FAX: 1-905-8295095
Europe	TEL: 44-20-8731-5555	FAX: 44-20-8731-5511
Germany	TEL: 49-6196-77990	FAX: 49-6196-7799300
France	TEL: 33-1-30238688	FAX: 33-1-30238689
Benelux	TEL: 31-10-2045740	FAX: 31-10-2045880
Italy	TEL: 39-2-2900-0676	FAX: 39-2-2900-1723
Iberia	TEL: 34-93-4090770	FAX: 34-93-4910795
Sweden	TEL: 46-(0)8564-61900	FAX: 46-(0)8564-61901
Norway	TEL: 47-22-309075	FAX: 47-22-309085
Denmark	TEL: 45-43-969040	FAX: 45-43-424347
Finland	TEL: 358-9-2707-5080	FAX: 358-9-2707-5081
Singapore	TEL: 65-6774-6233	FAX: 65-6774-6322
Australia	TEL: 61-2-8899-1800	FAX: 61-2-8899-1868
Japan	TEL: 81-3-5434-9678	FAX: 81-3-5434-9868
China	TEL: 86-10-8518-2533	FAX: 86-10-8518-2250
India	TEL: 91-22-652-6696	FAX: 91-22-652-8914
Egypt	TEL: 202-62-44615	FAX: 202-62-44583
UAE	TEL: 971-4-3916480	FAX: 971-4-3908881
Turkey	TEL: 90-212-335-2525	FAX: 90-212-335-2500
Israel	TEL: 972-9-9715700	FAX: 972-9-971-5601
Chile	TEL: 56-2-232-3185	FAX: 56-2-232-0923
Brasil	TEL: 55-11-3094-2910	FAX: 55-11-3094-2921
South Africa	TEL: 27(0)1266-52165	FAX: 27(0)1266-52186
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Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515
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