

# 2.4 GHz Wireless LAN



# 2.4GHz Enhanced Performance Wireless LAN Access Point

The D-Link AirPlus<sup>™</sup> DWL-900AP+ is an Access Point that gives 2.4GHz wireless LAN users fast, secure access to an IEEE 802.11b wireless Local Area Network (LAN). With data transfer rates at up to 22Mbps, this Access Point provides twice the speed of other IEEE 802.11b Access Points, while adding a strong 256-bit security scheme for your data traveling on the wireless LAN. Strictly complying to industry standards, the DWL-900AP+ gives you the speed, security and other enhanced features without compromising interoperability with all 802.11b wireless LAN equipment and Ethernet-based networks.

### Range Extension

The DWL-900AP+ Access Point connects the wireless LAN nodes (workstations, print servers, etc.) together via a 2.4GHz IEEE 802.11b wireless interface. It listens to all data traffic on all its interface and maintains a MAC address database. MAC address information is updated dynamically. When necessary, the DWL-900AP+ the Address Resolution Protocol (ARP) to match IP addresses to MAC addresses and stores ARP information in its database as well.

## **Access Control**

Through Wi-Fi<sup>TM</sup> Protected Access and Access Control Lists that contain the MAC address of every wireless device, you can set up filters to prevent unauthorized access to network resources.

## Efficiency Improvement

The DWL-900AP+ can discriminate based on the destination address of packets it handles by maintaining a list of disallowed destinations. This helps improve efficiency by eliminating unnecessary transmission of data packets.

## **Ehanced Speed Transmission**

At 22Mbps, the DWL-900AP+ delivers high data transfer rate within the industry standard. This speed is double the 11Mbps normally found in other 2.4GHz wireless LAN Access Points.

# Industry-standard Interoperability

The DWL-900AP+ delivers speeds without compromising compatibility. With both WiFi™ certification and IEEE 802.11b wireless LAN industry standard compliance, the DWL-900AP+ provides you with excellent network interoperability.

# **Network Security**

Security is an issue when data is transmitted without the wires. In the air, transmitted data can be easily intercepted if not well protected by a security scheme. The DWL-900AP+ provides the necessary security, using the enhanced 64/128/256-bit industry-standard WEP (Wired Equivalent Privacy) encryption protocol. Data privacy mechanism is based on a shared key algorithm, as described in the wireless LAN standard.

### **Built-in DHCP Server**

DHCP server function is built into this Access Point that automatically assign IP addresses to connected wireless nodes. This eliminates for you the need to install a separate DHCP server on the network.

# Detachable Antenna

The DWL-900AP+ is equipped with an SMA reverse detachable dipole antenna with an effective range of 100 meters indoors, or 400 meters outdoors. Where a longer range is required, you can easily remove this antenna and replace it with a higher Gain antenna.

### **Features**

- IEEE 802.11b DSSS 2.4GHz standard
- Up to 22Mbps enhanced data transfer rates
- 10/100Mbps auto-sensing Fast Ethernet port to bridge wireless LAN to Ethernet-based network
- Seamless roaming from cell to cell and Access Points
- 256-bit WEP data encryption
- Access control and 802.1x client authentication support in Windows XP environment
- Wi-Fi<sup>TM</sup> Protected Access (WPA) support \*
- Built-in DHCP server
- Built-in AP-to-AP bridge, AP-to-multi-point bridge, wireless client bridge
- Detachable SMA reverse dipole antenna
- Web-based configuration & management with JavaScript

<sup>\*</sup> Function available in firmware upgrade in near future

# *DWL-900AP+*

# **Technical Specifications**

# 2.4 GHz Wireless LAN Access Point

### General

### Standards

- IEEE 802.11b wireless LAN
- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet

### **Reception Sensitivity Nominal Temp Range**

- 22Mbps: 10-5 BER @ -80 dBm minimum 11Mbps: 10-5 BER @ -79 dBm minimum 5.5Mbps: 10-5 BER @ -83 dBm minimum
- 1Mbps: 10-5 BER @ -89 dBm minimum

# Frequency Range - 2.4 - 2.4835 GHz

### **Modulation Techniques**

- Direct Sequence Spread Spectrum (DSSS)
- Packet Binary Convolutional Coding (PBCC)

### **Data Rates**

- 22 Mbps
- 11 Mbps
- 5.5 Mbps
- 2 Mbps
- 1 Mbps
- Auto fall-back

### **Data Rate & Modulation**

- 22Mbps: PBCC
- 11Mbps: PBCC or CCK
- 5.5Mbps: PBCC or CCK 2Mbps: Barker

### **Operating Channels**

- North America (FCC): 11
- Canada (DOC): 11
- Europe (ETSI): 13 (Except Spain and France)
- Japan (MKK): 14

### Hardware

### Wireless LAN to Ethernet Interface

Through RJ-45 10/100Mbps Fast Ethernet port

Detachable 2dBi Gain antenna (reverse SMA connector)

## **Transmitter Output Power**

 $15dBm \pm 2dB$ 

- Operating Range Up to 100 m (328 feet) indoors\*
- Up to 400 m (1,312 feet) outdoors\*
- \* Environmental factors may adversely affect operating range

### Diagnostic LEDs

- Power - Link
- Tx/Rx

# Software

# **Operating Modes**

- Access Point
- Access Point to Access Point bridging
- Access Point to multi-point bridging
- Wireless client

Among Access Points on the same subnet

## **Network Protocols Supported**

- IPX/SPX - NetBEUI
- ARP
- SNMP
- DHCP - NDIS3
- NDIS4

# **IP Number Assignment**

Automatic through built-in DHCP server

- Data encryption: 64-bit, 128-bit, 256-bit WEP (Wired Equivalent Privacy)
- Connected node access control list

### Configuration & Management

Manage wireless LAN, network connection and client access control through web browser (Java Script supported)

- TFTP client for firmware upgrade
- Set IP session (ARP/ping)
- DHCP client (IP number self-assignment)

# Physical & Environmental

### **Power Input**

- Uses external AC power adapter

### **Dimensions**

142 x 145 x 32 mm (5.59 x 5.71 x 1.26 inches)

288 grams (0.636 lb.)

# Operating Temperature 0°- 55°C (32°-131°F)

# Storing Temperature -20° - 65°C (-4° - 149°F)

### Humidity

5% - 95%, non-condensing

### **EMI Certification**

- FCC Class B
- CE Class B

## **Safety Certification**

- UL 1950-3

### Compatibility

Wi-Fi<sup>T</sup>

### MBTF (Mean Time Between Failure)

> 30,000 hours







## **Ordering Information**

# 802.11b+ Wireless LAN Access Point

DWL-900AP+ Wireless LAN Access Point

Please specify your model number as follows:

DWL-900AP+/ANA

DWL-900AP+/BEU DWL-900AP+/EEU DWL-900AP+/CN DWL-900AP+/NEU

DWL-900AP+/UNA DWL-900AP+/UEU

Includes USA standard AC power adapter, NorthAmerica

Brasil

Taiwan

South Africa

D-Link Corp.

frequency Includes UK standard AC power adapter, EU frequency Includes UK standard AC power adapter, EU frequency Includes Cu standard AC power adapter, EU frequency Includes China standard AC power adapter, EU frequency Includes Australia standard AC power adapter, EU frequency Includes no AC power adapter, North America frequency Includes no AC power adapter, EU frequency Includes no AC power adapter, EU frequency

# IEEE 802.11b Wireless Starter Kit

DWL-905+

2 Wireless LAN CardBus Adapters (DWL-650+) 1 Access Point (DWL-900AP+)



prior notice.
D-Link is a registered trademark of D-Link Corporation/D-Link System Inc. All other trademarks belong to their

RECYCLABLE

Rev. 05 (Jan. 2004)

TEL: 1-714-885-6000 TEL: 1-905-8295033 Europe TEL: 44-20-8731-5555 TEL: 49-6196-77990 TEL: 33-1-30238688 France TEL: 31-10-282-1445 TEL: 39-2-2900-0676 Benelux Italy Iberia TEL: 34-93-4090770 TEL: 46-(0)8564-61900 Sweden TEL: 47-22-309075 TEL: 45-43-969040 Norway Denmark Finland Singapore TEL: 65-6774-6233 Australia Japan China India Middle East (Dubai) TEL: 9714-8834234 Turkey Egypt TEL: 202-414-4295 TEL: 972-9-9715700 Israel Latinamerica

TEL: 358-9-2707-5080 TEL: 61-2-8899-1800 TEL: 81-3-5434-9678 TEL: 86-10-8518-2533 TEL: 91-022-652-6696 TEL: 90-212-335-2553 TEL: 56-2-232-3185 TEL: 55-11-55039320 TEL: 27(0)1266-52165 TEL: 7-095-744-0099 TEL: 886-2-2910-2626 TEL: 886-2-2916-1600

FAX: 31-10-282-1331 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: 81-3-5434-9868 FAX: 86-10-8518-2250 FAX: 91-022-652-8914 FAX: 9714-8834394 FAX: 90-212-335-2500 FAX: 202-415-6704 FAX: 972-9-9715601 FAX: 56-2-232-0923 FAX: 55-11-55039321 FAX: 270)1266-52186 FAX: 7-095-744-0099#350 FAX: 886-2-2910-1515 FAX: 886-2-2914-6299

FAX: 1-866-743-4905

FAX: 1-905-8295223

FAX: 44-20-8731-5511

FAX: 49-6196-7799300 FAX: 33-1-30238689

