

AirPremier AG



Dualband



DWL-7100AP

802.11a/g Tri-Mode Dualband Wireless Access Point

The D-Link AirPremier AG DWL-7100AP is a tri-mode, dualband wireless Access Point that provides the most expanded user bandwidth available in an AP. Hundreds of wireless clients can connect to this AP using any one of its 11 non-overlapping channels to transfer data at speeds never before achievable in a wireless device.

Dualband Operation

The DWL-7100AP operates seamlessly and simultaneously in both the 2.4GHz and 5GHz frequency spectrums supporting the 802.11b and the newer, faster 802.11a and 802.11g wireless standards. For offices, schools or public hotspots that already use 802.11b devices, the DWL-7100AP is a great way to expand an existing network. It enables more users to communicate with one another, access data and the Internet. Now, you can have an AP that will compliment your existing network and protect the investment you made when you provided the convenience of wireless networking.

Fast, Unobstructed Data Transfer

The DWL-7100AP offers transfer rates up to 108Mbps Turbo mode* in either the 2.4GHz or 5GHz bands, large data packets travel from the router to a remote desktop or roaming laptop PC at up to five times the speed of previous wireless devices. Everyone can work faster and more efficiently or watch a streaming video smoothly. The additional (802.11a) 5GHz band also offers a way to quickly transfer data without the interference produced by other devices operating in the 2.4GHz frequency.

Network Segmentation by Frequency Channels

Network administrators can partition the usage of the dualband DWL-7100AP by segmenting the users on the wireless network by frequency band. Users who require special networking privileges access to sensitive information, specific departments or video conferencing may use just the 802.11a channels; while other employees may just use the 802.11b and 802.11g channels. This type of user segmentation optimizes the AP's performance and delivers the best network experience to each set of users.

Flexible Configuration

The DWL-7100AP can be configured to operate in any one of the 5 modes: (1) as a wireless access point, (2) a point-to-point bridge with another access point, (3) a point-to-multi-point wireless bridge, (4) a wireless client or (5) a wireless repeater. With these built-in functions, the DWL-7100AP gives you the flexibility to configure the device to meet your environment's requirements.**

Key Features

- 802.11a/g industry standard
- Dual 5GHz and 2.4GHz frequency bands
- Up to 108Mbps Turbo mode network data transfer rate
- Real throughput 15X faster than 802.11b
- Compatible with existing 802.11b wireless devices
- Strong 64/128/152-bit WEP data encryption
- 5 operation modes: AP, AP client, point-to-point bridge, point-to-multi-point bridge, repeater**

- WPA network security
- WLAN STA partition
- DFS/TPC support for European operation
- 10/100Mbps Fast Ethernet port to bridge wireless LAN with Ethernet-based network & servers
- Web-based configuration/management

* 108Mbps Turbo speed when operating with other D-Link AirPremierAG or AirPlusXtremeG wireless products. 108Mbps Turbo mode operation on 5GHz frequency is not allowed in EU countries.

** Bridge and repeater modes not allowed in 5GHz frequency in EU countries.

WPA EAP Support

Enhanced security is provided with Wi-Fi Protected Access (WPA) to authorize and identify users based on a secret key that changes automatically at a regular interval. Used in conjunction with a RADIUS server, WPA employs 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. The DWL-7100AP supports WPA-EAP (Extensible Authentication Protocol) for authentication of 802.11 clients using server-side digital certificates. EAP creates an SSL/TLS tunnel between each client and the authentication server, which protects subsequent user authentication exchange.

WPA PSK Support

This function brings a lot of convenience (when used in conjunction with other 802.11g products) for users who do not incorporate a RADIUS server in their networks. Utilizing the Pre Shared Key (PSK) mode of WPA, the DWL-7100AP gives each user a new security key every time he connects to the 802.11g network. Users only need to input their encryption information once in the configuration menu. With the DWL-7100AP, each user will automatically receive a new key every time he connects, and the inconvenience of manual WEP key input is eliminated.

Wireless Station Partition

The DWL-7100AP provides WLAN STA partitioning, a function useful for deployments like at hot spots. With station-to-station partitioning enabled, security is enhanced, since wireless users cannot peek at each other, and the possibility for data thievery is reduced. You can, however, disable this function, so wireless users at an office can share hard disks and information, and peripherals such as wireless printers. In addition to WLAN STA partitioning, the DWL-7100AP also supports Ethernet to WLAN partition enable/disable. When disabled, information sent from the Ethernet side will not be passed to the wireless clients, although wireless users can still transmit data across Ethernet for Internet browsing, for example.

DWL-7100AP

Technical Specifications

Standards

- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.11a
- IEEE 802.3
- IEEE 802.3u

Media Access Control

CSMA/CA with ACK

Ethernet Port

10/100BASE-TX Ethernet port

Wireless Frequency Range *

- 2.4GHz to 2.4835GHz
- 5.15GHz to 5.250GHz
- 5.725GHz to 5.850GHz

* Software configurable as allowable frequency will vary among different countries in the European region.

Wireless Data Rates

(With automatic fallback)

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

Modulation Technology

- 802.11a/g: BPSK, QPSK, 16QAM, 64QAM, OFDM
- 802.11b: DQPSK, DBPSK, DSSS, CCK

Security

- 64/128/152-bit WEP data encryption
- WPAEAP, WPAESP

Antennas

Dual non-detachable dipole external antennas:

- For 2.4GHz: 2dBi Gain antenna
- For 5GHz: 2dBi Gain antenna

Dual PIFA internal antennas:

- For 2.4GHz: 2dBi Gain antenna
- For 5GHz: 2dBi Gain antenna

Wireless Operating Range *

- Indoors: up to 100 m (328 feet)
- Outdoors: up to 400 m (1,312 feet)

* Environmental conditions may adversely affect wireless signal range

Receive Sensitivity

- 802.11a (1000-byte PDUs @ 10% PER):

- 87dBm for 6Mbps
- 86dBm for 9Mbps
- 85dBm for 12Mbps
- 83dBm for 18Mbps
- 80dBm for 24Mbps
- 76dBm for 36Mbps
- 71dBm for 48Mbps
- 66dBm for 54Mbps
- 73dBm for 108Mbps (Turbo Mode)

- 802.11b (@ 8% PER):

- 83dBm for 11Mbps
- 89dBm for 2Mbps
- 802.11g (1000-byte PDUs @ 10% PER):
- 87dBm for 6Mbps
- 86dBm for 9Mbps
- 85dBm for 12Mbps
- 83dBm for 18Mbps
- 80dBm for 24Mbps
- 76dBm for 36Mbps
- 71dBm for 48Mbps
- 66dBm for 54Mbps

Transmit Output Power

- 802.11a:

- +14 to 15dBm @ 54Mbps, 108Mbps
- +14 to 16dBm @t 48Mbps
- +16 to 18dBm @t 36Mbps, 24Mbps, 18Mbps, 12Mbps, 9Mbps, 6Mbps

- 802.11b:

- +18dBm @ 11Mbps, 5.5Mbps, 2Mbps, 1Mbps

- 802.11g:

- +14 to 15dBm @ 54Mbps, 108Mbps
- +14 to 16dBm @ 48Mbps
- +16 to 18dBm @ 36Mbps, 24Mbps, 18Mbps, 12Mbps, 9Mbps, 6Mbps

Diagnostic LEDs

- Power
- 10Mbps (Link/Act)
- 100Mbps (Link/Act)
- WLAN 802.11b/g
- WLAN 802.11a

Device Configuration/Management

- Web-Based: Internet Explorer v.6 or later; Netscape Navigator v.7 or later; or other Java-enabled browsers
- SNMP v.1, v.3

- MIB-I, MIB-II
- Telnet
- Windows-based AP management program included
- DHCP Server and Client
- Factory reset button

Physical & Environmental

Power Input

DC 5V, 2A

Through external power adapter

Dimensions

192 mm (W) x 118 mm (D) x 31 mm (H) (device only)

Weight

280 grams (device only)

Operating Temperature

0° to 55 °C (32° to 149 °F)

Storage Temperature

-20° to 75 °C (4° to 167 °F)

Humidity

95% maximum (non-condensing)

Emission (EMI)

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

Safety

CSA International



ACN 052 202 838

Ordering Information

DWL-7100AP 802.11a/g Wireless LAN Access Point

Please specify your model number as follows:

DWL-7100AP/EEU	EU standard power adapter, EU frequency
DWL-7100AP/EFR	EU standard power adapter, France frequency
DWL-7100AP/BEU	UK standard power adapter, EU frequency
DWL-7100AP/NAU	Australia standard power adapter, EU frequency
DWL-7100AP/ALA	US standard power adapter, Latin America frequency
DWL-7100AP/ELA	EU standard power adapter, Latin America frequency
NDWL-7100AP/CN	China standard power adapter, China frequency
DWL-7100AP/ESG	EU standard power adapter, Singapore frequency
TDWL-7100AP	For Taiwan

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