

## Wireless AG Outdoor Access Point

### For Outdoor Installation

- Concurrent Dualband Operation in 5GHz & 2.4GHz Frequency Bands
- Dual 5dBi High-Gain Dualband Antennas
- 802.3af Power over Ethernet For Convenient Outdoor Installation
- Rugged All-Weather Housing & Built-in Heater
- Ideal for Building-to-Building Wireless Connection

#### FEATURES

##### For Business-Class Environments

- Concurrent Operation in Both 2.4GHz & 5GHz Frequency Bands
- Dual 5dBi High-Gain Dualband Antennas
- AP Grouping for Bandwidth Enhancement

##### Multiple Operation Modes

- Access Point
- WDS With AP
- WDS

##### Advanced Security

- 64/128/152-Bit WEP Data Encryption
- WPA/WPA2 Personal/Enterprise
- MAC Address Filtering
- Multiple SSID Network Segmentation
- 802.1Q VLAN Tagging Support
- System Log

##### Outdoor Installation

- 802.3af Power over Ethernet Support<sup>1</sup>
- Waterproof Rugged All-Weather Metal Housing
- Built-in Heater
- Power Surge Arrestor Included
- Mounting Kit for Wall and Wall Mounting

##### Versatile Management

- Windows-Based AP Manager Utility
- Web-Based Management
- Telnet
- MIB for SNMP Management

<sup>1</sup> Power consumption may exceed 802.3af PoE standard when heater is in operation.

<sup>2</sup> Maximum wireless signal rates based on IEEE Standard 802.11a and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead may lower actual data throughput rate.

The DWL-7700AP wireless AG outdoor access point is a tri-mode dualband wireless device conforming to IEEE 802.11 a/b/g standards. This device provides dual high Gain antennas covering a large operating distance and is ideal for Internet Service Providers to create hot spot networks to provide outdoor users with wireless Internet access. It can also be installed at manufacturing plants, industrial locations, convention halls, school campuses, airports, golf courses, marinas and other outdoor venues.

**Powerful & Durable Outdoor Solution.** The DWL-7700AP is designed to handle a wide variety of outdoor environments. It has a die-cast watertight housing, a built-in heater and a temperature sensor. Supporting 802.3af Power over Ethernet (PoE), it can be placed at outdoor locations where power outlets are not easily accessible.<sup>1</sup> Besides functioning as an AP, this device can be configured to operate as a Wireless Distribution System (WDS) to act as a bridge linking together networks in different buildings.

**Dualband Operation.** The DWL-7700AP provides concurrent operation in 5GHz & 2.4GHz frequency bands. When the network runs at full bandwidth speeds of 54Mbps in both frequency bands, this device offers a significant increase in total network capacity.<sup>2</sup>

**Advanced Network Security.** The DWL-7700AP supports 64/128-bit WEP data encryption and WPA/WPA2 security functions. In addition, it provides MAC Address Filtering to control user access, and the Disable SSID Broadcast function to limit outsiders' access to the internal network.

**Network Flexibility and Efficiency.** The DWL-7700AP supports up to 4 SSID, allowing the administrators to logically divide the access point into several virtual access points all within a single hardware platform. Rather than having two separate networks with two access points, administrators can deploy one single AP to support more than one application, such as public Internet access and internal network control to increase flexibility and keep costs down. The DWL-7700AP supports 802.1Q VLAN Tagging, operating with multiple SSID to segment traffic to enhance performance and security.

**The DWL-7700AP 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. Administrators can, however, disable this function, so wireless users at an office can share hard disks and information, and peripherals such as wireless printers. The DWL-7700AP also supports AP grouping, allowing several access points to balance wireless network traffic and wireless clients among the AP with the same SSID and different non-overlapping frequency channels.

**Network Management.** Network administrators can manage DWL-7700AP's settings via web-based configuration or Telnet. Administrators can use a Windows-based utility called AP Manager to automatically discover all wireless devices installed on the network and do bulk configuration of multiple AP to save time and effort.

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## Technical Specifications

### Standards

- IEEE 802.11a/b/g WLAN
- IEEE 802.3/802.3u Ethernet
- IEEE 802.3af Power Over Ethernet

### Wireless Frequency Range \*

- 2.412 to 2.4835GHz
- 5.15 to 5.35GHz
- 5.47 to 5.725GHz

\* Wireless frequency range varies according to individual country regulations.

### Ethernet Interface

10/100BASE-TX Ethernet port

### Radio & Modulation Schemes

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

### Data Rates

- 802.11a: 54, 48, 36, 24, 18, 12 and 9Mbps
- 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
- 802.11b: 11, 5.5, 2, and 1Mbps

### Transmit Output Power\*

(Typical RF output power at each data rate)

- 802.11a:
  - +14 to 15dBm at 54, 48Mbps
  - +14 to 17dBm at 36, 24, 18, 12, 9, and 6Mbps
- 802.11g:
  - +18dBm at 54Mbps
  - +20dBm at 48Mbps
  - +23dBm at 38, 24, 18, 12, 9, and 6Mbps
  - +23dBm at 11, 5.5, 2 and 1Mbps
  - +23dBm (200mwatts) (FCC)
  - +20dBm (100mwatts) (ETSI EIRP max.)
- 802.11b:
  - +23dBm at 11, 5.5, 2 and 1Mbps
  - +23dBm (200mwatts) (FCC)
  - +20dBm (100mwatts) (ETSI EIRP max.)

\* Maximum power setting will vary according to individual country regulations.

### Receive Sensitivity

- 802.11a:
  - (1000-byte PDU at 10% Packet Error Rate)
  - 87dBm at 6Mbps
  - 86dBm at 9Mbps
  - 85dBm at 12Mbps
  - 83dBm at 18Mbps
  - 80dBm at 24Mbps
  - 76dBm at 36Mbps
  - 71dBm at 48Mbps
  - 66dBm at 54Mbps
- 802.11g:
  - (1000-byte PDU at 10% Packet Error Rate)
  - 87dBm at 6Mbps
  - 86dBm at 9Mbps
  - 85dBm at 12Mbps
  - 83dBm at 18Mbps
  - 80dBm at 24Mbps
  - 76dBm at 36Mbps
  - 71dBm at 48Mbps
  - 66dBm at 54Mbps
- 802.11b:
  - (At 8% Packet Error Rate)
  - 83dBm at 11Mbps
  - 89dBm at 2Mbps

### Antennas

Dual 5dBi Gain Reverse-N Type dipole dualband antennas

### Security

- 64/128/152-bit WEP data encryption
- WPA-PSK, WPA2-PSK
- WPA-EAP, WPA2-EAP
- TKIP, AES support
- MAC address filtering user access
- WLAN STA partitioning
- 4 SSID for network segmentation
- SSID broadcast disable function
- 802.1Q VLAN Tagging

### Configurable Modes

- AP
- WDS with AP
- WDS

### Performance Enhancement

AP grouping for load balance

### Device Configuration/Management

- Web-based management: Internet Explorer v.6 or later; Netscape Navigator v.7 or later; or other Java-enabled browsers
- MIB-I, MIB-II
- Telnet
- Windows-based AP Manager Utility

### Diagnostic LEDs

- Power
- 10/100Mbps
- 802.11a
- 802.11b/g

### Accessories Provided for Outdoor Installation

- Surge arrester
- PoE base unit
- RF jumper cable (1 meter long)
- Ethernet cable (30 meters long)
- Set of grounding wires
- 2 mounting kits



## Physical & Environmental

### Operating Voltage

48VDC +/- 10% for PoE

### Power Supply

Through external power adapter

### Power Consumption

- 8.5 watts (max.) with PoE (heater OFF)
- 28.5 watts (max.) with PoE (heater ON) \*

\* Power consumption may exceed 802.3af PoE standard when heater is in operation.

### Dimensions

277.7 (L) x 155 (W) x 70 (H) mm

### Weight

1.82 kg

### Operating Temperature

-40° to 60°C

### Storage Temperature

-40° to 65°C

### Operating Humidity

10% to 90% non-condensing

### Storage Humidity

5% to 95% non-condensing

### Regulation Certification

- FCC Class B
- CE
- Wi-Fi

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