

### **Product Highlights**

#### **Next Generation Connectivity**

Features next-generation 802.11 ax Wi-Fi 6 and 802.11 ac Wave 2 technologies to deliver a reliable wireless connection at unparalleled combined speeds

#### **Unparalleled Performance**

Experience smooth and stable performance with a powerful CPU, band steering, and Airtime Fairness to ensure that every client has equal access to airtime

#### **Optimized Wireless Experience**

MU-MIMO, smart antennas, and tri-band technology provide optimal wireless experience in high-density environments



### **DWL Series**

# **Unified AX and AC Wave 2 Wireless Access Points**

#### **Features**

#### **Ideal for Businesses**

- Multiple virtual access points can be created from a single access point
- Flexible QoS with WMM
- Power over Ethernet enables installation in hard to reach locations
- UL2043-certified chassis (Plenum-rated SKU)

#### **High-Performance Connectivity**

- Supports 160 MHz channel for doubled capacity<sup>1</sup>
- · Band steering for efficient traffic management
- Airtime Fairness
- 802.11k Fast Roaming<sup>2</sup>
- Supports Link Aggregation<sup>3</sup>

#### **Trusted Wireless Security Features**

- 128-bit Personal & Enterprise wireless encryption
- Latest 128-bit Personal & 192-bit Enterprise wireless encryption
- MAC address filtering
- Rogue AP detection

The D-Link DWL Series Unified AX and AC Wave 2 Wireless Access Points are specially designed for small to medium businesses or enterprises, providing unparalleled bandwidth and flexibility for administrators looking to deploy a medium to large scale Wi-Fi network. This AP series has manageable dual-band wireless LAN options and utilizes the cuttingedge speed of Wireless AX and AC Wave 2. Not only can they operate in standalone mode, the D-Link Unified AC Wave 2 Wireless Access Points can also be centrally managed by D-Link Unified Wireless Controllers. Highly manageable and capable of blazing speeds, the Unified AX and AC Wave 2 Wireless Access Points integrate seamlessly into any existing network infrastructure and can be easily scaled to meet future demands.

#### **Greater Speed and Connectivity**

The DWL Series Unified AX and AC Wave 2 Wireless Access Points leverage the full potential of 802.11ac Wave 2 to provide unparalleled connectivity with ultra-high combined data rates. The DWL-6620APS and DWL-7620AP deliver a combined speed of up to 1,267 Mbps<sup>4</sup> and 2,134 Mbps<sup>4</sup> respectively, while the DWL-8620AP and DWL-8620APE offer an even faster combined speed of up to 2,533 Mbps<sup>4</sup>. In addition, the DWL Series supports Link Aggregation<sup>3</sup>, which allows two Gigabit Ethernet ports to be linked together and act as a single port to double the available bandwidth and maximize the overall throughput of the access point.

#### **MU-MIMO Technology**

All models in the DWL Series support MU-MIMO (Multi-User Multiple Input Multiple Output), which enables the device to simultaneously communicate with multiple clients using multiple antennas. This allows the access point to utilize the spectrum more efficiently and significantly increase the network capacity. The DWL-6620APS and the DWL-7620AP feature 2 x 2 MU-MIMO, while the DWL-8620AP and DWL-8620APE feature 4 x 4 MU-MIMO dramatically improveing wireless performance by taking full advantage of all streams to serve more wireless clients.



#### **D-Link Smart Antenna**

The DWL-6620APS features D-Link Smart Antenna technology that helps to select the optimal radiation pattern for each client and uses digital beam forming to enhance the antenna gain and achieve optimal throughput. In addition, the D-Link Smart Antenna supports multiple radio patterns to dynamically adapt to different kinds of environments. Meanwhile, the fast channel and bandwidth selection features always look for the best channel with the least interference for smoother performance. With these capabilities, the DWL-6620APS ensures a reliable connection reliability and optimized wireless user experience.

#### Tri-Band Wi-Fi

The DWL-7620AP is equipped with tri-band wireless technology featuring one 2.4 GHz and two 5 GHz wireless bands to accommodate the increasing number of devices connecting to a single access point. By allowing older 802.11b/g/n devices to connect to the 2.4 GHz band, the two 5 GHz bands can be dedicated to newer, faster wireless AC devices allowing them to enjoy seamless bandwidth-intensive applications such as HD video streaming, VoIP, and file sharing. Thanks to intelligent band steering technology, the DWL-7620AP can also efficiently load balance clients and traffic between the three wireless bands to ensure all wireless clients have a better user experience in environments with high density.

### **Centrally Managed**

When working in conjunction with D-Link Unified Controllers, the Unified AX and AC Wave 2 Wireless Access Points can be centrally managed. This allows for a large number of access points to be deployed and managed easily and efficiently. Once the APs have been discovered by the controller, the administrator can push the configuration to them as a group, instead of configuring each access point individually. Additionally, Radio Frequency (RF) resource management<sup>1</sup> allows wireless coverage to be managed centrally, providing the best coverage possible for wireless clients.

### Easy to Install

The DWL Series can be ceiling mounted or wall mounted to meet the needs of any wireless application. For additional flexibility, all D-Link Unified AX and AC Wave 2 Wireless Access Points have integrated Power over Ethernet (PoE) support, allowing the devices to be installed in areas where power outlets are not readily available.

### Automatic Radio Frequency (RF) Management

When access points are deployed in close proximity to each other, there may be interference between channels if RF management is not implemented. When one of the DWL Series AC Access Points senses a neighbor nearby, it will automatically select a non-interfering channel. This greatly reduces RF interference and will allow the administrator to deploy APs more densely. To further minimize interference, when a nearby AP is on the same channel, the D-Link Unified AC Wave 2 Access Point will automatically lower its transmission power<sup>2</sup>. When a nearby AP is no longer present, the access point will increase its transmission power to expand coverage.

#### **Advanced Wireless Features**

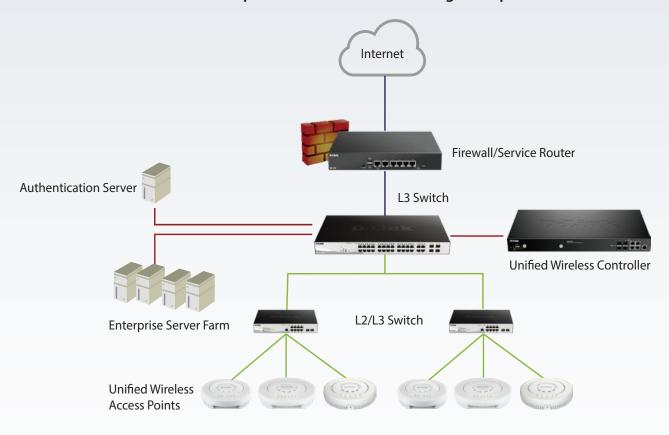
The D-Link Unified AX and AC Wave 2 Wireless Access Points support 802.1p Quality of Service (QoS) for enhanced throughput and better performance of time-sensitive traffic like VoIP and streaming DSCP. All D-Link Unified AX and AC Wave 2 Wireless Access Points support Wi-Fi Multimedia (WMM), so in the event of network congestion, time-sensitive traffic can be given priority ahead of other traffic. Furthermore, when a number of access points are in close proximity to each other, an access point will refuse new association requests once its resources are fully utilized. allowing the association request to be picked up by a neighboring unit, distributing the load over multiple APs. Band steering technology enables D-Link's Unified AX and AC Wave 2 Wireless Access Points to intelligently place clients on the optimal wireless band to avoid congestion and allows for smooth streaming of video, seamless browsing, and fast downloads for mobile devices. Airtime Fairness ensures that equal airtime is given to each client, providing increased performance even if slower devices are connected. 802.11k Fast Roaming<sup>2</sup> is also supported, which allows the wireless client to roam seamlessly between access points.

### Wi-Fi6

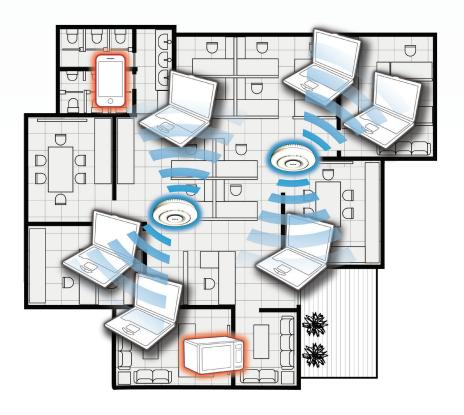
The DWL-X8630AP is the latest model of D-Link DWL Series, utilizing 802.11ax technology (also known as Wi-Fi 6). 11ax includes 1024-QAM modulation, which surpasses speed limitations in both 2.4 GHz and 5 GHz bands. OFDMA (Orthogonal Frequency Division Multiple Access) and uplink/downlink MU-MIMO (multi-user – multiple input multiple output) boosts channel capacity and efficiency, enabling more clients to access the network. The DWL-X8630 boasts up to 4 special streams with channel bandwidths up to 160 MHz (in 5 GHz, 40 MHz in 2.4 GHz). This AX3600 AP achieves 2402 Mbps PHY on 5 GHz and 1147 Mbps PHY on 2.4 GHz. The DWL-X8630AP's built-in 2.5 GbE PoE port unlocks the door to 'multi-gigabit' Wi-Fi, making AX3600 technology essential for increasing your network's speed and bandwidth.



### L2/L3 Network Implementation in Medium to Large Enterprise Environments



### D-Link Smart Antenna's Dynamic Pattern to Mitigate Co-Channel Interference

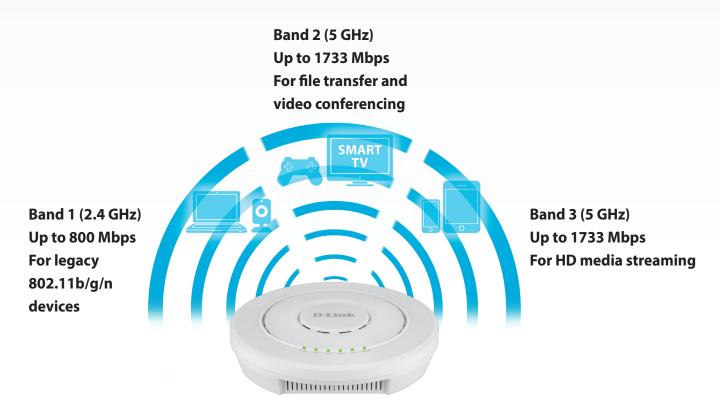




### SU-MIMO vs MU-MIMO Multi-Client Communication



### Tri-band Dedicated Radios for Improved Wireless Performance and Load Sharing





General				
Model Name	DWL-6620APS	DWL-7620AP	DWL-6720AP	DWL-8720AP
Hardware Version	• A1			
Wireless Interface	• IEEE 802.11b/g/n 2.4 GHz wireless • IEEE 802.11/a/n/ac Wave 2 5 GHz wireless			
MIMO		•	2 x 2	
Data Rate <sup>4</sup>	<ul> <li>2.4 GHz - Up to 400 Mbps</li> <li>5 GHz - Up to 867 Mbps</li> <li>5 GHz (2) - Up to 867 Mbps</li> </ul>		• 2.4 GHz - Up to 400 Mbps • 5 GHz - Up to 867 Mbps	
Antenna	Internal smart antennas     2.4 GHz: Up to 4 dBi (variable)     5 GHz: Up to 6 dBi (variable)	Internal omni-directional antennas     2.4 GHz: 3 dBi     5 GHz: 4 dBi	Internal omni-directional antennas     2.4 GHz: 3.5 dBi     5 GHz: 5 dBi	External omni-directional antennas     2.4 GHz: 3.5 dBi     5 GHz: 5 dBi
Operating Frequency	• 2400 to 2483.5 MHz • 5150 to 5850 MHz			
Operating Channels	<ul> <li>1 to 13 channels for 2.4 GHz band (per country code)</li> <li>36 to 165 channels for 5 GHz band (per country code)</li> </ul>			
Ethernet Interface	• 2 x 10/100/1000BASE-T LAN port		• 1 x 10/100/1000BASE-T LAN port	
Console Port	• RJ-45			
Functionality				
Advanced Features	<ul> <li>Auto Channel selection</li> <li>802.1p Quality of Service (QoS)</li> <li>Wireless Multimedia (WMM)</li> <li>Wireless Distribution System (WDS)         <ul> <li>Band steering</li> <li>Airtime Fairness</li> <li>Link Aggregation<sup>3</sup></li> <li>IEEE 802.11k Fast Roaming</li> </ul> </li> </ul>		Auto Channel selection     802.1p Quality of Service (QoS)     Wireless Multimedia (WMM)     Wireless Distribution System (WDS)     Band steering     Airtime Fairness     IEEE 802.11k Fast Roaming	
Management				
Operating Mode	Standalone mode     Managed mode - Centrally managed by D-Link Wireless Controller			
Management Interfaces	Web-based User Interface (Web UI)     Telnet/SSH     Command Line Interface (CLI)     SNMP v1/v2c/v3			



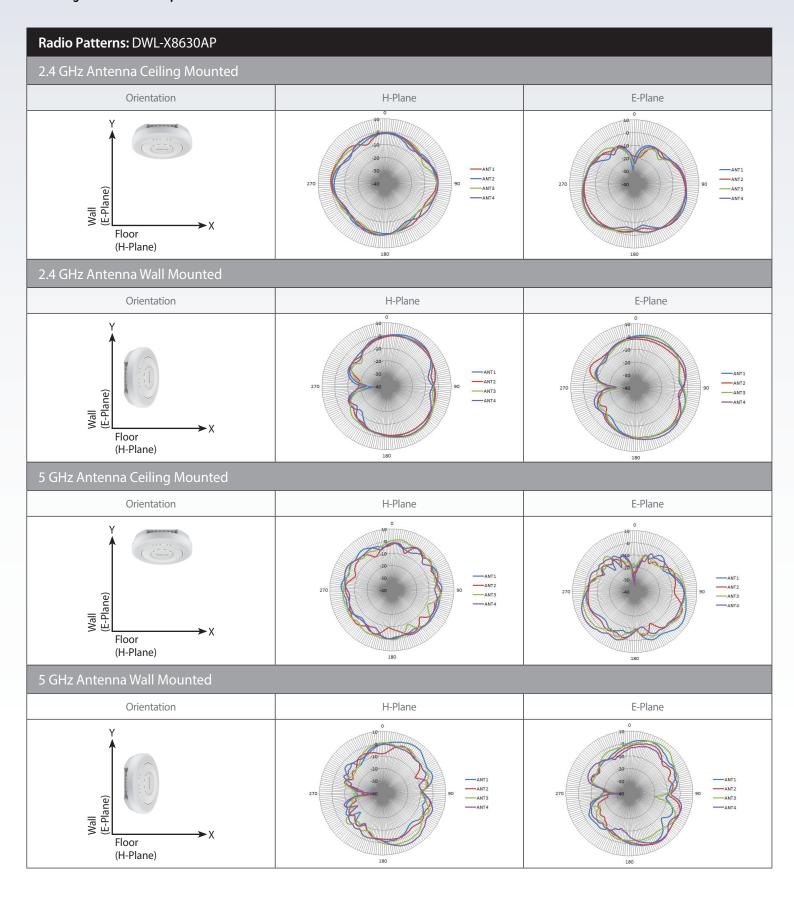
Security				
Model Name	DWL-6620APS	DWL-7620AP	DWL-6720AP	DWL-8720AP
SSID Security	Up to 32 SSIDs, 16 per radio     802.1Q VLAN     Station Isolation	Up to 48 SSIDs, 16 per radio 802.1Q VLAN Station Isolation	Up to 32 SSIDs, 16 per radio 802.1Q VLAN Station Isolation	
Wireless Security	Latest 128-bit Personal wireless encryption  Latest 192-bit Enterprise wireless encryption  SAE  OWE (Enhanced Open)  AES  TKIP			
Detection & Prevention	Rogue and Valid AP Classification			
Authentication	MAC Address Filtering			
Physical				
Dimensions	• 220 x 55.45 mm (8.66 x 2.18 in)	• 205 x 39 mm (8.07 x 1.54 in)	• 291.9 x 115 x 65.5 mm (11.49 x 4.53 x 2.57 in)	• 460 x 160 x 79.5 mm (18.11 x 6.30 x 3.12 in)
Weight	0.61 kg (1.35 lbs) without bracket     0.66 kg (1.46 lbs) with bracket	0.57 kg (1.26 lbs) without bracket     0.62 kg (1.37 lbs) with bracket	0.822 kg (1.81 lbs) without bracket     0.853 kg (1.88 lbs) with bracket	1.38 kg (3.04 lbs) without bracket
Power Supply	External power adapter: 12 V     DC 2 A     Supports 802.3at PoE PD on     LAN 1 Port	External power adapter: 12 V     DC 2.5 A     Supports 802.3at PoE PD on     LAN 1 Port	Supports 802.3af PoE PD on LAN Port	
Power over Ethernet	• 802.3at		• 802.3af	
Maximum Power Consumption	• 16.32 W	• 20 W • Under 13 W		der 13 W
Enclosure	Bottom cover – plastic     Top cover – plastic     UL2043-certified chassis		Bottom cover - plastic     Body - plastic	Metal     IP67 certified chassis
Temperature	• Operating: 0 to 40 °C (32 to 104 °F) • Storage: -20 to 65 °C (-4 to 149 °F)		• Operating: -40 to 50 °C (-40 to 122 °F) • Storage: -40 to 65 °C (-40 to 149 °F)	<ul> <li>Operating: -40 to 60 °C (-40 to 140 °F)</li> <li>Storage: -40 to 70 °C (-40 to 158 °F)</li> </ul>
Humidity	Operating: 10% to 90% non-condensing     Storage: 5% to 95% non-condensing			
MTBF	• 925,606 hours	• 753,019 hours	• 1,142,136 hours	• 1,305,297 hours

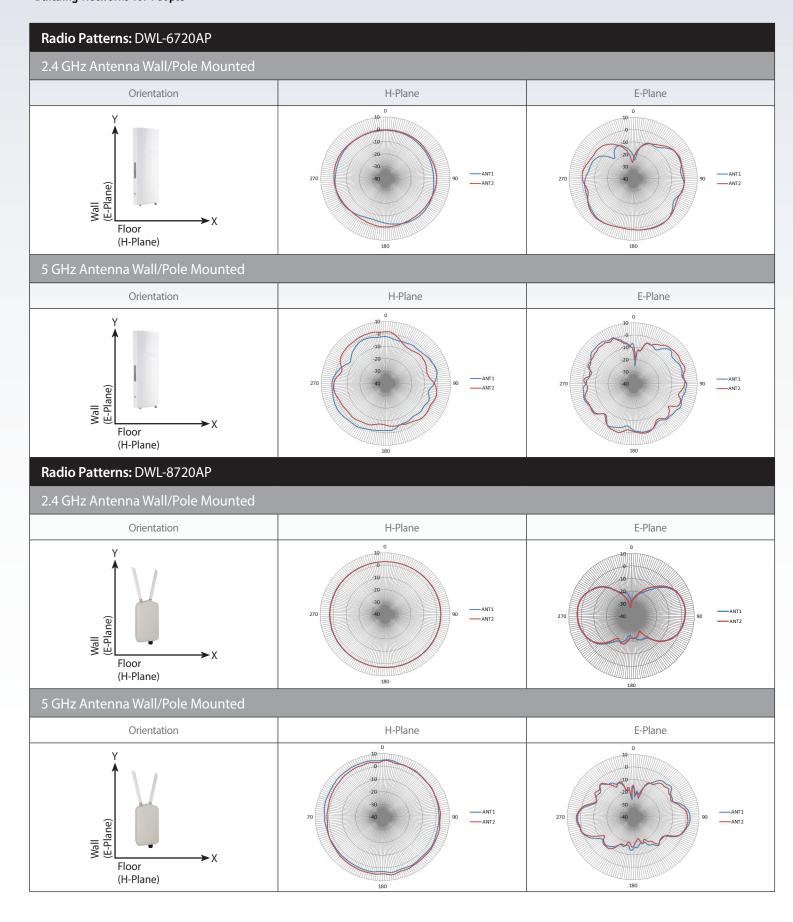


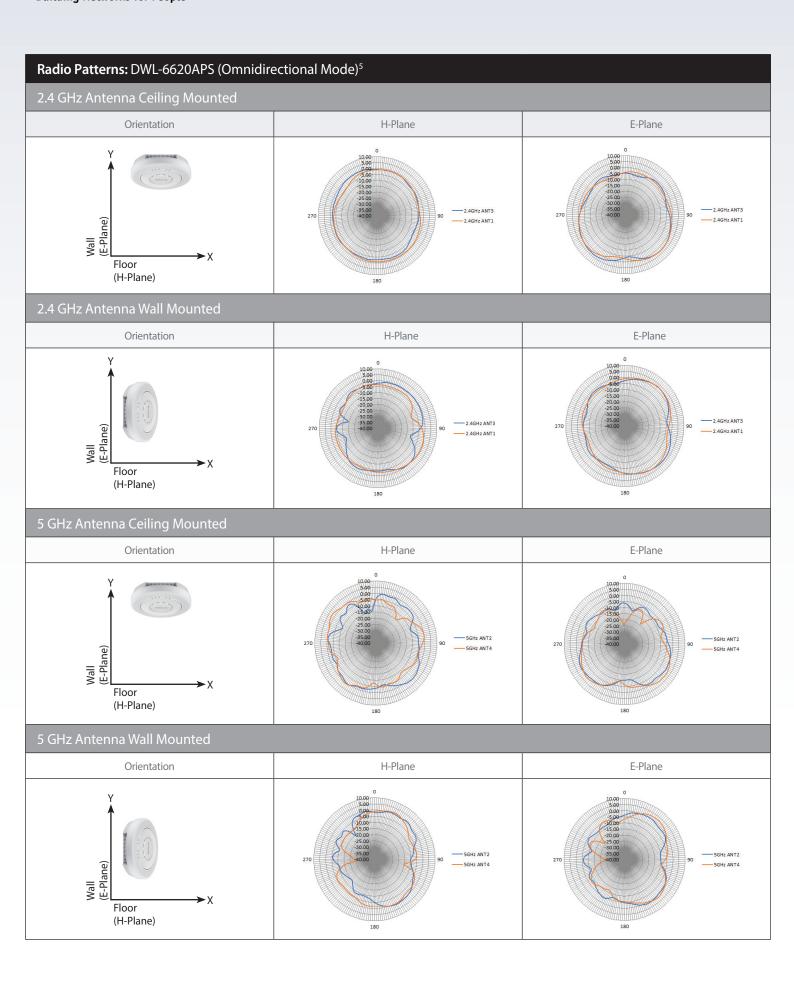
General			
Model Name	DWL-8620AP	DWL-8620APE	DWL-X8630AP
Hardware Version	• A1		
Wireless Interface	• IEEE 802.11b/g/n 2.4 GHz wireless • IEEE 802.11/a/n/ac Wave 2 5 GHz wireless		• IEEE 802.11a/b/g/n/ac/ax (WiFi 6)
MIMO		• 4 x 4	
Data Rate <sup>4</sup>			• 2.4 GHz - Up to 1147 Mbps (1024QAM) • 5 GHz - Up to 2402 Mbps (1024QAM)
Antenna	<ul><li>Internal omni-directional antennas</li><li>2.4 GHz: 3 dBi</li><li>5 GHz: 4 dBi</li></ul>	<ul><li>External omni-directional antennas</li><li>2.4 GHz: 3 dBi</li><li>5 GHz: 4 dBi</li></ul>	<ul><li>Internal omni-directional antennas</li><li>2.4 GHz: 3 dBi</li><li>5 GHz: 4 dBi</li></ul>
Operating Frequency	• 2400 to 2483.5 MHz • 5150 to 5850 MHz		
Operating Channels	<ul> <li>1 to 13 channels for 2.4 GHz band (per country code)</li> <li>36 to 165 channels for 5 GHz band (per country code)</li> </ul>		
Ethernet Interface	• 2 x 10/100/1000BASE-T LAN port		• 1 x 10/100/1000 BASE-T LAN port • 1 x 10/100/1000/2500 BASE-T LAN port
Console Port	• RJ-45		
Functionality			
Advanced Features	<ul> <li>Auto Channel selection</li> <li>802.1p Quality of Service (QoS)</li> <li>Wireless Multimedia (WMM)</li> <li>Wireless Distribution System (WDS)</li> <li>Band steering</li> <li>Airtime Fairness</li> <li>Link Aggregation³</li> <li>IEEE 802.11k Fast Roaming</li> </ul>		
Management			
Operating Mode	Standalone mode     Managed mode - Centrally managed by D-Link Wireless Controller		
Management Interfaces	Web-based User Interface (Web UI)		

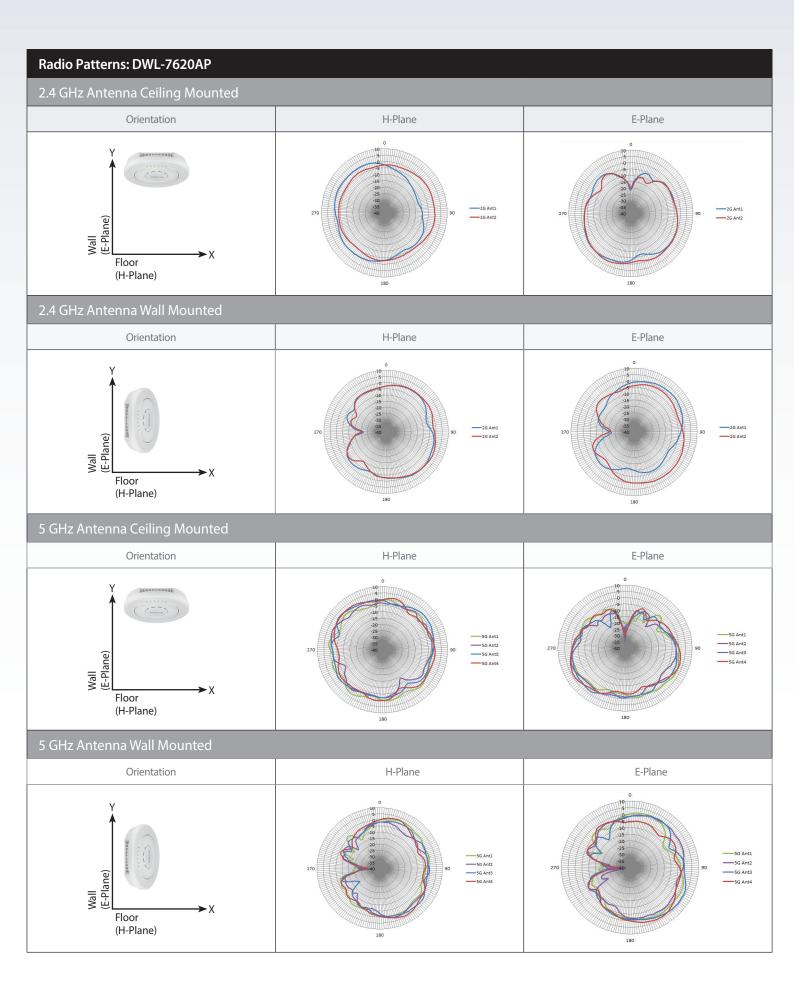


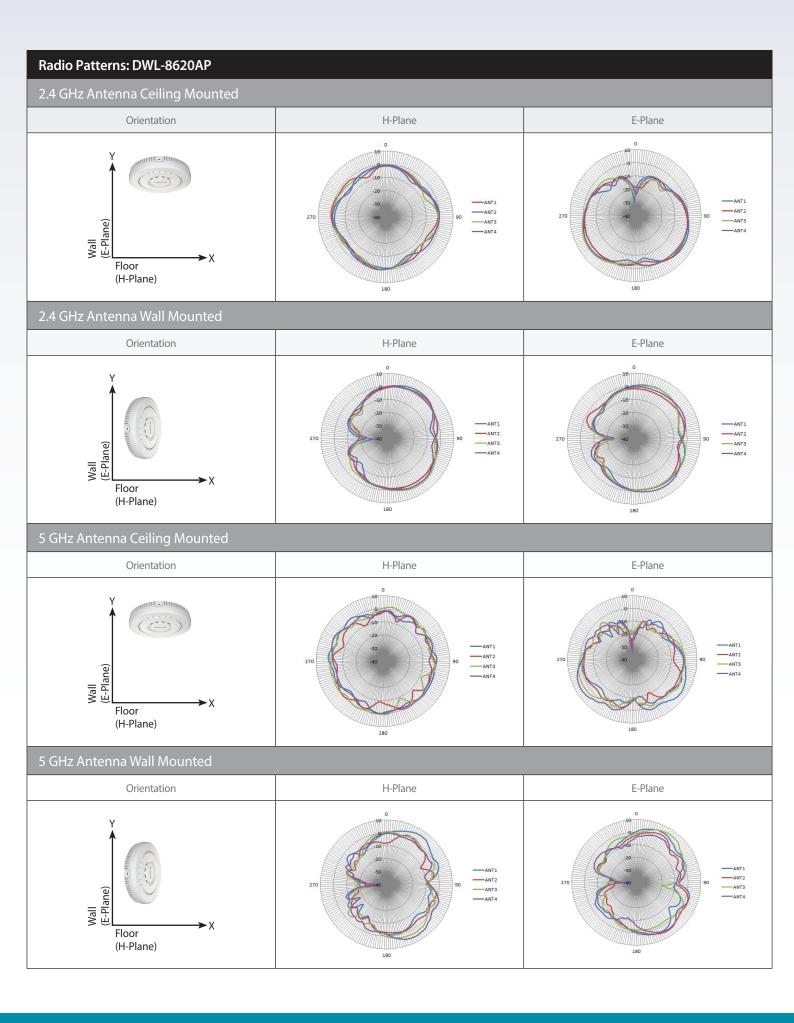
Security			
Model Name	DWL-8620AP	DWL-8620APE	DWL-X8630AP
SSID Security	Up to 32 SSIDs, 16 per radio     802.1Q VLAN     Station Isolation		
Wireless Security	Latest 128-bit Personal wireless encryption  Latest 192-bit Enterprise wireless encryption  SAE  OWE (Enhanced Open)  AES  TKIP		
Detection & Prevention	Rogue and Valid AP Classification		
Authentication	MAC Address Filtering		
Physical			
Dimensions	• 220 x 47 mi	m (8.66 x 1.97 in)	• 220 x 47 mm (8.66 x 1.97 in)
Weight	0.79 kg (1.75 lbs) without bracket     0.84 kg (1.85 lbs) with bracket	0.92 kg (2.03 lbs) without bracket     0.97 kg (2.14 lbs) with bracket	0.868 kg (1.91 lbs) without bracket     0.889 kg (1.96 lbs) with bracket
Power Supply	External power adapter: 12 V DC 2.5 A     Supports 802.3at PoE PD on LAN 1 Port	External power adapter: 12 V DC 2.5 A     Supports 802.3at PoE PD on LAN 1 Port	External Power Adapter: 12 VDC 2.5A     Supports 802.3at PoE PD on LAN 1 Port
Power over Ethernet	• 802.3at		
Maximum Power Consumption	• 24.24 W		• 19.98 W
Enclosure	<ul><li>Bottom cover – plastic</li><li>Top cover – plastic</li><li>UL2043-certified chassis</li></ul>	Bottom cover – plastic     Top cover – plastic	<ul><li>Bottom cover - plastic</li><li>Top cover - plastic</li><li>UL2043 certified chassis</li></ul>
Temperature	Operating: 0 to 40 °C (32 to 104 °F)     Storage: -20 to 65 °C (-4 to 149 °F)		
Humidity	Operating: 10% to 90% non-condensing     Storage: 5% to 95% non-condensing		
MTBF	• 463,255 hours	• 460,185 hours	• 485,222 hours
Certifications	CE EN55032, EN55024, EN61000-3-2, EN61000-3-3, EN60601-1-2 (Medical electrical equipment), EN301489-1, EN301489-17, EN300328, EN301893 FCC IC CUL+UL CB RCM NCC BSMI UL2043	CE EN55032, EN55024, EN61000-3-2, EN61000-3-3, EN60601-1-2 (Medical electrical equipment), EN301489-1, EN301489-17, EN300328, EN301893 FCC IC CUL+UL CB RCM NCC BSMI	• CE • EN55032, EN55024, EN61000-3-2, EN61000-3-3, EN60601- 1-2 (Medical electrical equipment), EN301489-1, EN301489-17, EN300328, EN301893 • FCC • IC • cUL+UL (UL/CSA 62368-1 + UL 60950-22) • LVD (IEC/EN 62368-1) • CB (IEC/EN 60950-1 + 62368-1) • RCM • NCC • BSMI (CNS 14336-1) • UL2043

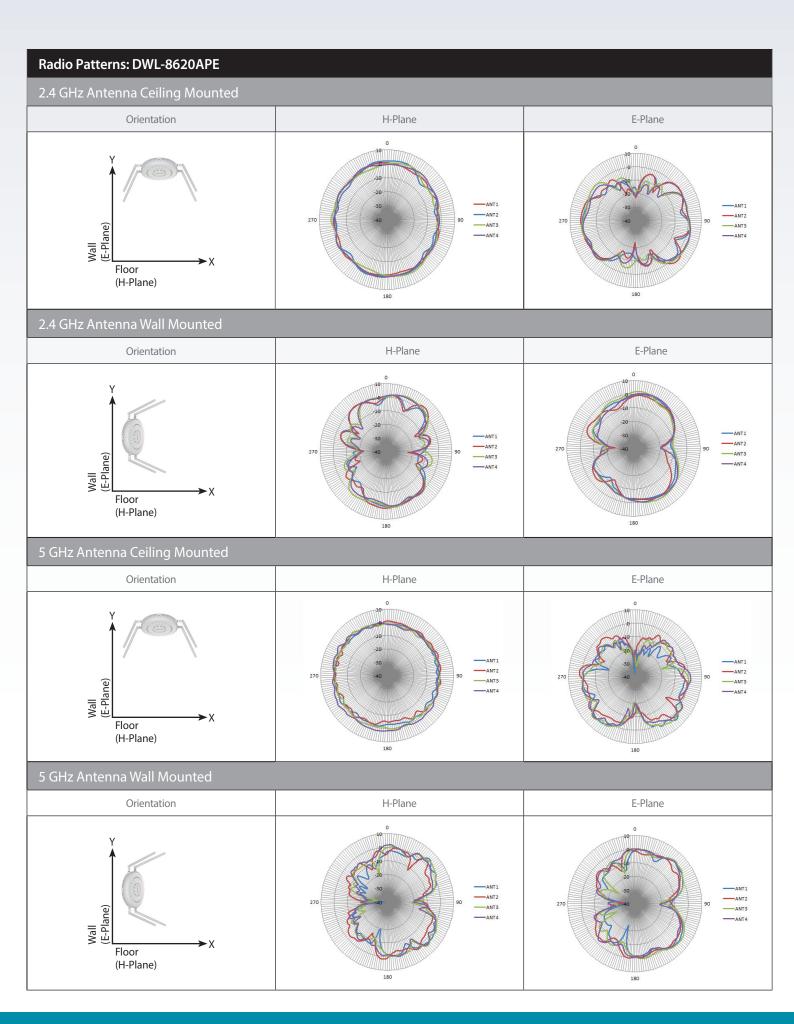












Order Information		
Part Number	Description	
DWL-6620APS	Dual-Band 802.11n/ac Wave 2 Unified Wireless Access Point	
DWL-7620AP	• Tri-Band 802.11n/ac Wave 2 Unified Wireless Access Point	
DWL-8620AP	Dual-Band 802.11n/ac Wave 2 Unified Wireless Access Point	
DWL-8620APE	Dual-Band 802.11n/ac Wave 2 Unified Wireless Access Point	
DWL-6720AP	Dual-Band 802.11n/ac Wave 2 Unified Wireless Outdoor Access Point	
DWL-8720AP	Dual-Band 802.11n/ac Wave 2 Unified Wireless Outdoor Access Point	
DWL-X8630AP	Dual-Band 802.11ax Unified Wireless Access Point	

Updated 2020/03/27



Only supported on the DWL-8620AP, DWL-8620APE and the DWL-X8630AP.

2 This feature is available when Unified AP is used in conjunction with D-Link's line of Unified Wireless Controllers.

3 The LACP (Link Aggregation Control Protocol) is only supported on the DWL-8620APE and the DWL-X8630AP. Only the DWL-6620APS and the DWL-7620AP support static Link Aggregation (LAG).

4 Maximum wireless signal rate derived from IEEE standard 802.11 and 802.11 act specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

5 The 2 x 2 smart antenna supports up to 81 sets of radio patterns. The omni-directional mode is one such pattern.