Dell PowerConnect W-AP124 & W-AP125 Access Points

The multifunction Dell PowerConnect W-AP124 and W-AP125 are high performing indoor dual-radio 802.11n access points (APs) designed for maximum deployment flexibility in high-density environments that require above-ceiling or enclosure-based installations. These high-speed APs deliver wire-like performance at data rates up to 300 Mbps per radio.

The W-AP124 features two 3x3 MIMO dual-band 2.4-GHz/5-GHz radios has the interface to connect external antennas while the W-AP125 features the same radios with integrated internal antennas. Both are built to provide years of trouble-free operation and are backed by an Extended Lifetime Warranty.

Working with Dell's line of centralized PowerConnect W Series Controllers, the W-AP124 and W-AP125 delivers secure, high-speed wireless network services for user mobility that works seamlessly within enterprise, branch office and campus network deployments.

802.11n enables the use of wireless as a primary connection with speed and reliability comparable to a wired LAN. It also increases performance by utilizing techniques such as channel bonding, block acknowledgement and MIMO radios. Advanced antenna technology also increases range and reliability.

Key to ensuring wire-like performance and reliability is the W-Series Adaptive Radio Management (ARM), which manages the 2.4-GHz and 5-GHz radio bands to deliver maximum client performance. Adaptive Radio Management enables different 802.11 a, b,g and n wireless clients to operate on the same network at maximum possible performance through the use of band steering, airtime fairness policies between clients, and by managing channel interference that may occur between access points.

The multifunction W-AP124 and W-AP125 can be configured through the controller to provide WLAN access with part-time air monitoring, dedicated air monitoring for wireless IPS, Remote AP (RAP) functionality or secure enterprise mesh. The W-AP124 and W-AP125 feature dual 100/1000BASE-T Ethernet interfaces and operate from standard power-over-Ethernet (PoE) sources or a 5-volt DC power supply.

Mainstream 600 Mbps 802.11n access point for secure dual-band wireless mobility, with adjustable antennas to optimize coverage.

Specifications

Operating modes

- Multiservice concurrent 802.11a/n + b/g/n WLAN
- Can be configured to operate individually or simultaneously as:
  - 802.11a/b/g/n access point
  - Air monitor, spectrum monitor
  - Remote AP
  - Secure enterprise mesh
- Backward compatible with 802.11a/b/g and mixed-mode 11a/b/g/n deployments

Radios

- Multifunction, dual radio capable of 2.4-GHz and 5-GHz operation
- Both 802.11n radios implement 3x3 MIMO with two spatial streams, providing up to 300 Mbps data rate per radio
- Maximal ratio combining (MRC) for improved receiver performance

Wireless radio specifications

- AP type: Indoor, dual radio, dual band
- Supported frequency bands (country-specific restrictions apply):
  - 2.400 to 2.4835 GHz
  - 5.150 to 5.250 GHz with Dynamic Frequency Selection (DFS) capability
  - 5.250 to 5.350 GHz with Dynamic Frequency Selection (DFS) capability
  - 5.470 to 5.725 GHz with Dynamic Frequency Selection (DFS) capability
  - 5.725 to 5.850 GHz with Dynamic Frequency Selection (DFS) capability
- Available channels: Controller-managed, dependent upon configured regulatory domain
- Maximum transmit power:
  - 2.4 GHz: Up to 23 dBm (limited by local regulatory requirements)
  - 5 GHz: Up to 22 dBm (limited by local regulatory requirements)
  - Transmit power: Configurable in increments of 0.5 dBm
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 3x3 MIMO with 2 spatial streams
- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Association rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS15 (6.5 Mbps to 300 Mbps)
  - 802.11n high-throughput (HT) support: HT 20/40
  - 802.11n packet aggregation: A-MPDU, A-MSDU

Antenna

- W-AP124: Three RP-SMA interfaces for external antenna support (supports up to 3x3 MIMO with spatial diversity). External Antenna selection guide is available from Dell representative or downloadable from Dell.com/wireless
- W-AP125: Integrated, tri, omni-directional multiband dipole antennas (supports up to 3x3 MIMO with spatial diversity)
- W-AP125 antenna maximum gain:
  - 2.4 GHz to 2.5 GHz/3.2 dBi
  - 5.150 GHz to 5.875 GHz/5.2 dBi

Interfaces

- Network:
  - 1 x 10/100/1000Base-T Ethernet (RJ45), auto-sensing, MDI/MDX
- Power:
  - 1 x DC power connector
- Other:
  - 1 x RJ45 console interface

Power options

- 48V DC 802.3af PoE or 802.3at or PoE+
- External AC power adapter providing 5V DC to AP (adapter sold separately)
- Maximum power consumption: 16 watts

Mounting

- Ceiling tile rail (15/16" & 9/16" recessed or non-recessed)
- Desk stand & wall outlet mount plate
- Solid wall stand-off
- Kensington security lock point (model W-AP125 only)

Mechanical

- 124 mm x 130 mm x 51 mm (4.9" x 5.13" x 2.0")
- Weight: 420 g (15 oz)

Environmental

- Operating:
  - Temp: 0° to 50° C (32° to 122° F)
  - Humidity: 5 to 95% non-condensing
- Storage and Transportation:
  - Temp: -40° to 70° C (-40° to 158° F)

Certifications / Regulatory

- Wi-Fi certified 802.11a/b/g/n
- FIPS/TAA certified SKU available

  Product meets EMC, safety and wireless standards of over 50 countries inclusive of; USA (FCC), Canada, EU, Japan, Korea, China. For more country-specific regulatory information, and approvals, please see your Dell representative.
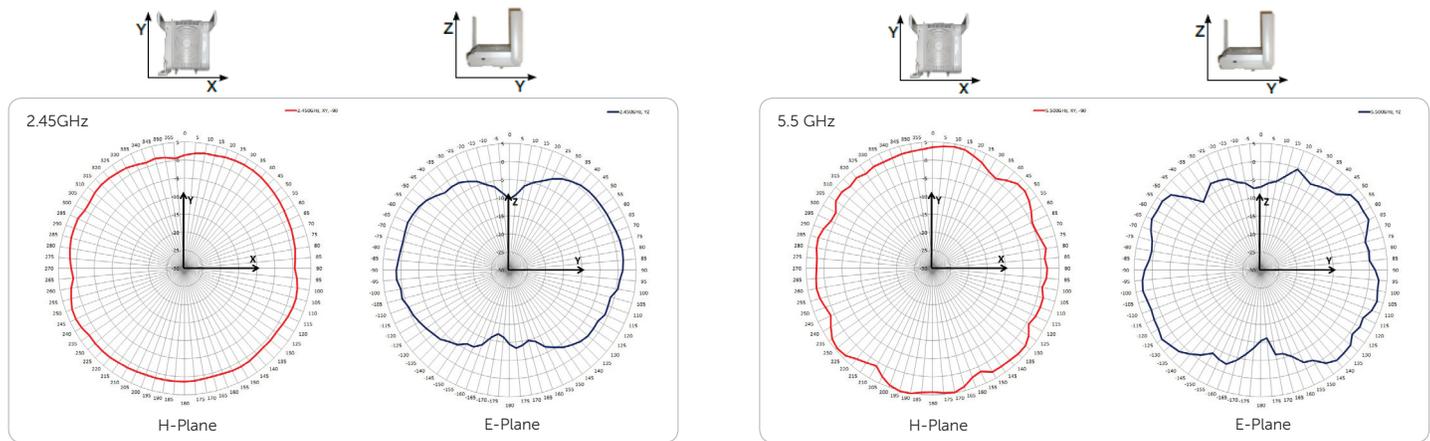
Minimum OS version

- 5.0.2.1

Extended Life Warranty*

W-AP124 and W-AP125 RF Performance Table				
	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)
	2.4 GHz		5 GHz	
802.11b				
1Mbps	18	-93	-	-
2Mbps	18	-91	-	-
5.5Mbps	18	-90	-	-
11Mbps	18	-88	-	-
802.11a/g				
6Mbps	17	-92	17	-91
9Mbps	17	-92	17	-91
12Mbps	17	-92	17	-91
18Mbps	17	-91	17	-90
24Mbps	17	-88	17	-87
36Mbps	17	-85	16	-83
48Mbps	16	-81	15	-79
54Mbps	13	-79	13	-77
802.11n HT20				
MCS0	18	-92	17	-91
MCS1	18	-91	17	-89
MCS2	18	-89	17	-87
MCS3	18	-85	17	-84
MCS4	18	-82	17	-80
MCS5	17	-78	17	-76
MCS6	13	-76	13	-74
MCS7	11	-75	12	-72
MCS8	18	-90	17	-89
MCS9	18	-89	17	-87
MCS10	18	-87	17	-85
MCS11	18	-83	17	-82
MCS12	18	-80	17	-78
MCS13	17	-76	17	-74
MCS14	13	-74	13	-72
MCS15	11	-73	12	-70
802.11n HT40				
MCS0	18	-89	17	-88
MCS1	18	-87	17	-85
MCS2	18	-84	17	-83
MCS3	18	-84	17	-80
MCS4	18	-78	17	-77
MCS5	17	-74	17	-72
MCS6	13	-72	13	-70
MCS7	11	-71	12	-67
MCS8	18	-87	17	-86
MCS9	18	-85	17	-83
MCS10	18	-82	17	-81
MCS11	18	-82	17	-78
MCS12	18	-76	17	-75
MCS13	17	-72	17	-70
MCS14	13	-70	13	-68
MCS15	11	-69	12	-65

Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.

W-AP125 Antenna Plots

2.45GHz

H-Plane   E-Plane

5.5 GHz

H-Plane   E-Plane

Ordering Information

Part number	Description
W-AP124	Dell PowerConnect W-AP124 AP (802.11a/n and 802.11b/g/n) – with the interface to connect external antennas
W-AP125	Dell PowerConnect W-AP125 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas
W-AP124-F1	Dell PowerConnect W-AP124 AP (802.11a/n and 802.11b/g/n) – with the interface to connect external antennas, FIPS/TAA Compliant
W-AP125-F1	Dell PowerConnect W-AP125 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas, FIPS/TAA Compliant
W-AP-AC-XX	5 V DC Universal AC Power Adapter Kit. W-AP-AC-NA-22 North America, W-AP-AC-JP-2 Japan, W-AP-AC-UK-2 United Kingdom, W-AP-AC-IT-2 Italy, W-AP-AC-EC-2 EC (Schuko), W-AP-AC-AUS-2 Australia, W-AP-AC-CHN-2 China, W-AP-AC-IN-2 India, W-AP-AC-KOR-2 Korea; W-AP-AC-LA-2 Latin America 2 prong version.
W-AP-ANT-xx	Detachable antennas (for use with W-AP124 only) – Please refer to W-Series Antenna Selection matrix and Antenna plots.
W-AP120-MNT	120 Family Wireless Access Point wall/ceiling mounting kit
W-AP125-MNT-CV	W-AP125 Access Point cover Kit
W-AP125-MNT-WJ	W-AP125 Wireless Access Point mounting kit and product enclosure to facilitate secure wall or ceiling mounting

Learn more at Dell.com/Wireless