Dell PowerConnect W-AP92 & W-AP93 Access Points

The multifunction Dell PowerConnect W-AP92 and W-AP93 are entry-level indoor, single-radio 802.11n access points (APs) designed for low-density deployments in offices, hospitals, schools and retail stores. These compact, high-speed APs deliver wire-like performance at data rates up to 300 Mbps.

The W-AP92 features a single 2x2 multiple input, multiple output (MIMO) dual-band 2.4-GHz/5-GHz radio with interface to connect external antennas while the W-AP93 features the same radio with integrated internal antennas. Both APs 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-AP92 and W-AP93 deliver 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-AP92 and W-AP93 can be configured through the controller to provide wireless LAN (WLAN) access with part-time air monitoring, dedicated air monitoring for wireless IPS, Remote AP (RAP) functionality or secure enterprise mesh. The W-AP92 and W-AP93 each feature a 10/100/1000BASE-T Ethernet interface and can operate from standard power-over-Ethernet (PoE) sources or a 12-volt DC power supply.

Entry level 300 Mbps 802.11n access point for secure wireless mobility.

Specifications

Operating mode

- Multiservice concurrent 802.11a/n or 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, single radio capable of 2.4-GHz or 5-GHz operation
- 802.11n radio implements 2x2 MIMO with 2 spatial streams, providing up to 300 Mbps data rate
- Maximal ratio combining (MRC) for improved receiver performance

Wireless radio specifications

- AP type: Single radio, dual-band 802.11n indoor
- Supported frequency bands (country-specific restrictions apply):
  - 2.400 to 2.4835 GHz
  - 5.150 to 5.250 GHz with Dynamic Frequency Support (DFS) Capability
  - 5.250 to 5.350 GHz with Dynamic Frequency Support (DFS) Capability
  - 5.470 to 5.725 GHz with Dynamic Frequency Support (DFS) Capability
  - 5.725 to 5.850 GHz with Dynamic Frequency Support (DFS) Capability
- Available channels: Controller-managed, dependent upon configured regulatory domain
- Transmit power:
  - 2.4 GHz: Up to 23 dBm (limited by local regulatory requirements)
  - 5 GHz: Up to 23 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: 2x2 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-AP92: dual, RP-SMA interfaces for external antenna support (Supports up to 2x2 MIMO with spatial diversity. External Antenna selection guide is available from Dell representative or downloadable from Dell.com/wireless)
- W-AP93: two integrated, omni-directional antennas (supporting up to 2x2 MIMO with spatial diversity)
  - 2.4 GHz/2.5 dBi
  - 5 GHz/5.8 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 PoE+
- External AC power providing 12V DC to AP (adapter sold separately)
- Maximum power consumption: 10 watts

Mounting

- Wall Mount
- Ceiling tile rail (15/16" & 9/16" recessed or non-recessed)

Mechanical

- 120 mm x 130 mm x 35 mm (4.7" x 5.1" x 1.4")
- Weight: 375 g (13.2 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

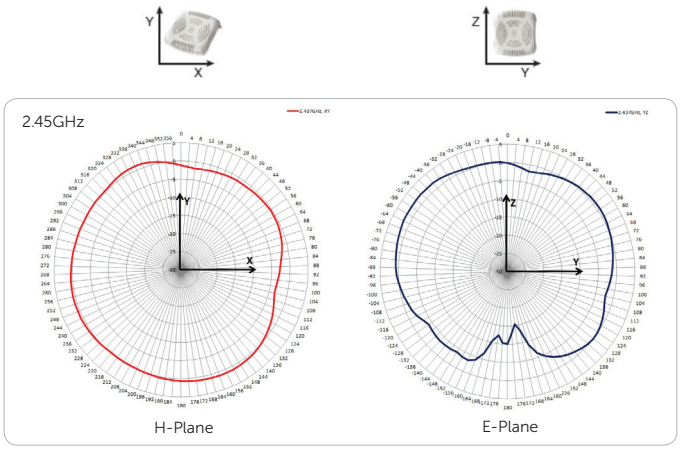
- 5.0.2.0

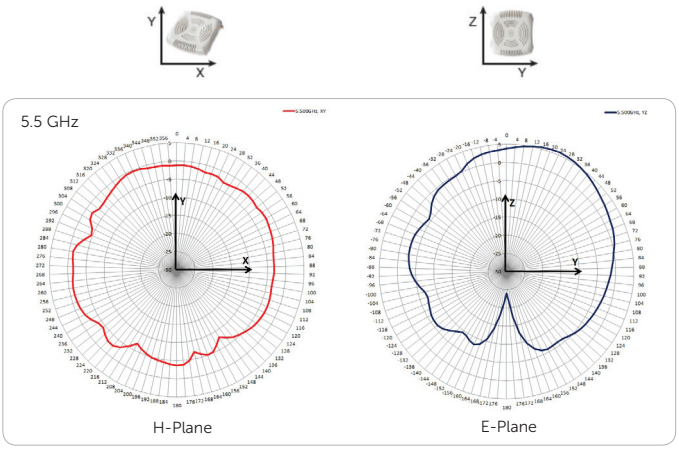
Extended Life Warranty*

W-AP93 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	-96	-	-
2Mbps	18	-96	-	-
5.5Mbps	18	-94	-	-
11Mbps	18	-93	-	-
802.11a/g				
6Mbps	18	-93	18	-93
9Mbps	18	-93	18	-93
12Mbps	18	-87	18	-87
18Mbps	18	-87	18	-87
24Mbps	18	-85	18	-85
36Mbps	15	-82	15	-82
48Mbps	14	-80	14	-80
54Mbps	14	-80	14	-80
802.11n HT20				
MCS0	18	-93	18	-93
MCS1	17	-93	17	-93
MCS2	17	-87	17	-87
MCS3	16	-87	16	-87
MCS4	16	-83	16	-83
MCS5	15	-80	15	-80
MCS6	14	-77	14	-77
MCS7	13	-75	13	-75
MCS8	18	-93	18	-93
MCS9	17	-93	17	-93
MCS10	17	-87	17	-87
MCS11	16	-87	16	-87
MCS12	16	-83	16	-83
MCS13	15	-80	15	-80
MCS14	14	-77	14	-77
MCS15	13	-75	13	-75
802.11n HT40				
MCS0	18	-90	18	-90
MCS1	17	-90	17	-90
MCS2	17	-87	17	-87
MCS3	16	-84	16	-84
MCS4	16	-80	16	-80
MCS5	15	-77	15	-77
MCS6	14	-77	14	-77
MCS7	13	-73	13	-73
MCS8	18	-90	18	-90
MCS9	17	-90	17	-90
MCS10	17	-87	17	-87
MCS11	16	-84	16	-84
MCS12	16	-80	16	-80
MCS13	15	-77	15	-77
MCS14	14	-77	14	-77
MCS15	13	-73	13	-73

RF performance numbers for AP-92 slightly lower due to additional internal RF circuitry.

W-IAP93 Antenna Plots





Ordering Information

Part number	Description
W-AP92	Dell PowerConnect W-AP92 AP (802.11a/n and 802.11b/g/n) – with the interface to connect external antennas
W-AP93	Dell PowerConnect W-AP93 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas
W-AP92-F1	Dell PowerConnect W-AP92 AP (802.11a/n and 802.11b/g/n) – with the interface to connect external antennas. FIPS/TAA Compliant
W-AP93-F1	Dell PowerConnect W-AP93 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas. FIPS/TAA Compliant
W-AP-AC-UN	12 V DC Universal AC Power Adapter Kit - North America, Japan, United Kingdom, Italy, EC (Schuko), Australia, China, India, Korea
AP-DC-CAR	12VDC Car Power Adapter Kit
W-AP90-MNT	W-AP90 series Access Point Mounting Kit for flat surfaces

*Select PowerConnect products carry an Extended Life Warranty with Basic Hardware Service. Warranty covers repair or replacement of the product for as long as it remains in use by the customer. In the event of discontinuance of product manufacture, Dell Extended Life Warranty extends until five (5) years after end of product model sales. Warranty limits any power supply, antennae or accessories to one (1) year from date of purchase. Warranty does not include troubleshooting, configuration, or other advanced service provided by Dell ProSupport. The Extended Life Limited Hardware Warranty is not transferrable. For more information see dell.com/warranty.

Learn more at Dell.com/Wireless