

# Dell PowerConnect W-AP134/135 Access Point

Dell PowerConnect W-Series W-AP134 and W-AP135 indoor 802.11n access points (APs) are designed to maximize performance for mobile devices in high density Wi-Fi environments and ensure strong threat protection using integrated MACSec security.

These multifunctional APs deliver wire-like performance at data rates up to 450 Mbps per radio. Taking advantage of 802.11n technology, the W-AP134 and W-AP135 employ three spatial streams to deliver 50% more data throughput in high-density environments compared to previous-generation W-Series APs like AP124.

The W-AP134 and W-AP135 feature two 3x3 MIMO dual-band 2.4-GHz/5-GHz radios. The W-AP134 has external antenna interfaces, while the W-AP135 features the same radios with internal antennas. Both are built to provide years of trouble-free operation and are backed by an Extended Lifetime Warranty.

The W-AP134 and W-AP135 feature dual 10/100/1000BASE-T Ethernet interfaces and are capable of operation from standard 802.3af and 802.3at power-over-Ethernet (PoE) sources. The secondary Ethernet interface (active only when supplying 802.3 at PoE or DC power to the access point) enables secure authorized backhaul for wired network-attached devices.

Working with Dell's line of centralized PowerConnect W Series Controllers, the W-AP134 and W-AP135 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-AP134 and W-AP135 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.

Ultra high performance  
900Mbps 802.11n  
access point for secure  
dual-band wireless  
mobility.

## Specifications

### Operating mode

- Multiservice concurrent 802.11a/n + b/g/n
- Backward compatible with 802.11a/b/g and mixed mode 802.11a/b/g/n deployments
- 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

### Radios

- Multifunction, dual radio capable of 2.4-GHz and 5-GHz operation
- Both 802.11n radios implement 3x3 MIMO with up to three spatial streams, providing up to 450Mbps data rate per radio
- Maximum ratio combining (MRC) for improved receiver performance

### Wireless radio specifications

- AP type: Dual-radio, dual-band 802.11n indoor
- Supported Frequency Bands (country-specific restrictions apply):
  - 2.400 - 2.4835 GHz
  - 5.150 - 5.250 GHz/5.250 - 5.350 GHz/5.470 - 5.725 GHz/5.725 - 5.850 GHz with Dynamic Frequency Selection (DFS) capability
- Available Channels: Controller-managed, dependent upon configured regulatory domain Supported Radio Technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 3x3 MIMO with up to three spatial streams
- Supported Modulation Types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Maximum Transmit Power (aggregated for three active transmit chains):
  - 2.4 GHz: up to 23 dBm (limited by local regulatory requirements)
  - 5 GHz: up to 23 dBm (limited by local regulatory requirements)
- Association Rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS23 (6.5 Mbps to 450 Mbps)
- 802.11n High-Throughput (HT) Support: HT 20/40
- 802.11n Packet Aggregation: A-MPDU, A-MSDU

### Antenna

- AP-134: Three RP-SMA antenna interfaces for external dual-band antennas. (External antenna selection guide is available from Dell representative or downloadable from [Dell.com/wireless](http://Dell.com/wireless)).
- AP-135: Six internal downtilt omni-directional antennas; three per frequency band
  - 2.4 to 2.5 GHz/3.5 dBi
  - 5.150 to 5.875 GHz/4.5 dBi

### Power

- 48 V DC 802.3af PoE or 802.3at PoE+
- 12 V DC external AC supplied power (adapter sold separately)
- Maximum power consumption: 15 watts

### Interfaces

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

### Mounting

- Standard:
  - Wall mounting using built-in mount features
  - Recessed ceiling-tile rail mounting using one of two adapters supplied with the AP (9/16" and 15/16" rails)

### Mechanical

- Dimensions/Weight:
  - 170 mm x 170 mm x 45 mm (6.69" x 6.69" x 1.77")
  - Unit: 760 g (1.68lb)

### Environmental

- Operating:
  - Temp: 0° C to +50° C (+32° F to +122° F)
  - Relative humidity: 5 to 95% non-condensing
- Storage and Transportation Temperature Range:
  - Temp: -40° C to +70° C (-40° F 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 AOS version

- 6.1.1.0

### Extended Life Warranty\*



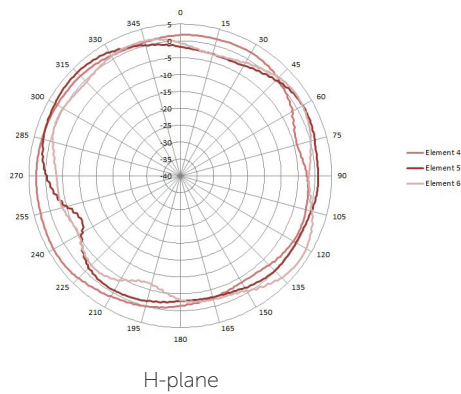
## W-AP135 RF Performance Table

	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	-97	-	-
11Mbps	18	-92	-	-
802.11a/g				
6Mbps	18	-94	18	-94
54Mbps	16	-81	16	-82
802.11n HT20				
MCS0/8/16	17	-94	17	-94
MCS7/15/23	12	-78	12	-78
802.11n HT40				
MCS0/8/16	17	-92	17	-92
MCS7/15/23	11	-75	11	-74

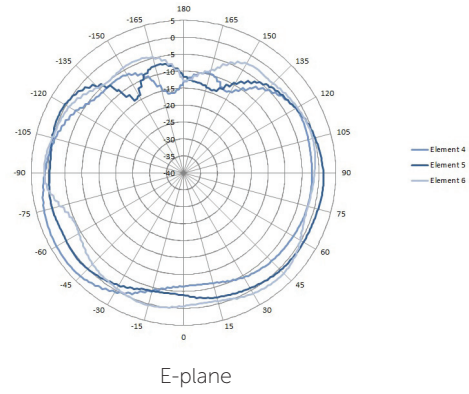
RF performance numbers for AP-134 slightly lower due to additional internal RF circuitry.

## W-AP135 Antenna Plots

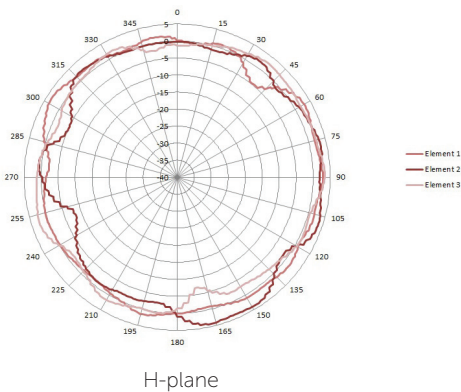
2.450 GHz, H-Plane, 20 degrees down-tilt



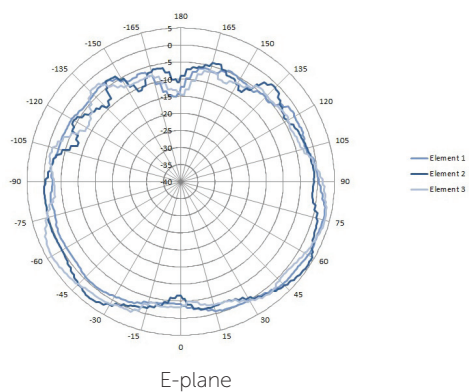
2.450 GHz, E-Plane, AP facing down



5.500 GHz, H-Plane, 20 degrees down-tilt



5.500 GHz, E-Plane, AP facing down



Ordering Information	
Part number	Description
W-AP134	Dell PowerConnect W-AP134 AP (802.11a/n and 802.11b/g/n) – Antenna Connectors
W-AP135	Dell PowerConnect W-AP135 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas
W-AP134-F1	Dell PowerConnect W-AP134 AP (802.11a/n and 802.11b/g/n) – Integrated Antennas. FIPS/TAA Compliant
W-AP135-F1	Dell PowerConnect W-AP135 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-AP130-MNT	W-AP130 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 transferable. For more information see [dell.com/warranty](http://dell.com/warranty).

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