



DELL NETWORKING 207 SERIES ACCESS POINTS

Fast 802.11ac that's affordable for everyone

Overview

The cost-effective mid-range Dell Networking 207 Series access points deliver high performance 802.11ac for medium density enterprise environments. With the integrated BLE and supporting 802.3af power, the Dell Networking 207 Series APs enable enterprises to improve their work efficiency and productivity with the lowest TCO.

207 Series APs deliver a maximum concurrent data rate of 867 Mbps in the 5GHz band and 400 Mbps in the 2.4GHz band (for an aggregate peak data rate of 1.3Gbps). Featuring 2x2:2SS and increased operating temperature, 207 Series APs are designed for medium device density environments, such as schools, retail branches, warehouses, hotels and enterprise offices, where the environment is cost sensitive.

With the integrated Bluetooth Beacon, the 207 Series provides advanced location and indoor wayfinding and proximity-based push notification services while simplifying the remote management of battery-powered Beacons. It enables businesses to leverage mobility context to develop applications that will deliver an enhanced user experience and increase the value of the wireless network for organizations.

Unique benefits

Dual Radio 802.11ac Access Point

- Supports up to 867 Mbps in the 5GHz band (with 2SS/VHT80 clients) and up to 400 Mbps in the 2.4GHz band (with 2SS/VHT40 clients).

Built-in Bluetooth Low-Energy (BLE) radio

- Enables location-based services with BLE-enabled mobile devices receiving signals from multiple Beacons at the same time.
- Enables management of a network of Beacons.

Advanced Cellular Coexistence (ACC)

- Minimizes interference from 3G/4G cellular networks, distributed antenna systems and commercial small cell/femtocell equipment.

Quality of Service for Unified Communication Apps

- Supports priority handling and policy enforcement for unified communication apps, including Microsoft Skype for Business, with encrypted videoconferencing, voice, chat and desktop sharing.

RF Management

- Adaptive Radio Management (ARM) technology automatically assigns channel and power settings, provides airtime fairness and ensures that APs stay clear of all sources of RF interference to deliver reliable, high-performance WLANs.

- 207 Series APs can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection, VPN tunnels to extend remote locations to corporate resources and wireless mesh connections where Ethernet drops are not available.

Intelligent app visibility and control

- AppRF technology leverages deep packet inspection to classify and block, prioritize or limit bandwidth for over 2,500 enterprise apps or groups of apps.

Security

- Integrated wireless intrusion protection offers threat protection and mitigation and eliminates the need for separate RF sensors and security appliances.
- IP reputation and security services identify, classify and block malicious files, URLs and IPs, providing comprehensive protection against advanced online threats.
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys.

Choose your operating mode

207 Series APs offer a choice of operating modes to meet your unique management and deployment requirements.

- Controller-managed mode – When managed by Dell Networking W-Series mobility controllers, 207 Series APs offer centralized configuration, data encryption, policy enforcement and network services, as well as distributed and centralized traffic forwarding.
- Instant mode – A single Instant AP (IAP) automatically distributes the network configuration to other IAPs in the WLAN. Simply power-up one IAP, configure it over the air and plug in the other IAPs – the entire process takes minutes. If WLAN requirements change, a built-in migration path allows 207 Series IAPs to become part of a WLAN that is managed by a mobility controller.
- Remote AP (RAP) for branch deployments.
- Air monitor (AM) for wireless IDS, rogue detection and containment.
- Spectrum analyzer, dedicated or hybrid, for identifying sources of RF interference.
- Secure enterprise mesh.

W-AP207 series specifications

W-AP207 (controller-managed) and W-IAP207 (Instant):

- 802.11ac – 5GHz 2x2 MIMO (867 Mbps max rate) and 2.4GHz 2x2 MIMO (400 Mbps max rate) radios, with a total of two integrated omni-directional downtilt dualband antennas

WiFi radio specifications

AP type: Indoor, dual radio, 5GHz 802.11ac 2x2 MIMO and 2.4GHz 802.11n 2x2 MIMO

Software-configurable dual radio supports 5GHz (Radio 0) and 2.4GHz (Radio 1)

5GHz: Two spatial stream Single User (SU) MIMO for up to 867 Mbps wireless data rate to individual 2x2 VHT80 client devices

2.4GHz: Two spatial stream Single User (SU) MIMO for up to 400 Mbps wireless data rate to individual 2x2 VHT40 client devices (300 Mbps for HT40 802.11n client devices)

Support for up to 255 associated client devices per radio and up to 16 BSSIDs per radio

Supported frequency bands (country-specific restrictions apply):

- 2.400 to 2.4835GHz
- 5.150 to 5.250GHz
- 5.250 to 5.350GHz
- 5.470 to 5.725GHz
- 5.725 to 5.850GHz

Available channels: Dependent on configured regulatory domain

Dynamic frequency selection (DFS) optimizes the use of available RF spectrum

Supported radio technologies:

- 802.11b: Direct-sequence spread-spectrum (DSSS)
- 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)

Supported modulation types:

- 802.11b: BPSK, QPSK, CCK
- 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

Transmit power: Configurable in increments of 0.5 dBm

Maximum (conducted) transmit power (limited by local regulatory requirements):

- 2.4GHz band: +18 dBm per chain, +21 dBm aggregate (2x2)
- 5GHz band: +18 dBm per chain, +21 dBm aggregate (2x2)
- Note: conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain

Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks

Maximum ratio combining (MRC) for improved receiver performance

Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance

Short guard interval for 20MHz, 40MHz and 80MHz channels

Space-time block coding (STBC) for increased range and improved reception

Low-density parity check (LDPC) for high-efficiency error correction and increased throughput

Transmit beam-forming (TxBF) for increased signal reliability and range

Supported data rates (Mbps):

- 802.11b: 1, 2, 5.5, 11
- 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n: 6.5 to 300 (MCS0 to MCS15)
- 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80)

802.11n high-throughput (HT) support: HT 20/40

802.11ac very high throughput (VHT) support: VHT 20/40/80

802.11n/ac packet aggregation: A-MPDU, A-MSDU

WiFi antennas

W-AP207/W-IAP207: Two integrated dual-band downtilt omni-directional antennas for 2x2 MIMO with maximum antenna gain of 3.4dBi in 2.4GHz and 6.6dBi in 5GHz.

Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees.

- The maximum gain of the combined (summed) antenna patterns for all elements operating in the same band is 5.2dBi in 2.4GHz and 7.5dBi in 5GHz.

Other interfaces

One 10/100/1000BASE-T Ethernet network interface (RJ-45)

- Auto-sensing link speed and MDI/MDX
- 802.3az Energy Efficient Ethernet (EEE)

Bluetooth Low Energy (BLE) radio

- Up to 3dBm transmit power (class 2) and -92dBm receive sensitivity
- Integrated antenna with roughly 30 degrees downtilt and peak gain of 2.2dBi

Visual indicators (multi-color LEDs): for System and Radio status

Reset button: factory reset (during device power up)

Serial console interface (proprietary; optional adapter cable available)

Kensington security slot

Power sources and consumption

The AP supports direct DC power and Power over Ethernet (PoE)

When both power sources are available, DC power takes priority over PoE

Power sources are sold separately

Direct DC source: 12Vdc nominal, +/- 5%

- Interface accepts 2.1/5.5-mm center-positive circular plug with 9.5-mm length

Power over Ethernet (PoE): 48 Vdc (nominal)

802.3af/802.3at compliant source

- Unrestricted functionality with 802.3af PoE

Maximum (worst-case) power consumption: 12.3W (PoE) or 10.1W (DC)

Maximum (worst-case) power consumption in idle mode: 5.3W (PoE) or 4.4W (DC)

Mounting

The AP ships with two (white) mounting clips to attach to a 9/16-inch or 15/16-inch flat T-bar drop-tile ceiling.

Several optional mount kits are available to attach the AP to a variety of surfaces; see the Ordering Information section below for details

Mechanical

Dimensions/weight (unit, excluding mount accessories): 150mm x 150mm x 40mm/380g

Dimensions/weight (shipping): 190mm x 180mm x 70mm/590g

Environmental

Operating:

- Temperature: 0° C to +50° C (+32° F to +122° F)
- Humidity: 5% to 93% non-condensing

Storage and transportation:

- Temperature: -40° C to +70° C (-40° F to +158° F)

Regulatory

FCC/Industry of Canada
CE Marked
R&TTE Directive 1995/5/EC
Low Voltage Directive 72/23/EEC
EN 300 328
EN 301 489
EN 301 893
UL/IEC/EN 60950
EN 60601-1-1, EN60601-1-2

For more country-specific regulatory information and approvals, please see your Dell Networking representative.

Regulatory model numbers

W-AP207 and W-IAP207: APIN0207

Reliability

MTBF: 753,457hrs (86yrs) at +25C operating temperature

Certifications

CB Scheme Safety, cTUVus
UL2043 plenum rating
WiFi Alliance (WFA) certified 802.11a/b/g/n/ac

Warranty

Extended Life Warranty

Minimum operating system software versions

Controller AOS 6.5.1.0, 8.1.0.0
InstantOS 4.3.1.0

WiFi RF performance table

	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
802.11b 2.4GHz		
1Mbps	18.0	-90.0
11Mbps	18.0	-90.0
802.11g 2.4GHz		
6Mbps	18.0	-90.0
54Mbps	18.0	-75.0
802.11n HT20 2.4GHz		
MCS0/8	18.0	-90.0
MCS7/15	18.0	-71.0
802.11n HT40 2.4GHz		
MCS0/8	18.0	-87.0
MCS7/15	18.0	-68.0
802.11a 5GHz		
6Mbps	18.0	-90.0
54Mbps	17.5	-75.0
802.11n HT20 5GHz		
MCS0/8	18.0	-90.0
MCS7/15	17.0	-71.0
802.11n HT40 5GHz		
MCS0/8	18.0	-87.0
MCS7/15	17.0	-68.0
802.11ac VHT20 5GHz		
MCS0	18.0	-90.0
MCS9	16.0	-57.0
802.11ac VHT40 5GHz		
MCS0	18.0	-87.0
MCS9	15.0	-62.0
802.11ac VHT80 5GHz		
MCS0	18.0	-84.0
MCS9	15.0	-59.0

Maximum capability of the hardware provided (excluding antenna gain). Maximum transmit power is limited by local regulatory settings.

Ordering information

Part Number	Description
207 Series Access Points	
W-AP207	Dell Networking W-AP207 802.11n/ac 2x2:2 Dual Radio Integrated Antenna AP
W-IAP207-JP	Dell Networking W-AP207 FIPS/TAA-compliant 802.11n/ac 2x2:2 Dual Radio Integrated Antenna AP
W-IAP207-RW	Dell Networking W-IAP207 (RW) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP
W-IAP207-US	Dell Networking W-IAP207 (US) 802.11n/ac Dual 2x2:2 Radio Integrated Antenna AP
Mounting Spares	
AP-220-MNT-C1	AP-220-MNT-C1 Indoor Access Point suspended ceiling rail mount kit (for flat rails only, black). Spare for the clips provided
Mounting Accessories	
AP-220-MNT-C2	Indoor Access Point suspended ceiling rail mount kit (for Interlude and Silhouette rail styles only, black). Alternate to standard clips provided with AP.
AP-MNT-CM1	Indoor Access Point suspended ceiling rail mount kit (industrial grade, metal). Fits most rail types
AP-220-MNT-W1	Indoor Access Point flat-surface mount kit (basic, black)
AP-220-MNT-W1W	Indoor Access Point flat-surface mount kit (basic, white). Mechanically identical to AP-220-MNT-W1
AP-200-MNT-W3	Indoor Access Point flat surface mount kit (box style, secure, low-profile, large). Color: white
Generic Indoor AP Accessories	
AP-AC-12V30B	AP-AC-12V30B 12V/30W AC-to-DC Desktop Style Power Adapter with Type B DC plug (2.1/5.5/9.5mm circular, 90-degree angled). Note: does not include country specific AC power cord (PC-AC-xx).
PD-3501G-AC	15.4W 802.3af PoE midspan injector, 10/100/1000BASE-T Ethernet. Note: does not include country specific AC power cord (PC-AC-xx)
AP-CBL SER	AP-CBL SER Serial adapter cable for AP console port (proprietary header to DB9 female)

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