

Dell Networking W-IAP210 Series Wireless Instant Access Point

Installation Guide

Dell Networking W-IAP210 Series (W-IAP214 and W-IAP215) wireless Instant Access Points (IAP) supports IEEE 802.11n standard for high-performance WLAN. It uses MIMO (Multiple-Input, Multiple-Output) technology and other high-throughput mode techniques to deliver high-performance, 802.11n 2.4 GHz and 802.11ac 5 GHz functionality while simultaneously supporting existing 802.11a/b/g wireless services. The W-IAP210 Series Instant access points works only in conjunction with a virtual controller.

The W-IAP210 Series Instant access point provides the following capabilities:

- Wireless transceiver
- Protocol-independent networking functionality
- IEEE 802.11a/b/g/n/ac operation as a wireless access point
- IEEE 802.11a/b/g/n/ac operation as a wireless air monitor
- Compatibility with IEEE 802.3at PoE+ and 802.3af PoE

Note: The W-IAP210 Series requires Dell Instant 4.1.1 or later.

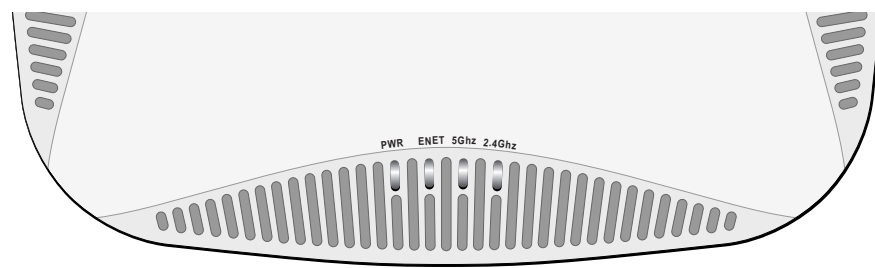
Package Contents

- W-IAP214 or W-IAP215 Instant Access Point
- 9/16" and 15/16" Ceiling Rail Adapters
- Quick Start Guide
- Installation Guide (this document)

Note: Inform your supplier if there are any incorrect, missing, or damaged parts. If possible, retain the carton, including the original packing materials. Use these materials to repack and return the unit to the supplier if needed.

W-IAP210 Series Hardware Overview

Figure 1 W-IAP210 Series LEDs



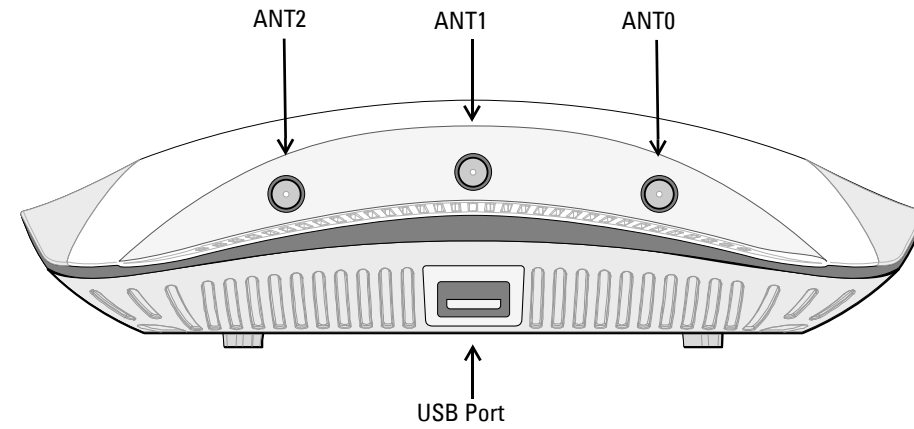
LEDs

The W-IAP210 Series is equipped with four LEDs that indicate the status of its various components.

- PWR: Indicates whether or not the IAP is powered-on
- ENET: Indicates the status of the IAP's Ethernet port
- 5 GHz: Indicates the status of the IAP 802.11a/n radio
- 2.4 GHz: Indicates the status of the IAP 802.11b/g/n radio

LED	Color/State	Meaning
PWR	Off	No power to IAP
	Red	Initial power-up
	Green - Flashing	IAP booting
	Green - Steady	IAP ready
ENET	Off	Ethernet link unavailable
	Yellow - Steady	10/100Mbps Ethernet link established
	Green - Steady	1000Mbps Ethernet link established
	Flashing	Ethernet link activity
5 GHz	Off	5 GHz radio disabled
	Yellow - Steady	5 GHz radio enabled in non-HT WLAN mode
	Green - Steady	5 GHz radio enabled in HT WLAN mode
	Flashing - Green	5 GHz Air or Spectrum Monitor
2.4 GHz	Off	2.4 GHz radio disabled
	Yellow - Steady	2.4 GHz radio enabled in non-HT WLAN mode
	Green - Steady	2.4 GHz radio enabled in HT WLAN mode
	Flashing - Green	2.4 GHz Air or Spectrum Monitor

Figure 2 W-IAP210 Series Side View (W-IAP214 shown)



External Antenna Connectors

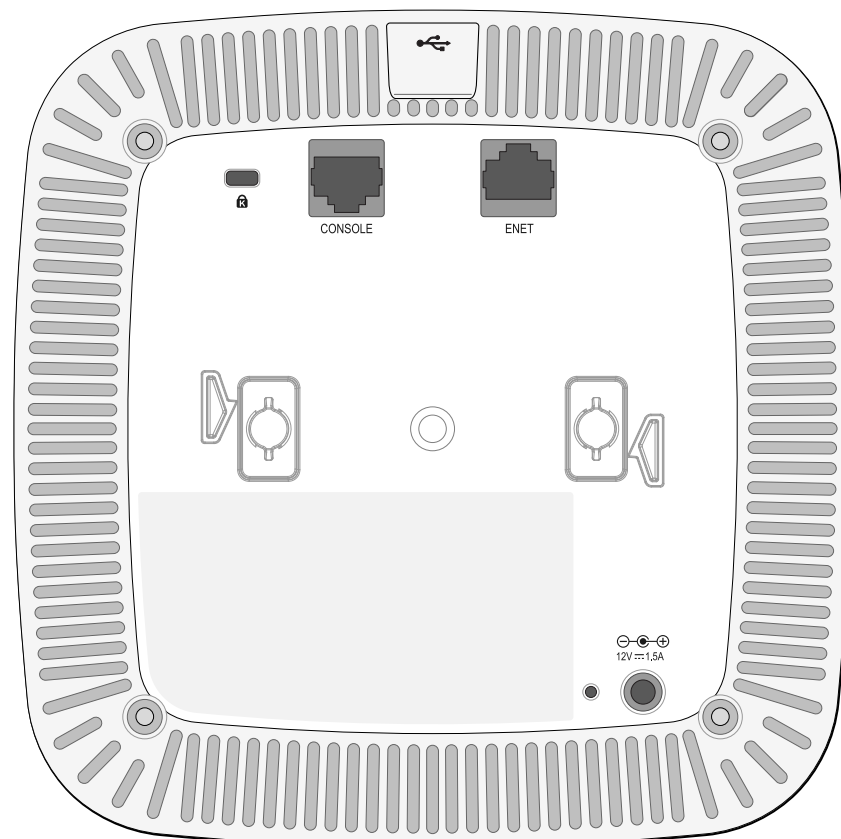
The W-IAP214 Instant access point is equipped with three external antenna connectors. The connectors are labeled ANT0, ANT1, and ANT2, and correspond to radio chains 0, 1, and 2.

USB Interface

The W-IAP210 Series Instant access point is equipped with a USB interface for connectivity with cellular modems.

Note: The USB interface is disabled when the W-IAP210 Series Instant access point is powered from 802.3af PoE.

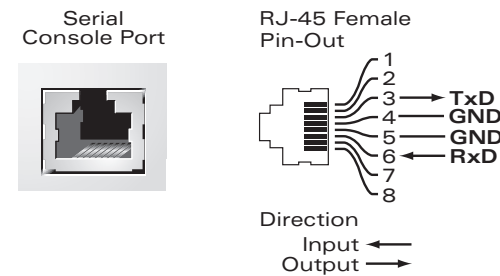
Figure 3 W-IAP210 Series Rear View



Console Port

The serial console port allows you to connect the IAP to a serial terminal or a laptop for direct local management. This port comprises of an RJ-45 female connector with the pinouts described in [Figure 4](#). Connect it directly to a terminal or terminal server using an Ethernet cable.

Figure 4 Serial Port Pin-Out

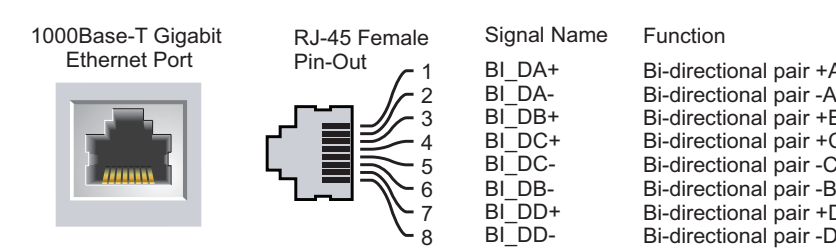


Ethernet Port

The W-IAP210 Series Instant access point is equipped with one 10/100/1000Base-T (RJ-45) auto-sensing, MDI/MDX wired-network connectivity port. This port supports IEEE 802.3af and 802.3at Power over Ethernet (PoE) compliance, accepting 48 VDC (nominal) as a standard defined Powered Device (PD) from a Power Sourcing Equipment (PSE) such as a PoE midspan injector, or network infrastructure that supports PoE.

The port comprises of an RJ-45 female connector with the pin-outs shown in [Figure 5](#).

Figure 5 Gigabit Ethernet Port Pin-Out



DC Power Socket

If PoE is not available, an optional Dell AP/IAP AC-DC adapter kit (sold separately) can be used to power the IAP.

Additionally, a locally-sourced AC-to-DC adapter (or any DC source) can be used to power this device, as long as it complies with all applicable local regulatory requirements and the DC interface meets the following specifications:

- 12 VDC (+/- 5%)/18W
- Center-positive 1.7/4.0 mm circular plug, 9.5 mm length

Reset Button

The reset button can be used to return the IAP to factory default settings. To reset the IAP:

1. Power off the IAP.
2. Press and hold the reset button using a small, narrow object, such as a paperclip.
3. Power-on the IAP without releasing the reset button. The power LED will flash within 5 seconds.
4. Release the reset button.

The power LED will flash again within 15 seconds indicating that the reset is completed. The IAP will now continue to boot with the factory default settings.

Before You Begin

Caution: FCC Statement: Improper termination of access points installed in the United States (non-US model Regulatory Domain model/s) will be in violation of the FCC grant of equipment authorization. Any such willful or intentional violation may result in a requirement by the FCC for immediate termination of operation and may be subject to forfeiture (47 CFR 1.80).

Caution: EU Statement: Lower power radio LAN product operating in 2.4 GHz and 5 GHz bands. Please refer to the *Dell Networking W-Series Instant User Guide* for details on restrictions.

Produit réseau local radio basse puissance operant dans la bande fréquence 2.4 GHz et 5 GHz. Merci de vous référer au *Dell Networking W-Series Instant User Guide* pour les détails des restrictions.

Low Power FunkLAN Produkt, das im 2.4 GHz und im 5 GHz Band arbeitet. Weitere Informationen bezüglich Einschränkungen finden Sie im *Dell Networking W-Series Instant User Guide*.

Apparati Radio LAN a bassa Potenza, operanti a 2.4 GHz e 5 GHz. Fare riferimento alla *Dell Networking W-Series Instant User Guide* per avere informazioni dettagliate sulle restrizioni.

Pre-Installation Checklist

Before installing the W-IAP210 Series Instant access point, ensure that you have the following:

- CAT5e or better UTP cable of required length
- One of the following power sources:
 - IEEE 802.3at or 802.3af-compliant Power over Ethernet (PoE) source. The POE source can be any power source equipment (PSE) virtual controller or midspan PSE device
 - Dell AP AC-DC adapter kit (sold separately)

Summary of the Setup Process

Successful setup of a W-IAP210 Series Instant access point consists of four tasks, which must be performed in this order:

1. Verify pre-installation connectivity.
2. Identify the specific installation location for each IAP.
3. Install each IAP.

4. Configure the virtual controller. Refer to the *Dell Networking W-Series Instant Quick Start Guide*

Note: Dell, in compliance with governmental requirements, has designed the W-IAP210 Series Instant access points so that only authorized network administrators can change the settings. For more information about IAP configuration, refer to the *Dell Networking W-Series Instant Quick Start Guide* and *Dell Networking W-Series Instant User Guide*.

Caution: Access points are radio transmission devices and as such are subject to governmental regulation. Network administrators responsible for the configuration and operation of access points must comply with local broadcast regulations. Specifically, access points must use channel assignments appropriate to the location in which the access point will be used.

Identifying Specific Installation Locations

You can mount the W-IAP210 Series Instant access point on a wall or on the ceiling. Use the AP/IAP placement map generated by Dell Airwave VisualRF Plan software application to determine the proper installation location(s). Each location should be as close as possible to the center of the intended coverage area and should be free from obstructions or obvious sources of interference. These RF absorbers/reflectors/interference sources will impact RF propagation and should have been accounted during the planning phase and adjusted in the VisualRF plan.

Identifying Known RF Absorbers/Reflectors/Interference Sources

Identifying known RF absorbers, reflectors, and interference sources while in the field during the installation phase is critical. Make sure that these sources are taken into consideration when you attach an AP to its fixed location. Examples of sources that degrade RF performance include:

- Cement and brick
- Objects that contain water
- Metal
- Microwave ovens
- Wireless phones and headsets

Installing the IAP

Note: Service to all Dell W-Series products should be performed by trained service personnel only.

Using the Ceiling Rail Adapter

The W-IAP210 Series Instant access point ships with two ceiling rail adapters for 9/16" and 15/16" ceiling rails. Additional wall mount adapters and ceiling rail adapters for other rail styles are available as accessory kits.

Caution: Make sure the IAP fits securely on the ceiling tile rail when hanging the device from the ceiling, because poor installation could cause it to fall on people or equipment.

1. Pull the necessary cables through a prepared hole in the ceiling tile where the IAP will be placed.
2. Place the adapter against the back of the IAP at an angle of approximately 30 degrees to the tabs (see [Figure 6](#)).
3. Twist the adapter clockwise until it snaps into place in the tabs (see [Figure 6](#)).

Figure 6 Attaching the Ceiling Rail Adapter

