

Alcatel-Lucent 300 Series Access Point Installation Guide



- Alcatel-Lucent Instant Quick Start Guide (for OAW-IAP304 and OAW-IAP305 only)
- Alcatel-Lucent Professional Installation Guide (for OAW-IAP304 only)
- Alcatel-Lucent 300 Series Access Point Installation Guide (print version).



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.

Software

The OAW-AP304 and OAW-AP305 access points require AOS-W 6.5.1.0 or higher. For additional information, refer to the *AOS-W User Guide* and *AOS-W Quick Start Guide*.

The OAW-IAP304 and OAW-IAP305 access points require Alcatel-Lucent Instant 4.3.1.0 or higher. For additional information, refer to the *Alcatel-Lucent Instant User Guide* and *Alcatel-Lucent Instant Quick Start Guide*.

The Alcatel-Lucent 300 Series wireless access points (APs) support IEEE802.11ac standards for high-performance WLAN, and are equipped with two radios, which provide network access and monitor the network simultaneously. These access points deliver high-performance 802.11n 2.4 GHz and 802.11ac 5 GHz functionality, while also supporting 802.11a/b/g wireless services. Multi-user Multiple-in, Multiple-output (MU-MIMO) is enabled when operating in 5GHz mode for optimal performance.

The OAW-AP304 and OAW-AP305 access points work in conjunction with an Alcatel-Lucent switch, while the OAW-IAP304 and OAW-IAP305 access points can be configured using a built-in virtual switch.

The 300 Series wireless access points provide the following capabilities:

- IEEE 802.11 a/b/g/n/ac operation as a wireless access point
- IEEE 802.11 a/b/g/n/ac operation as a wireless air monitor
- IEEE 802.11 a/b/g/n/ac spectrum monitor
- Compatible with IEEE 802.3at PoE+ and IEEE 802.3af PoE
- Centralized management configuration and upgrade
- Integrated Bluetooth Low Energy (BLE) Radio

This device must be professionally installed and serviced by a trained Alcatel-Lucent Certified Field Expert (ACFE) or similar. Alcatel-Lucent access points are classified as radio transmission devices, and are subject to government regulations of the host country. The network administrator(s) is/are responsible for ensuring that configuration and operation of this equipment is in compliance with their country's regulations. For complete list of approved channels in your country of the OAW-AP304 and OAW-AP305 access points, refer to the *Alcatel-Lucent Downloadable Regulatory Table* at <https://support.esd.alcatel-lucent.com>

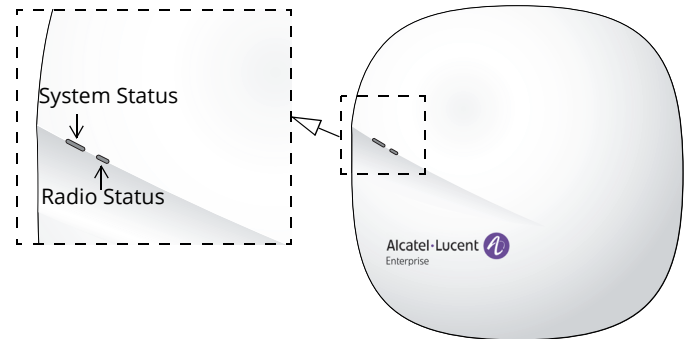


Package Contents

- 300 Series access point
- 9/16" and 15/16" Ceiling Rail Adapters
- Alcatel-Lucent Regulatory Compliance and Safety Information Guide

300 Series Hardware Overview

Figure 1 Status LEDs on AP Front (305 shown)



LEDs

The 300 Series access points have two LEDs that indicate the system and radio status of the device. These two LEDs can be configured via AOS-W (for OAW-AP304 and OAW-AP305) or Alcatel-Lucent Instant (for OAW-IAP304 and OAW-IAP305) software into three separate modes:

- Normal mode (by default): See [Table 1](#)
- Both LEDs off
- Blink mode: Both LEDs blink green (synchronized)

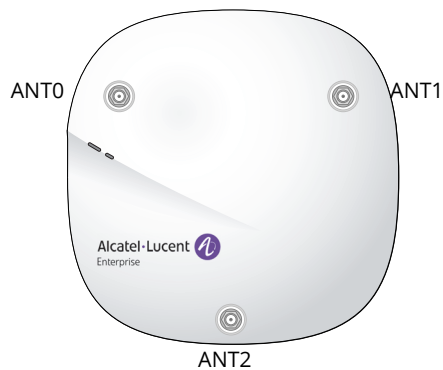
Table 1 300 Series LEDs Status in Normal Mode

LED	Color/State	Meaning
System Status (Left)	Off	Device powered off
	Green-Blinking	Device booting, not ready for use
	Green- Solid	Device ready for use, no restrictions
	Green- Flashing	Device ready for use, uplink negotiated in sub optimal speed (<1Gbps)
	Amber- Solid	Device ready for use; power-save mode (802.3af PoE)
	Amber- Flashing	Device ready for use; power-save mode (802.3af PoE), uplink negotiated in sub optimal speed (<1Gbps)
	Red- Solid	System error condition
Radio Status (Right)	Off	Device powered off, or both radios disabled
	Green- Solid	Both radios enabled in access mode
	Green- Blinking	One radio enabled in access mode
	Amber- Solid	Both radios enabled in monitor mode
	Amber- Blinking	One radio enabled in monitor mode
	Alternating	One radio enabled in access mode, other in monitor mode

External Antenna Connectors

The OAW-AP304 and OAW-IAP304 access points are equipped with three external antenna connectors on the front corners of the access point.

Figure 2 External Antenna Connector



External antennas for this device must be installed by an Alcatel-Lucent Certified Field Expert (ACFE) or other Alcatel-Lucent-certified technician, using manufacturer-approved antennas only.

The Equivalent Isotropically Radiated Power (EIRP) levels for all external antenna devices must not exceed the regulatory limit set by the host country/domain. Installers are required to record the antenna gain for this device in the system management software.

USB Interface

The 300 Series is equipped with a USB port for connectivity with cellular modems and other USB client devices. When powered by an 802.3at or DC power source, the USB port can supply power up to 5W/1A. The USB interface is disabled when the access point is powered by an 802.3af PoE source (power-save mode).

Console Port

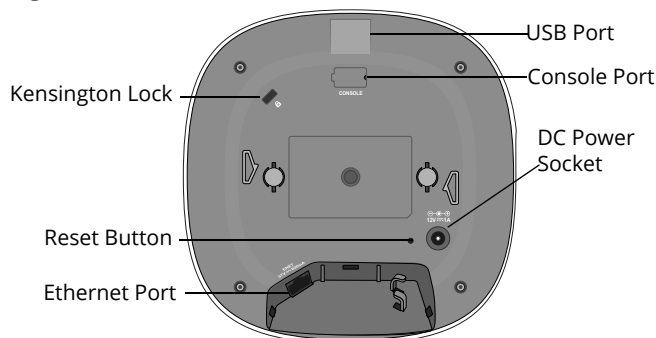
The serial console port is located at the back of the device and is a 4-pin connector covered by a dust cover. An optional serial adapter cable (AP-CBL-SER) is sold separately to connect the device to a serial terminal or a laptop for direct local management.

Ethernet Port

The 300 Series access points are equipped with one 10/100/1000Base-T auto-sensing MDI/MDX Ethernet port. This port supports wired-network connectivity, in addition to Power over Ethernet (PoE) from IEEE 802.3af and 802.3at compliant power sources.

This device accepts 56V DC (802.3at), or 48V DC (802.3af) nominal as a standard powered device (PD) from power sourcing equipment, including PoE midspan injector or a PoE-sourcing network infrastructure.

Figure 3 Back Panel



Kensington Lock Slot

The 300 Series access points are equipped with a Kensington lock slot for additional security.

Reset Button

To reset the 300 Series access points to factory default settings, press and hold down the reset button using a small, narrow object such as a paper clip while the (I)AP is powered on.

DC Power Socket

If PoE is not available, an optional Alcatel-Lucent AP-AC-12V30B power adapter kit (sold separately) can be used to power the 300 Series access points.

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%) and at least 18W
- Center-positive 2.1/5.5 mm circular plug, 9.5 mm length

Before You Begin



FCC Statement: Improper termination of access points installed in the United States configured to non-US model controllers 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).

EU Statement:

Lower power radio LAN product operating in 2.4 GHz and 5 GHz bands. Please refer to the *AOS-W User Guide/Alcatel-Lucent 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 referrer au *AOS-W User Guide/Alcatel-Lucent Instant User Guide* pour les details des restrictions.



Low Power FunkLAN Produkt, das im 2.4 GHz und im 5 GHz Band arbeitet. Weitere Informationen bezüglich Einschränkungen finden Sie im *AOS-W User Guide/Alcatel-Lucent Instant User Guide*.

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

Pre-Installation Network Requirements



The instructions for this section are applicable to the OAW-AP304 and OAW-AP305 only.

After WLAN planning is complete and the appropriate products and their placement have been determined, the Alcatel-Lucent switch(s) must be installed and initial setup performed before the Alcatel-Lucent access points are deployed.

For initial setup of the switch, refer to the *AOS-W Quick Start Guide* for the software version installed on your switch.

Pre-Installation Checklist

Before installing your 300 Series access points, ensure that you have the following:

- Cat5E or better UTP cable of required length
- One of the following power sources:
 - IEEE 802.3af-compliant Power over Ethernet (PoE) source.
 - Alcatel-Lucent AP-AC-12V30B power adapter kit (sold separately)

For OAW-AP304 and OAW-AP305 only:

- Alcatel-Lucent Switch provisioned on the network:
 - Layer 2/3 network connectivity to your access point
- One of the following network services:
 - Aruba Discovery Protocol (ADP)
 - DNS server with an "A" record

- DHCP Server with vendor-specific options



Alcatel-Lucent, Inc., in compliance with governmental requirements, has designed the 300 Series access points so that only authorized network administrators can change the settings. For more information about access point configuration, refer to the *AOS-W Quick Start Guide /Alcatel-Lucent Instant Quick Start Guide* and *AOS-W User Guide/Alcatel-Lucent Instant User Guide*.

Verifying Pre-Installation Connectivity



The instructions for this section are applicable to the OAW-AP304 and OAW-AP305 only.

Before installing access points in a network environment, make sure that they are able to locate and connect to the switch after power on.

Specifically, you must verify the following conditions:

- When connected to the network, each access point is assigned a valid IP address
- Access points are able to locate the switch

Refer to the *AOS-W Quick Start Guide* for instructions on locating and connecting to the switch.

Identifying Specific Installation Locations

You can mount the 300 Series access point on the ceiling or a wall. Use the access point placement map generated by Alcatel-Lucent's RF 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 for during the planning phase and adjusted for in RF plan.

Identifying Known RF Absorbers, Reflectors and 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 access point 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 Access Point



Service to all Alcatel-Lucent Networks products should be performed by an ACFE certified technician or similar.

The 300 Series access points ship with two ceiling rail adapters for 9/16" and 15/16" ceiling rails. Additional ceiling rail adapters for other rail styles and wall mount adapters are available as accessory kits.

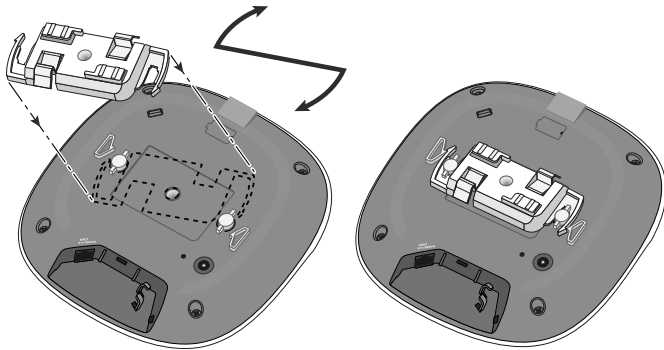


CAUTION

The installer is responsible for securing the access point onto the ceiling tile rail in accordance with the steps below. Failure to properly install this product may result in physical injury and/or damage to property.

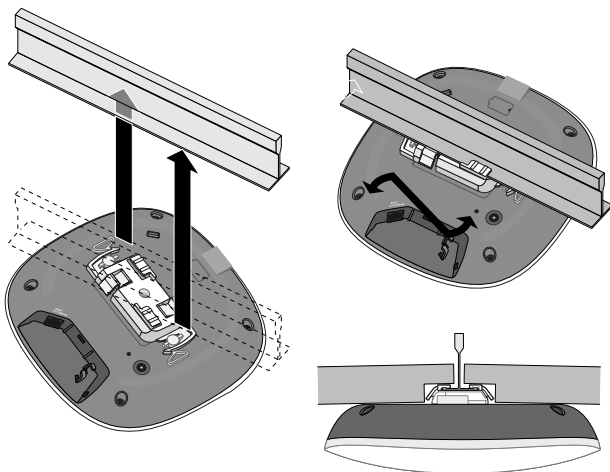
1. Pull the necessary cables through a prepared hole in the ceiling tile near where the access point will be placed.
2. Place the adapter against the back of the access point with the adapter at an angle of approximately 30 degrees to the tabs (see [Figure 4](#)).
3. Twist the adapter clockwise until it snaps into place in the tabs (see [Figure 4](#)).

Figure 4 Attaching the Ceiling Rail Adapter



4. Hold the access point next to the ceiling tile rail with the ceiling tile rail mounting slots at approximately a 30-degree angle to the ceiling tile rail (see [Figure 5](#)). Make sure that any cable slack is above the ceiling tile.
5. Pushing toward the ceiling tile, rotate the access point clockwise until the device clicks into place on the ceiling tile rail.

Figure 5 Mounting the Access Point



Connecting Required Cables

Install cables in accordance with all applicable local and national regulations and practices.

Verifying Post-Installation Connectivity

The integrated LEDs on the access point can be used to verify that the access point is receiving power and initializing successfully (see [Table 1](#)). Refer to the *AOS-W Quick Start Guide/Alcatel-Lucent Instant Quick Start Guide* for further details on verifying post-installation network connectivity.

Configuring the 300 Series Access Points



The instructions for this section are applicable to the OAW-AP304 and OAW-AP305 only.

Access Point Provisioning/Reprovisioning

Provisioning parameters are unique to each access point. These local access point parameters are initially configured on the switch which are then pushed out to the access point and stored on the access point itself. Alcatel-Lucent recommends that provisioning settings be configured via the AOS-W Web UI only. Refer to the *AOS-W User Guide* for complete details.

Access Point Configuration

Configuration parameters are network or switch specific and are configured and stored on the switch. Network configuration settings are pushed out to the access point but remain stored on the switch.

Configuration settings can be configured via the AOS-W Web UI or AOS-W CLI. Refer to the *AOS-W User Guide* for complete details.

Contacting Alcatel-Lucent

Website Support	
Main Site	http://enterprise.alcatel-lucent.com
Support Site	https://support.esd.alcatel-lucent.com/
Support Email	ebg_global_supportcenter@al-enterprise.com

Telephone Support	
North America	1-800-995-2696
Latin America	1-877-919-9526
Europe	+800 00200100(Toll Free) or 1-650-385-2193
Asia Pacific	+65 6240 8484
Worldwide	1-818-878-4507

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