

# Aruba Instant On AP11D Access Point

## Installation Guide

The Aruba Instant On AP11D dual-radio access point supports IEEE 802.11 ac Wave 2, delivering high performance with 2x2 MU-MIMO (Multi-User Multiple-Input, Multiple-Output) technology, while also supporting 802.11a/b/g /n wireless services. Additionally, the AP11D has three Ethernet ports for wired connectivity. The AP11D access point is designed for desk and wall mount.

### Package Contents

- 1 x AP11D Access Point
- 1 x Desk stand
- 1 x Single-gang wiring box mount bracket
- 1 x Ethernet jumper cable
- 1 x Ethernet cable
- 2 x M2.5x 2mm Phillips head screw
- 2 x #6-32x1.5" Phillips head screw
- 1 x M2.5x6.5mm T8H Torx head security screw



NOTE

If you have ordered AP11D bundle, the package would also include a power adapter and cord to power the AP through an electrical power outlet.



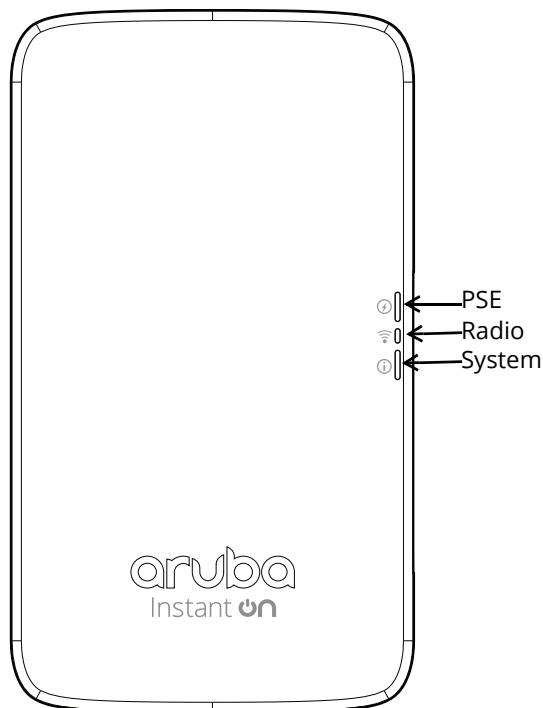
NOTE

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.

### Hardware Overview

The following sections outline the hardware components of the AP11D access point.

**Figure 1** AP11D (front view)



## LEDs

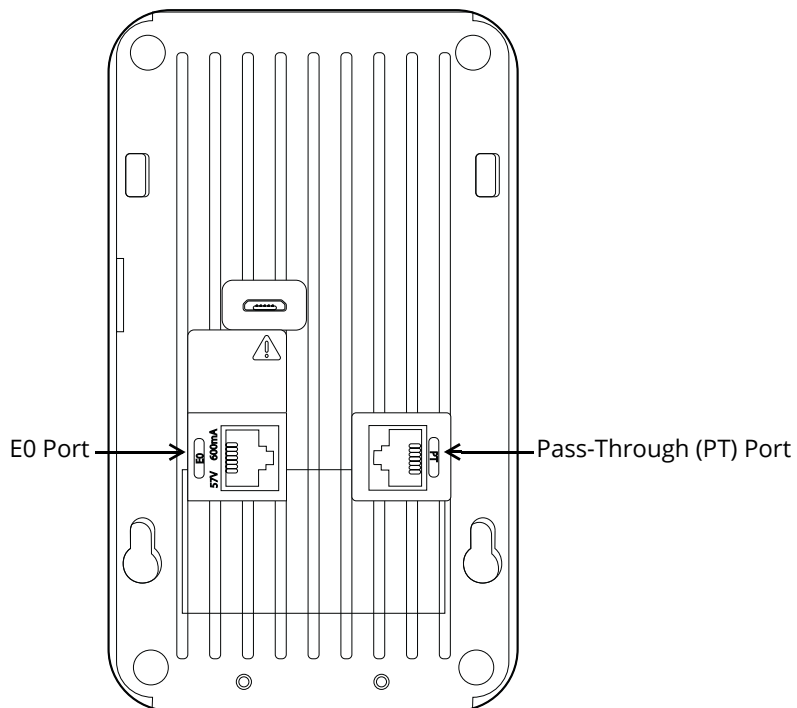
The AP11D access point has three LEDs that indicate the system, radio and PSE status of the device.

The PSE LED indicates when the access point is operating as Power Sourcing Equipment (PSE), providing Power over Ethernet (PoE) to an external device that is physically connected to the E3 port by Ethernet cable.

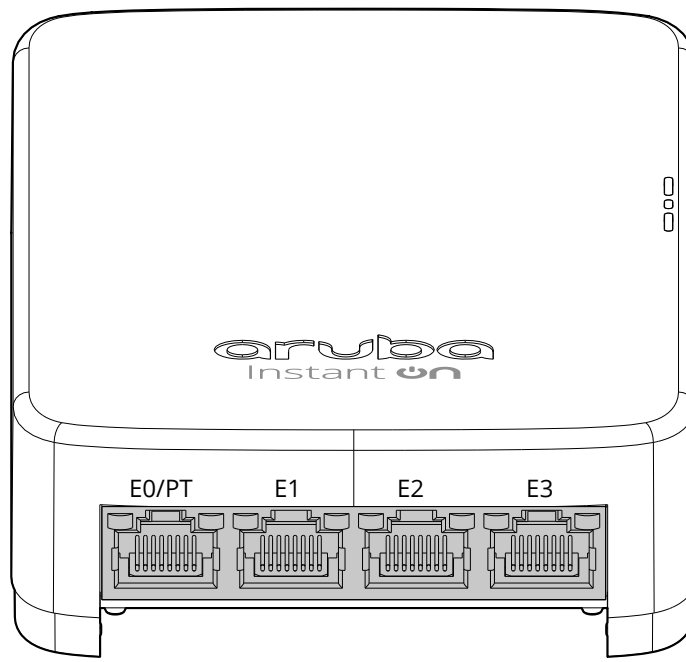
**Table 1** AP11D Access Point LEDs Status

LED	Color/State	Meaning
System ⓘ	No Lights	Device has no power
	Blinking Green	Device is starting
	Alternating Green/Amber	Device is ready for setup
	Solid Green	Device is ready
	Solid Amber	Device has detected a problem
	Solid Red	Device has an issue- immediate action required
Radio 📶	No Lights	Wi-Fi is not ready, wireless clients cannot connect
	Solid Green	Wi-Fi is ready, wireless clients can connect
PSE ⚡	No Lights	Device is not supplying PoE, or powered off
	Solid Green	Device is supplying power to a connected device
	Blinking Green	Negotiating PoE power supplied to a connected device

**Figure 2** AP11D (rear view)



**Figure 3** AP11D (bottom)



## Ethernet Ports

The AP11D access point is equipped with four active Ethernet ports (E0/PT-E3), shown in [Figure 2](#) (E0) and [Figure 3](#) (E1-E3). In addition, the AP11D has a pair of passive pass-through ports (PT and E0/PT), which provide an electrical connection between the back and the bottom of the access point.

The E0/PT port, located at the back of the access point is a 10/100/1000Base-T, auto-sensing, MDI/MDX wired-network uplink connectivity RJ45 port. It supports IEEE 802.3af/802.3at PoE as a standard Powered Device (PD) from Power Sourcing Equipment (PSE), such as a midspan injector, or a network infrastructure that supports PoE.

The E1-E3 ports, located at the bottom of the access point are 10/100/1000Base-T auto-sensing, MDI/MDX wired-network downlink connectivity RJ45 ports. These ports are used to provide secure network connectivity to wired devices when physically linked using an Ethernet cable.

Additionally, the E3 port supports PoE-out functionality, and is capable of supplying up to 15.4W to PSE when the access point is operating in 802.3at PoE mode, or powered by a DC source.

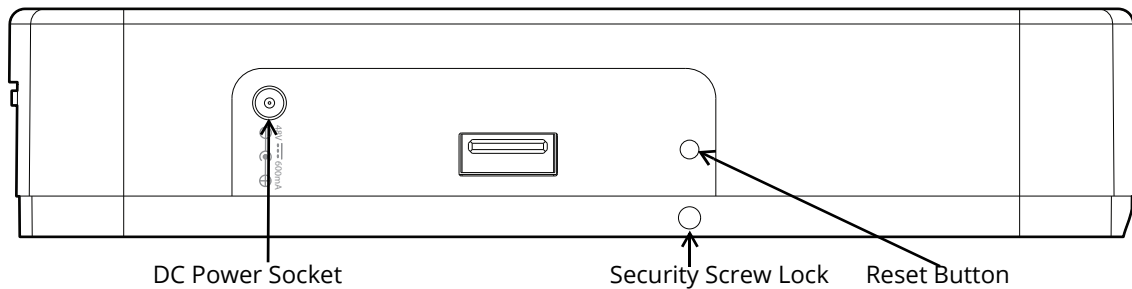
## Network Status (E1-E3)

The Network Status LEDs, located on the sides of the E1-E3 ports, indicates activity transmitted to/from the wired ports. See [Table 2](#).

**Table 2** Network Status LEDs

Color/State	Meaning
Off	Meets one of the following conditions: <ul style="list-style-type: none"><li>• device is powered off</li><li>• port is disabled</li><li>• no link/activity</li></ul>
Green/solid	Link established at max speed (1Gbps)
Green/blinking	Activity detected across a max speed link
Amber/solid	Link established at reduced speed (10/100Mbps)
Amber/blinking	Activity detected across a reduced speed link

**Figure 4** AP11D Side View



## Reset Button

The reset button located on the bottom of the device can be used to reset the access point to factory default settings or turn off/on the LED display.

There are two ways to reset the access point to factory default settings:

### Reset the AP during normal operation

Press and hold down the reset button using a small, narrow object such as a paper clip for more than 10 seconds during normal operation.

### Reset the AP while powering up

1. Press and hold down the reset button using a small, narrow object such as a paper clip while the access point is not powered on (either via DC power or PoE).
2. Connect the power supply (DC or PoE) to the access point while the reset button is being held down.
3. Release the reset button on the access point after 15 seconds.

To turn off/on the LED display, press and release the reset button using a small, narrow object, such as a paperclip for less than 10 seconds during normal operation of the access point.

## Power

The AP11D access point supports up to 48V DC when using a proprietary Aruba power adapter. This power adapter is available in the box if you buy the AP11D and power adapter bundle.

When both 802.3at and DC power sources are available, the DC power source takes precedence. The access point simultaneously draws a minimal current from the PoE source. In the event that the DC source fails, the access point switches to the 802.3at source.

The AP15 operates without restriction when powered by 802.3at compliant and DC power sources. In this mode, the PSE functionality is enabled on port E3, supplying a maximum output of 15.4W to the wired device. When powered by an 802.3af PoE source, the access point operates in power-save mode. In this mode, PSE functionality is disabled.

## Before You Begin

Refer to the sections below before beginning the installation process.



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The AP11D access point is designed in compliance with governmental requirements so that only authorized network administrators can change the settings.

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## Identifying Specific Installation Locations

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 be accounted for during the planning phase and adjusted.



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Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

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## 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 access point to its fixed location.

RF absorbers include:

- Cement/concrete—Old concrete has high levels of water dissipation, which dries out the concrete, allowing for potential RF propagation. New concrete has high levels of water concentration in the concrete, blocking RF signals.
- Natural Items—Fish tanks, water fountains, ponds, and trees
- Brick

RF reflectors include:

- Metal Objects—Metal pans between floors, rebar, fire doors, air conditioning/heating ducts, mesh windows, blinds, chain link fences (depending on aperture size), refrigerators, racks, shelves, and filing cabinets.
- Do not place an access point between two air conditioning/heating ducts. Make sure that access points are placed below ducts to avoid RF disturbances.

RF interference sources include:

- Microwave ovens and other 2.4 or 5 GHz objects (such as cordless phones)
- Cordless headset such as those used in call centers or lunch rooms

## Access Point installation



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Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

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### Desk Mount

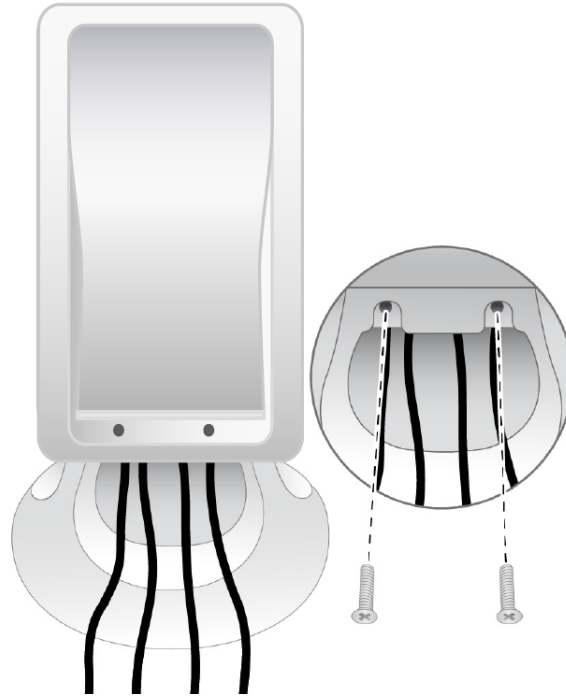
The AP11D access point is shipped with pre-installed desk stand and a short Ethernet jumper cable. The Ethernet jumper cable bridges the E0 port and PT port on the back, moving E0 to the E0/PT port on the bottom of the AP, so you can insert the uplink Ethernet cable into E0/PT port on the bottom of the AP11D for wired connection or PoE.

### Wall Box Mount

For wall box installation scenario, you can remove the AP11D access point from the desk stand and use the included mount bracket to mount the AP11D to the wall box.

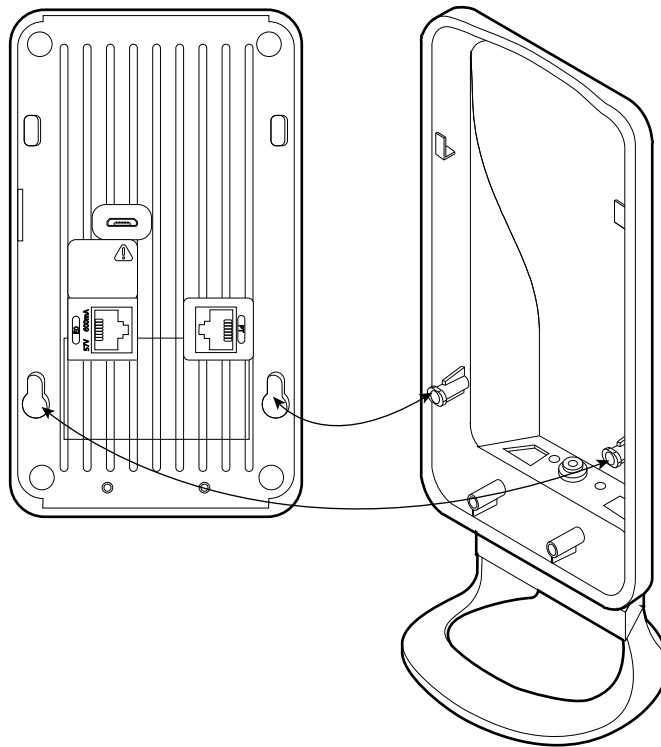
1. Use an appropriate screwdriver to loosen the two M2.5 x 12 Phillips head screws on the back of the desk stand, and remove the screws from the desk stand as shown in [Figure 5](#).

**Figure 5** Removing Screws



2. Push the AP11D up to release its slots (See [Figure 6](#)) from the posts of the desk mount cover.

**Figure 6** Slots on the AP11D Back Panel

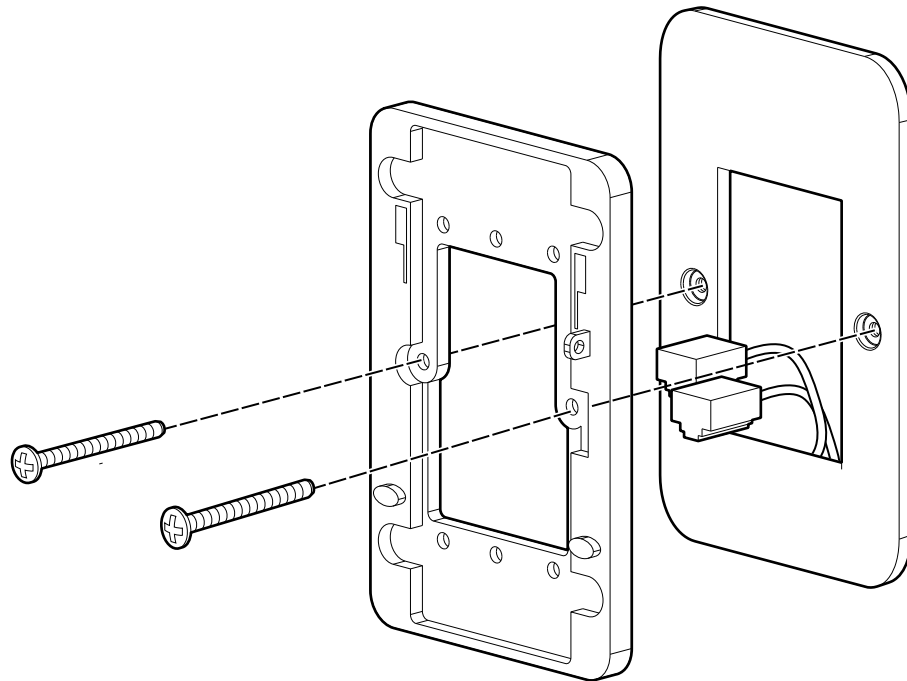


3. Remove the Ethernet jumper cable if necessary.
4. Removing the existing data wall plate (if applicable).
5. Remove any existing RJ45 connectors (typically snap-in) or cut the UTP cable.
6. Use the Ethernet cable to connect the E0 port to an RJ45 connector or crimp an RJ45 plug (not supplied) on the cable and insert in the E0 port.
7. Align the mount bracket's mounting holes with the mounting holes on the wall box, as shown in [Figure 7](#) and [Figure 8](#).

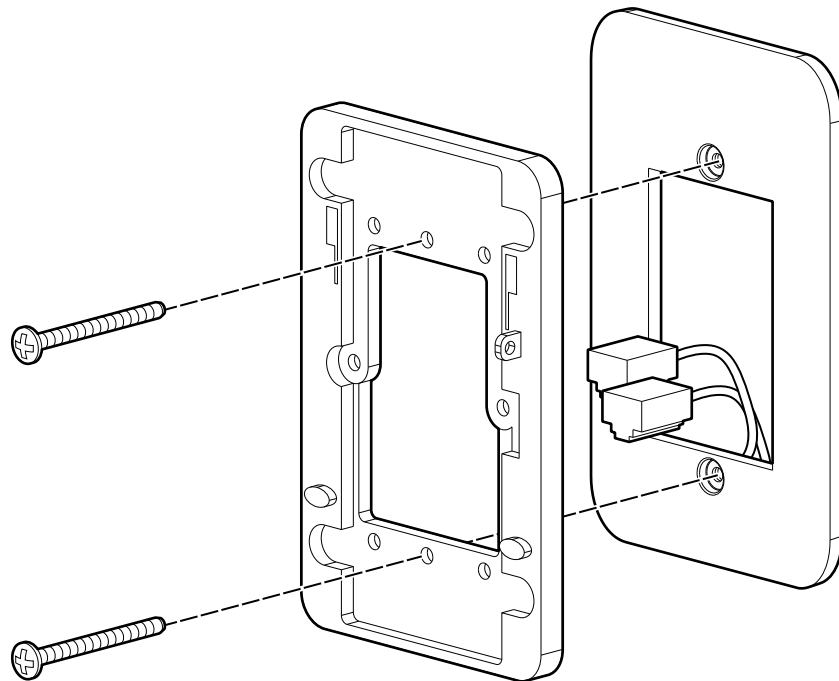
The applicable standards for the wall boxes are:

- IEC 60670-1, GB17466, BS4662 and DIN49073 for Worldwide
- ANSI/NEMA OS 1 and OS 2 for US

**Figure 7** *Bracket to Wall Box (US)*



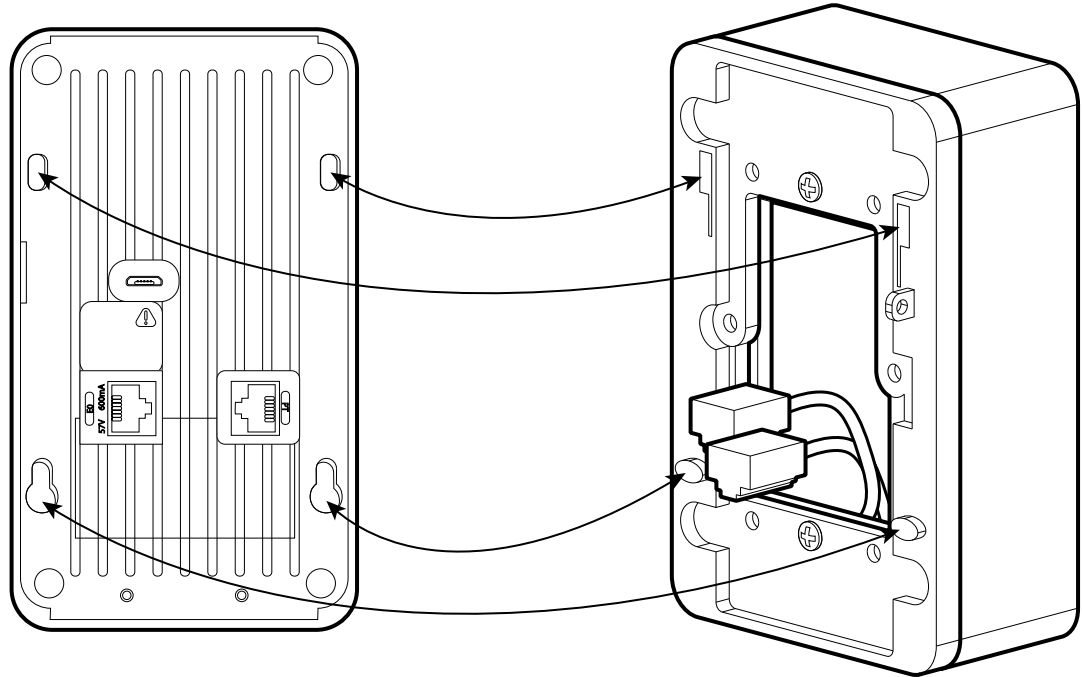
**Figure 8** *Bracket to Wall Box (Worldwide)*



8. Insert the two included #6-32 x 1.5" Phillips head screws and tighten them to secure the mount bracket to the wall box.

9. Connect any required cables to the back of the AP11D.
10. Align the mounting slots on the back of the AP11D with the corresponding mounting posts on the mount bracket as shown in [Figure 9](#).
11. Push the access point against the posts and downward until the posts engage the slots at the top of the slots.

**Figure 9** Attaching AP11D to Bracket



12. Once the access point is fastened onto the mount bracket, insert the M2.5 x 6.5mm T8H Torx security screw into the hole located on the right side of the mount bracket and tighten.

## Verifying Post-Installation Connectivity

The integrated LED on the access point can be used to verify that the access point access point is receiving power and initializing successfully (see [Table 1](#)).

## Mobile Application Installation

Search for “Aruba Instant On” app within the Apple App Store or Google Play to download and install the Aruba Instant On mobile app to your phone. Launch the app and follow the instructions to complete the setup. For more details, please refer to the User Guide.



## Log in to Instant On Portal

Alternately, you can set up the Aruba Instant On access point from a web browser. Open a web browser and enter <https://portal.ArubaInstantOn.com> in the address bar to access the Aruba Instant On portal login screen. In the login screen, enter your Instant On account credentials to access your site.



**Figure 10** Instant On Portal Login Screen



Log in to Instant On Portal

Enter your Instant On account credentials to access your site.

Email

Password

[Forgot your password?](#)

Don't have an account? [Create an account](#) first.

## Electrical and Environmental Specifications

### Electrical

- Ethernet:
  - 4 x 10/100/1000 Base-T auto-sensing Ethernet RJ45 interface
  - Power over Ethernet IEEE 802.3at and 802.3af 48VDC (nominal)
- Power:
  - Direct DC source: 48Vdc nominal, +/- 5%
  - Power over Ethernet (PoE): 802.3at and 802.3af complaint source



If a power adapter other than the Aruba-approved adapter is used in the US or Canada, it should be NRTL listed, without an output rated 48VDC, minimum 1.2A, marked "LPS" and "Class 2", and suitable for plugging into a standard power receptacle in the US and Canada.

### Environmental

- Operating:
  - Temperature: 0°C to +40°C (+32°F to +104°F)
  - Humidity: 5% to 93% non-condensing
- Storage and transport:
  - Temperature: -40°C to +70°C (-40°F to +158°F)
  - Humidity: 5% to 93% non-condensing

## Regulatory Information

AP11D RMN: APINH303.

## Safety and Regulatory Compliance



**RF Radiation Exposure Statement:** This equipment complies with RF radiation exposure limits. This equipment should be installed and operated with a minimum distance of 13.78 inches (35cm) between the radiator and your body for 2.4 GHz and 5 GHz operations. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



**Déclaration sur les limites d'exposition aux radiofréquences :** cet équipement est conforme aux limites d'exposition aux rayonnements radioélectriques spécifiées. Il doit être installé et utilisé à une distance minimale de 35 cm par rapport à votre corps pour les fréquences de 2,4 et 5 GHz. Cet émetteur-récepteur ne doit pas être utilisé ou situé à proximité d'autres antennes ou émetteurs-récepteurs.



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Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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Toute modification effectuée sur cet équipement sans l'autorisation expresse de la partie responsable de la conformité est susceptible d'annuler son droit d'utilisation.

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## Federal Communication Commission

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit that is different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

## Industry Canada

This Class B digital apparatus meets all of the requirements of the Canadian Interference-Causing Equipment Regulations.

In accordance with Industry Canada regulations, this radio transmitter and receiver may only be used with an antenna, the maximum type and gain of which must be approved by Industry Canada. To reduce potential radio interference, the type of antenna and its gain shall be chosen so that the equivalent isotropic radiated power (EIRP) does not exceed the values necessary for effective communication.

This device complies with Industry Canada's license-exempt RSS regulations. Operation of this device is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation.

When operated in 5.15 to 5.25 GHz frequency range, this device is restricted to indoor use to reduce the potential for harmful interference with co-channel Mobile Satellite Systems.

## Déclaration d'Industrie Canada

Conformément aux réglementations d'Industrie Canada, cet émetteur-récepteur radio doit être utilisé uniquement avec une antenne dont le type et le gain maximal doivent être approuvés par Industrie Canada. Pour réduire les interférences radio potentielles, le type d'antenne et son gain doivent être choisis de façon à ce que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas les valeurs nécessaires à une communication efficace.

Ce périphérique est conforme aux règlements RSS exempts de licence d'Industrie Canada. L'utilisation de ce périphérique est soumise aux deux conditions suivantes : (1) ce périphérique ne doit pas provoquer d'interférences, et (2) ce périphérique doit accepter toute interférence, y compris les interférences susceptibles de provoquer un dysfonctionnement.

En cas d'utilisation dans la plage de fréquences de 5,15 à 5,25 GHz, cet appareil doit uniquement être utilisé en intérieur afin de réduire les risques d'interférence avec les systèmes satellites mobiles partageant le même canal.

## European Union Regulatory Conformance

The Declaration of Conformity made under Radio Equipment Directive 2014/53/EU is available for viewing at: [www.hp.com/eu/certificates](http://www.hp.com/eu/certificates). Select the document that corresponds to your device's model number as it is indicated on the product label.

## Wireless Channel Restrictions

5150-5350MHz band is limited to indoor only in the following countries; Austria (AT), Belgium (BE), Bulgaria (BG), Croatia (HR), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Slovakia (SK), Slovenia (SL), Spain (ES), Sweden (SE), Switzerland (CH), Turkey (TR), United Kingdom (UK).

Frequency Range MHz	Max EIRP
2402-2480	9 dBm
2412-2472	20 dBm
5150-5250	23 dBm
5250-5350	23 dBm
5470-5725	30 dBm
5725-5850	14 dBm

## Medical

1. Equipment not suitable for use in the presence of flammable mixtures.
2. Connect to only IEC 60950-1 or IEC 60601-1 certified products and power sources. The end user is responsible for the resulting medical system complies with the requirements of IEC 60601-1.
3. Wipe with a dry cloth, no additional maintenance required.
4. No serviceable parts, the unit must be sent back to the manufacturer for repair.
5. No modifications are allowed without Aruba approval.



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This device is intended for indoor use in professional healthcare facilities.

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This device has no IEC/EN60601-1-2 essential performance.

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Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

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Compliance is based on the use of Aruba approved accessories.

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Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

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www.arubanetworks.com  
3333 Scott Boulevard  
Santa Clara, California 95054  
USA



Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the access point. Otherwise, degradation of the performance of this equipment could result.

## Brazil



Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

## Japan

ご使用になっている装置に VCCI マークが付いていましたら、次の説明文をお読み下さい。

この装置は、クラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

## Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

## Morocco



## Нормативные требования Евразийского Экономического Союза

### Russia



'HPE Russia': ООО "Хьюлетт Паккард Энтерпрайз" Российская Федерация, 125171, г. Москва, Ленинградское шоссе, 16А, стр.3, Телефон: +7 499 403 4248 Факс: +7 499 403 4677

'HPE Belarus': ИООО «Хьюлетт-Паккард Бел», Республика Беларусь, 220030, г. Минск, ул. Интернациональная, 36-1, Телефон/факс: +375 17 392 28 20

'HPE Kazakhstan': ТОО «Хьюлетт-Паккард (К)», Республика Казахстан, 050040, г. Алматы, Бостандыкский район, проспект Аль-Фараби, 77/7, Телефон/факс: +7 727 355 35 50

### Kazakhstan

ЖШС "Хьюлетт Паккард Энтерпрайз" Ресей Федерациясы, 125171, Мәскеу, Ленинград тас жолы, 16А блок 3, Телефон: +7 499 403 4248 Факс: +7 499 403 4677

«HEWLETT-PACKARD Bel» ЖШС, Беларусь Республикасы, 220030, Минск қ., Интернациональная көшесі, 36/1, Телефон/факс: +375 17 392 28 20

ЖШС «Хьюлетт-Паккард (К)», Қазақстан Республикасы, 050040, Алматы к., Бостандық ауданы, Әл-Фараби даңғылы, 77/7, Телефон/факс: +7 (727) 355 35 50

## Taiwan

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

1. 應避免影響附近雷達系統之操作。
2. 高增益指向性天線只得應用於固定式點對點系統。
3. 電磁波暴露量 MPE 標準值  $1 \text{ mW/cm}^2$ ，送測產品實測值為： $0.184 \text{ mW/cm}$

## Ukraine

Hereby, Hewlett Packard Enterprise Company declares that the radio equipment type APINH303 is in compliance with Ukrainian Technical Regulation on Radio Equipment, approved by resolution of the CABINET OF MINISTERS OF UKRAINE dated May 24, 2017, No. 355. The full text of the UA declaration of conformity is available at the following internet address: <https://certificates.ext.hpe.com/public/certificates.html>

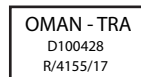
## Singapore



## Hong Kong



## Oman



## Philippines



## Contact Aruba

Main Site	<a href="https://www.ArubaInstantOn.com">https://www.ArubaInstantOn.com</a>
Support Site	<a href="https://support.ArubaInstantOn.com">https://support.ArubaInstantOn.com</a>
Aruba Instant On Community	<a href="https://community.ArubaInstantOn.com">https://community.ArubaInstantOn.com</a>
North America Telephone	1-800-943-4526 1-408-754-1200
International Telephone	<a href="https://support.ArubaInstantOn.com">https://support.ArubaInstantOn.com</a>

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### Open Source Code

This product includes code licensed under the GNU General Public License, the GNU Lesser General Public License, and/or certain other open source licenses. A complete machine-readable copy of the source code corresponding to such code is available upon request. This offer is valid to anyone in receipt of this information and shall expire three years following the date of the final distribution of this product version by Hewlett Packard Enterprise Company. To obtain such source code, send a check or money order in the amount of US \$10.00 to:

Hewlett Packard Enterprise Company  
Attn: General Counsel  
6280 America Center Drive  
San Jose, CA 95002  
USA

### Warranty

This hardware product is protected by an Aruba warranty. For details, visit <https://support.ArubaInstantOn.com>.