

# QuickStart Guide

FortiAP 431G / 433G

# Before you begin

Register your device to access FortiGuard updates, cloud management, firmware upgrades, technical support and warranty coverage.

<http://support.fortinet.com>



This guide covers: FAP-431G, FAP-433G

November 30, 2022

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# The Essentials

## Default Logins

 <https://192.168.1.2>  
Username: **admin**  
Password: **leave blank**

 <http://fortilancloud.com>  
Username: **user-defined**  
Password: **user-defined**

## Admin Guide

For a detailed FortiAP setup and configuration information, refer to the Admin Guide on <https://docs.fortinet.com/product/fortiap>

## Customer Service

For contracts, licensing, product registration and account management, contact FortiCare Support at <https://www.fortinet.com/support/contact>

## Self-service Resources

Access our knowledge base, forums, videos and technical experts at <https://www.fortinet.com/support/support-services/forticare-support>

Thank you for choosing Fortinet

# Package Contents

**FortiAP 431G / 433G**  
FAP-431G\*, FAP-433G\*\*



QuickStart Guide



FortiAP Device\*



FortiAP  
Antenna Device\*\*



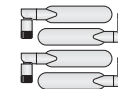
9/16" Ceiling  
Mounting Bracket



15/16" Ceiling  
Mounting Bracket



8x Mounting Screws  
with 8x Anchors

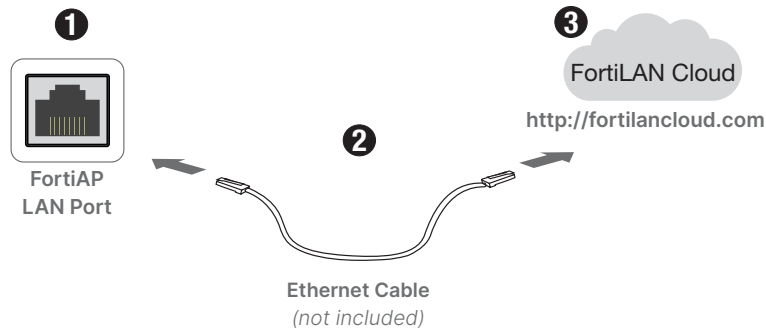


8x Antennas\*\*  
(4x detachable, 4x  
non-detachable)

# Setup Options

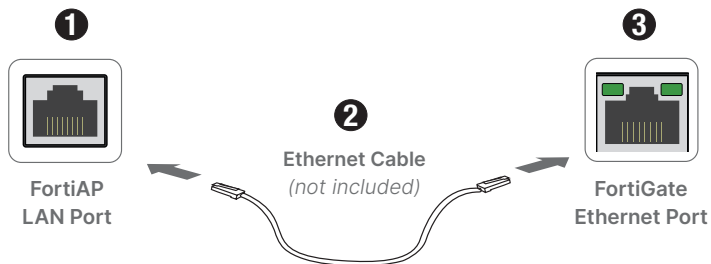
Power the FortiAP device with a 802.3 af/at PoE injector, FortiGate PoE port or the optional (not included) 12V 4A power adapter.

## FortiLAN Cloud



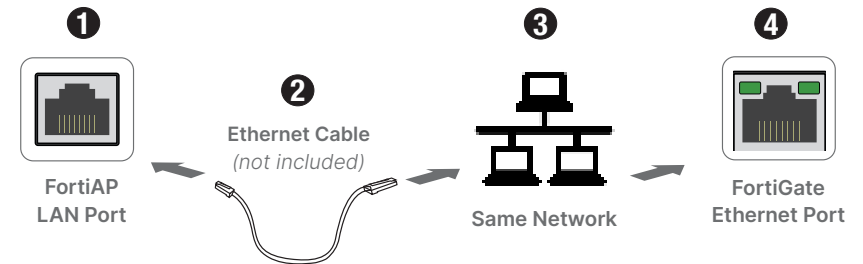
**Note:** Use your FortiCloud credentials to log in, then click Inventory, Import AP Key and enter the Cloud Key on the device sticker

## Direct Connection



**Note:** To self-configure, preauthorize the FortiAP on your FortiGate. Otherwise once connected, wait for the FortiAP to appear on the Managed FortiAP page in FortiOS.

## Network Connection



**Note:** Connect to the FortiAP using 192.168.1.2 with username *admin* and set a password. Specify the FortiGate IP using:

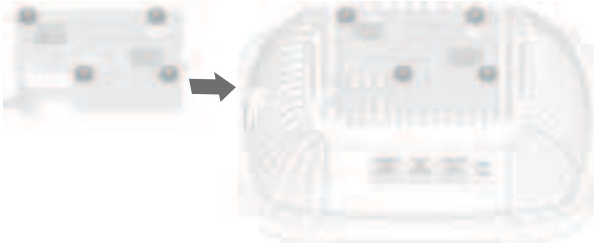
```
cfg -a AC_IPADDR=0.0.0.0  
cfg -c
```

where 0.0.0.0 is the FortiGate IP.

## Bracket Installation

The FortiAP mounts on a ceiling using the provided T-rail mounting brackets which come in two standard sizes: 1.43cm (9/16in) and 2.38cm (15/16in).

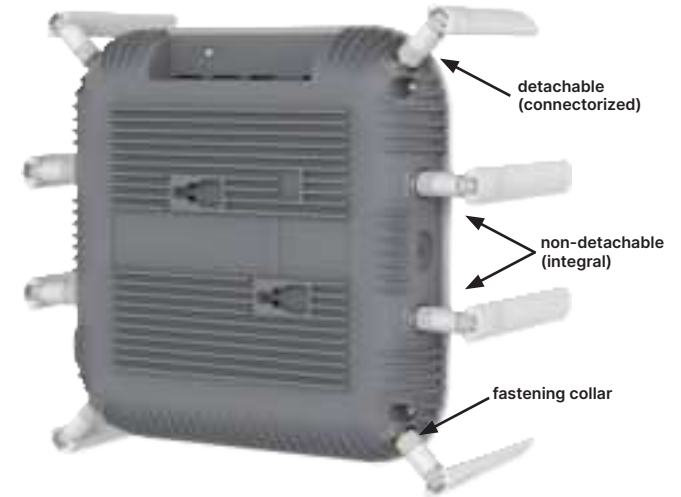
1. Select the bracket for the T-rail size: 1.43cm (9/16in) or 2.38cm (15/16in)
2. With the ports facing you, slide the bracket left to right



3. Hold the device against the ceiling T-rail and push until it snaps into place



## Antenna Installation *(FAP-433G only)*



1. Insert the antenna base firmly into the appropriate antenna mount
2. Securely hand tighten the antenna fastening collar
3. Repeat for the remaining antennas

**Note:** There are 8 external antennas, 4 detachable (connectorized) on each corner and 4 non-detachable (integral) on the sides of the device

# Interfaces - FAP 431G / 433G



## 1 LED STATUS

### Power

-  **Off:** Device is off
-  **Green:** Device is on and connected to a controller
-  **Amber:** Device is on and not connected to a controller

### LAN

-  **Off:** LAN is not connected
-  **Green:** LAN is connected
-  **Blinking Green:** LAN data activity

### WiFi

-  **Off:** WiFi not broadcasting
-  **Green:** SSID broadcasting
-  **Blinking Green:** Wireless data activity

## 2 OPTIONAL POWER (12V DC) Optional 12V DC 4A adapter

## 3 RESET system reset

## 4 CONSOLE (RJ-45) CLI management

## 5 LAN2 / POE 5G (RJ-45) 5 Gbps 802.3at/802.3bt PoE Ethernet interface

## 6 LAN1 / POE 5G (RJ-45) 5 Gbps 802.3at/802.3bt PoE Ethernet interface

## Cautions and Warnings

### Environmental specifications

Ambient operating temperature: 0°C to 50°C

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)

Référez à la *Fiche Technique* de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

### Safety

**Caution:** This equipment is to be used in a Network Environment 0 per IECTR 62101. This product is connected only to PoE networks without routing to the outside plant.

**Attention:** Ce matériel doit être utilisé dans un Environnement Réseau 0 par IECTR 62101. Ce produit est uniquement connecté aux réseaux PoE sans installation externe de routage.

This product is intended to be supplied by a Listed Direct Plug-In Power Unit marked LPS or Class 2 and rated 12Vdc, 4A or by 55Vdc from PoE source.

Le produit doit être alimenté par un bloc d'alimentation à courant continu homologué UL de 12Vdc, 4A nominal marqué LPS ou Class 2 ou par une source d'alimentation par Ethernet de 55Vdc (PoE).

Suitable for use in environmental air space in accordance with Section 300-22(C) of the National Electrical Code, and Sections 2-128, 12-010(3) and 12-100 of the Canadian Electrical Code, Part 1, CSA C22.1.

Convient pour une utilisation dans l'espace aérien conformément à l'article 300-22 (C) du Code National de l'Électricité, et des articles 2-128, 12-010 (3) et 12-100 du Code de l'électricité canadien, Partie 1, CSA C22.1.

## Regulatory Notices

### Federal Communication Commission (FCC) – USA

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 residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it 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 different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**WARNING:** Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

For operation within 5.925-7.125GHz frequency range.

FCC regulations restrict the operation of this device to indoor use only.

The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

### Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

Le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and

Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;

The worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

Les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.

**Caution:** The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

**Attention:** Le dispositif de la bande 5150-5250 MHz est réservé à un usage intérieur afin de réduire l'interférence nuisible potentielle aux systèmes mobiles par satellite co-canal.

**Caution:** The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

**Attention:** Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5 470-5 725 MHz doit se conformer à la limite de p.i.r.e.; le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

This device has been designed to operate with an antenna having a maximum gain of 5.65 dBi for 2.4GHz and 5.94 dBi for 5GHz. Antenna having a higher gain is strictly prohibited per regulations of ISED. The required antenna impedance is 50 ohms.

Under ISED regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotopically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Ce dispositif a été conçu pour fonctionner avec une antenne ayant un gain maximal de 5.65 dBi pour 2,4 GHz et 5.94 dBi pour 5GHz. Une antenne ayant un gain supérieur sont strictement interdites par la réglementation d'ISED. L'impédance d'antenne requise est de 50 ohms.

Conformément à la réglementation d'ISED, cet émetteur radio peut fonctionner seulement avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par ISED. Dans le but de réduire les risques de brouillage radioélectrique aux autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication réussie.

This radio transmitter (**IC: 7280B-3918T05646**) has been approved by ISED to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (**IC: 7280B-3918T05646**) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

This device and it's antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with IC multi-transmitter product procedures.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionner en association avec une autre antenne ou transmetteur.

Operation shall be limited to indoor use only;

Utilisation limitée à l'intérieur seulement;

Operation on oil platforms, cars, trains, boats and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.

Utilisation interdite à bord de plateformes de forage pétrolier, de voitures, de trains, de bateaux et d'aéronefs, sauf à bord d'un gros aéronef volant à plus de 10 000 pieds d'altitude.

### FAP-431G

| Antenna          | Qty | Antenna Type | Connector | Gain (dBi) |      |      |
|------------------|-----|--------------|-----------|------------|------|------|
|                  |     |              |           | 2.4GHz     | 5GHz | 6GHz |
| 2.4/5GHz         | 4   | PIFA         | IPEX      | 2.38       | 4.85 |      |
| 2.4GHz/5GHz/6GHz | 4   | PIFA         | IPEX      | 3.50       | 5.30 | 5.50 |
| BLE/Zigbee       | 1   | PIFA         | IPEX      | 3.80       |      |      |
| Scanning         | 2   | PIFA         | IPEX      | 3.50       | 5.30 | 5.50 |

FAP-433G

| Antenna          | Qty | Antenna Type | Connector | Gain (dBi) |      |      |
|------------------|-----|--------------|-----------|------------|------|------|
|                  |     |              |           | 2.4GHz     | 5GHz | 6GHz |
| 2.4/5GHz         | 4   | Dipole       | SMA       | 5.65       | 5.94 |      |
| 2.4GHz/5GHz/6GHz | 4   | Dipole       | SMA       | 3.11       | 2.81 | 2.74 |
| BLE/Zigbee       | 1   | PIFA         | IPEX      | 3.80       |      |      |
| Scanning         | 2   | Dipole       | SMA       | 3.11       | 2.81 | 2.74 |

European Conformity (CE) – EU

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



The product transmits within the frequency ranges and less than or equal to the power listed below:  
2402-2480MHz less than 20dBm  
2405-2480MHz less than 20dBm  
2412-2472MHz less than 20dBm  
5180-5240MHz less than 23dBm \*  
5260-5320MHz less than 23dBm \*  
5500-5700MHz less than 30dBm \*  
5925-6425MHz less than 23dBm

Note: \* Only with DFS bands certification.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Simplified EU Declaration of Conformity

This declaration is only valid for Fortinet products (including, combinations of software, firmware and hardware) provided by Fortinet or Fortinet's authorized partners to the end customer directly for use within the EU or countries that have implemented the EU Directives and/or spectrum regulation. Any Fortinet products not obtained directly from Fortinet or Fortinet's authorized partners may not comply with EU Directives and Fortinet makes no assurances for such products.

Български

Този продукт е в съответствие с Директива 2014/53/ЕС.

Česky

Tento produkt je v souladu se směrnici 2014/53/EU.

Dansk

Dette produkt er i overensstemmelse med direktiv 2014/53/EU.

Deutsch

Dieses Produkt entspricht der Richtlinie 2014/53/EU.

Eesti

See toode vastab direktiivile 2014/53/EL.

English

This product is in compliance with Directive 2014/53/EU.

Español

Este producto cumple con la Directiva 2014/53/UE.

Ελληνική

Το προϊόν αυτό συμμορφώνεται με την Οδηγία 2014/53/ΕΕ.

Français

Ce produit est conforme à la Directive 2014/53/UE.

Hrvatski

Ovaj proizvod je u skladu s Direktivom 2014/53/EU.

Italiano

Questo prodotto è conforme alla Direttiva 2014/53/EU.

Latviski

Šis produkts atbilst Direktīvai 2014/53/EU.

Lietuvių

Šis gaminys atitinka direktyvą 2014/53/ES.

Malti

Dan il-prodott huwa konformi mad-Direttiva 2014/53/UE.

Magyar

Ez a termék megfelel a 2014/53/EU irányelvnek.

Nederlands

Dit product is in overeenstemming met Richtlijn 2014/53/EU.

Norsk

Dette produktet er i samsvar med direktiv 2014/53/EU.

Polski

Ten produkt jest zgodny z dyrektywą 2014/53/UE.

Português

Este produto está em conformidade com a Diretiva 2014/53/UE.

Rumunski

Acest produs este în conformitate cu Directiva 2014/53/UE.

Slovensky

Tento produkt je v súlade so smernicou 2014/53/EÚ.

Slovensko

Ta izdelek je v skladu z Direktivo 2014/53/EU.

Suomi

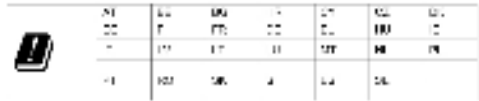
Tämä tuote on direktiivin 2014/53/EU mukainen.

Svenska

Denna produkt överensstämmer med direktiv 2014/53/EU.

Note: The full declaration of conformity for this product is available at the link below:  
<https://site.fortinet.com/ProductRegulatory/EU>

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range in the following countries:



Compliance with 2014/53/EU Radio Equipment Directive (RED)

In accordance with Article 10.8(a) and 10.8(b) of the RED, the following table provides information on the frequency bands used and the maximum RF transmit power of the product for sale in the EU:

| Frequency Range (MHz)     | Max. Transmit Power (dBm) |
|---------------------------|---------------------------|
| Bluetooth: 2402-2480MHz   | 20                        |
| Zigbee: 2405-2480MHz      | 20                        |
| WLAN 2.4GHz: 2412-2472MHz | 20                        |
| WLAN 5GHz: 5180-5320MHz   | 23                        |
| WLAN 5GHz: 5500-5700MHz   | 30                        |
| WLAN 6GHz: 5925-6425MHz   | 23                        |

UK Conformity Assessed (UKCA) – United Kingdom

The product transmits within the frequency ranges and less than or equal to the power listed below:  
2402-2480MHz less than 20dBm  
2405-2480MHz less than 20dBm  
2412-2472MHz less than 20dBm  
5180-5240MHz less than 23dBm  
5260-5320MHz less than 23dBm \*  
5500-5700MHz less than 30dBm \*  
5925-6425MHz less than 23dBm

Note: \* Only with DFS bands certification.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This product is in compliance with **Statutory Instrument 1206 Radio Equipment Regulations 2017**

The full Declaration of Conformity for this product is available in the link below:  
<https://site.fortinet.com/ProductRegulatory/UK>



