

QuickStart Guide

FortiAP 231FL

FAP-231FL

Before you begin

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

<https://support.fortinet.com>



This guide covers: FAP-231FL


August 4, 2023


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The Essentials

Default Logins

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

 <http://fortiapcloud.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

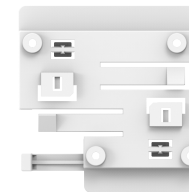
FortiAP 231FL
FAP-231FL



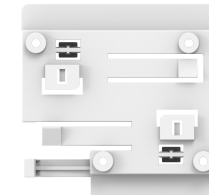
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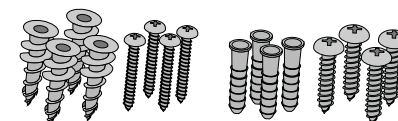
FortiAP Device



9/16" Ceiling
Mounting Bracket



15/16" Ceiling
Mounting Bracket

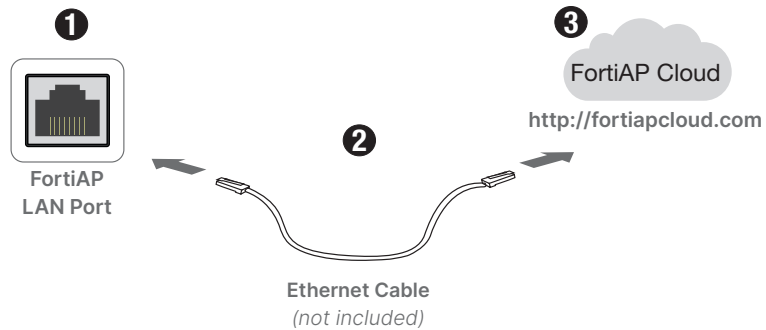


8x Mounting Screws with 8x Anchors

Setup Options

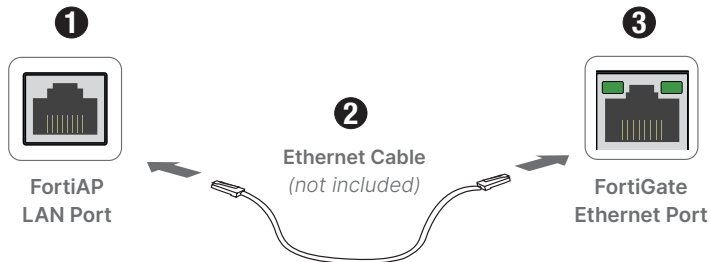
Power the FortiAP device with a 802.3 af/at PoE injector, FortiGate PoE port or the optional (not included) 12V 2.5A power adapter.

FortiAP Cloud



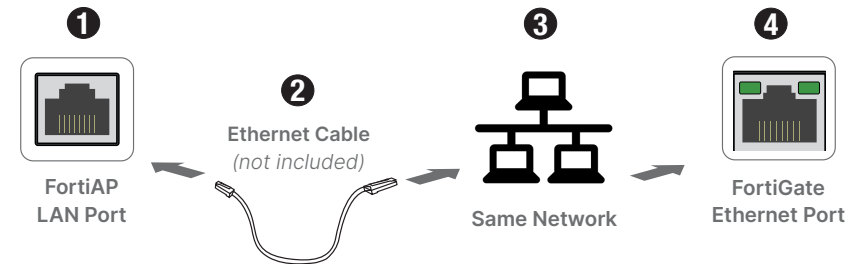
Note: Use your FortiCloud credentials to log in, then click Inventory, Import AP Key and enter the Cloud Key on the device sticker

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 a *blank password*. Specify the FortiGate IP using:

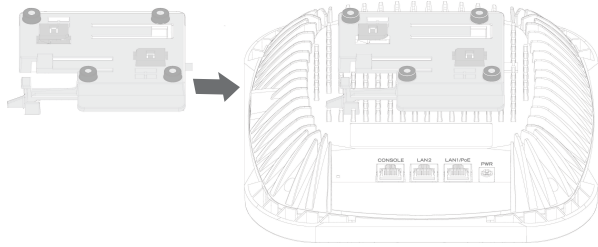
```
cfg -a AC_IPADDR=0.0.0.0
cfg -c
```

where 0.0.0.0 is the FortiGate IP.

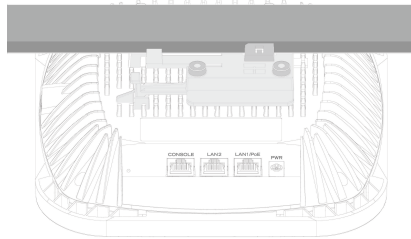
Bracket Installation

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).

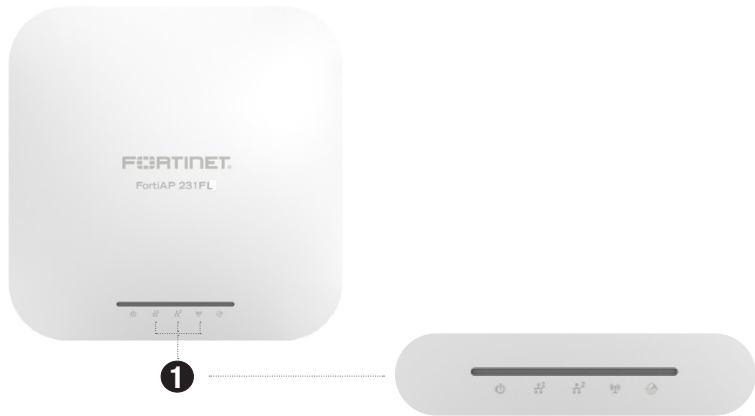
1. Select the bracket for the T-rail size: 1.43cm (9/16in) or 2.38cm (15/16in)
2. With the ports facing you, slide the bracket left to right



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



Interfaces - FAP 231FL



1 System Status LED Indicators

Power (PoE 802.3at or 12V DC 2.5A)

- Off: Device is off
- Green: Device is on
- Blinking Green: Booting up
- Amber: Reserved for customizations

LAN 1 (1 Gbps 802.3at PoE RJ45)

- Off: Link is off
- Green: Link is on
- Blinking Green: Transmitting at 1Gbps
- Blinking Amber: Transmitting at 100Mbps

LAN 2 (1 Gbps RJ45)

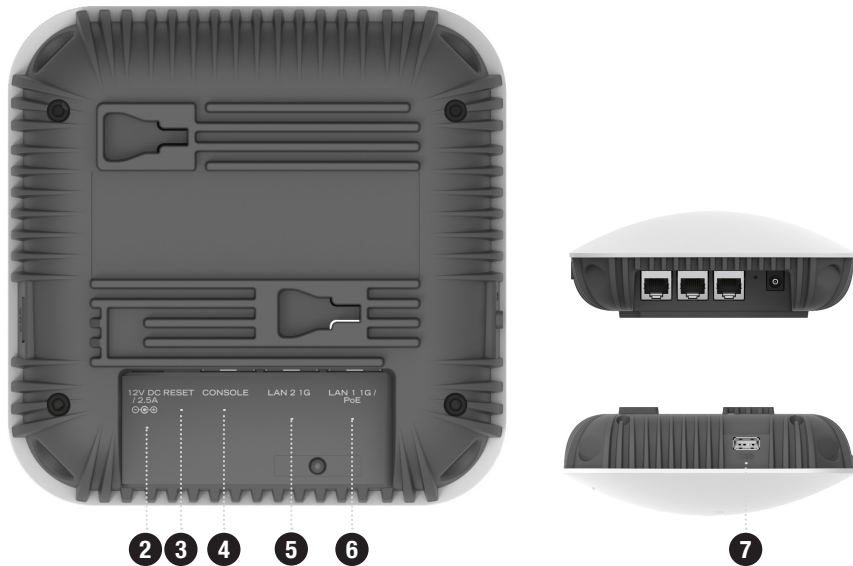
- Off: Link is off
- Green: Link is on
- Blinking Green: Transmitting at 1Gbps
- Blinking Amber: Transmitting at 100Mbps

WiFi (5GHz & 2.4GHz 2x2 MU-MIMO)

- Off: Radio 1 & 2 are off
- Blue: Radio 1 is on
- Blinking Blue: Radio 1 is transmitting data
- Amber: Radio 2 is on
- Blinking Amber: Radio 2 is transmitting data
- Green: Radio 1 & 2 are on
- Blinking Green: Radio 1 & 2 are transmitting data

Scanning

- Off: Scanning disabled
- Amber: Scanning enabled



2 OPTIONAL POWER (12V DC) Optional 12V DC 2.5A adapter

3 RESET resets the device

4 CONSOLE (RJ-45) CLI management computer interface

5 LAN2 GE (RJ-45) 1 Gbps Ethernet interface

6 LAN1/POE GE (RJ-45) 1 Gbps 802.3at PoE Ethernet interface

7 USB 3.0 (Type A) software enabled power through the GPIO, 9A/5V

Cautions and Warnings

Environmental specifications

Ambient operating temperature: 0°C to 45°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 12 Vdc, 2.5A or by 54 Vdc from PoE source.

Le produit doit être alimenté par un bloc d'alimentation à courant continu homologué UL de 12 Vdc, 2.5A nominal marqué LPS ou Class 2 ou par une source d'alimentation par Ethernet de 54 Vdc (PoE).

Regulatory Notices

Federal Communication Commission (FCC) – USA

This device complies with Part 15 of 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.

Caution: Operation of this device is restricted to indoor use only.

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment.

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

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.

Innovation, Science and Economic Development (ISED) – 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 équipe-

ment 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.

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.

(iii) where applicable, antenna type(s), antenna models(s), and 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.

(iii) lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.

This radio transmitter (IC: 7280B-2317069 / Model: FAP-231FL) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain 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-2317069 / Model: FAP-231FL) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

This device and its 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.

Antenna No.	Antenna Connector	PIFA i-Plex(MHF) Gain (dB)	
		2.4-2.4835GHz	5.180-5.825GHz
1	Chain0	4.9	5.2
2	Chain1	3.8	5.5
3	Scan	4.0	5.1

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:

- 2412-2472 MHz less than 20 dBm
- 2402-2480MHz less than 20dBm
- 2405-2480MHz less than 20dBm
- 5180-5240 MHz less than 23 dBm
- 5260-5320 MHz less than 23 dBm *
- 5500-5700 MHz less than 30 dBm *

Note: * Only with DFS bands certification.

This equipment should be installed and operated with minimum distance 20cm between the radiator and 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

Denne 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 za termék megfelel a 2014/53/EU irányelvnek.

Nederlands

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

Norsk

Denne 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:

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	

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)
2412MHz-2472MHz	19.96dBm
5180MHz-5240MHz	22.74dBm
5260MHz-5320MHz	22.48dBm
5500-5700MHz	29.41dBm

UK Conformity Assessed (UKCA) – United Kingdom

The product transmits within the frequency ranges and less than or equal to the power listed below:

2412-2472MHz less than 20dBm
 5180-5240MHz less than 23dBm
 5260-5320MHz less than 23dBm*
 5500-5700MHz less than 30dBm*

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>

