

CONFIDENTIAL

FORTINET[®]

QuickStart Guide

FortiAP 431G / 433G

PRELIMINARY

Before you begin

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

<https://support.fortinet.com>

Professional installation instruction

1. Installation personal

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

The product shall be installed at a location where the radiating antenna can be kept 20cm from nearby person in normal operation conditions to meet regulatory RF exposure requirements.

3. External antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power which may lead to the violation of FCC/IC limit and is prohibited.

4. Installation procedure

Please refer to the user's manual for the details.

5. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

1. Installation

Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

2. Emplacement d'installation

En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de 20cm entre l'antenne emettrice et les personnes.

3. Antenn externe.

Utiliser uniquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par FCC/IC, ce qui est interdit.

4. Procedure d'installation

Consulter le manuel d'utilisation.

5. Avertissement

Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne depasse pas les limites en vigueur. La violation de cette regle peut conduire a de serieuses penalites federales.



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


June 26, 2024


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The Essentials

Default Logins

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

 <https://fortilan.forticloud.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**



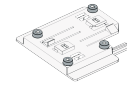
QuickStart Guide



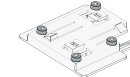
FortiAP Device*



FortiAP Antenna Device**



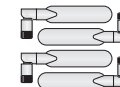
9/16" Ceiling Mounting Bracket



15/16" Ceiling Mounting Bracket



8x Mounting Screws with 8x Anchors

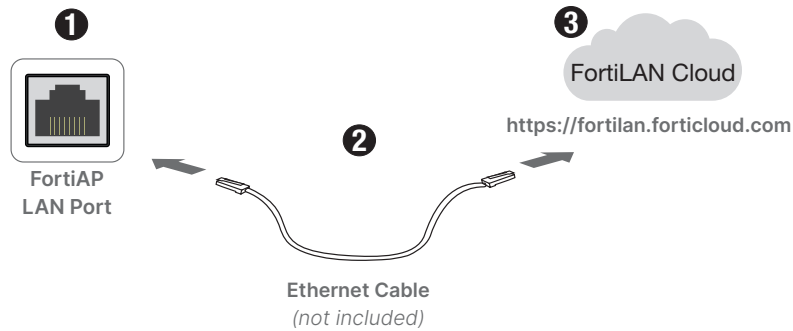


8x Antennas**
(4x detachable, 4x non-detachable)

Setup Options

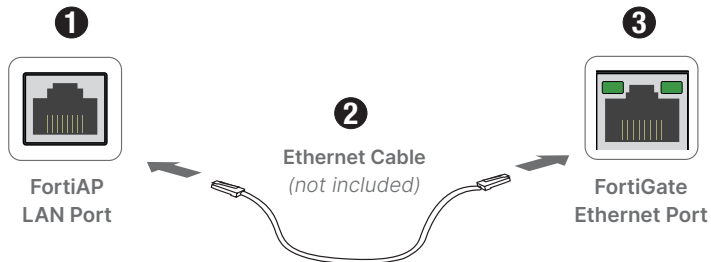
Power the FortiAP device with a 802.3af/at PoE injector, FortiGate PoE port or the optional (not included) 12V 4A power adapter.

FortiLAN Cloud



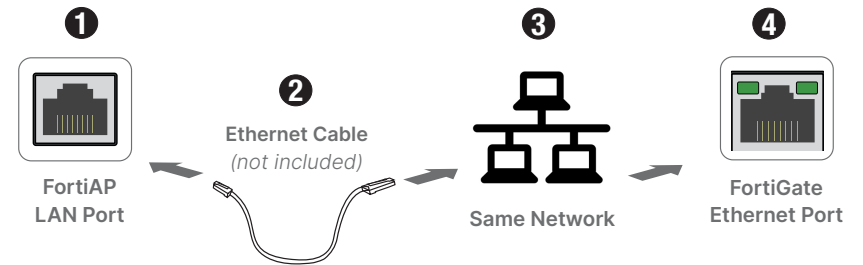
Note: Use your FortiCloud credentials to log in, then click Inventory, Import AP Key and enter the Cloud Key on the device sticker

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:

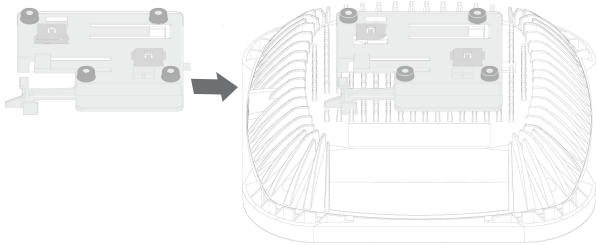
```
cfg -a AC_IPADDR=0.0.0.0
cfg -c
```

where 0.0.0.0 is the FortiGate IP.

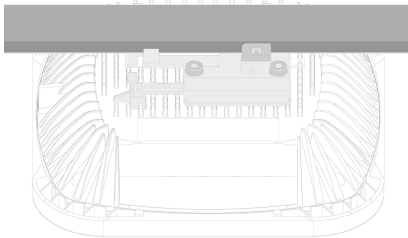
Bracket Installation

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

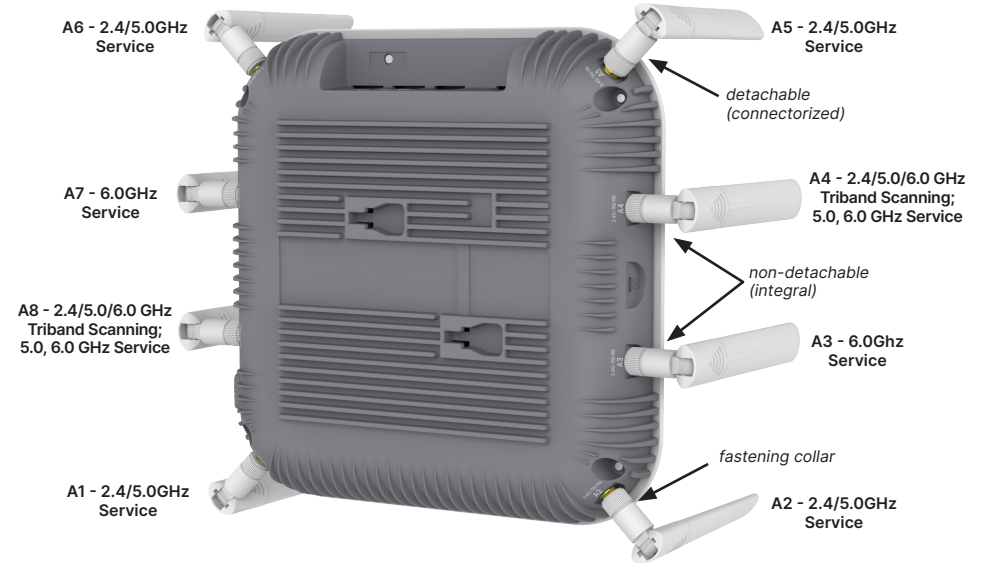


3. Hold the device against the ceiling T-rail and push until it snaps into place



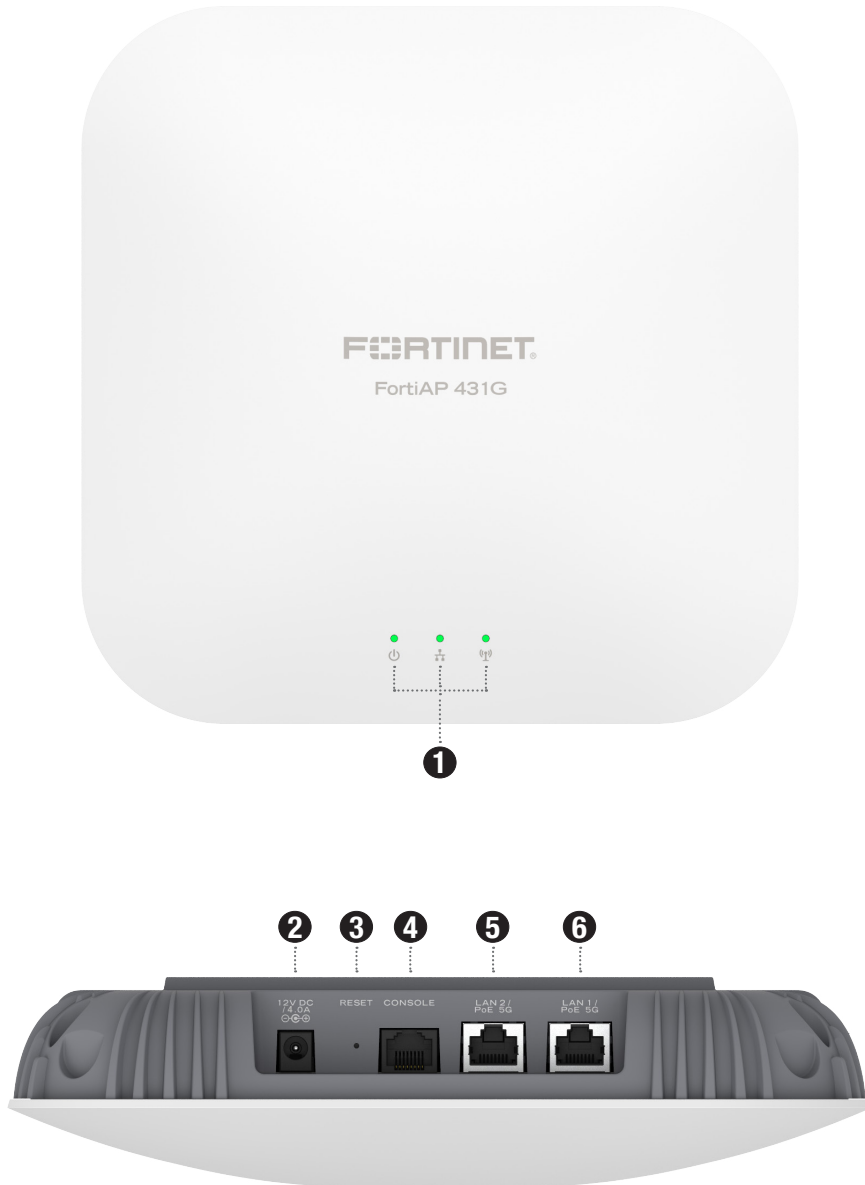
Antenna Installation (FAP-433G only)

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

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

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 6iD (Indoor Access Point) & UNII-4 (Indoor AP).

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 in the 5.925-6.425 GHz band.

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.

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) le dispositif ne doit pas produire de brouillage préjudiciable, et
- (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

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 à plus de 20cm entre le radiateur et votre corps.

Detachable antenna usage

This radio transmitter [IC: 7280B-3918T05646] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 7280B-3918T05646] a été approuvé par Innovation, Sciences et Développement économique Canada 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 pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Manufacturer	Model	Antenna Type	Max Gain (dBi)	Impedance (Ω)
Mag. Layers Scientific-Technics Co., LTD	EDA-1410-6G0R2-A3	Dipole	2400-2500MHz / 5.65dBi 5150-5850MHz / 5.94dBi 5925-7125MHz / 6.87dBi	50 Ohm Nominal

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.;

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.

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

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: For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit; for devices with detachable antenna(s), 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 as appropriate

Attention: Pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5 250 à 5 350 MHz et de 5 470 à 5 725 MHz doit être conforme à la limite de la p.i.r.e.; pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée, selon le cas;

This device has been designed to operate with an antenna having a maximum gain of 5.65 dBi for 2.4GHz, 5.94 dBi for 5GHz and 5.50 dBi for 6GHz. 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 2.4GHz, 5.94 dBi pour 5GHz et 5.50 dBi pour 6GHz. 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 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 fonctionnement en association avec une autre antenne ou transmetteur.

Devices shall not be used for control of or communications with unmanned aircraft systems. Operation shall be limited to indoor use only. Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).

Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes. leur utilisation doit être limitée à l'intérieur seulement; leur utilisation à bord de plateformes de forage pétrolier, d'automobiles, de trains, de navires maritimes et d'aéronefs doit être interdite, sauf à bord d'un gros aéronef volant à plus de 3 048 m (10 000 pi) d'altitude.

FAP-431G

Note : The EUT has eight internal antennas

Antenna	RF Chain	Brand	Model	Antenna Net Gain (dBi)	Frequency Range	
ANT0 (DB4)	Radio 1 2G CH0 Radio 2 5G CH0 Radio 2 5GL CH0	WNC	FortiAP-431G	1.41	2.4-2.4835 GHz	
				4.62	5.15-5.25 GHz	
				4.62	5.25-5.35 GHz	
				4.35	5.47-5.725 GHz	
				3.91	5.725-5.85 GHz	
ANT1 (DB3)	Radio 1 2G CH1 Radio 2 5G CH1 Radio 2 5GL CH1	WNC	FortiAP-431G	1.72	2.4-2.4835 GHz	
				3.38	5.15-5.25 GHz	
				3.61	5.25-5.35 GHz	
				3.72	5.47-5.725 GHz	
				3.72	5.725-5.85 GHz	
ANT2 (DB1)	Radio 1 2G CH2 Radio 2 5G CH2 Radio 2 5GL CH2	WNC	FortiAP-431G	1.54	2.4-2.4835 GHz	
				4.85	5.15-5.25 GHz	
				4.85	5.25-5.35 GHz	
				4.51	5.47-5.725 GHz	
				4.30	5.725-5.85 GHz	
ANT3 (DB2)	Radio 1 2G CH3 Radio 2 5G CH3 Radio 2 5GL CH3	WNC	FortiAP-431G	2.38	2.4-2.4835 GHz	
				3.48	5.15-5.25 GHz	
				3.52	5.25-5.35 GHz	
				3.58	5.47-5.725 GHz	
				3.55	5.725-5.85 GHz	
ANT4 (TB4)	Radio 3 5GH CH0 Radio 3 6G CH0 Radio 3 Scanning 2G/5G/6G CH0 (Receiver only)	WNC	FortiAP-431G	3.50	2.4-2.4835 GHz	
				4.98	5.15-5.25 GHz	
				4.98	5.25-5.35 GHz	
				4.98	5.47-5.725 GHz	
				4.50	5.725-5.85 GHz	
				4.80	5.925-6.425 GHz	
				4.80	6.425-6.525 GHz	
				5.50	6.525-6.875 GHz	
				5.50	6.875-7.125 GHz	
				4.76	5.47-5.725 GHz	
ANT5 (TB1)	Radio 3 5GH CH1 Radio 3 6G CH1	WNC	FortiAP-431G	4.38	5.47-5.725 GHz	
				4.32	5.925-6.425 GHz	
				4.32	6.425-6.525 GHz	
				4.84	6.525-6.875 GHz	
				4.84	6.875-7.125 GHz	
ANT6 (TB2)	Radio 3 5GH CH2 Radio 3 6G CH2 Radio 3 Scanning 2G/5G/6G CH1 (Receiver only)	WNC	FortiAP-431G	2.85	2.4-2.4835 GHz	
				4.47	5.15-5.25 GHz	
				4.81	5.25-5.35 GHz	
				5.30	5.47-5.725 GHz	
				5.30	5.725-5.85 GHz	
				4.60	5.925-6.425 GHz	
				4.60	6.425-6.525 GHz	
				5.20	6.525-6.875 GHz	
				5.20	6.875-7.125 GHz	
				5.09	5.47-5.725 GHz	
ANT7 (TB3)	Radio 3 5GH CH3 Radio 3 6G CH3	WNC	FortiAP-431G	5.09	5.725-5.85 GHz	
				4.20	5.925-6.425 GHz	
				3.94	6.425-6.525 GHz	
				4.50	6.525-6.875 GHz	
				4.50	6.875-7.125 GHz	
ANT8	Radio 4 BLE/Zigbee	WNC	FortiAP-431G	Antenna Type	Connector	Gain (dBi)
				PIFA	IPEX(MHF)	3.8

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Note : The EUT has eight external antennas.

Antenna	RF Chain	Brand	Model	Antenna Net Gain (dBi)	Frequency Range	
ANT0	Radio 1 2G CH0 Radio 2 5G CH0 Radio 2 5GL CH0	MAGLAYERS	EDA-1410-6-G0R2-A3	5.65	2.4-2.4835 GHz	
				5.31	5.15-5.25 GHz	
				5.37	5.25-5.35 GHz	
				5.94	5.47-5.725 GHz	
				5.45	5.725-5.85 GHz	
ANT1	Radio 1 2G CH1 Radio 2 5G CH1 Radio 2 5GL CH1	MAGLAYERS	EDA-1410-6-G0R2-A3	5.65	2.4-2.4835 GHz	
				5.31	5.15-5.25 GHz	
				5.37	5.25-5.35 GHz	
				5.94	5.47-5.725 GHz	
				5.45	5.725-5.85 GHz	
ANT2	Radio 1 2G CH2 Radio 2 5G CH2 Radio 2 5GL CH2	MAGLAYERS	EDA-1410-6-G0R2-A3	5.65	2.4-2.4835 GHz	
				5.31	5.15-5.25 GHz	
				5.37	5.25-5.35 GHz	
				5.94	5.47-5.725 GHz	
				5.45	5.725-5.85 GHz	
ANT3	Radio 1 2G CH3 Radio 2 5G CH3 Radio 2 5GL CH3	MAGLAYERS	EDA-1410-6-G0R2-A3	5.65	2.4-2.4835 GHz	
				5.31	5.15-5.25 GHz	
				5.37	5.25-5.35 GHz	
				5.94	5.47-5.725 GHz	
				5.45	5.725-5.85 GHz	
ANT4	Radio 3 5GH CH0 Radio 3 6G CH0 2G/5G/6G CH0 (Receiver only)	MAGLAYERS	BTEAWT14136GOC1A02	3.11	2.4-2.4835 GHz	
				2.27	5.15-5.25 GHz	
				2.27	5.25-5.35 GHz	
				2.81	5.47-5.725 GHz	
				2.81	5.725-5.85 GHz	
				2.55	5.925-6.425 GHz	
				2.55	6.425-6.525 GHz	
				2.74	6.525-6.875 GHz	
				2.74	6.875-7.125 GHz	
				2.81	5.47-5.85 GHz	
ANT5	Radio 3 5GH CH1 Radio 3 6G CH1	MAGLAYERS	BTEAWT14136GOC1A02	2.81	5.725-5.725 GHz	
				2.55	5.925-6.425 GHz	
				2.55	6.425-6.525 GHz	
				2.74	6.525-6.875 GHz	
				2.74	6.875-7.125 GHz	
ANT6	Radio 3 5GH CH2 Radio 3 6G CH2 2G/5G/6G CH1 (Receiver only)	MAGLAYERS	BTEAWT14136GOC1A01	2.81	2.4-2.4835 GHz	
				2.39	5.15-5.25 GHz	
				2.39	5.25-5.35 GHz	
				2.39	5.47-5.725 GHz	
				2.39	5.725-5.85 GHz	
				2.71	5.925-6.425 GHz	
				2.71	6.425-6.525 GHz	
				2.61	6.525-6.875GHz	
				2.61	6.875-7.125 GHz	
				2.39	5.47-5.85 GHz	
ANT7	Radio 3 5GH CH3 Radio 3 6G CH3	MAGLAYERS	BTEAWT14136GOC1A01	2.39	5.725-5.725 GHz	
				2.39	5.925-6.425 GHz	
				2.71	5.925-6.425 GHz	
				2.71	6.425-6.525 GHz	
				2.61	6.525-6.875 GHz	
ANT8	Radio 4 BLE/Zigbee	WNC	FortiAP-433G	Antenna Type	Connector	Gain (dBi)
				PIFA	IPEX(MHF)	3.8

FAP-433G

Note :This is an optional antenna and not included in the box

Antenna Type		Omindirectional Antenna			
Connector Type		RPSMA plug			
Antenna No.	RF Chain	Brand	Model	Antenna Net Gain (dBi)	Frequency Range
ANT9	Chain 0	TERRAWAVE	FANT-04ABGN-0606-O-R	6.11	2400-2500Mhz
	Chain 1			6.30	2400-2500Mhz
	Chain 2			6.34	2400-2500Mhz
	Chain 3			5.94	2400-2500Mhz
	Chain 0			5.49	5.15-5.25GHz
				5.49	5.25-5.35GHz
				5.80	5.47-5.725GHz
				5.40	5.725-5.85GHz
	Chain 1			6.51	5.15-5.25GHz
				6.58	5.25-5.35GHz
				6.54	5.47-5.725GHz
				5.60	5.725-5.85GHz
				6.34	5.15-5.25GHz
				6.31	5.25-5.35GHz
				6.02	5.47-5.725GHz
				5.01	5.725-5.85GHz
	Chain 2			7.61	5.15-5.25GHz
				7.76	5.25-5.35GHz
				6.93	5.47-5.725GHz
				6.45	5.725-5.85GHz
ANT10	Chain 0	TERRAWAVE	FANT-04ABGN-2504-O-R	3.97	2400-2500Mhz
	Chain 1			3.76	2400-2500Mhz
	Chain 2			3.99	2400-2500Mhz
	Chain 3			3.77	2400-2500Mhz
	Chain 0			4.23	5.15-5.25GHz
				4.18	5.25-5.35GHz
				4.81	5.47-5.725GHz
				4.52	5.725-5.85GHz
	Chain 1			4.00	5.15-5.25GHz
				4.78	5.25-5.35GHz
				5.32	5.47-5.725GHz
				4.31	5.725-5.85GHz
				4.03	5.15-5.25GHz
				4.42	5.25-5.35GHz
				4.83	5.47-5.725GHz
				4.75	5.725-5.85GHz
	Chain 2			3.76	5.15-5.25GHz
				4.58	5.25-5.35GHz
				5.35	5.47-5.725GHz
				5.09	5.725-5.85GHz

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FAP-433G

Note :This is an optional antenna and not included in the box

Antenna Type		Quad Patch Antenna			
Connector Type		RPSMA plug			
Antenna No.	RF Chain	Brand	Model	Antenna Net Gain (dBi)	Frequency Range
ANT11	Chain 0	TERRAWAVE	FANT-04ABGN-0606-P-R	4.81	2400-2500Mhz
	Chain 1			4.13	2400-2500Mhz
	Chain 2			4.77	2400-2500Mhz
	Chain 3			4.26	2400-2500Mhz
	Chain 0			5.71	5.15-5.25GHz
				5.71	5.25-5.35GHz
				6.13	5.47-5.725GHz
				6.14	5.725-5.85GHz
	Chain 1			5.81	5.15-5.25GHz
				5.77	5.25-5.35GHz
				6.78	5.47-5.725GHz
				6.40	5.725-5.85GHz
				6.28	5.15-5.25GHz
				5.69	5.25-5.35GHz
				6.31	5.47-5.725GHz
				7.09	5.725-5.85GHz
	Chain 2			6.08	5.15-5.25GHz
				6.08	5.25-5.35GHz
				6.05	5.47-5.725GHz
				7.16	5.725-5.85GHz
Chain 3					

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.



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 směrnicí 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 a 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	UK (NI)

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

In accordance with Article 3.1(a) , 3.1(b) , 3.2of 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	10
Zigbee: 2405-2480MHz	10
WLAN 2.4GHz: 2412-2472MHz	20
WLAN 5GHz: 5180-5320MHz	23
WLAN 5GHz: 5500-5700MHz	30
WLAN 6GHz: 5725-5875MHz	13.5
WLAN 6GHz: 5955-6415MHz	23

UK Conformity Assessed (UKCA) – United Kingdom

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

Frequency Range (MHz)	Max. Transmit Power (dBm)
Bluetooth: 2402-2480MHz	10
Zigbee: 2405-2480MHz	10
WLAN 2.4GHz: 2412-2472MHz	20
WLAN 5GHz: 5180-5320MHz	23
WLAN 5GHz: 5500-5700MHz	30
WLAN 6GHz: 5725-5875MHz	13.5
WLAN 6GHz: 5955-6415MHz	23

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**

Operations in the 5.15-5.35GHz band are restricted to indoor usage only

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

National Telecommunications Commission (NCC) – Taiwan

取得審驗證明之低功率射頻器材，非經核准，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。低功率射頻器材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。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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. 使用此產品時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。

本器材限用天線請見本手冊第14頁 (FAP-431G) 及第15頁 (FAP-433G)。

Agência Nacional de Telecomunicações (ANATEL) – Brazil

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

O uso deste equipamento é restrito a ambientes fechados e proibido em plataformas petrolíferas, carros, trens, embarcações e no interior de aeronaves abaixo de 3.048 m (10.000 pés).

Para maiores informações, consulte o site da ANATEL www.gov.br/anatel/pt-br/

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