

QuickStart Guide

FortiGate Rugged 70G-5G-Dual

FGR-70G-5G-DUAL

The Essentials

Secure your Network

Register at <https://support.fortinet.com> for the latest threat protection updates.

Fortinet Documents Library

For getting started documentation, admin guides, up-to-date hardware manuals and reference resources, visit <https://docs.fortinet.com/>

FortiGate Cloud

Experience simplified cloud provisioning, security analytics, remote access, hosted log retention and reporting at <https://fortigate.forticloud.com>

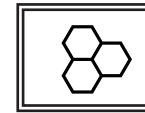
Quick Start Guide Online

Please refer to the online version for the most current and up-to-date information about your device at <https://docs.fortinet.com/document/fortigate/hardware/fortigate-rugged-70g-5g-dual-qsg>



Package Contents

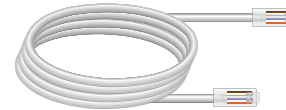
FortiGate Rugged 70G-5G-DUAL FGR-70G-5G-DUAL



1x FGR-70G-5G-DUAL



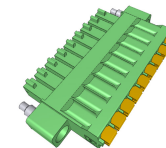
1x QuickStart Guide



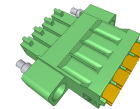
1x CAT5e Ethernet Cable



1x DIN Rail Bracket w/Screws
(4x M3×10)



1x Digital I/O Connector



1x DC Power Connector



9x Antennas
(8x WWAN, 1x GPS)

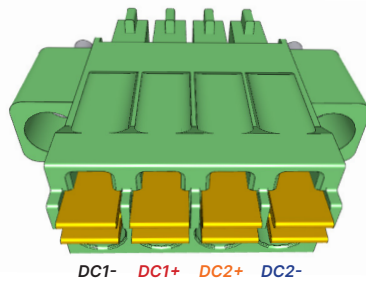
Power Installation

Warnings

- The redundant DC inputs support negative ground (+12V to +125V DC) and positive ground (-12V to -125V DC), 3A Max
- With the optional failover redundancy, if the primary DC input fails, the secondary DC input will supply power
- DC1+ and DC2+ are the higher voltage potential pins and DC1- and DC2- are the lower voltage potential pins
- Do not connect the DC+ terminal to a lower voltage potential than the DC- terminal
- The voltage between DC+ and DC- must be +12V to +125V DC
- The DC wire gauge maximum is 16 AWG; the minimum is 22 AWG
- Consult a professional electrician to install the device and determine a suitable wire gauge and length

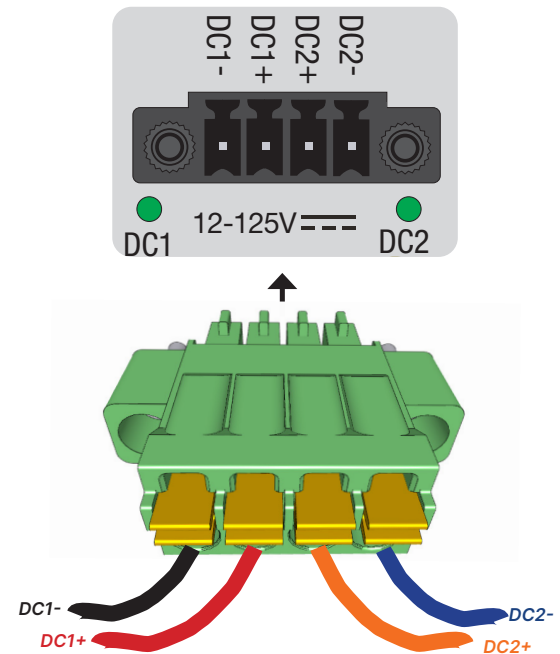
Connector Pinout

Connect DC1+ or DC2+ on the device terminal block to the DC power source, then connect the negative DC1- or DC2- on the terminal block. Terminal block does not support hot-plugging.



DC Input Power	DC+ Terminal	DC- Terminal
Negative Ground	+12V to +125V DC	Ground
Positive Ground	Ground	-12V to -125V DC

Wiring

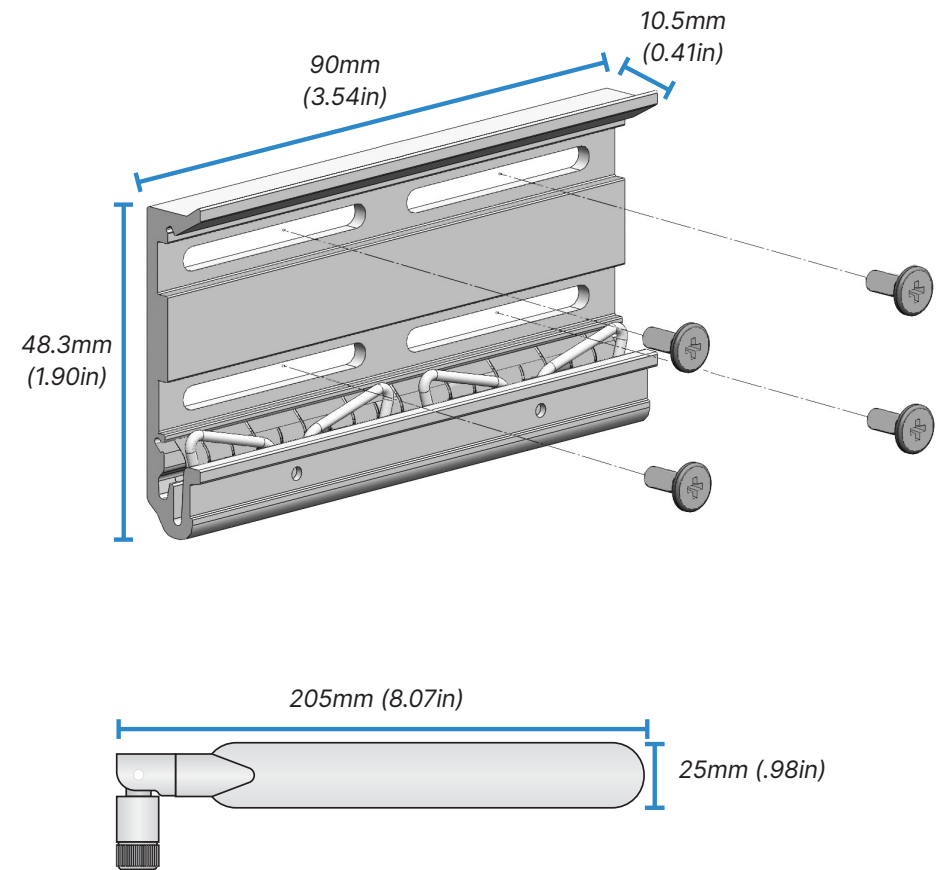
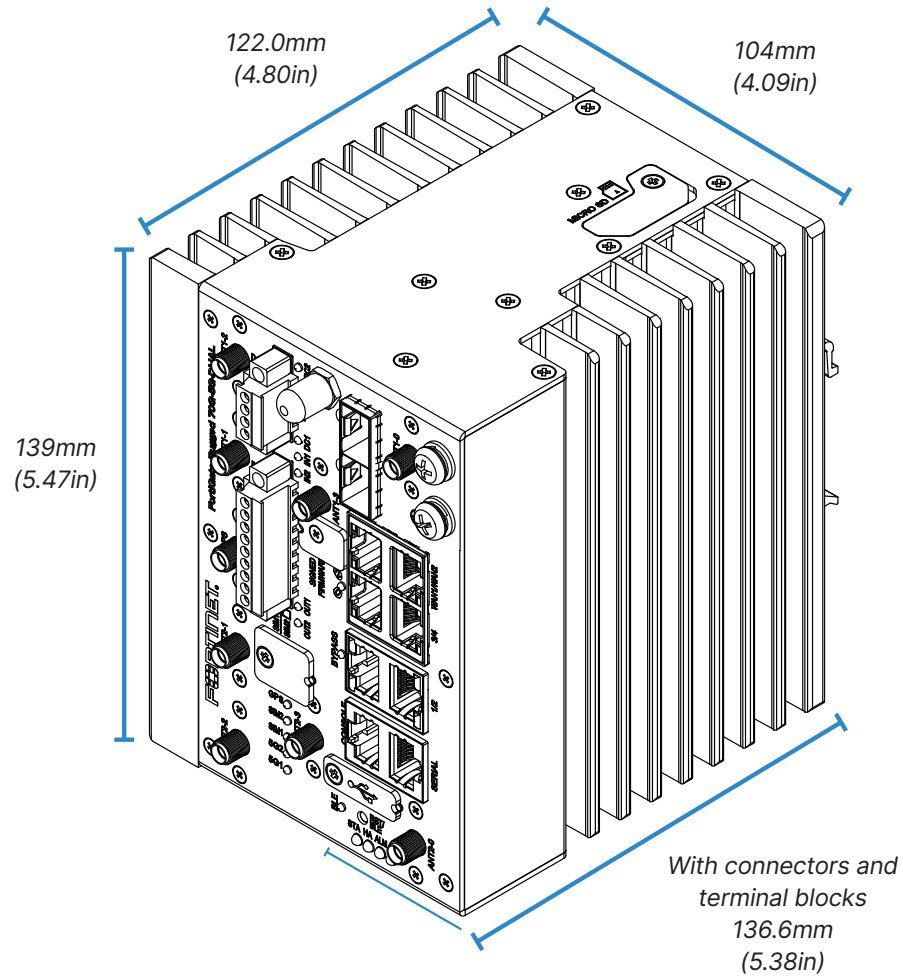


Grounding

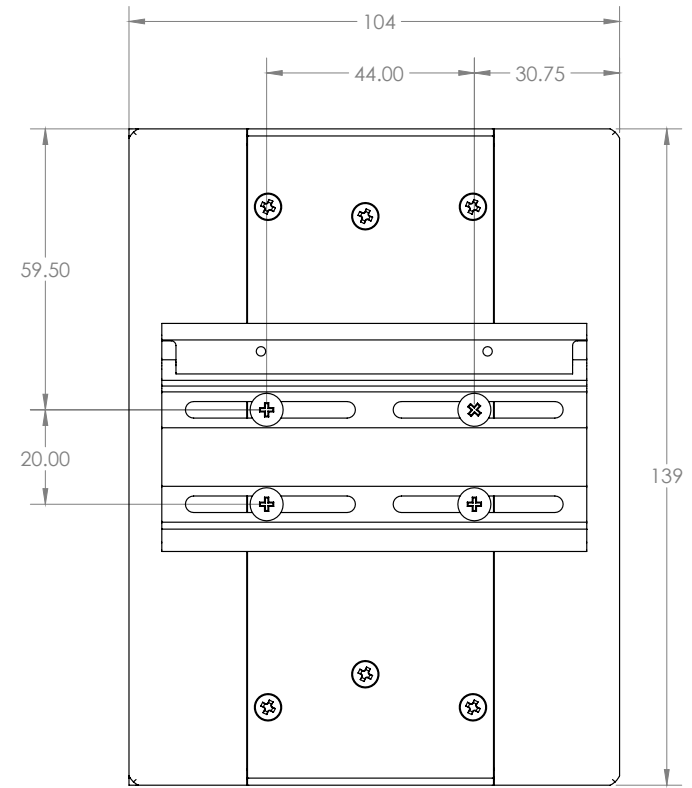
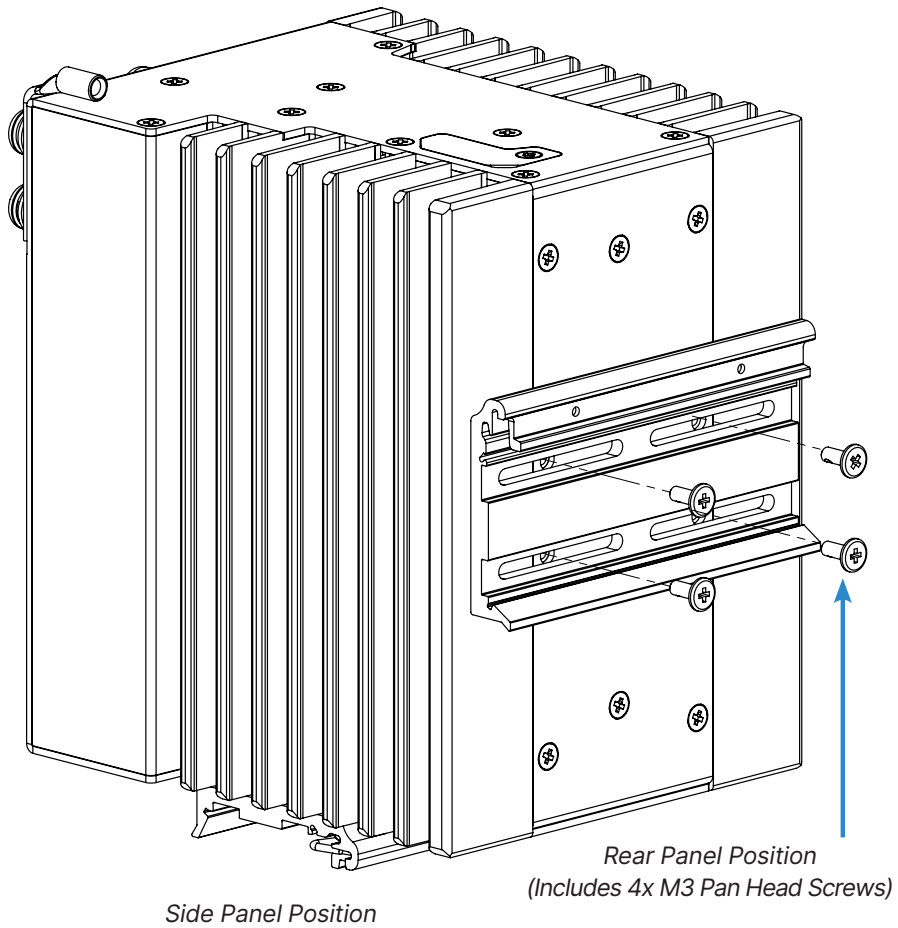
The protective earthing terminal  shall be connected with a green-and-yellow striped conductor (min 20 AWG) with a UL Listed two-hole lug (not supplied) or other UL Listed wiring terminals.

Dimensions

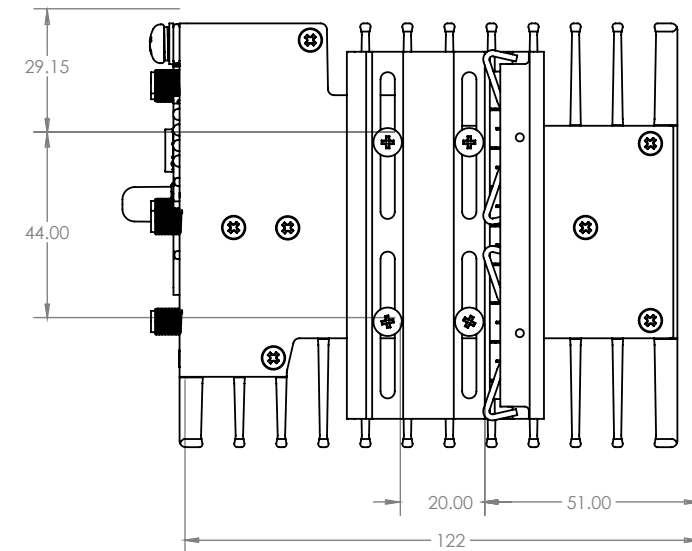
NOTE: Drawings are for dimensional purposes only. Refer to the following pages for connector details.



DIN Rail Mounting Bracket

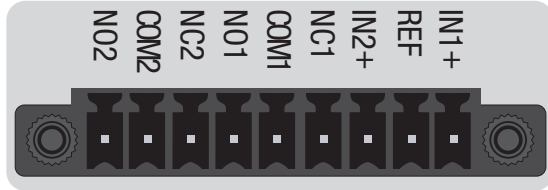


Rear Panel Position



Side Panel Position

Digital I/O Connector



Connector	Description
NO2	Normally Open 2 Terminal
COM2	Common 2 Terminal
NC2	Normally Closed 2 Terminal
NO1	Normally Open 1 Terminal
COM1	Common 1 Terminal
NC1	Normally Closed 1 Terminal
IN2+	Alarm Input 2
REF	Alarm Input 1/2 Reference Ground
IN1+	Alarm Input 1

BIOS Options

The default CPU speed is set to high performance mode. Low power mode can be set in the BIOS options. See the Admin Guide for more information at <https://docs.fortinet.com>

Dual 5G Nano SIM Slots

SIM type is 4FF - Nano SIM. Industrial SIM cards recommended for extreme temperature environments. Refer to the [datasheet](#) for supported operating temperatures. For wireless configuration, visit <https://docs.fortinet.com>



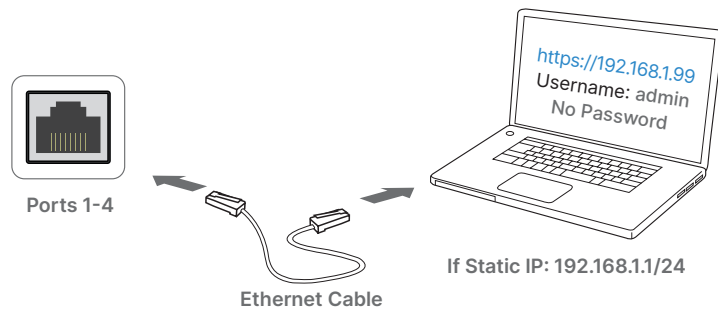
Micro SD Card Slot

Industrial SIM cards recommended for extreme temperature environments. Hot-swapping the Micro SD card is not supported. Power off the device before installing or uninstalling the Micro SD card. Micro SD card not included. Refer to the Admin Guide for SD card details at <https://docs.fortinet.com>



Setup

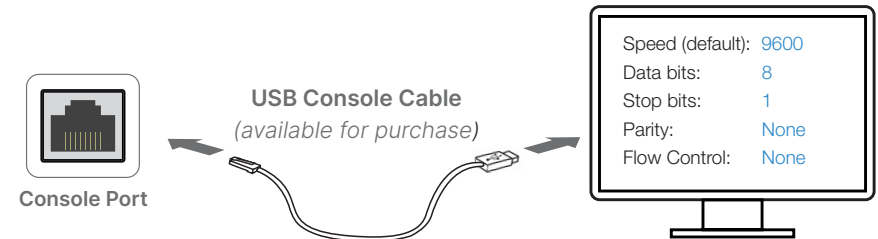
GUI



- 1 Connect Port 1 to an Ethernet port or USB-RJ45 Ethernet adapter on your computer using the provided Ethernet cable.
- 2 Open a browser to <https://192.168.1.99>

Setup

CLI



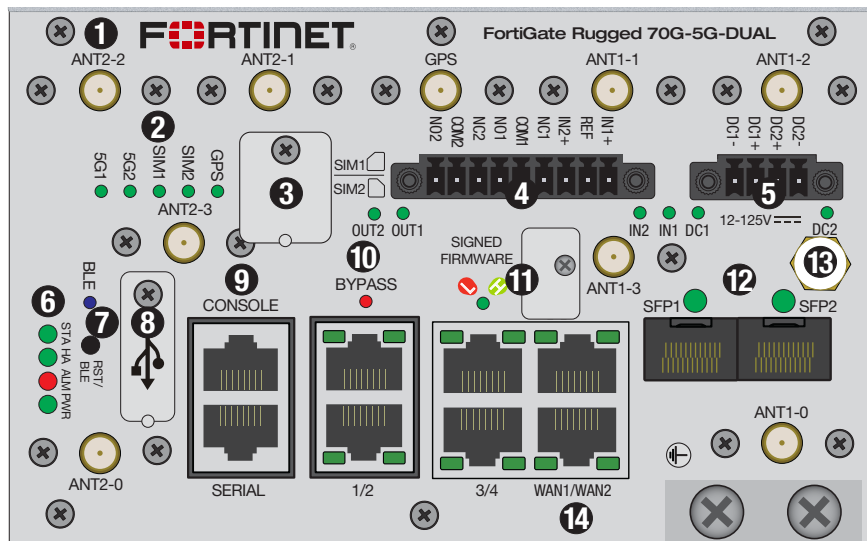
- 1 Connect a console cable (not included) to the Console Port.
- 2 Open a Terminal app using 9600-8-N-1.

Default Login



<https://192.168.1.99>
Username: admin
Password: leave blank

Front FGR-70G-5G-DUAL



1 Antenna Connector (9x SMA)

2 5G1, 5G2

- **Green:** 5G connected
- **Amber:** 4G/3G connected
- **Off:** Not connected

SIM1, SIM2

- **Green:** SIM card detected
- **Off:** SIM card not detected

GPS

- **Green:** On
- **Off:** Off

3 5G SIM slots (2x Nano 4FF)

4 Alarm Inputs (IN1, IN2)

- **Green:** Alarm defined
- **Red:** Alarm detected
- **Off:** Alarm not defined

Alarm Outputs (OUT1, OUT2)

- **Green:** Alarm defined
- **Flashing Red:** Major alarm detected
- **Red:** Minor alarm detected
- **Off:** Alarm not defined

5 Power Connectors (DC1, DC2) Alarm disabled by default

- **Green:** Power detected
- **Red:** Alarm is on; no power detected
- **Off:** No power detected

6 STA

- **Green:** Operating normally
- **Flashing Green:** Reset window
- **Off:** Device is off

HA

- **Green:** HA enabled (normal)
- **Red:** HA enabled (failover)
- **Off:** HA disabled

ALM

- **Red:** Major alarm detected
- **Amber:** Minor alarm detected
- **Off:** No alarm detected

PWR

- **Green:** Power detected
- **Off:** Power not detected

7 RST / BLE Press to enable BLE; press and hold for system reset during STA reset window

- **Blue:** BLE connected
- **Flashing Blue:** BLE in discovery
- **Off:** BLE off

8 USB 2.0 (USB-A)

9 CONSOLE (RJ45) CLI management

SERIAL (RJ45) Data port

10 Ports 1 to 4 (RJ45)

BYPASS Ports 1 & 2 only; bypass disabled by default

- **Green:** Bypass off
- **Red:** Bypass on

Speed (Left LED)

- **Green:** 1 Gbps
- **Amber:** 100 Mbps
- **Off:** 10 Mbps or not connected

Activity/Link (Right LED)

- **Green:** Link established
- **Flashing Green:** Data activity
- **Off:** No link established

11 Signed Firmware BIOS Security Level

Controlled by Signed Firmware Switch (covered), see Admin Guide at <https://docs.fortinet.com>

- **High:** Unsigned firmware blocked (default)
- **Low:** Unsigned firmware allowed with a warning

12 SFP1 & SFP2 (SFP)

- **Green:** Link established
- **Flashing Green:** Data activity
- **Off:** No link established

13 BLE Antenna

14 WAN1 (Top) & WAN2 (Bottom) (RJ45)

Speed (Left LED)

- **Green:** 1 Gbps
- **Amber:** 100 Mbps
- **Off:** 10 Mbps or not connected

Activity/Link (Right LED)

- **Green:** Link established
- **Flashing Green:** Data activity
- **Off:** No link established

Cautions and Warnings

Environmental specifications

Ambient operating temperature: -40°C to 75°C

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude).
Réferez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Warning: Equipment intended for installation in Restricted Access Location.

Avertissement: Le matériel est conçu pour être installé dans un endroit où l'accès est restreint.

Battery – Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie – Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les batteries usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

Grounding — To prevent damage to your equipment, connections that enter from outside the building should pass through a lightning / surge protector, and be properly grounded. Use an electrostatic discharge workstation (ESD) and/or wear an anti-static wrist strap while you work. In addition to the grounding terminal of the plug, on the back panel, there is another, separate terminal for earthing.

Mise à la terre — Pour éviter d'endommager votre matériel, assurez-vous que les branchements qui entrent à partir de l'extérieur du bâtiment passent par un parafoudre / parasurtenseur et sont correctement mis à la terre. Utilisez un poste de travail de décharge électrostatique (ESD) et / ou portez un bracelet anti-statique lorsque vous travaillez. Ce produit possède une borne de mise à la terre qui est prévu à l'arrière du produit, à ceci s'ajoute la mise à la terre de la prise.

This product has a separate protective earthing terminal provided on the front of the product in addition to the grounding terminal of the attachment plug. This separate protective earthing terminal must be permanently connected to earth with a green with yellow stripe conductor minimum size 20 AWG and the connection is to be installed by a qualified service personnel.

Ce produit a une borne de mise à la terre séparée située à l'devant de l'appareil, en plus de la borne de mise à la terre de la fiche de raccordement. Cette borne de mise à la terre séparée doit être connectée en permanence à la terre avec un conducteur vert avec la taille bande jaune de minimum 20 AWG et la connexion doit installée par un personnel qualifié.

Connect to NEC Class 2 power source.

Connectez-vous à une source d'alimentation NEC Classe 2.

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 A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: Any changes or modifications to this product 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 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Innovation, Science and Economic Development (ISED) – Canada

CAN ICES (A) / NMB (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique respecte les limites de classe A sur les émissions de bruit radioélectrique provenant d'un appareil numérique, telles que définies dans le Règlement sur le brouillage radioélectrique du ministère des Communications 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 soumise 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.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 21 cm between the radiator and 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 21 cm de distance entre la source de rayonnement et votre corps.

This radio transmitter IC: 7280B-21001T57 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.

Ce transmetteur radio IC: 7280B-21001T57 a été approuvé par ISED pour fonctionner avec les types d'antennes énumérés ci-dessous, chacun avec le gain maximal admissible et l'impédance d'antenne requise spécifiés pour chaque type. Les types d'antennes ne figurant pas dans cette liste, ou ayant un gain supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour une utilisation avec cet appareil.

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 (ses) antenne(s) ne doivent pas être installés ou utilisés conjointement avec une autre antenne ou un autre émetteur, sauf conformément aux procédures de produit multi-émetteurs de l'IC.

Antenna type	Connector	Gain (dBi)	Network
Monopole	I-PEX	1.53	Bluetooth

European Conformity (CE) - EU

This is a Class A 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:

Standard	Frequency Range	Max. Transmit Power
Bluetooth	2402-2480 MHz	10 dBm (EIRP)

Standard	Frequency Range	Transmit Power
WCDMA	Band 1: 1920-1980MHz(Uplink); 2110-2170MHz(Downlink) Band 8: 880-915MHz(Uplink);925-960MHz(Downlink)	24 dBm (Conducted)
LTE	Band 1: 1920-1980MHz(Uplink); 2110-2170MHz(Downlink) Band 3: 1710-1785MHz(Uplink); 1805-1880MHz(Downlink) Band 7: 2500-2570MHz(Uplink); 2620-2690MHz(Downlink) Band 8: 880-915MHz(Uplink);925-960MHz(Downlink) Band 20: 832-862MHz(Uplink); 791-821MHz(Downlink) Band 28: 703-748MHz(Uplink); 758-803MHz(Downlink) Band 34: 2010-2025MHz Band 38: 2570-2620MHz Band 40: 2300-2400MHz Band 41: 2496-2690MHz Band 42: 3400-3600MHz Band 43: 3600-3800MHz Band 41: 2496-2690MHz	24 dBm (Conducted) 27 dBm (Conducted)
5G NR	n1: 1920-1980MHz(Uplink); 2110-2170MHz(Downlink) n3: 1710-1785MHz(Uplink); 1805-1880MHz(Downlink) n7: 2500-2570MHz(Uplink); 2620-2690MHz(Downlink) n8: 880-915MHz(Uplink);925-960MHz(Downlink) n20: 832-862MHz(Uplink); 791-821MHz(Downlink) n28: 703-748MHz(Uplink); 758-803MHz(Downlink) n38: 2570-2620MHz n40: 2300-2400MHz n41: 2496-2690MHz n77: 3300-4200MHz n78: 3300-3800MHz n41: 2496-2690MHz n77: 3300-4200MHz n78: 3300-3800MHz	24 dBm (Conducted) 29 dBm (Conducted)

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

Simplified EU Declaration of Conformity

Hereby, Fortinet, declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://site.fortinet.com/ProductRegulatory/EU>.

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

Česky
Tento produkt je v souladu se směrnicí 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.

Ελληνικά
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/UE.

Latviski
Šis produkts atbilst Direktīvai 2014/53/ES.

Lietuvių
Šis gaminyss 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/EU.

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.

UK Conformity Assessed (UKCA) – United Kingdom

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

<https://site.fortinet.com/ProductRegulatory/UK>

National Telecommunications Commission (NCC) – Taiwan (IF APPLICABLE)

NCC警語
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。

減少電磁波影響，請妥適使用
電磁波曝露量MPE標準值1mW/cm²，送測產品實測值為：0.169mW/cm²，建議使用時至少距 人體 20 cm

限用物質含有情況表 (RoHS Table) 請到以下 網址下載：
<https://www.fortinet.com/bsmi>

英屬蓋曼群島商防特網股份有限公司台灣分公司
地址：台北市內湖區行愛路176號2樓
電話：(02) 27961666

Agência Nacional de Telecomunicações (ANATEL) – Brazil (IF APPLICABLE)

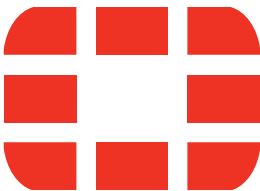
Resolução 680 – ATO 14448
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações, consulte o site da ANATEL – www.gov.br/anatel

Korea Certification (KC) – Korea (IF APPLICABLE)

A급 기기 (업무용 방송통신기자재)
이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기를 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。
V C C I — A



August 11, 2026

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