

# FortiSwitch 624F/648F Series

FS-624F, FS-624F-FPOE, FS-648F, FS-648F-FPOE

# Before you begin

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

<https://support.fortinet.com>



August 21, 2024

This guide covers models: FS-624F, FS-624F-FPOE, FS-648F, FS-648F-FPOE

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# The Essentials

## Default Logins



<https://192.168.1.99>

Username: **admin**

Password: **leave blank**

## Fortinet Documents Library

For a detailed Administration Guide, up-to-date Hardware documentation and Reference Manuals, visit <https://docs.fortinet.com/>

## Customer Service

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

## Technical Support

To access our Resource Center, Professional Services and Technical Support Services, visit <https://www.fortinet.com/support>

Thank you for choosing Fortinet

# Package Contents

## FortiSwitch 624F/648F Series

FS-624F, FS-624F-FPOE, FS-648F, FS-648F-FPOE



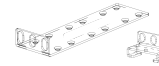
FortiSwitch Device



QuickStart Guide



1x Console Cable  
(RJ45 to USB)



2x Rack Mount Brackets  
and 2x Rail Stoppers



2x Rails w/screws  
(28x M4x5,  
2x M4x8)



4x Rubber Feet

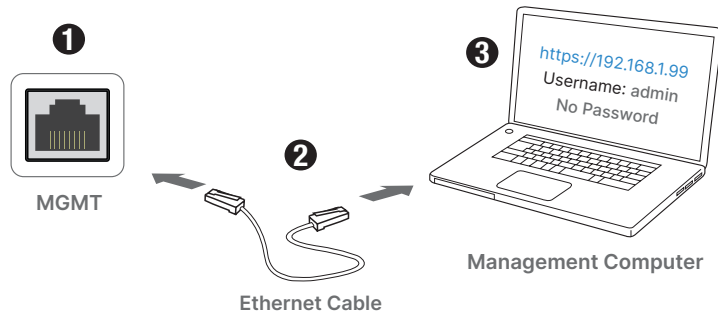


2x AC Power Cables

# Setup Options

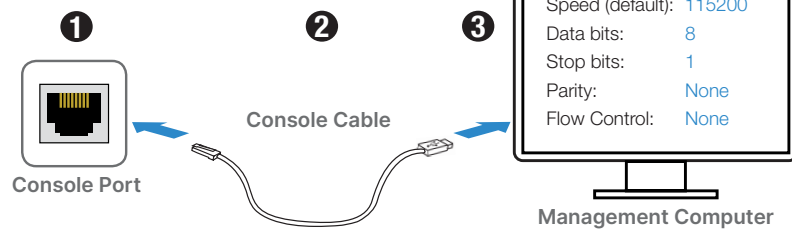
Set up your Fortinet device locally or use cloud management mode.

## GUI



**Note:** For static IP configuration, use 192.168.1.1 with subnet mask 255.255.255.0

## CLI

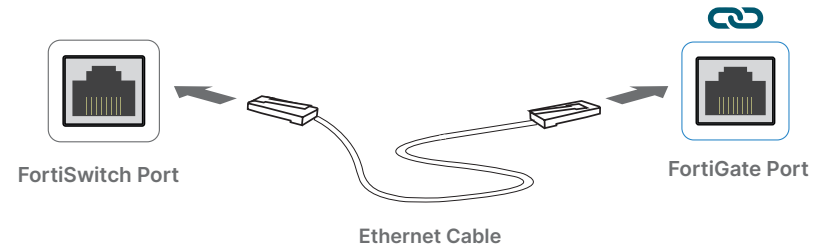


**Note:** For a detailed CLI guide, visit [docs.fortinet.com](https://docs.fortinet.com)

## Cloud Management (Connect a port to the Internet)

- 1 Visit [support.fortinet.com](https://support.fortinet.com) to register your device and cloud management license
- 2 Sign in at <https://fortilan.forticloud.com> to manage your Inventory List

## FortiLink

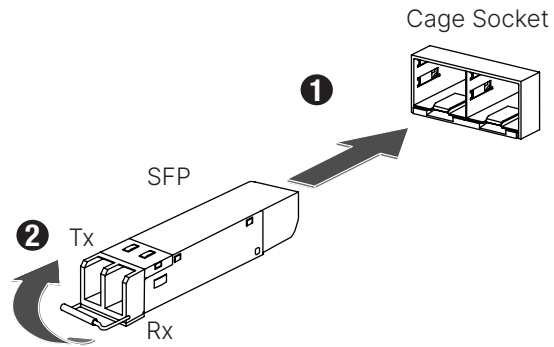


- 1 Login to the FortiGate and go to **WiFi & Switch Controller -> FortiLink Interface**
- 2 Add a **FortiGate Port** in the FortiLink interface
- 3 When the device is discovered, select **Authorize**

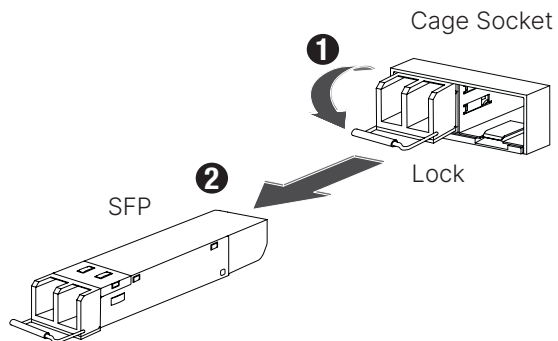
**Optional:** To automatically authorize the device upon discovery, enable "Automatically authorize devices" in the FortiLink Interface settings

# SFP Modules

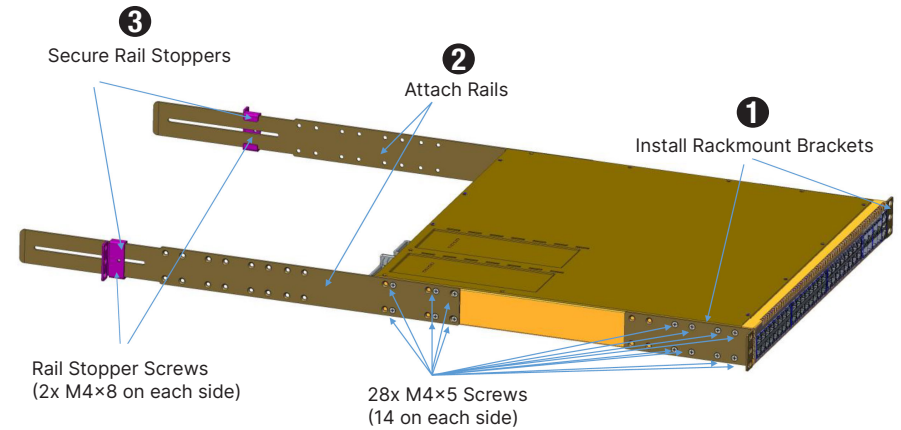
## Installation



## Removal



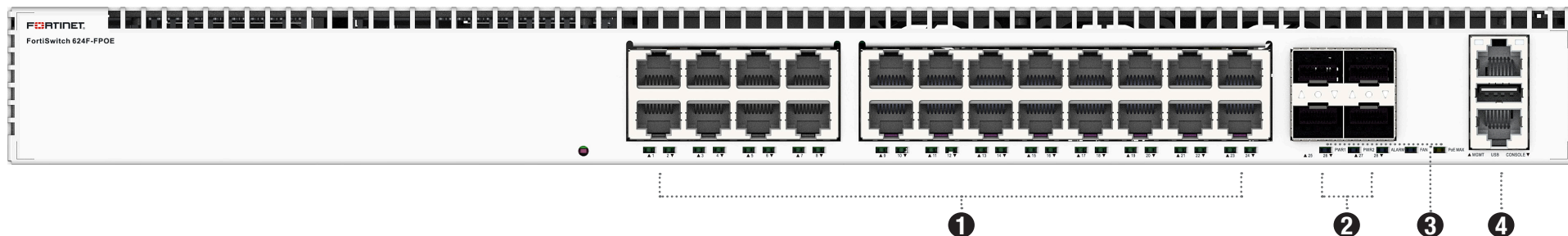
# Rail Installation



**Note:** The recommended clearance is 1.5 inches above and below the device.

**Caution:** To avoid personal injury or damage to the device, it is recommended that two or more people mount the device on a rack.

# Front FS-624F /-FPOE



## 1 Ports 1 to 24 (RJ45)

- **Green:** Link established at 5Gbps
- ⚡ **Flashing Green:** 5Gbps data activity
- **Blue:** Link established at 2.5Gbps
- ⚡ **Flashing Blue:** 2.5Gbps data activity
- **Amber:** Link established at 1000/100/10Mbps
- ⚡ **Flashing Amber:** 1000/100/10Mbps data activity
- **Off:** No link established

### POE Ports 1 to 24 (RJ45) *FPOE models only*

- **Amber:** Powering a device
- **Off:** Not powering a device

## 2 Ports 25 to 28 (SFP28)

- ▼ **Green:** Link established at 25Gbps
- ⚡ **Flashing Green:** Data activity
- ▼ **Amber:** Link established at 10Gbps
- ⚡ **Flashing Amber:** Data activity
- ▼ **Off:** No link established

**Note:** For FPOE models, the default port LED indicates port activity. Use the CLI to set `port-led-mode` to PoE to indicate the port PoE status.

## 3 PWR1

- **Green:** Power is on
- **Amber:** PSU detected, but no AC power
- **Off:** PSU removed

### PWR2

- **Green:** Power is on
- **Amber:** PSU detected, but no AC power
- **Off:** PSU removed

### ALARM

- **Amber:** Alarm detected
- **Off:** No alarm detected

### FAN

- **Green:** Fan operating normally
- **Amber:** Fan alarm detected
- **Off:** Fan is off

### PoE Max (up to 1440W) *FPOE models only*

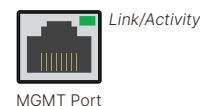
- **Amber:** Providing Max PoE power
- **Off:** PoE power available

## 4 MGMT (RJ45) default IP 192.168.1.99

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

**USB (USB A)** USB 2.0 server port

**Console (RJ45)** CLI management port

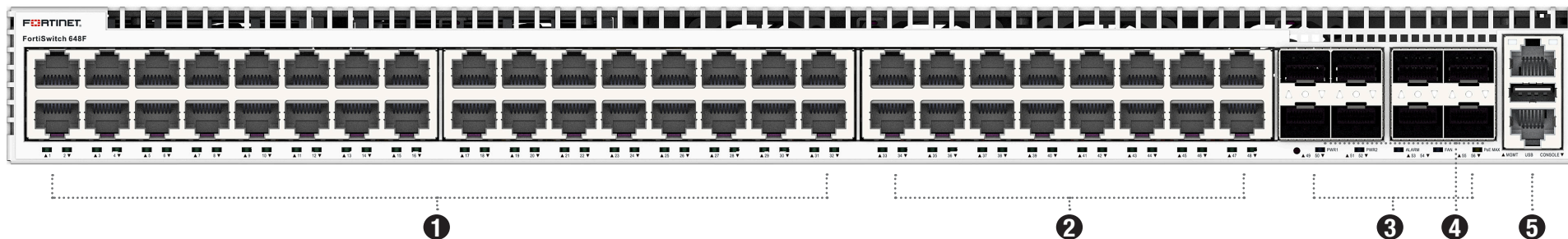


## Rear FS-624F /-FPOE



- 1 1PPS IN/OUT (SMB) Pulse per second synchronization ports**
- 2 Redundant Power Supplies (System Rated per PSU)**
  - FS-624F: 100-240VAC, 3A Max, 50-60Hz
  - FS-624F-FPOE: 100-127VAC, 12A Max or 200-240VAC, 6A Max, 50-60Hz

# Front FS-648F /-FPOE



## 1 Ports 1 to 32 (RJ45)

- **Green:** Link established at 2.5Gbps
- ⚡ **Flashing Green:** 2.5Gbps data activity
- **Amber:** Link established at 1000/100/10Mbps
- ⚡ **Flashing Amber:** 1000/100/10Mbps data activity
- **Off:** No link established

## 2 Ports 33 to 48 (RJ45)

- **Green:** Link established at 5Gbps
- ⚡ **Flashing Green:** 5Gbps data activity
- **Blue:** Link established at 2.5Gbps
- ⚡ **Flashing Blue:** 2.5Gbps data activity
- **Amber:** Link established at 1000/100/10Mbps
- ⚡ **Flashing Amber:** 1000/100/10Mbps data activity
- **Off:** No link established

### POE Ports 1 to 48 (RJ45) *FPOE models only*

- **Amber:** Powering a device
- **Off:** Not powering a device

## 3 Ports 49 to 56 (SFP28)

- ▼ **Green:** Link established at 25Gbps
- ⚡ **Flashing Green:** Data activity
- ▼ **Amber:** Link established at 10Gbps
- ⚡ **Flashing Amber:** Data activity
- ▼ **Off:** No link established

## 4 PWR1

- **Green:** Power is on
- **Amber:** PSU detected, but no AC power
- **Off:** PSU removed

### PWR2

- **Green:** Power is on
- **Amber:** PSU detected, but no AC power
- **Off:** PSU removed

### ALARM

- **Amber:** Alarm detected
- **Off:** No alarm detected

### FAN

- **Green:** Fan operating normally
- **Amber:** Fan alarm detected
- **Off:** Fan is off

### PoE Max (up to 1800W) *FPOE models only*

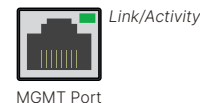
- **Amber:** Providing Max PoE power
- **Off:** PoE power available

## 5 MGMT (RJ45) default IP 192.168.1.99

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

### USB (USB A) USB 2.0 server port

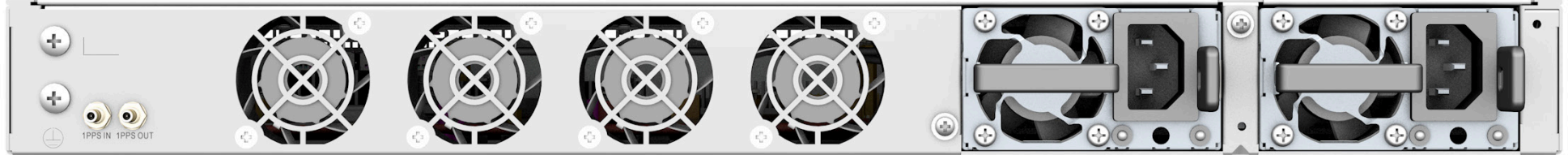
### Console (RJ45) CLI management port



**Note:** For FPOE models, the default port LED indicates port activity. Use the CLI to *set port-led-mode* to PoE to indicate the port PoE status.



## Rear FS-648F /-FPOE



1

- 1 1PPS IN/OUT (SMB) Pulse per second synchronization ports

- 2 Redundant Power Supplies (System Rated per PSU)

FS-648F: 100-240VAC, 3A Max, 50-60Hz

FS-648F-FPOE: 100-127VAC, 12A Max or 200-240VAC, 6A Max, 50-60Hz

2

## Cautions and Warnings

### Environmental specifications

Ambient operating temperature: 0°C to 45°C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

**Elevated Operating Ambient** - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.

**Température ambiante élevée** - S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (T<sub>ma</sub>) stipulée par le fabricant.

**Reduced Air Flow** - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

**Ventilation réduite** - Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

**Mechanical Loading** - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

**Chargement Mécanique** - Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas liée à un chargement mécanique inégal.

**Circuit Overloading** - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

**Surtenstion** - Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

**Reliable Earthing** - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

**Fiabilité de la mise à la terre** - Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

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

**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 piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告  
本電池如果更換不正確會有爆炸的危險  
請依製造商說明書處理用過之電池

#### CAUTION:

There is a danger of explosion if a battery is incorrect replaced. Replace only with the same or equivalent type.

Dispose batteries of according to the manufacturer's instructions.

Disposing a battery into fire, a hot oven, mechanically crushing, or cutting it can result in an explosion.

Leaving a battery in an extremely hot environment can result in leakage of flammable liquid, gas, or an explosion.

If a battery is subjected to extremely low air pressure, it may result in leakage of flammable liquid, gas, or an explosion.

#### WARNING:

Lithium-Batterie Achtung: Explosionsgefahr bei fehlerhafter Batteriewechsel. Ersetzen Sie nur den gleichen oder gleichwertigen Typ. Batterien gemäß den Anweisungen des Herstellers entsorgen.

Beseitigung einer BATTERIE in Feuer oder einen heißen Ofen oder mechanisches Zerkleinern oder Schneiden einer BATTERIE, die zu einer EXPLOSION führen kann

Verlassen einer BATTERIE in einer extrem hohen Umgebungstemperatur, die zu einer EXPLOSION oder zum Austreten von brennbarer Flüssigkeit oder Gas führen kann

Eine BATTERIE, die einem extrem niedrigen Luftdruck ausgesetzt ist, der zu einer EXPLOSION oder zum Austreten von brennbarer Flüssigkeit oder Gas führen kann.

**Caution:** This equipment is to be used in a Network Environment 0 per IEC/EN 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 IEC/EN 62101. Ce produit est uniquement connecté aux réseaux PoE sans installation externe de routage.

**CAUTION:** Shock Hazard. Disconnect all power sources.

**ATTENTION:** Risque d'électrocution. Débranchez toutes les sources d'alimentation.

**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 back 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 # 14 AWG and the connection is to be installed by a qualified service personnel.

Ce produit a une borne de mise à la terre séparé sur le dos 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 connecté en permanence à la terre avec un conducteur vert avec la taille bande jaune de minimum # 14 AWG et la connexion doit être installée par un personnel qualifié.

**Caution:** Slide/rail mounted equipment is not to be used as a shelf or a work space.

**Attention:** Un équipement monté sur bâti ne doit pas être utilisé sur une étagère ou dans un espace de travail.

Warning: Stability hazard.

Aviso: Perigo de estabilidade.

The rack may tip over causing serious personal injury.

O rack pode tombar causando ferimentos graves.

Before extending the rack to the installation position, read the installation instructions.

Antes de estender o rack para a posição de instalação, leia as instruções de instalação.

Do not put any load on the slide-rail mounted equipment in the installation position.

Não coloque nenhuma carga no equipamento montado em trilho deslizante na posição de instalação.

Do not leave the slide-rail mounted equipment in the installation position.

Não deixe o equipamento montado em trilho deslizante na posição de instalação.

Laser Class 1 optical transceiver shall be used only

L'émetteur-récepteur optique de classe 1 laser doit être utilisé uniquement

IEC 60825-1:2014 transfer to FDA/CDRH Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed.3., as described in Laser Notice No. 56, dated May 8, 2019.

IEC 60825-1:2014 transfer to la FDA/CDRH Conforme aux normes de performance de la FDA pour les produits laser, à l'exception de la conformité à la norme IEC 60825-1 Ed.3., comme décrit dans l'avis laser n° 56, daté du 8 mai 2019.

The SFP ports should use UL Listed Optional Transceiver product, Rated 3.3Vdc, Laser Class 1.

Les ports SFP doivent utiliser un produit émetteur-récepteur en option répertorié UL, 3,3 Vdc, classe laser 1.

Fiber optic transceiver must be rated 3.3V, 22mA max, Laser Class 1, UL certified component.

Le transceiver optique doit avoir les valeurs nominales de 3.3 V, maximum 22 mA, Laser Class 1, homologué UL

This product is intended to be supplied by means of a power cord connected to a socket-outlet with earthing connection.

Ce produit est destiné à être alimenté au moyen d'un cordon d'alimentation relié à une prise de courant avec mise à la terre.

**Warning:** Class I Equipment. This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet. An improperly wired socket outlet could place hazardous voltage on accessible metal parts.

**Avertissement:** Equipement de classe I. Cet équipement doit être mis à la terre. La fiche d'alimentation doit être connectée à une prise de terre correctement câblée.

Une prise de courant mal câblée pourrait placer une tension dangereuse sur les pièces métalliques accessibles.

**Warning:** All Ethernet cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.

**Avertissement:** Tous les câbles Ethernet sont conçus pour une connexion intra-bâtiment à d'autres équipements. Ne connectez pas ces ports directement au câblage de communication ou à tout autre câblage qui sort du bâtiment où se trouve l'appareil.

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

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

CAN ICES-003 (A) / NMB-003 (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 n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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.



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

Product Safety Electrical Appliance & Material (PSE) – Japan

日本では電気用品安全法 (PSE) の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

The presence conditions of the restricted substance (BSMI RoHS table) are available at the link below:  
限用物質含有情況表 (RoHS Table) 請到以下 網址下載:  
<https://www.fortinet.com/bsmi>

警告： 為避免電磁干擾，本產品不應安裝或使用於住宅環境。

請仔細閱讀以下說明  
本設備勿置於潮濕處。  
連接至電源前，請先檢查電壓。  
當設備不用時，請將所有電源線拔除，避免電壓不穩而造成傷害。  
勿將任何液體灑入設備中，避免線路短路。  
基於安全理由，只有受到專業訓練的從業人員，才可以打開本設備。  
請勿自行調整或修理已通電的設備，以確保您的安全。  
如不小心受傷，請立刻找急救人員給予您適當的救護，千萬別因傷勢輕微而忽略自己的傷勢。

請依照台灣法規處置電池。  
若不正確替換電池可能導致爆炸危險，替換電池時，請使用設備生產商推薦使用的電池。  
請勿拆卸、刺穿或以其他方式損壞電池。

雷射設備非用戶維修設備，請與生產商聯繫維修事宜。

注意：要斷開電源，請將所有電源線從本機上拔下

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

China

警告：在居住环境中，运行此设备可能会造成无线电干扰。

For models FS-624F-FPOE and FS-648F-FPOE  
Agência Nacional de Telecomunicações (ANATEL) – Brazil

CISPR 22  
Este produto não é apropriado para uso em ambientes domésticos, pois poderá causar interferências eletromagnéticas que obrigam o usuário a tomar medidas necessárias para minimizar estas interferências.



