Regulatory Compliance

This chapter contains the following sections:

Related Documentation

The following are the various locations containing important information:

- Cisco.com: www.cisco.com
- Warranty Information: www.cisco-warrantyfinder.com

- Cisco Information Packet, consisting of Cisco Limited Warranty, Disclaimer of Warranty, End User License Agreement, and United States Federal Communications Commission Notice: www.cisco.com/en/US/docs/general/warranty/English/SL3DEN.html
- Cisco Marketplace: www.cisco.com/pcgi-bin/marketplace/welcome.pl
- Cisco Product Documentation: www.cisco.com/go/techdocs
- Cisco Support: www.cisco.com/cisco/web/support/index.html

Installation Warning and Caution Statements

Caution The equipment shall only be used in an area of at least pollution degree 2 as defined by EN 600079-0. In addition, the Equipment shall be installed in a certified enclosure that provides a degree of protection not less than IP 54 in accordance with EN IEC 60079-0 (for ATEX) or UL 60079-0 (for US Zones) and is accessible by a tool only.

Caution When installed in a Class 1, Division 2 hazardous locations environment, equipment shall be installed in an enclosure suitable for the area. The enclosure shall be accessible by tool only. Note the two scenarios that follow:

1. **Installation with the IP54 Kit:** The equipment must be professionally installed in location meeting class 1 / div 2 requirements
2. **Installation without the IP54 Kit:** In this case, the equipment is IP40 rated. IP40 requires the customer to install the equipment in a suitable enclosure/cabinet accessible only by tool.

Caution Airflow around the router must be unrestricted. The dimensions (height x width x depth) are 7.70 x 11 x 1.73 in. (19.6 x 27.9 x 4.39 cm). To prevent the router from overheating, there must be a minimum of 1.0 in. (25.4 mm) around all surfaces of the router.Contact your Cisco Technical Assistance Centre (TAC) if tighter spacing is required.

Warning In order to comply with FCC radio frequency (RF) exposure limits, antennas for this product should be located a minimum of 11.8 in. (30 cm) or more from the body of all persons. **Statement 332**

Warning This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. **Statement 1017**

Warning To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 140°F (60°C). **Statement 1047**

Warning Use twisted-pair supply wires suitable for 86°F (30°C) above surrounding ambient temperature outside the enclosure.**Statement 1067**

Warning Avoid using or servicing any equipment that has outdoor connections during an electrical storm. There may be a risk of electric shock from lightning.**Statement 1088**

Attention This product is a class A device for FCC compliance. Any mention of a class B compliance rating does not indicate this product meets those guidelines.

Note This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or only nonhazardous locations.

Note This equipment is rated as follows- DC Input Voltage: Maximum Operating Range: 9.6V to 32VDC; Nominal: 12/24 VDC.

Note This product is 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, C22.1. You should not install the power supply or power injector in air-handling spaces.

Note The maximum ambient operating temperature range is –40 to 140°F (–40 to 60°C).

Hazardous Locations Standards and Marking Strings

The following standards were used for the hazardous locations approvals and certifications:

- CSA C22.2 No. 60079-0:19, 4th Ed., Issued 2019-0
- CAN/CSA-C22.2 No. 60079-7:16, 2nd Ed., Issued 2016-10
- CSA C22.2 No. 213-17, 3rd Ed., Rev. 2019-08-26
- EN IEC 60079-0:2018 EN IEC 60079-7: 2015 +A1:2018
- EN IEC 60079-7: 2015 +A1:2018
- UL 121201, 9th Ed., Rev. 2019-08-26

- UL 60079-0 ,7th Ed., Rev. 2020-04-15
- UL 60079-7 5th Ed. Rev. 2017-04-21

The following hazardous locations strings are provided on the router:

- Class 1, Div 2, Groups A B C D
- Class I, Zone 2, AEx ec IIC T4 Gc
- UL 21 ATEX 2512X
- Ex ec IIC T4 Gc

EMC Information

For EMC and safety information, see the Regulatory Compliance and Safety Information for Cisco IoT Series Routers document.

Class A Notice for FCC

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In such an event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

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. 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 device operates in the : 5150-5250, 5250-5350, 5470-5725, and 5725-5850 MHz bands and may be operated indoor or outdoors per FCC guidance.

Caution The Part 15 radio device operates on a noninterference basis with other devices operating at this frequency when using the integrated antennas. Any changes or modification to the product not expressly approved by Cisco could void the user's authority to operate this device.

Caution Within the 5.15 to 5.25-GHz and 5.47 to 5.725-GHz bands, this device is restricted to indoor operations to reduce any potential for harmful interference to cochannel Mobile Satellite System (MSS) operations.

Industry Canada

Canadian Compliance Statement

Cisco® Catalyst IR1800 Rugged Series Router

Cisco® IR1800 Industrial Integrated Services Router PIDS

- IR1821
- IR1831
- IR1833
- IR1835

Industry Canada Certification Number

- 2461A-WPWIFI6

This Class A Digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment Regulations.

This device complies with Class A Limits of Industry Canada. 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.

Cisco® Catalyst IR1800 Rugged Series Router are certified to the requirements of RSS-247. The use of this device in a system operating either partially or completely outdoors may require the user to obtain a license for the system according to the Canadian regulations. For further information, contact your local Industry Canada office.

This device has been designed to operate with antennas having a maximum gain of 8 dBi. Antennas having a gain greater than 8 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotopically radiated power (EIRP) is not more than that permitted for successful communication.

Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Users are advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

European Community, Switzerland, Norway, Iceland, and Liechtenstein

Cisco® Catalyst IR1800 Rugged Series Router PIDS.

- IR1821
- IR1831
- IR1833
- IR1835

Declaration of Conformity with Regard to R-ED Directive 2014/53/EU

The following standards are applied:

- ETSI EN 301 489-1 V2.2.3; EN 301 489 - 17 v3.2.4
- Draft ETSI EN 301 489-19 V2.2.0 (2020-09)
- Draft ETSI EN 301 489-52 V1.1.2
- Health & Safety-EN 62368-1; EN 50835:2017
- Radio-EN 300 328 v2.2.2; EN 301 893 v 2.1.1 , EN 62311:2019

The conformity assessment procedure referred to in Article 10.4 and Annex III of Directive 2014/53/EU has been followed.

Note This equipment is intended to be used in all EU and EFTA countries. Outdoor use may be restricted to certain frequencies or may require a license for operation or both. For more details, contact the Cisco Corporate Compliance team.

The product carries the CE mark:

Declaration of Conformity for RF Exposure

This section contains information on compliance, with guidelines related to RF exposure.

RF Exposure

Cisco products are designed to comply with the following national and international standards on human exposure to RF:

- US 47 Code of Federal Regulations Part 2 Subpart J

- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers / IEEE C 95.1
- International Commission on Non Ionizing Radiation Protection (ICNIRP)
- Ministry of Health (Canada) Safety Code 6. Limits on Human Exposure to Radio Frequency Fields in the range from 3kHz to 300 GHz
- Australia Radiation Protection Standard

Note To ensure compliance with various national and international Electromagnetic Field (EMF) standards, the system should only be operated with Cisco-approved antennas and accessories.

This Device Meets International Guidelines for Exposure to Radio Waves

The IR1800 Series device includes a radio transmitter and receiver. It is designed to not exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organization (ICNIRP) and include a substantial safety margin designed to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated as to avoid contact with the antennas by the end user. We recommended that you set the system in a location where the antennas can remain at least at a minimum distance, as specified, from a user in accordance with the regulatory guidelines that are designed to reduce the overall exposure to a user or operator.

The World Health Organization has stated that present scientific information does not indicate the need for any special precautions for the use of wireless devices. They recommend that if you are interested in further reducing your exposure, then you can easily do so by reorienting antennas away from users, or by placing he antennas at a greater distance than recommended.

This Device Meets FCC Guidelines for Exposure to Radio Waves

The IR1800 Series device includes a radio transmitter and receiver. It is designed to not exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in FCC Part 1.1310. The guidelines are based on IEEE ANSI C 95.1 and include a substantial safety margin designed to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated so as to avoid contact with the antennas by the end user. We recommend that you set the system in a location where the antennas can remain at least at a minimum distance, as specified, from a user in accordance with the regulatory guidelines that are designed to reduce the overall exposure to a user or operator.

The device has been tested and found compliant with the applicable regulations as part of the radio certification process.

The U.S. Food and Drug Administration has stated that present scientific information does not indicate the need for any special precautions for the use of wireless devices. The FCC recommends that if you are interested in further reducing your exposure, you can easily do so by reorienting antennas away from users, or by placing the antennas at a greater distance than recommended, or by lowering the transmitter power output.

Note As per FCC ECFR 2.1091 and 2.1093 exempt criteria, single transmissions are exempted from the RF Exposure calculation. The calculation consideres 100 percent of the duty cycle for all simultaneous transmission technology. The RF Exposure Calculation is done without compensating cable and connector losses. The RF Exposure calculation is performed with the highest supported antenna gain.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator and your body.

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.

This Device Meets the Industry Canada Guidelines for Exposure to Radio Waves

The IR1800 Series includes a radio transmitter and receiver. It is designed to not exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in Health Canada Safety Code 6. The guidelines include a substantial safety margin designed into the limit to ensure the safety of all persons, regardless of age and health.

As such the systems are designed to be operated so as to avoid contact with the antennas by the end user. We recommend that you set the system in a location where the antennas can remain at leastat a minimum distance, as specified, from a user in accordance with the regulatory guidelines that are designed to reduce the overall exposure to a user or operator.

Separation Distance		
MPE	Distance	Limit
1.1 mW/Cm2 with Simultaneous Transmission of Dual Cellular Modem, 2.4-GHz Wi-Fi and 5-GHz Wi-Fi.	30 cm (11.8 inches)	1.00 mW/cm2

Note Health Canada states that present scientific information does not indicate the need for any special precautions for the use of wireless devices. They recommend that if you are interested in further reducing your exposure, you can easily do so by reorienting antennas away from users by placing the antennas at a greater distance than recommended, or by lowering the transmitter power output.

ISED Radiation Exposure Statement

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 30cm de distance entre la source de rayonnement et votre corps

Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

CAN ICES-3 (A)/NMB-3(A)

The Country Code Selection feature is disabled for products marketed in the US/Canada.

Additional Information on RF Exposure

You can find additional information on RF exposure in the following links:

- FCC Bulletin 56: Questions and Answers about Biological Effects and Potential Hazards of Radio Frequency Electromagnetic Fields
- FCC Bulletin 65: Evaluating Compliance with the FCC guidelines for Human Exposure to Radio Frequency Electromagnetic Fields
- FCC Bulletin 65C (01-01): Evaluating Compliance with the FCC guidelines for Human Exposure to Radio Frequency Electromagnetic Fields: Additional Information for Evaluating Compliance for Mobile and Portable Devices with FCC limits for Human Exposure to Radio Frequency Emission

You can obtain additional information from the following organizations:

- World Health Organization Internal Commission on Non-Ionizing Radiation Protection at this URL: https://www.icnirp.org
- United Kingdom, Wi-fi radio waves and health at this URL: https://www.gov.uk/government/publications/wireless-networks-wi-fi-radio-waves-and-health/wi-fi-radio-waves-and-health
- Cellular Telecommunications Association at this URL: https://www.ctia.org/
- The Mobile Manufacturers Forum at this URL: https://www.mwfai.org/

EMC Class A Notices and Warnings

Statement 340—Class A Warning for CISPR32

Danger Warnung	**Danger** Dies ist ein Produkt der Klasse A. Bei der Verwendung dieses Produkts im Haus- oder Wohnungsbereich kann es zu Funkstörungen kommen. In diesem Fall muss der Benutzer u. U. angemessene Maßnahmen ergreifen.

Declaration of Conformity with Regard to EU Directive 2014/53/EU

The information in this document is applicable to the Cisco IR1800 Series wireless LAN products.

The equipment operates in the 2400 to 2483.5 MHz, the 5150 to 5350 MHz, and the 5470 to 5725 MHz frequency range.

The WP-WIFI6 module supports only 2400 to 2483.5 and 5470 to 5725 MHz.

National regulations may require operations to be limited to portions of the frequency ranges identified above or at reduced power levels, or both. See the National Restrictions section for complete details.

This declaration is only valid for configurations (combinations of software, firmware and hardware), provided or supported by Cisco Systems for use within the EU or countries that have implemented the EU directives. The use of software or firmware not supported or provided by Cisco Systems may result in the equipment not being compliant with the regulatory requirements.

Table 1: Country Statements

Country	Statement
Български [Bulgarian]	Това оборудване отговаря на съществените изисквания и приложими клаузи на Директива 2014/53/EC.
Česky [Czech]:	Toto zařízení je v souladu se základními požadavky a ostatními odpovídajícími ustanoveními Směrnice 2014/53/EU.
Dansk [Danish]:	Dette udstyr er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i Direktiv 2014/53/EU.
Deutsch [German]:	Dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 2014/53/EU.
Eesti [Estonian]:	See seade vastab direktiivi 2014/53/EL olulistele nõuetele ja teistele asjakohastele sätetele.
English:	This equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Español [Spanish]:	Este equipo cumple con los requisitos esenciales asi como con otras disposiciones de la Directiva 2014/53/UE.
Ελληνική [Greek]:	Αυτός ο εξοπλισμός είναι σε συμμόρφωση με τις ουσιώδεις απαιτήσεις και άλλες σχετικές διατάξεις της Οδηγίας 2014/53/EE.
Français [French]:	Cet appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive 2014/53/UE.
Hrvatski:[Croatian]	Ova oprema je u sukladnosti s bitnim zahtjevima i drugim relevantnim odredbama Direktive 2014/53/EU

Country	Statement
Íslenska [Icelandic]:	Þetta tæki er samkvæmt grunnkröfum og öðrum viðeigandi ákvæðum Tilskipunar 2014/53/EU.
Italiano [Italian]:	Questo apparato é conforme ai requisiti essenziali ed agli altri principi sanciti dalla Direttiva 2014/53/UE.
Latviski [Latvian]:	Šī iekārta atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]:	Šis įrenginys tenkina 2014/53/ES Direktyvos esminius reikalavimus ir kitas šios direktyvos nuostatas.
Nederlands [Dutch]:	Dit apparaat voldoet aan de essentiele eisen en andere van toepassing zijnde bepalingen van de Richtlijn 2014/53/EU.
Malti [Maltese]:	Dan l-apparat huwa konformi mal-ħtiġiet essenzjali u l-provedimenti l-oħra rilevanti tad-Direttiva 2014/53/UE.
Magyar [Hungarian]:	Ez a készülék teljesíti az alapvető követelményeket és más 2014/53/EU irányelvben meghatározott vonatkozó rendelkezéseket.
Norsk [Norwegian]:	Dette utstyret er i samsvar med de grunnleggende krav og andre relevante bestemmelser i EU-direktiv 2014/53/EU.
Polski [Polish]:	Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE: 2014/53/UE.
Português [Portuguese]:	Este equipamento está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 2014/53/UE.
Română [Romanian]	Acest echipament este in conformitate cu cerintele esentiale si cu alte prevederi relevante ale Directivei 2014/53/EU.
Slovensko [Slovenian]:	Ta naprava je skladna z bistvenimi zahtevami in ostalimi relevantnimi pogoji Direktive 2014/53/UE.
Slovensky [Slovak]:	Toto zariadenie je v zhode so základnými požiadavkami a inými príslušnými nariadeniami direktív: 2014/53/EÚ.
Suomi [Finnish]:	Tämä laite täyttää direktiivin 2014/53/EU olennaiset vaatimukset ja on siinä asetettujen muiden laitetta koskevien määräysten mukainen.
Svenska [Swedish]:	Denna utrustning är i överensstämmelse med de väsentliga kraven och andra relevanta bestämmelser i Direktiv 2014/53/EU.
Türk [Turkish]	Bu cihaz 2014/53/EU Direktifi'nin temel gereklerine ve ilgili diğer hükümlerine uygundur.

National Restrictions

In the EU and other European countries, the 2.4-GHz and 5-GHz bands have been made available for use by wireless LANs.

The IR1800 Series is intended for outdoor usage.

Note Products that can operate in the 5150 to 5350-MHz frequency band are restricted to indoor use only.

The following sections identify the countries having additional requirements or restrictions.

Denmark

In Denmark, the band 5150 to 5350 MHz is also allowed for outdoor usage.

I Danmark må frekvensbåndet 5150 - 5350 også anvendes udendørs.

Italy

This product meets the National Radio Interface and the requirements specified in the National Frequency Allocation Table for Italy. Unless this wireless LAN product is operating within the boundaries of the owner's property, its use requires a "general authorization". For details, see:

http://www.mise.gov.it/index.php/it/comunicazioni

Questo prodotto è conforme alla specifiche di Interfaccia Radio Nazionali e rispetta il Piano Nazionale di ripartizione delle frequenze in Italia. Se non viene installato all'interno del proprio fondo, l'utilizzo di prodotti Wireless LAN richiede una "Autorizzazione Generale". Consultare

http://www.mise.gov.it/index.php/it/comunicazioni

Latvia

The outdoor usage of the 2.4-GHz band requires an authorization from the Electronic Communications Office. For details, see: http://www.esd.lv.

2,4 GHz frekvenču joslas izmantošanai ārpus telpām nepieciešama atļauja no Elektronisko sakaru direkcijas. Vairāk informācijas: http://www.esd.lv .

Note Although Norway, Switzerland, Liechtenstein, and Turkey are not EU member states, the EU Directive 2014/53/EU has also been implemented in those countries.

Note The antenna gain mentioned does not include cable loss. For all combinations, the total of power level, antenna gain, and cable loss is equal to or below 43.5 dBm (EIRP).

Brazil Regulatory Information

English Translation

This equipment is not entitled to the protection from harmful interference and may not cause interference with duly authorized systems.

Portuguese Translation

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

Taiwan

BSMI Class A warning

此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策

Statement 191—Voluntary Control Council for Interference (VCCI) Class A Warning for Japan

Warning This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, you may be required to take corrective actions.

ステートメント 191—日本向け VCCI クラス A に関する警告

警告 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。

VCCI-A

Statement 1008—Class 1 Laser Product

Warning This product is a Class 1 laser product.

ステートメント 1008—クラス 1 レーザー製品

警告 クラス 1 レーザー製品です。

Statement 1051—Laser Radiation

Warning Invisible laser radiation may be emitted from disconnected fibers or connectors. Do not stare into beams or view directly with optical instruments.

ステートメント 1051： レーザー放射

警告 接続されていない光ファイバ ケーブルやコネクタからは目に見えないレーザー光が放射されている可能性があります。レーザー光を直視したり、光学機器を使用して直接見たりしないでください。

Statement 1255—Laser Compliance Statement

Warning Pluggable optical modules comply with IEC 60825-1 Ed. 3 and 21 CFR 1040.10 and 1040.11 with or without exception for conformance with IEC 60825-1 Ed. 3 as described in Laser Notice No. 56, dated May 8, 2019.

聲明4011—國家通信委員會警告

警告 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。

Intended Use of equipment

The IR1800 Series provides radio slots to support multiple radio configurations based on use cases. Provisions to support PoE and xDSL WAN are included. The chassis is powered directly off 12 to 24VDC vehicle-charging systems or an external power source. The IR1800 Series can be used indoors or outdoors, as allowed by regulations.

Changing Output Power

Changing the power output is allowed only by a trained service professional.

Obtaining Documents from Cisco.com

Follow these steps to obtain any of the online documents mentioned in this document.

- For Cisco IR1800 Series products, go here.
- If you still have questions regarding the compliance of these products, or you cannot find the information you are looking for, send an email to Cisco at complianceinfo@cisco.com.