

# **Product Safety and Security**

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# **Safety and Performance Information**

Read the following safety notices before installing or using your IP phone.



Warning

## IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

### SAVE THESE INSTRUCTIONS

To see translations of the warnings that appear in this publication, refer to the statement number in the *Regulatory Compliance and Safety Information—Cisco Wireless IP Phone* 882x Series at the following URL: <a href="http://www.cisco.com/c/dam/en/us/td/docs/voice">http://www.cisco.com/c/dam/en/us/td/docs/voice</a> ip comm/cuipph/882x/english/RCSI/RCSI-0266-book.pdf



Warning

Read the installation instructions before using, installing, or connecting the system to the power source. Statement 1004



Warning

Voice over IP (VoIP) service and the emergency calling service do not function if power fails or is disrupted. After power is restored, you might have to reset or reconfigure equipment to regain access to VoIP and the emergency calling service. In the USA, this emergency number is 911. You need to be aware of the emergency number in your country. Statement 361



Warning

Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040



Warning

The plug-socket combination must be accessible at all times because it serves as the main disconnecting device. Statement 1019

# **Safety Guidelines**

The following are safety guidelines for using the Cisco Wireless IP Phone 8821 and 8821-EX in specific environments:

- Do not use this product as the primary communications tool in healthcare environments, as it may use an unregulated frequency band that is susceptible to interference from other devices or equipment.
- The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.
- The use of wireless devices in hazardous locations is limited to the constraints posed by the safety directors of such environments.
- The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).

## **Battery Safety Notices**

These battery safety notices apply to the batteries that are approved for the Cisco Wireless IP Phone 8821 and 8821-EX.



Warning

There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Statement 1015



Warning

Do not touch or bridge the metal contacts on the battery. Unintentional discharge of the batteries can cause serious burns. Statement 341



Warning

Explosion Hazard: Do not charge the phone battery in a potentially explosive environment. Statement 431



Warning

Lithium ion batteries have limited lifetimes. Any lithium ion battery that shows any signs of damage, including swelling, should be properly discarded immediately.



#### Caution

- Do not dispose of the battery pack in fire or water. The battery may explode if placed in a fire.
- Do not disassemble, crush, puncture, or incinerate the battery pack.
- Handle a damaged or leaking battery with extreme care. If you come in contact with the electrolyte, wash the exposed area with soap and water. If the electrolyte has come in contact with the eye, flush the eye with water for 15 minutes and seek medical attention.
- Do not charge the battery pack if the ambient temperature exceeds 104 degrees Fahrenheit (40 degrees Celsius).
- Do not expose the battery pack to high storage temperatures (above 140 degrees Fahrenheit, 60 degrees Celsius).
- When discarding a battery pack, contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.

To obtain a battery, contact your local dealer. Use only the batteries that have a Cisco part number.

#### **Battery**

CP-BATT-8821=

Use only the Cisco b that is compatible with your phone. To order your power supply, contact your local dealer and refer to the list of Cisco part numbers.

#### **Argentina**

CP-PWR-8821-AR=

### Australia

CP-PWR-8821-AU=

#### **Brazil**

CP-PWR-8821-BZ=

## **Europe**

CP-PWR-8821-CE=

#### Korea

CP-PWR-8821-KR=

#### Japan

CP-PWR-8821-JP=

### Switzerland

CP-PWR-8821-SW=

## North America

CP-PWR-8821-NA=

#### **United Kingdom**

CP-PWR-8821-UK=



Note

The battery and power supply are not provided with your phone. To order the battery and power supply, contact your local dealer.

## **Hazardous Environments**

The Cisco Wireless IP Phone 8821-EX is ATEX Class I Zone 2 and CSA Class I Division 2/Zone 2 certified equipment. This means the phone can be operated in an area in which an explosive gas atmosphere is not likely to occur in normal operation and if it does occur, is likely to do so only infrequently and will exist for a short period only.



Warning

Explosion Hazard—Do not charge the phone battery in a potentially explosive atmosphere. Statement 431



Warning

Explosion Hazard—Substitution of components may impair suitability for class1, Division 2/Zone 2. Statement 1083

# **Power Outage**

The ability to access emergency service through the phone depends on the wireless access point being powered. If there is an interruption in the power supply, Service and Emergency Calling Service dialing will not function until power is restored. In the case of a power failure or disruption, you may need to reset or reconfigure equipment before using the Service or Emergency Calling Service dialing.

## **Regulatory Domains**

The radio frequency (RF) for this phone is configured for a specific regulatory domain. If you use this phone outside of the specific regulatory domain, the phone will not function properly, and you might violate local regulations.

# **Health-Care Environments**

This product is not a medical device and uses an unlicensed frequency band that is susceptible to interference from other devices or equipment.

# **External Devices Usage**

The following information applies when you use external devices with the wireless phone.

Cisco recommends the use of good quality external devices (such as headsets) that are shielded against unwanted radio frequency (RF) and audio frequency (AF) signals.

Depending on the quality of these devices and their proximity to other devices such as mobile phones or two-way radios, some audio noise may still occur. In these cases, Cisco recommends that you take one or more of the following actions:

- Move the external device away from the source of the RF or AF signals.
- Route the external device cables away from the source of the RF or AF signals.
- Use shielded cables for the external device, or use cables with a better shield and connector.
- Shorten the length of the external device cable.
- Apply ferrites or other such devices on the cables for the external device.

Cisco cannot guarantee the performance of the system because Cisco has no control over the quality of external devices, cables, and connectors. The system will perform adequately when suitable devices are attached using good quality cables and connectors.



Caution

In European Union countries, use only external headsets that are fully compliant with the EMC Directive [89/336/EC].

# **Phone Behavior During Times of Network Congestion**

Anything that degrades network performance can affect phone audio and, in some cases, can cause a call to drop. Sources of network degradation can include, but are not limited to, the following activities:

- Administrative tasks, such as an internal port scan or security scan
- Attacks that occur on your network, such as a Denial of Service attack

## **SAR**



This product meets applicable national SAR limits of 1.6W/kg. The specific maximum SAR values can be found in Compliance Statements, on page 6.

When carrying the product or using it while worn on your body, either use an approved accessory such as a holster or otherwise maintain a distance of 5 mm from the body to ensure compliance with RF exposure requirements. Note that the product may be transmitting even if you are not making a phone call.

# **Product Label**

The product label is located in the battery compartment of the device.

# **Compliance Statements**

## **Compliance Statements for the European Union**

## **CE Marking**

The following CE mark is affixed to the equipment and packaging.



## RF Exposure Statement for the European Union

This device has been evaluated and found compliant in accordance with EU EMF Directive 2014/53/EU.

# **Compliance Statements for the USA**

## **SAR Statement**

The Cisco Wireless IP Phone 882x Series handsets have been tested for body-worn Specific Absorption Rate (SAR) compliance using the specific belt-clip/holster configuration provided with the handset. The FCC has established the detailed body-worn SAR requirements and has established that these requirements have been met with the specific belt-clip/holster provided with the handset. Other belt-clip/holsters or similar accessories that have not been tested may not comply and therefore should be avoided.

## **RF Exposure Information**

The radio module has been evaluated found to be compliant to the requirements as set forth in 47 CFR Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF Exposure from radio frequency devices. This model meets the applicable government requirements for exposure to radio frequency waves.

# THIS DEVICE MEETS THE LIMITS AS REFERENCED BY ISED RSS-102 R5 FOR EXPOSURE TO RADIO WAVES

Your Cisco Wireless IP Phone 882x Series device includes a radio transmitter and receiver. It is designed not to exceed the General populace (uncontrolled) limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in RSS-102 which references Health Canada Safety Code 6 and include a substantial safety margin designed to assure 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. It is recommended to set the system in a location where the antennas can remain at least a minimum distance as specified from the user in accordance to the regulatory guidelines which are designed to reduce the overall exposure of the user or operator.

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

Maximum SAR for this Model and Conditions Under Which it was Recorded		
Head SAR	WLAN 5GHz	0.63 W/kg
Body-worn SAR	WLAN 5GHz	0.67 W/kg

This wireless phone contains a radio transceiver. The radio transceiver and antenna have been designed to meet the RF emission requirements for human exposure as specified by the FCC as well as by other agencies from other countries. These guidelines were developed by the industry based on guidance from the World Health Organization (WHO). These industry standards have been developed to include additional safety margins to ensure that the user is exposed to the least amount of RF radiation.

The radio transceiver uses a non ionization type of radiation as opposed to an ionized radiation such as an X-Ray wave.

The exposure standard for these devices references a unit of measure known as SAR. The limit as set by the FCC is 1.6W/kg. The tests for this emission level is done in an independent laboratory who employs test methods and operating positions reviewed by the FCC and other agencies.

Before the phone was placed on the market, the product was tested and certified in accordance with the FCC regulations to verify that the product did not exceed the FCC SAR requirements.

Additional information on SAR and RF Exposure can be obtained off the FCC website at: http://www.fcc.gov/oet/rfsafety

There is no conclusive proof that these mobile phones are or are not a health risk. The FDA and numerous researchers are continuing studies of RF radiation and health issues. Additional information on this subject can be obtained from the FDA web site at: http://www.fda.gov

The Cisco Wireless IP Phone 882x Series operates at power levels that are 5 to 6 times lower than most standard cellular, Personal Communications Service (PCS), or Global System for Mobile Communication (GSM) phones. This lower power coupled with a lower transmitter duty cycle reduces the user's exposure to the RF fields.

There are several suggested methods to reduce exposure for the user. Among those include:

- 1. Using a hands-free handset to increase the distance between the antenna and the head of the user.
- **2.** Orienting the antenna away from the user.

Additional information can be obtained from the following documentation:

- Cisco Systems Spread Spectrum Radios and RF Safety white paper at the following location: http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/prodlit/rfhr\_wi.htm
- 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

Additional information can also be obtained from the following organizations:

- World Health Organization Internal Commission on Non-Ionizing Radiation Protection at <a href="http://www.who.int/emf">http://www.who.int/emf</a>
- United Kingdom, National Radiological Protection Board at http://www.nrpb.org.uk

• Cellular Telecommunications Association at http://www.wow-com.com

## **General RF Exposure Compliance**

This device has been evaluated and found compliant to the ICNIRP (International Committee on Non-Ionizing Radiation Protection) limits for Human Exposure of RF Exposure.

## Part 15 Radio Device



Caution

The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Cisco, including the use of non-Cisco antennas, could void the user's authority to operate this device.

## **Compliance Statements for Canada**

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. Privacy of communications may not be ensured when using this phone.

This product meets the applicable Innovation, Science and Economic Development Canada technical specifications.

#### Avis de Conformité Canadien

Cet appareil est conforme aux normes RSS exemptes de licence RSS d'Industry Canada. Le fonctionnement de cet appareil est soumis à deux conditions : (1) ce périphérique ne doit pas causer d'interférence et (2) ce périphérique doit supporter les interférences, y compris celles susceptibles d'entraîner un fonctionnement non souhaitable de l'appareil. La protection des communications ne peut pas être assurée lors de l'utilisation de ce téléphone.

Le présent produit est conforme aux spécifications techniques applicables d'Innovation, Sciences et Développement économique Canada.

## **Canadian RF Exposure Statement**

# THIS DEVICE MEETS THE LIMITS AS REFERENCED BY ISED RSS-102 R5 FOR EXPOSURE TO RADIO WAVES

Your device includes a radio transmitter and receiver. It is designed not to exceed the General populace (uncontrolled) limits for exposure to radio waves (radio frequency electromagnetic fields) as referenced in RSS-102 which references Health Canada Safety Code 6 and include a substantial safety margin designed to assure 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. It is recommended to set the system in a location where the antennas can remain at least a minimum distance as specified from the user in accordance to the regulatory guidelines which are designed to reduce the overall exposure of the user or operator.

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

Maximum SAR for this Model and Conditions Under Which it was Recorded			
Head SAR	WLAN 5GHz	0.63 W/kg	
Body-worn SAR	WLAN 5GHz	0.67 W/kg	

## Déclaration d'Exposition aux RF Canadienne

# <u>CE PÉRIPHÉRIQUE RESPECTE LES LIMITES DÉCRITES PAR LA NORME RSS-102 R5 D'EXPOSITION</u> À DES ONDES RADIO

Votre appareil comprend un émetteur et un récepteur radio. Il est conçu pour ne pas dépasser les limites applicables à la population générale (ne faisant pas l'objet de contrôles périodiques) d'exposition à des ondes radio (champs électromagnétiques de fréquences radio) comme indiqué dans la norme RSS-102 qui sert de référence au règlement de sécurité n°6 sur l'état de santé du Canada et inclut une marge de sécurité importantes conçue pour garantir la sécurité de toutes les personnes, quels que soient leur âge et état de santé.

En tant que tels, les systèmes sont conçus pour être utilisés en évitant le contact avec les antennes par l'utilisateur final. Il est recommandé de positionner le système à un endroit où les antennes peuvent demeurer à au moins une distance minimum préconisée de l'utilisateur, conformément aux instructions des réglementations qui sont conçues pour réduire l'exposition globale de l'utilisateur ou de l'opérateur.

Le périphérique a été testé et déclaré conforme aux réglementations applicables dans le cadre du processus de certification radio.

DAS maximal pour ce modèle et conditions dans lesquelles il a été enregistré			
DAS au niveau de la tête	WLAN 5GHz	0.63 W/kg	
DAS près du corps	WLAN 5GHz	0.67 W/kg	

# **Compliance Statements for New Zealand**

## **Permit to Connect (PTC) General Warning**

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

## **Use of IP Networks with the PSTN**

Internet Protocol (IP) by its nature introduces delay into speech signals as each data packet is formulated and addressed. Telecom Access Standards recommends that suppliers, designers and installers using this technology for calls to or from the PSTN refer to ITU E Model requirements in the design of their networks. The overall aim is to minimise delay, distortion and other transmission impairments, particularly for those calls involving cellular and international networks, which already suffer extensive delay.

## The Use of Voice Compression Through the PSTN

Because of the extensive delay already experienced when calling cellular and international networks, some of which is already caused by their use of voice compression technologies. Telecom Access Standards will only approve G711 voice technology for use on the PSTN. G711 is an 'instantaneous speech-encoding technique' whereas G729 and all its variants are considered 'near instantaneous' introducing additional delay into the speech signal.

## **Echo Cancellation**

Echo cancelers are not normally required in the Telecom PSTN because geographic delays are acceptable where CPE return loss is maintained within Telepermit limits. However, those private networks that make use of Voice-over-IP (VoIP) technology are required to provide echo cancellation for all voice calls. The combined effect of audio/VoIP conversion delay and IP routing delay can cause the echo cancellation time of 64 mS to be required.

# **Compliance Statements for Taiwan**

## **DGT Warning Statement**

避免電波干擾,本器材禁止於室外使用5.25-5.35 秭赫頻帶

### 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,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。

第十四條 低功率射頻電機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。

前項合法通信,指依電信法規定作業之無線電信。

低功率射頻電機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。

### 低功率射頻電機技術規範

- 4.7 無線資訊傳輸設備
- 4.7.5 在5.25-5.35秭赫頻帶內操作之無線資訊傳輸設備,限於室內使用。
- 4.7.6 無線資訊傳輸設備須忍受合法通信之干擾且不得干擾合法通信;如造成干擾,應立即停用,俟無干擾之虞,始得繼續使用。
- 4.7.7 無線資訊傳輸設備的製造廠商應確保頻率穩定性,如依製造廠商使 用手冊上所述正常操作,發射的信號應維持於操作頻帶中。

## **Compliance Statement for Argentina**

### **Advertencia**

No utilizar una fuente de alimentación con caracteristícas distintas a las expresadas ya que podría ser peligroso.

## **Compliance Statements for Brazil**

## Art. 6° - 506

This equipment is a secondary type device, that is, it is not protected against harmful interference, even if the interference is caused by a device of the same type, and it also cannot cause any interference to primary type devices.

For more information, go to this URL: http://www.anatel.gov.br

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Site Anatel: http://www.anatel.gov.br

#### Resolution nº 303/2002 e nº 533/2009

This product is approved by Anatel, in accordance with the procedures regulated by Resolution no. 242/2000 and meets the technical requirements applied, including the exposure limits of the Specific Absorption Rate for electric, magnetic and electromagnetic fields of radiofrequency, in accordance with Resolutions n° 303/2002 and n° 533/2009.

### Resoluções no. 303/2002 e no. 533/2009

Este produto está homologado pela Anatel, de acordo com os procedimentos regulamentados pela Resolução no. 242/2000 e atende aos requisitos técnicos aplicados, incluindo os limites de exposição da Taxa de Absorção Específica referente a campos elétricos, magnéticos e eletromagnéticos de radiofrequência, de acordo com as Resoluções no. 303/2002 e no. 533/2009.

Model	Certificate Number
8821	03114-17-01086
8821-EX	03114-17-01086

## **Compliance Statement for Singapore**

Complies with IMDA Standards DB101992

# **Cisco Product Security Overview**

This product contains cryptographic features and is subject to U.S. and local country laws that govern import, export, transfer, and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute, or use encryption. Importers, exporters, distributors, and users are responsible for compliance with U.S. and local country laws. By using this product, you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

Further information regarding U.S. export regulations can be found at https://www.bis.doc.gov/policiesandregulations/ear/index.htm.

# **Important Online Information**

### **End User License Agreement**

The End User License Agreement (EULA) is located here: https://www.cisco.com/go/eula

### **Regulatory Compliance and Safety Information**

Regulatory Compliance and Safety Information (RCSI) is located here: