



# Getting Started and Product Document of Compliance for the Cisco IR829 Industrial Integrated Services Router

**IMPORTANT! READ ALL THE SAFETY INFORMATION BEFORE INSTALLING THE HARDWARE**

## Cisco Part Number 78-100611-01D

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## Cisco Information

**Table 1 Cisco Company Name and Address Details**

Company Name	Cisco Address
Cisco Systems, Inc.	170 West Tasman Drive, San Jose, CA 95134-1706, United States.

## Introduction

The purpose of this document is to provide the installer the necessary information for installing the Cisco IR829 Integrated Services Router. The documentation is on-line, and subject to change. Make sure that you are downloading or viewing on-line the latest version before beginning an installation.

This document also contains Product Compliance and Safety information as well as Declaration of Conformity.

## Items Shipped with your Router

Unpack the box and verify that all items listed on the invoice were shipped with the Cisco IR829.

The following items are shipped with your router:

- This document Part Number 78-100611
- Power Cable components
- Grounding Lug
- Ethernet Cable Part Number 75-1501-01

## Equipment that you supply

- ESD-preventive cord and wrist strap.
- Wire-stripping tools for stripping 14- and 18-gauge wires
- Crimping tool
- Ratcheting torque screwdriver that exerts up to 15 in-lb (1.69 N-m) of pressure.

## Related Documentation

To access resources or to display the latest Cisco 800 Series Router documentation on-line, go to this URL:

<http://www.cisco.com/c/en/us/support/routers/800-series-industrial-routers/tsd-products-support-series-home.html>

This portal has all of the information you need to get to know your router, install and configure it, as well as access software. You will see the following categories as well as other important information:

- **All support information for Cisco 800 Series Industrial Integrated Services Routers:** Provides the most requested resources and a list of all of the models in the series.
- **Release and General Information:** Links to the Software Download site, Compatibility Information, Licensing Information, and Product Release notes.
- **Install and Upgrade:** This is your starting point for Installing the Router. look under The Install and Upgrade Guide section for this model,
- **Configure:** These links provide configuration information. Look first under the Configuration Guide section for this model.

Other important and helpful links to Cisco information are here:

- Cisco.com: [www.cisco.com](http://www.cisco.com)
- Warranty Information: [www.cisco-warrantyfinder.com](http://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](http://www.cisco.com/en/US/docs/general/warranty/English/SL3DEN_.html)
- Cisco Marketplace: [www.cisco.com/pcgi-bin/marketplace/welcome.pl](http://www.cisco.com/pcgi-bin/marketplace/welcome.pl)
- Cisco Product Documentation: [www.cisco.com/go/techdocs](http://www.cisco.com/go/techdocs)
- Regulatory Compliance and Safety Information: <http://www.cisco.com/en/US/docs/routers/access/800/rcsi/800srcsi.html>
- Cisco Support: [www.cisco.com/cisco/web/support/index.html](http://www.cisco.com/cisco/web/support/index.html)

## Installation Warning and Caution Statements

### **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

**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:** Read the installation instructions before connecting the system to the power source. Statement 1004

**WARNING:** This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 10A  
Statement 1005

**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:** This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

**WARNING:** Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

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

**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:** Installation of the equipment must comply with local and national electric codes. Statement 1074

**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

**CAUTION:** The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1. The equipment shall be installed in a **certified ATEX** enclosure that provides a degree of protection not less than IP 54 in accordance with IEC 60079-15.

**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 spacings are required.

**CAUTION:** 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).

## Grounding the Router

Make sure to follow any grounding requirements at your site.

**WARNING:** This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

**WARNING:** This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the switch functional ground lug is connected to earth ground during normal use. Statement 1064

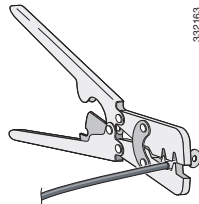
**CAUTION:** To make sure that the equipment is reliably connected to earth ground, follow the grounding procedure instructions, and use 14- to-16 AWG wire.

**CAUTION:** Use at least a 4 mm<sup>2</sup> conductor to connect to the external grounding screw.

The ground lug is supplied with the device.

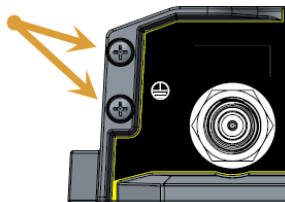
To ground the router to earth ground by using the ground screw, follow these steps:

1. Locate the ground lug in the packaging kit. Store the ground screw for later use.
2. Use a wire stripping tool to strip the 14-16 AWG (2.08-1.31mm<sup>2</sup>) grounding wire to 0.22 in. (5.56 mm).
3. Insert the ground wire into the ring terminal lug, and using a crimping tool, crimp the terminal to the wire.



4. Slide the ground screw through the ground lug.

5. Insert the ground screw into one of the two screw positions shown in the graphic.



6. Use a ratcheting torque screwdriver to tighten the ground screw and ring terminal to the router side panel to 3.5 in-lb (0.4 N-m). The torque should not exceed 3.5 in-lb (0.4 N-m).
7. Attach the other end of the ground wire to a grounded bare metal surface, such as a ground bus, a grounded DIN rail, or a grounded bare rack.

## Connecting DC Power

**WARNING:** When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the switch and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding. Statement 1058

**WARNING:** Explosion Hazard—The area must be known to be nonhazardous before installing, servicing, or replacing the unit. Statement 1082

**WARNING:** Explosion Hazard—Substitution of components may impair suitability for Class I, Division 2/Zone 2. Statement 1083

**WARNING:** Connect the unit only to DC power source that complies with the safety extra-low voltage (SELV) requirements in IEC 60950 based safety standards. Statement 1033

## Plugs and Pin-Outs

The following is a brief overview of connecting to DC power. Details can be found in the Cisco IR829 Industrial Integrated Services Router Hardware Installation Guide and should be understood before beginning. See [Related Documentation, page 2](#).

The IR829 ships with a DC power accessory kit that contains a 4-pin locking connector and pins to use for the power connections. Four contacts are supplied, but only three are used. One is a spare.

The power entry receptacle is on the IR829. The pin-outs are shown in [Figure 1](#). Descriptions are shown in [Figure 2](#).

Figure 1 Power Connector Pin-outs

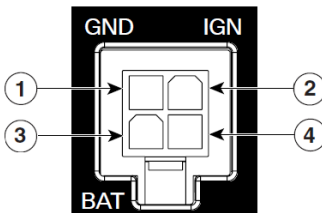


Figure 2 Power connector Descriptions

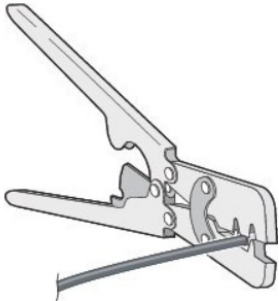
Table 2

Pin Number	Name	Description	Color
1	DC In -	DC Power Return (GND-)	Black
2	Ignition	Ignition Input (IGN)	Red
3	DC In +	DC Power In (BAT+)	Blue
4	N/A	N/A	N/A

**NOTE:** Pin 2 is used for configuration of the Ignition Power Management feature of the IR829 router. It is connected to the vehicle battery circuit to keep the IR829 up and running while the vehicle is stopped. Therefore, users won't have to wait for the router to reload each time the vehicle was stopped.

To connect DC power:

<p>1. Identify the DC power source and measure 4 strands of copper wire 16 AWG (1.29mm) long enough to connect to the DC power source.</p> <p><b>NOTE:</b> The maximum length of the cable <b>before</b> twisting is 15 feet (4.6 meters).</p>	
<p>2. Using an 16-gauge wire-stripping tool, strip each of the wires coming from each DC-input power source to 0.25 inch (6.3 mm) ± 0.02 inch (0.5 mm). Do not strip more than 0.27 inch (6.8 mm) of insulation from the wire. Stripping more than the recommended amount of wire can leave exposed wire from the power connector after installation.</p>	<p>The diagram shows a wire with a section of insulation being stripped. A double-headed arrow indicates the stripping length, which is labeled as 0.25 inch (6.3 mm). The number 5832084 is printed below the wire.</p>

<p>3. Using the pins included in the kit, crimp each pin onto a wire.</p>	
<p>4. Insert the pins into the power connector, referring to previous figures 1 and 2 for guidance.</p>	
<p>5. Plug the connector into the power entry receptacle.</p>	

## Connecting to the Router Gateway Ports

For hazardous location environments, follow these warnings when connecting to the destination ports (antenna, serial, Ethernet, and console ports).

**WARNING:** If you connect or disconnect the console cable with power applied to the switch or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.  
Statement 1080

**WARNING:** Do not connect or disconnect cables to the ports while power is applied to the switch or any device on the network because an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed from the switch and cannot be accidentally be turned on, or verify that the area is nonhazardous before proceeding.  
Statement 1070

## Connecting to the USB Port

**NOTE:** If you are connecting to the USB port:

- a connection (to the USB port) can only be made in a non-hazardous environment
- the USB port cover must be reinstalled before the router can be deployed in a hazardous environment

## Hazardous Locations Standards and Marking Strings

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

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ANSI/ASA 12.12.01-2013

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CAN/CSA C22.2 No. 60079-0-11 Ed. 2

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CAN/CSA C22.2 No. 60079-15-12 Ed. 1

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CSA C22.2 No. 213-M1987+A11:2013

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EN 60079-0:2012

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EN 60079-15:2010

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IEC 60079-0 6th Edition

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IEC 60079-15 4th Edition

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UL 60079-0, 5th Ed, 2009-10-21

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UL 60079-15, 3rd Ed, 2009-7-17

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The following hazardous locations strings are provided on the router:

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Class 1, Div 2, Groups A B C D

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Class I, Zone 2, AEx nA IIC T4 Gc




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II 3G, Ex nA IIC T4 Gc

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DEMKO 15ATEX 1491X

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Class 1, Zone 2, AEx nA IIC T4 Gc

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## EMC Information

For EMC and safety information, see the Regulatory Compliance and Safety Information at this URL:  
[www.cisco.com/go/800](http://www.cisco.com/go/800)

## 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 that 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.

This equipment has been tested and found to comply with the limits of 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 residential environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference. However, there



is no guarantee that interference will not occur. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician.

**CAUTION:** The Part 15 radio device operates on a non-interference 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 5.47-5.725 GHz bands, this device is restricted to indoor operations to reduce any potential for harmful interference to co-channel Mobile Satellite System (MSS) operations.

## Industry Canada

### Canadian Compliance Statement

Cisco® 829 Industrial Integrated Services Router Model

IR829GW-LTE

Cisco® 829 Industrial Integrated Services Router PIDS

- IR829GW-LTE-VZ-AK9
- IR829GW-LTE-NA-AK9
- IR829GW-LTE-ST-AK9

Industry Canada Certification Number

- 2461B-IR829GW-LTE

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® 829 Industrial Integrated Services Routers are certified to the requirements of RSS-210. 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 6 dBi. Antennas having a gain greater than 6 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 isotropically 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.

## European Community, Switzerland, Norway, Iceland, and Liechtenstein

Cisco® 829 Industrial Integrated Services Router PIDS

- IR829GW-LTE-VZ-AK9
- IR829GW-LTE-NA-AK9
- IR829GW-LTE-ST-AK9

### Declaration of Conformity with regard to the R&TTE Directive 1999/5/EC & Medical Directive 93/42/EEC

The following standards were applied:

- EMC-EN 301.489-1 v1.9.2; EN 301.489-17 v2.2.1
- Health & Safety-EN60950-1: 2005; EN 50385: 2002
- Radio-EN 300 328 v 1.9.1; EN 301.893 v 1.7.1, EN62311

The conformity assessment procedure referred to in Article 10.4 and Annex III of Directive 1999/5/EC has been followed.

This device also conforms to the EMC requirements of the Medical Devices Directive 93/42/EEC.

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

The product carries the CE Mark:



### Declaration of Conformity for RF Exposure

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

#### Generic Discussion on RF Exposure

The Cisco products are designed to comply with the following national and international standards on Human Exposure to Radio Frequencies:

- 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 (99)
- International Commission on Non Ionizing Radiation Protection (ICNIRP) 98
- 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

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 IR829 series device includes a radio transmitter and receiver. It is designed not to 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. 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.

Separation Distance		
MPE	Distance	Limit
0.996 mW/cm <sup>2</sup>	30 cm (11.8 inches)	1.00 mW/cm <sup>2</sup>

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 the user or placing the antennas at a greater separation distance than recommended.

## This Device Meets FCC Guidelines for Exposure to Radio Waves

The IR829 series device includes a radio transmitter and receiver. It is designed not to 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 (92) 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. 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.

Separation Distance		
MPE	Distance	Limit
0.996 mW/cm <sup>2</sup>	30 cm (11.8 inches)	1.00 mW/cm <sup>2</sup>

The US 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 then you can easily do so by reorienting antennas away from the user or placing the antennas at a greater separation distance than recommended or lowering the transmitter power output.

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

The IR829 series device includes a radio transmitter and receiver. It is designed not to 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 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.

Separation Distance		
MPE	Distance	Limit
0.996 mW/cm <sup>2</sup>	30 cm (11.8 inches)	1.00 mW/cm <sup>2</sup>

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 the user, placing the antennas at a greater separation distance than recommended, or lowering the transmitter power output.

## Additional Information on RF Exposure

You can find additional information on the subject at the following links:

- Cisco Systems Spread Spectrum Radios and RF Safety white paper at this URL: [http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/prodit/rfhr\\_wi.htm](http://www.cisco.com/warp/public/cc/pd/witc/ao340ap/prodit/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
- 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: [www.who.int/emf](http://www.who.int/emf)
- United Kingdom, National Radiological Protection Board at this URL: [www.nrp.gov.uk](http://www.nrp.gov.uk)
- Cellular Telecommunications Association at this URL: [www.wow-com.com](http://www.wow-com.com)
- The Mobile Manufacturers Forum at this URL: [www.mmfa.org](http://www.mmfa.org)

## EMC Class A Notices and Warnings

### Statement 340—Class A Warning for CISPR22

**Warnung** 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 the EU Directive 2014/53/EU

The information in this document is applicable to the Cisco IR829 series wireless LAN product that currently includes the IR829GW-LTE-GA-EK9.

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

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

This declaration is only valid for configurations (combinations of software, firmware and hardware) provided and/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/provided by Cisco Systems may result that the equipment is no longer compliant with the regulatory requirements.

**Table 3**

<b>Country</b>	<b>Statement</b>
Български [Bulgarian]	Това оборудване отговаря на съществените изисквания и приложими клаузи на Директива 1999/5/EC.
Česky [Czech]:	Toto zařízení je v souladu se základními požadavky a ostatními odpovídajícími ustanoveními Směrnice 1999/5/EC.
Dansk [Danish]:	Dette udstyr er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i Direktiv 1999/5/EF.
Deutsch [German]:	Dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 1999/5/EU.
Eesti [Estonian]:	See seade vastab direktiivi 1999/5/EÜ olulistele nõuetele ja teiste asjakohastele sätetele.
English:	This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]:	Este equipo cumple con los requisitos esenciales así como con otras disposiciones de la Directiva 1999/5/CE.
Ελληνική [Greek]:	Αυτός ο εξοπλισμός είναι σε συμμόρφωση με τις ουσιαστικές απαιτήσεις και άλλες σχετικές διατάξεις της Οδηγίας 1999/5/EC.
Français [French]:	Cet appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive 1999/5/EC.
Hrvatski:[Croatian]	Ova oprema je u skladnosti s bitnim zahtjevima i drugim relevantnim odredbama Direktive 1999/5/EC
Íslenska [Icelandic]:	Þetta tæki er samkvæmt grunnkröfum og öðrum viðeigandi ákvæðum Tilskipunar 1999/5/EC.
Italiano [Italian]:	Questo apparato é conforme ai requisiti essenziali ed agli altri principi sanciti dalla Direttiva 1999/5/CE.
Latviski [Latvian]:	Šī iekārta atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]:	Šis įrenginys tenkina 1999/5/EB Direktyvos esminius reikalavimus ir kitas šios direktyvos nuostatas.
Nederlands [Dutch]:	Dit apparaat voldoet aan de essentiële eisen en andere van toepassing zijnde bepalingen van de Richtlijn 1999/5/EC.
Malti [Maltese]:	Dan l-apparat huwa konformi mal-ħtiġiet essenzjali u l-provedimenti l-oħra rilevanti tad-Direttiva 1999/5/EC.
Magyar [Hungarian]:	Ez a készülék teljesíti az alapvető követelményeket és más 1999/5/EK irányelvben meghatározott vonatkozó rendelkezéseket.
Norsk [Norwegian]:	Dette utstyret er i samsvar med de grunnleggende krav og andre relevante bestemmelser i EU-direktiv 1999/5/EF.

**Table 3**

Polski [Polish]:	Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warunkami określonymi Dyrektywą UE: 1999/5/EC.
Português [Portuguese]:	Este equipamento está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.
Română [Romanian]	Acest echipament este în conformitate cu cerințele esențiale și cu alte prevederi relevante ale Directivei 1999/5/EC.
Slovensko [Slovenian]:	Ta naprava je skladna z bistvenimi zahtevami in ostalimi relevantnimi pogoji Direktive 1999/5/EC.
Slovensky [Slovak]:	Toto zariadenie je v zhode so základnými požiadavkami a inými príslušnými nariadeniami direktív: 1999/5/EC.
Suomi [Finnish]:	Tämä laite täyttää direktiivin 1999/5/EY 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 1999/5/EC.
Türk [Turkish]	Bu cihaz 1999/5/EC Direktifi'nin temel gereklerini ve ilgili diğer hükümlerine uygundur.

The full declaration of conformity for this product can be found at <http://www.cisco.com/c/en/us/support/routers/829-industrial-router/model.html>. See the [Obtaining Documents from Cisco.com, page 16](#) section for instructions for downloading these documents.

The following standards were applied during the assessment of the product against the requirements of the Directive 1999/5/EC:

- Radio: EN 301 893, EN 300 328
- EMC: EN 301 489-1, EN 301 489-17
- Safety: EN 60950-1

## CE Mark

For the Cisco IR829GW-LTE-GA-EK9, the following CE mark is affixed to the equipment and its packaging:



## National Restrictions

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

This product is intended for indoor and outdoor usage. Note: Products that can operate in the 5150 -MHz to 5350 MHz frequency band are restricted to indoor use only!

The following sections identify countries having additional requirements or restrictions.

### Denmark

In Denmark, the band 5150 – 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". Please check

<http://www.comunicazioni.it/it/> for more details.

Questo prodotto è conforme alle 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. Please check <http://www.esd.lv> for more details.

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 1999/5/EC has also been implemented in those countries.

## Antennas

[The IR829 series Wireless LAN products are equipped with antenna connectors to allow the use of dedicated (external) antennas available from Cisco.

Table 4 lists the antennas that can be used by IR829GW-LTE-GA-EK9. All antennas were assessed together with the equipment against the requirements of the R&TTE directive. The tables also list the maximum power setting for each of the antennas.

Depending on the country a different regulatory limit might be applicable. It is therefore the responsibility of the end user to select a power level that, together with the antenna, results in an eirp (radiated power) level that is below the applicable limit.

**Table 4**

Antenna Part Number	Antenna Gain (dBi)	Maximum Power Setting, Total Power of Both Antennas (dBm)	Antenna Description
AIR-ANT5170P-R	7	24	Cisco 5GHz 7 dBi Diversity Patch Antenna
AIR-ANT2413P2M-N	13	17	Cisco 2.4GHz 13 dBi Directional Antenna
AIR-ANT5114P2M-N	14	15	Cisco 5GHz 14 dBi Directional Antenna
ANT-4G-OMNI-OUT-N	2	33	Cisco 2x 4G Omni Stick, 2 dBi
ANT-4G-PNL-OUT-N	6.5 - 9.0	33	Cisco 4G Panel, 698 - 960 MHz,
	5.5 - 10.5		1700 - 2700 MHz

Table 4

ANT-4G-SR-OUT-TNC	0	33	Cisco 4G Low Profile 698 - 2700 MHz
ANT-4G-DP-IN-TNC	0	33	Cisco Indoor Swivel Mount Dipole, 698 - 2700 MHz

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

## Operating Frequency

The operating frequency in a Wireless LAN is determined by the access point. As such, it is important that the access point is correctly configured to meet the local regulations.

## Intended use of the equipment

The platform provides 3 radio slots to support multiple radio configurations based on use-case. Provisions to support PoE and xDSL WAN are included. The chassis is powered directly off 12–24VDC vehicle charging systems or an external power source. This product is used indoors or outdoors as allowed per regulations.

## Changing Output Power

Is allowed only by trained service professional

## Obtaining Documents from Cisco.com

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

1. Browse to this URL on Cisco.com:  
<http://www.cisco.com/cisco/web/psa/default.html?mode=prod&level0=278875243>
2. For Cisco IR829GW Series wireless products, click  
<http://www.cisco.com/c/en/us/support/routers/829-industrial-router/model.html>

**NOTE:** If you still have questions regarding the compliance of these products or you can not find the information you are looking for, please send an email request to Cisco at [complianceinfo@cisco.com](mailto:complianceinfo@cisco.com).

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