



Security Products Safety Guide

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November 2011—Revision 01

The information in this document is current as of the date on the title page.

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Juniper Networks hardware and software products are Year 2000 compliant. Junos OS has no known time-related limitations through the year 2038. However, the NTP application is known to have some difficulty in the year 2036.

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PART 1

Security Products Safety Overview

- [Safety Recommendations and Warnings on page 3](#)
- [General Site and Installation Requirements on page 7](#)
- [Power Considerations and Electrical Safety Guidelines and Warnings on page 11](#)
- [Handling Devices on page 17](#)
- [Agency Approvals and Compliance Statements on page 23](#)

CHAPTER 1

Safety Recommendations and Warnings

This guide contains general safety recommendations and warnings about avoiding situations that could cause injury to people or devices. For guidelines about installing or using a specific Juniper Networks device, see the hardware guide for the device.



NOTE: For translated versions of this guide, see the Juniper Networks Technical Documentation website at www.juniper.net/techpubs.

This chapter includes the following topics:

- [Definitions of Safety Warning Levels on page 3](#)
- [Safety Recommendations and Warnings on page 4](#)
- [Safety Warnings on page 5](#)

Definitions of Safety Warning Levels

This guide uses the following four levels of safety warnings:



NOTE: You might find this information helpful in a particular situation or might otherwise overlook it.



CAUTION: You need to observe the specified guidelines to avoid minor injury or discomfort to you or severe damage to the device.



WARNING: This 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.



WARNING: This symbol means that the equipment can emit invisible laser radiation and could permanently damage the eye.

Safety Recommendations and Warnings

Before working on any equipment, you should be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents. Observe these important guidelines when installing or manipulating a Juniper Networks device:

- Always disconnect all power supply connections before removing a chassis or changing a fuse.
- Locate the emergency power-off switch for the area where you are working.
- Allow adequate air circulation. When removing or installing a component, always place it component-side up on an antistatic surface, in an antistatic card rack, or in an electrostatic bag. If you are returning a component, place it into an electrostatic bag before packing it. If you are installing a device in a rack, the rack must be secured to the building structure. The device should be mounted at the bottom of the rack if it is the only unit in the rack.
- Look carefully for possible hazards in the work area, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- Do not perform any action that creates a potential hazard for people or that makes the equipment unsafe.
- Do not work alone if potentially hazardous conditions exist.
- Keep the area around the chassis clear and free from dust before, during, and after installation.
- Do not wear loose clothing or jewelry, such as rings, bracelets, or chains, that could become caught in the chassis.
- Wear safety glasses if you are working under any conditions that could be hazardous to your eyes.
- Never attempt to lift an object that is too heavy for one person to handle.
- Never install or manipulate wiring during electrical storms.
- Replace fuses only with fuses of the same type and rating.
- Do not open or remove chassis covers or sheet-metal parts unless instructions for doing so are provided in the hardware guide for the device. Such an action could cause severe electrical shock.
- Do not push or force any objects through any opening in the chassis frame. Such an action could result in electrical shock or fire.
- Avoid spilling liquid onto the chassis. Such an action could cause electrical shock or damage the chassis.

- Avoid touching uninsulated electrical wires or terminals that have not been disconnected from their power source. Such an action could cause electrical shock.
- Always ensure that all modules, power supplies, and blank panels are fully inserted and that the installation screws are fully tightened.

Safety Warnings

For your protection and the protection of people around you, ensure that you adhere to the following set of safety warnings.

Installation



WARNING: Read the cabling instructions before you connect the device to its power source. See the hardware guide for your device.

Power Disconnection



WARNING: Before working on a device that has a switch, switch the circuit to the OFF position and disconnect the power cord to all power supplies.

For DC power supplies, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the OFF position, and tape the switch handle of the DC circuit breaker to secure it in the OFF position.

Disconnecting Power from the Device



WARNING: Some devices have more than one power supply connection. All connections must be removed completely to shut off power from the unit.

User-Serviceable Parts



WARNING: The chassis of some devices are tamper-proof. Do not open the chassis of a tamper-proof device under any circumstances. Doing so will void the warranty.

Other devices have user-serviceable parts, such as fuses, memory modules, processor modules, and application modules, that require the chassis to be opened. You can replace these components when necessary. If a CFM/FRU slot is not occupied by a card, you must install a blank panel to shield the empty slot and to allow cooling air to circulate properly through the device. Make sure to return the components to the manufacturer for service or replacement. For more information about user-serviceable parts, see the hardware guide for your device.

Circuit Breaker—Maximum Voltage



WARNING: The device relies on the building's safety features for protection against short-circuit, over-current, and earth (grounding) fault. Ensure that the building's safety features are properly rated for the device. Depending on which type of power—AC or DC—the device uses, the phase conductor (or all current-carrying conductors) should use a fuse or breaker that has the maximum voltage specified for the device. See the hardware guide for your device.

SELV Circuit

Juniper Networks devices support Ethernet 10BaseT, 100BaseT, 1000BaseT, serial, console, and auxiliary ports, which contain safety extra-low voltage (SELV) circuits. To find out which cable to use with which interface, see the hardware guide for your device.



CAUTION: Do not connect the Ethernet 10BaseT, 100BaseT, or 1000BaseT ports to a telephone line or any Telco line (for example, T-1, T-3, or RJ-48 lines).

Lightning Activity



WARNING: Do not work on the device, or connect or disconnect the device, during lightning activity.

Lithium Battery Considerations



WARNING: If your device uses a lithium battery, you should never attempt to replace the battery yourself. Return the device to the manufacturer for battery replacement. Moreover, if the device contains lithium batteries that have a tamper-proof chassis, it is important that you do not attempt to open such a chassis under any circumstances. Doing so will void the warranty.

CHAPTER 2

General Site and Installation Requirements



CAUTION: For the safe installation and operation of your device, ensure that your site is properly prepared before beginning the hardware installation.

The following information will help you ensure that the site is properly prepared:

- Check the power at your site to ensure that you are receiving clean power (free of spikes and noise). Install a power conditioner if necessary.
- Choose a site that maintains an ambient temperature of 32 – 104°F (0 – 40°C). The device is intended for use in a normal office environment. For more extreme conditions, verify that temperature, humidity, and power conditions meet the specifications for each Juniper Networks device. For specifications, see the hardware guide for your device.
- The device relies on the building's safety features for protection against short-circuit, over-current, and earth (grounding) fault. Ensure that the building's safety features are properly rated for the device.
- Ensure that the device is installed in a secure location where access to the device is limited to authorized personnel.

Before and during device installation, observe the guidelines and warnings described in the following topics:

- [Onsite Precautions on page 8](#)
- [Qualified Personnel Warning on page 8](#)
- [Restricted Access Area Warning on page 8](#)
- [Installation Instructions Warning on page 8](#)
- [Rack-Mounting Requirements and Warnings on page 9](#)
- [Fire Safety Requirements on page 10](#)

Onsite Precautions



NOTE: You can place the device on a desktop or wall-mount it in a rack according to its intended use as specified in the hardware guide for your device. Both the location of the chassis and the layout of your equipment rack or wiring room are extremely important for proper system operation. Devices placed too close together will cause inadequate ventilation and render areas of the device inaccessible for system maintenance during any system malfunctions or shutdowns.

When planning your site layout and equipment locations, follow the precautions described below to help avoid equipment failures and reduce the possibility of environmentally caused shutdowns. If you are experiencing shutdowns or unusually high errors with your existing equipment, these precautions might help you isolate the cause of the failures and prevent future problems:

- Ensure that the room in which you operate your system has adequate air circulation. Electrical equipment generates heat. Natural air temperature might not be sufficient to cool the equipment to acceptable operating temperatures without an additional ventilation system.
- Choose a site with a dry, clean, well-ventilated, and air-conditioned area.

Qualified Personnel Warning



WARNING: Only trained and qualified personnel should install or replace the device.

Restricted Access Area Warning



WARNING: The device is intended for installation in restricted access areas. A restricted access area is an area to which access can be gained only by service personnel through the use of a special tool, lock and key, or other means of security, and which is controlled by the authority responsible for the location.

Installation Instructions Warning



WARNING: Read the installation instructions before you connect the device to a power source.

Rack-Mounting Requirements and Warnings

The following information will help you plan an acceptable equipment-rack configuration.



WARNING: To prevent bodily injury when mounting or servicing the device in a rack, take the following precautions to ensure that the system remains stable. The following directives help maintain your safety:

- Ensure that the equipment rack into which the device is installed is evenly and securely supported to avoid the hazardous condition that could result from uneven mechanical loading.
- If the device is installed in a rack, the rack must be secured to the building structure.
- The device should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting the device in a partially filled rack, load the rack from the bottom to the top with the heaviest components at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the device in the rack.
- When removing or installing a component, always place it component-side up on an antistatic surface, in an antistatic card rack, or in an electrostatic bag. If you are returning a component, place the component in an electrostatic bag before packing.
- Install the device in an open rack whenever possible. If you install the device in an enclosed rack, ensure that the device has adequate ventilation and that the rack allows adequate clearance for both airflow and maintenance. Ensure that the rack is not overly congested, because each unit generates heat. An enclosed rack should have louvered sides and a fan to provide cooling air.
- When mounting a chassis in an open rack, ensure that the rack frame does not block the intake or exhaust ports. If the chassis is installed on slides, check the position of the chassis when it is seated all the way into the rack.
- In an enclosed rack with a ventilation fan in the top, excessive heat generated by equipment near the bottom of the rack can be drawn upward and into the intake ports of the equipment above it in the rack. Provide adequate ventilation for equipment at the bottom of the rack.
- Baffles can help to isolate exhaust air from intake air, which also helps to draw cooling air through the chassis. The best placement of the baffles depends on the airflow patterns in the rack, which can be found by experimenting with different arrangements.

Fire Safety Requirements

In the event of a fire emergency involving devices and other network equipment, the safety of people is the primary concern. Establish procedures for protecting people in the event of a fire emergency, provide safety training, and properly provision fire control equipment and fire extinguishers.

In addition, establish procedures for protecting your equipment in the event of a fire emergency. Juniper Networks devices should be installed in an environment suitable for electronic equipment. We recommend that fire suppression equipment be available in the event of a fire in the vicinity of the equipment and that all local fire, safety, and electrical codes and ordinances be observed when installing and operating your equipment.

Fire Suppression and Fire Suppression Equipment

In the event of an electrical hazard or fire, first turn off power to the equipment at the source. Then use a Type C fire extinguisher to extinguish the fire. Type C fire extinguishers use noncorrosive fire retardants such as carbon dioxide (CO₂) and Halotron™ and are most effective for suppressing electrical fires. Type C fire extinguishers displace the oxygen from the point of combustion to eliminate the fire. For extinguishing fire on or around equipment that draws air from the environment for cooling, use this type of inert oxygen displacement extinguisher instead of an extinguisher that leaves residue on equipment.

Do not use multipurpose Type ABC chemical fire extinguishers (dry chemical fire extinguishers) near Juniper Networks equipment. The primary ingredient in these fire extinguishers is monoammonium phosphate, which is very sticky and difficult to clean. In addition, in minute amounts of moisture, monoammonium phosphate can become highly corrosive and will corrode most metals.

Any equipment in a room in which a chemical fire extinguisher has been discharged is subject to premature failure and unreliable operation. The equipment is considered to be irreparably damaged.



NOTE: To keep warranties effective, do not use a dry chemical fire extinguisher to control a fire at or near a Juniper Networks device. If a dry chemical fire extinguisher is used, the unit is no longer eligible for coverage under a service agreement.

We recommend that you dispose of any irreparably damaged equipment in an environmentally responsible manner.

CHAPTER 3

Power Considerations and Electrical Safety Guidelines and Warnings

This chapter includes the following topics:

- [Power Considerations on page 11](#)
- [In Case of Electrical Accident on page 14](#)

Power Considerations

AC and DC power supplies, and an optional redundant power supply, are available for some devices.



CAUTION: Do not overload the wiring; be careful when connecting devices to the supply circuit.



NOTE: See your hardware guide for AC and DC power specifications, cabling information, and redundant power-supply availability.



WARNING: Use only power-cord sets that are recommended in the hardware guide to meet local regulations and building codes.

IT Power Statement



NOTE: Juniper Networks devices are designed for connection to IT power systems. An IT power system is a power distribution system with one point connected to earth through an impedance. The exposed conductive parts of the installation are connected to protective ground conductors.

Power Cable Warning (Japanese)



WARNING:

附属の電源コードセットはこの製品専用です。
他の電気機器には使用しないでください。

Translation:

Warning: The attached power cable is only for this product. Do not use the cable for another product.

Warning Statement (Norway and Sweden)



WARNING: Advarsel Apparatet skal kobles til en jordet stikkontakt.

varning! Apparaten skall anslutas till jordat nätuttag.

Translation:

The equipment must be connected to an earthed mains socket-outlet.

Warning Statement (Finland)



WARNING: VAROITUS Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan

Translation:

WARNING The equipment must be connected to an earthed mains socket-outlet.

Warning Statement for Devices That Support AC Power



WARNING: Ensure that the plug-socket combination is accessible at all times, because it serves as the main disconnecting device.

Ensure that the device is connected to an AC power source equipped with a surge protection device.

Warning Statement for Devices That Support DC Power



WARNING: Connect DC-input power supplies only to a DC power source that complies with the safety extra-low voltage (SELV) requirements in the UL 60950-1, CSA 60950-1, EN 60950-1, and IEC 60950-1 standards.

Incorporate a freely accessible two-poled disconnect device in the fixed wiring.

Ensure that there is no power in the DC circuits before installing or removing power supplies. As a precautionary measure, you can tape the switch handle of the DC circuit breaker to secure it in the OFF position.

Use only copper conductors to connect to a DC terminal block.

When stranded wiring is required, use approved wiring terminations such as closed-loop or spade-type lugs. These terminations should be the appropriate size for the wires and should clamp both the insulation and the conductor.

Ensure that no exposed portion of the DC-input power source wire extends from the terminal block plug. An exposed wire can conduct a harmful level of electricity. If you remove the cover on the DC terminal block for any reason, make sure that you replace the cover when you are done.

DC Power Wiring Sequence Warning (Germany)



WARNING: Warnung: Die Stromzufuhr ist nur mit geeigneten Ringösen an das DC Netzteil anzuschliessen. Die richtige Anschlusssequenz ist: Erdanschluss zu Erdanschluss, +RTN zu +RTN, und dann -48v zu -48v. Die richtige Sequenz zum Abtrennen der Stromversorgung ist -48v zu -48v, +RTN zu +RTN, und dann Erdanschluss zu Erdanschluss. Es ist zu beachten dass der Erdanschluss immer zuerst angeschlossen und als letztes abgetrennt wird.

Translation:

Warning: Connect the power supply to the DC power unit only using the appropriate eyelets. When connecting the power supply, the correct wiring sequence is grounding connection to grounding connection, + RTN to + RTN, and then – 48V to – 48V. When disconnecting the power supply, the correct wiring sequence is – 48V to – 48V, + RTN to + RTN, and then grounding connection to grounding connection. Please note: The grounding connection must always be connected first and disconnected last.

Redundant Power Considerations

If your device includes an optional redundant power supply, connect each of the two power supplies to different input power sources. Failure to do so makes the device susceptible to total power failure if that power source fails.



WARNING: If you need to disconnect the device to perform servicing, disconnect both power supplies. Otherwise, system components such as plug-in I/O cards (IOCs) could be damaged.

In Case of Electrical Accident

If an electrical accident results in an injury, take the following actions in this order:

1. Use caution. Be aware of potentially hazardous conditions that could cause further injury.
2. Disconnect power from the device.
3. If possible, send another person to get medical aid. Otherwise, assess the condition of the victim, then call for help.

General Electrical Safety Guidelines and Warnings

Observe the following guidelines when working on a device powered by electricity:

- Locate the emergency power-off switch for the room in which you are working so that if an electrical accident occurs, you can quickly turn off the power.
- Do not work alone if potentially hazardous conditions exist anywhere in your workspace.
- Never assume that power is disconnected from a circuit. Always check the circuit before starting to work.
- Carefully look for possible hazards in your work area, such as moist floors, ungrounded power extension cords, and missing safety grounds.
- Operate the device within marked electrical ratings and follow product usage instructions.
- For the device and peripheral equipment to function safely and correctly, use the cables and connectors specified for the attached peripheral equipment, and make certain they are in good condition.

Install the device in compliance with the following local, national, or international electrical codes as specified in the hardware guide for the device.

Compliance Statement for Electrical Codes

- United States—National Fire Protection Association (NFPA 70), United States National Electrical Code
- Canada—Canadian Electrical Code, Part 1, CSA C22.1
- Other countries—International Electromechanical Commission (IEC) 60364, Part 1 through Part 7
- Evaluated to the IT power system

CHAPTER 4

Handling Devices

This chapter includes the following topics:

- Preventing Electrostatic Discharge Damage on page 17
- General Laser Safety Guidelines on page 18
- Laser Warnings on page 19
- Radiation from Open Port Apertures Warning on page 19
- Telecommunication Line Cord Warning on page 19
- Preventing Electromagnetic Interference on page 20
- Covering Empty Slots Warning on page 20
- Jewelry Removal Warning on page 20
- Operating Temperature Warning on page 20

Preventing Electrostatic Discharge Damage

Electrostatic discharge (ESD) damage occurs when electronic cards or components are mishandled and can cause complete or intermittent failures.

Many devices are sensitive to damage from static electricity. Some components can be impaired by voltages as low as 30 V. You can easily generate potentially damaging static voltages whenever you handle plastic or foam packing material or if you move components across plastic or carpets. Observe the following guidelines to minimize the potential for ESD damage:

- Always use an ESD-preventive wrist strap or ankle strap when handling electronic components, and verify that the strap is in direct contact with your skin.

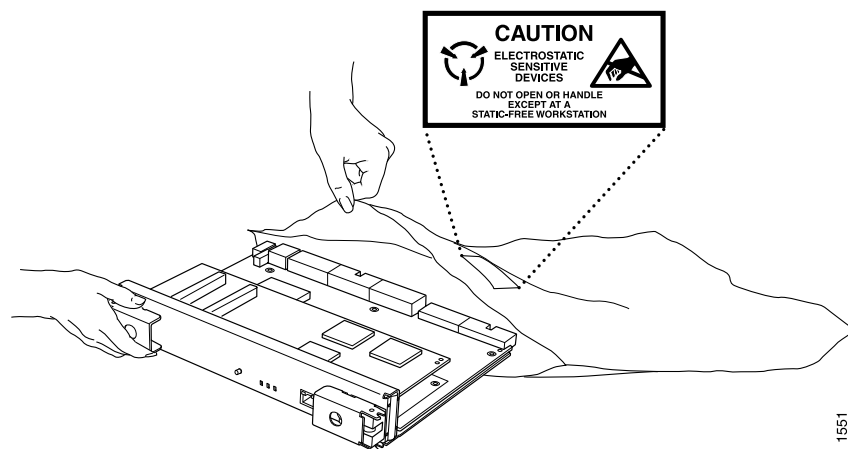


CAUTION: For safety, periodically check the resistance value of the ESD strap. The measurement should be in the range of 1 to 10 Mohms.

- When handling any component that is removed from the chassis, verify that the equipment end of your ESD strap is attached to one of the ESD points on the chassis. See the hardware guide for your device.

- Avoid contact between the component and your clothing. The wrist strap only protects the component from ESD voltages on the body; ESD voltages emitted from clothing can still damage components.
- Always handle cards by the faceplates and edges only; avoid touching the printed circuit board and connector pins.
- When removing or installing a component, always place it component-side up on an antistatic surface, into an antistatic card rack, or into an electrostatic bag (see [Figure 1 on page 18](#)). If you are returning a component, place it into an electrostatic bag before packing it.

Figure 1: Placing a Component into an Electrostatic Bag



General Laser Safety Guidelines

Some Juniper Networks devices are equipped with fiber-optic ports, which emit radiation that might be harmful to the human eye. Be aware of the following:

- Fiber-optic ports (for example, GBIC and mini-GBIC) are considered Class 1 laser or Class 1 LED ports.
- When working around Physical Interface Card (PICs), observe the following safety guidelines to prevent eye injury:
 - Do not look into unterminated ports or at fibers that connect to unknown sources.
 - Do not examine unterminated optical ports with optical instruments.
 - Avoid direct exposure to the beam.
 - Always keep unterminated optical ports covered when not in use.



WARNING: Unterminated optical connectors can emit invisible laser radiation. The lens in the human eye focuses all the laser power on the retina, so focusing the eye directly on a laser source—even a low-power laser—could permanently damage the eye.

Laser Warnings

Class 1 Laser Product Warning



WARNING: Class 1 Laser product.

Class 1M Laser Product Warning



WARNING: Class 1M Laser product.



WARNING: Do not stare into the laser beam or view it directly with optical instruments.

Invisible radiation might be emitted from the aperture of the port when no fiber cable is connected.

Radiation from Open Port Apertures Warning

These products have been tested and found to comply with Class 1 limits of IEC 60825-1, EN 60825-1, and 21CFR1040.



WARNING: Because invisible radiation might be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to radiation and do not stare into open apertures.

Telecommunication Line Cord Warning



WARNING: To reduce the risk of fire, use only No. 26 AWG or larger UL-listed or CSA-certified telecommunication line cord.

Preventing Electromagnetic Interference



NOTE: When you run wires for any significant distance in an electromagnetic field, electromagnetic interference (EMI) can occur between the field and the signals on the wires. Note the following information:

- Bad plant wiring can result in radio frequency interference (RFI).
- Strong EMI, especially when it is caused by lightning or radio transmitters, can destroy the signal drivers and receivers in the system and can even create an electrical hazard by conducting power surges through lines and into the system.

To prevent and remedy strong EMI, consult RFI experts.

Covering Empty Slots Warning

Ensure that all cards, faceplates, and covers are in place. Blank faceplates and cover panels are used for the following reasons:

- Preventing exposure to hazardous voltages and currents inside the chassis
- Helping contain electromagnetic interference (EMI) that might disrupt other equipment
- Directing the flow of cooling air through the chassis



NOTE: If a CFM/FRU slot is not occupied by a card, you must install a blank panel to shield the empty slot and to allow cooling air to circulate properly through the device.

Jewelry Removal Warning



WARNING: Before working on equipment that is connected to power lines, remove jewelry, including rings, necklaces, and watches. Metal objects heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.

Operating Temperature Warning



CAUTION: To prevent airflow restriction, allow sufficient clearance around the ventilation openings. Refer to the hardware guide for the concerned product for clearance recommendations.



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WARNING: Avoid touching hot surfaces while installing or removing components. Allow the internal system components to cool before touching them.

Though you can remove the fan tray while the fans are still running, we strongly recommend that you do not proceed until the fans have stopped spinning.

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CHAPTER 5

Agency Approvals and Compliance Statements

This chapter includes the following topics:

- [Agency Approvals on page 23](#)
- [Compliance Statements on page 24](#)

Agency Approvals

Juniper Networks devices comply with the following standards (for specific information about your device, see the hardware guide for your device):

- Safety
 - CAN/CSA-C22.2 No. 60950-1 Information Technology Equipment - Safety
 - UL 60950-1 Information Technology Equipment - Safety
 - EN 60950-1 Information Technology Equipment - Safety
 - IEC 60950-1 Information Technology Equipment - Safety (All country deviations):
CB Scheme report
- Electromagnetic Compatibility
 - EN 300 386 Telecom Network Equipment - EMC requirements
 - EN 55024 Information Technology Equipment Immunity Characteristics
- EMI
 - FCC 47CFR , Part 15 USA Radiated Emissions
 - EN 55022 European Radiated Emissions
 - VCCI Japanese Radiated Emissions
 - BSMI CNS 13438 and NCC C6357 Taiwan Radiated Emissions
 - AS/NZS CISPR22
- Environmental Product Design

- 2002/95/EC (RoHS) Restriction on Hazardous Substances
- 2002/96/EC (WEEE) Design for Easy Disassembly and Recycling
- 2006/1907/EC (REACH) Registration, Evaluation, Authorization of Chemicals
- JIG 101-A, JIG 101-B Joint Industry Guide Japanese Material Composition Declaration
- IPC 1752
- CAITEC SJ/T 11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products (China RoHS)
- Customer Specific Requirements - Equipment intended for Central office deployment meets the following requirements:
 - GR-63-Core Network Equipment, Building Systems (NEBS) Physical Protection
 - GR-1089-Core EMC and Electrical Safety for Network Telecommunications Equipment

Compliance Statements

Industry Canada Statement

The following is applicable to devices with wireless interfaces:

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.

This device has been designed to operate with an antenna having a maximum gain of 4 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. 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 EIRP is not more than required for successful communication.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding.

Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Federal Communications Commission Interference Statement

The following is applicable to devices with wireless interfaces:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio

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

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) (2)

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

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 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Taiwan DGT

The following is applicable to devices with wireless interfaces:

- (1) 經審驗合格之射頻電信終端設備, 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。
- (2) 射頻電信終端設備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。所謂合法通信, 係指依電信法規定作業之無線電信。
- (3) 輸入、製造射頻電信終端設備之公司、商號或其使用者違反本法規定, 擅自使用或變更無線電頻率、電功率者, 除依電信法規定處罰外, 電信總局並得撤銷其審驗合格證明。

VCCI Compliance

The following VCCI compliance information applies to security products that meet VCCI Class A or Class B limits. See the specifications section in the hardware guide for your device to determine whether the product meets Class A or Class B limits.

クラス A 情報技術装置

この装置は、情報処理装置等電波障害自主規制協議会（V C C I）の基準に基づくクラス A 情報技術装置です。この装置を家庭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。

Translation:

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.

クラス B 情報技術装置

この装置は、情報処理装置等電波障害自主規制協議会（V C C I）の基準に基づくクラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

Translation:

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this product is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Compliance Statements (Korea)

The following compliance information applies to Class A (Industrial Broadcasting and Communication Equipment) and Class B (Home Use Broadcasting and Communication) equipments.

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

Korean Class A Warning 9040913

Translation:

This equipment is Industrial (Class A) electromagnetic wave suitability equipment and seller or user should take notice of it, and this equipment is to be used in the places except for home.

This is a Class B product.

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Korean Class B Warning

9040914

Translation:

This equipment is home use (Class B) electromagnetic wave suitability equipment and to be used mainly at home and it can be used in all areas

Wireless Connections for Products with Wireless Interfaces



WARNING: In countries other than the United States or Japan, you must set the correct country code with the `set wlan country-code` command to avoid violating local radio spectrum laws. This command sets the selectable channel range and transmit power level so that a WLAN connection can be established. For more information about country codes, see the hardware guide for your device.

Product Reclamation and Recycling Program

Juniper Networks is committed to environmentally responsible behavior. As part of this commitment, we work to comply with environmental standards such as the European Union's *Waste Electrical and Electronic Equipment* (WEEE) Directive and *Restriction of Hazardous Substances* (RoHS) Directive.

These directives and other similar regulations from countries outside the European Union regulate electronic waste management and the reduction or elimination of specific hazardous materials in electronic products. The WEEE Directive requires electrical and electronics manufacturers to provide mechanisms for the recycling and reuse of their products. The RoHS Directive restricts the use of certain substances that are commonly found in electronic products today. Restricted substances include heavy metals, including lead, and poly-brominated materials. The RoHS Directive, with some exemptions, applies to all electrical and electronic equipment.

In accordance with Article 11(2) of Directive 2002/96/EC (WEEE), products put on the market after 13 August 2005 are marked with the following symbol or include it in their product documentation: a cross-out wheeled waste bin with a bar beneath.



Juniper Networks provides recycling support for our equipment worldwide to comply with the WEEE Directive. For recycling information, send e-mail to recycling@juniper.net indicating the type of Juniper Networks equipment that you wish to dispose of and the country where it is currently located, or contact your Juniper Networks account representative.

Products returned through our reclamation process are recycled, recovered, or disposed of in a responsible manner. Our packaging is designed to be recycled and should be handled in accordance with your local recycling policies.

Compliance Statement for Environmental Requirements

This section describes the compliance statements for environmental requirements:

Lithium Battery

Batteries in this product are not based on mercury, lead, or cadmium substances. The batteries used in this product are in compliance with EU Directives 91/157/EEC, 93/86/EEC, and 98/101/EEC. The product documentation includes instructional information about the proper method of reclamation and recycling.

Compliance Statements for Acoustic Noise (Germany)

Maschinenlärminformations-Verordnung - 3. GPSGV, der höchste Schalldruckpegel beträgt 70_dB(A) oder weniger gemäss EN ISO 7779.

Translation:

The maximum emitted sound pressure level is 70_dB(A) or less per EN ISO 7779.

PART 2

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