



Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series

Read this document before installing or servicing the following systems:

- Cisco ONS 15501
- Cisco ONS 15530
- Cisco ONS 15540 ESP
- Cisco ONS 15540 ESPx



Note

Only trained and qualified service personnel (as defined in IEC 60950 and AS/NZS 3260) should install, replace, or service the equipment. Install the system in accordance with the U.S. National Electric Code if you are in the United States.



Warning

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.

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- [Cisco Limited 5-Year Hardware and 1-Year Software Warranty Terms, page 30](#)



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Site Preparation

This section describes the site requirements for installing the Cisco ONS 15500 Series products. To ensure normal system operation, plan your site configuration and prepare your site before installation.

Follow these guidelines when choosing a site for installation:

- Install the system in a restricted access area, where access can be gained only by service personnel through the use of a special tool, lock and key, or other means of security.
- Choose a site with a dry, clean, well-ventilated, and air-conditioned area.
- Choose a site that maintains an ambient temperature of 32 to 104°F (0 to 40°C).

Ensuring Overcurrent Protection

The system relies on the protective devices in the building installation for protection against short-circuit, overcurrent, and earth (grounding) fault. Ensure that the protective devices in the building installation are properly rated to protect the system, and that they comply with national and local codes.

Grounding the System

Follow these guidelines when grounding the system:

- Do not defeat the ground conductor on an AC plug.
- Connect AC-powered systems to grounded power outlets.
- Connect the system to earth (ground).

Creating a Safe Environment

Follow these guidelines to create a safe environment:

- Keep tools and chassis components off the floor and away from foot traffic.
- Clear the area of possible hazards, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- Keep the area around the chassis free from dust and foreign conductive material (such as metal flakes from nearby construction activity).

Rack-Mounting the System

A rack-mount kit and cable guides come with the system. The kit is not suitable for racks with obstructions (such as a power strip) that could impair access to system components. Allow sufficient clearance around the rack for system maintenance.

Ensuring Proper Airflow

Follow these guidelines to ensure proper airflow:

- Install the system in an open rack whenever possible. If installation in an enclosed rack is unavoidable, ensure that the rack has adequate ventilation.
- Maintain ambient airflow to ensure normal operation. If the airflow is blocked or restricted, or if the intake air is too warm, an overtemperature condition can occur.
- Allow at least 6 inches (15.24 cm) of clearance around the ventilation openings of the chassis.
- Avoid placing the system in an overly congested rack or directly next to another equipment rack. Heat exhaust from other equipment can enter the inlet air vents and cause an overtemperature condition.
- Equipment near the bottom of a rack might generate excessive heat that is drawn upward and into the intake ports of the equipment above. The warm air can cause an overtemperature condition in the equipment above.
- Ensure that cables from other equipment do not obstruct the airflow through the chassis or impair access to the power supplies or cards. Route cables away from field-replaceable components to avoid disconnecting cables unnecessarily for equipment maintenance or upgrades.

Stabilizing the System

The standard rack dimensions are 84 x 17.75 x 19.25 inches. Follow these guidelines to stabilize the system:

- Install any stabilizers that came with your equipment rack before mounting or servicing the system in the rack.
- Load the rack from the bottom to the top, with the heaviest system at the bottom.
- Do not stack the system on top of any other equipment. If the system falls, it can cause severe bodily injury and damage the equipment.
- Ensure that the shelf is constructed to support the weight and dimensions of the chassis if you are using an equipment shelf.
- Ensure that the weight of the chassis does not make the rack unstable. Secure telco racks with ceiling brackets if the rack is populated with heavy equipment.
- Bolt the rack to the floor for stability.

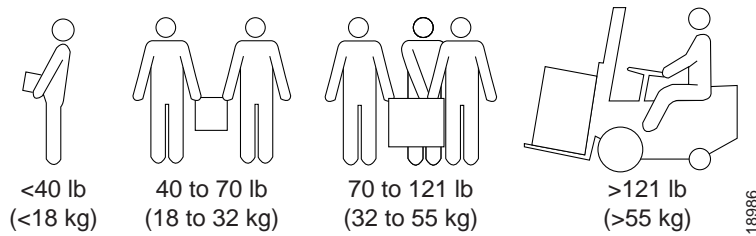
Lifting the System

Follow these guidelines when lifting the system:

- Disconnect all power and external cables before lifting the system.
- Ensure that your footing is solid and the weight of the system is evenly distributed between your feet.
- Lift the system slowly, keeping your back straight. Lift with your legs, not with your back. Bend at the knees, not at the waist.
- Do not attempt to lift the system with the handles on the power supplies or on any of the cards. These handles are not designed to support the weight of the system.
- Depending on the weight of the system, more than one person might be required to lift it.

Figure 1 shows the number of people needed to lift the system by weight.

Figure 1 *Safely Lifting the System*



Power Considerations

AC and DC power supplies, and an optional redundant (second) power supply, are available for most systems. Be careful when connecting systems to the supply circuit so that wiring is not overloaded.



Note

Refer to your hardware installation guide for AC and DC power specifications and for redundant power supply availability.

AC Power

The system is designed for connection to TN power systems. A TN power system is a power distribution system with one point connected directly to earth (ground). The exposed conductive parts of the installation are connected to that point by protective earth conductors.

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

DC Power

Follow these guidelines for DC power supplies:

- 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, CSA 60950, EN 60950, and IEC 60950 standards.
- Ensure that there is a readily accessible disconnect device incorporated in the building's installation wiring.
- Ensure that power is removed from the DC circuit before installing or removing power supplies. Tape the switch handle of the DC circuit breaker in the off position.
- Use only copper conductors to connect to a DC terminal block.
- Use approved wiring terminations, such as closed-loop or spade-type with upturned lugs, when stranded wiring is required. 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.

Using Redundant Power

If your system includes an optional redundant (second) power supply, connect each of the two power supplies to different input power sources. Failure to do so makes the system susceptible to total power failure in the event that one of the power supplies fails.

Preventing ESD Damage

Electrostatic discharge (ESD) damage occurs when electronic cards or components are mishandled and can result in complete or intermittent failures. Note the following guidelines before you install or service the system:

- Always wear an ESD-preventive wrist or ankle strap when handling electronic components. Connect one end of the strap to an ESD jack or an unpainted metal component on the system (such as a captive installation screw).
- Handle cards by the faceplates and edges only; avoid touching the printed circuit board and connector pins.
- Place any removed component on an antistatic surface or in a static shielding bag.
- Avoid contact between the cards and clothing. The wrist strap only protects the card from ESD voltages on the body; ESD voltages on clothing can still cause damage.



Note

For safety, periodically check the resistance value of the antistatic strap. The measurement should be between 1 and 10 megohms (Mohms).

Installing and Servicing the System

Follow these guidelines when installing and servicing the system:

- Disconnect all power and external cables before installing the system.
- Install the system in compliance with your local and national electrical codes:
 - United States: National Fire Protection Association (NFPA) 70; United States National Electrical Code.
 - Canada: Canadian Electrical Code, Part I, CSA C22.1.
 - Other countries: If local and national electrical codes are not available, refer to IEC 364, Part 1 through Part 7.
- Do not work alone under potentially hazardous conditions.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Do not touch the backplane or midplane with your hand or metal tools.
- Remove all jewelry (including rings and chains) or other items that could get caught in the system or heat up and cause serious burns.

Disconnecting Power

Follow these guidelines when disconnecting power:

- Locate the emergency power-off switch for the room before working with the system.
- Turn off the power and disconnect the power from the circuit when working with components that are not hot-swappable or when working near the system backplane or midplane. If the system does not have an on/off switch, unplug the power cord.
- De-energize the system completely by disconnecting the power connection 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 circuit breaker in the off position.
- Do not touch the power supply when the power cord is connected. Line voltages are present within the power supply even when the power switch is off and the power cord is connected.

Working with Lasers

The following laser safety standards classify the Cisco ONS 15500 Series:

- Class 1M LASER PRODUCT (IEC 60825-1 2001-01)
- Class I LASER PRODUCT (complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice 50, dated July 26, 2001)

The maximum output is less than 10 mW when measured through a 3.5-mm aperture located at a distance of 100 mm and the wavelength is 1530 to 1562 nm from fiber optic connectors on the optical amplifier, output of the ITU line cards, and the optical mux/demux modules.

Other fiber-optic ports (for example, ESCON, Fibre Channel, Gigabit Ethernet, OC-3, OC-48) have been tested and comply with the Class 1 limits of IEC 60825-1 and Class 1 limits of 21 CFR 1040.10.



Warning

Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not stare into the beam or view directly with optical instruments. Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

Preventing EMI

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. Be aware of the following:

- Bad plant wiring can result in RFI (radio frequency interference).
- 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 predict and remedy strong EMI, consult RFI experts.

Covering Empty Slots

Ensure that all cards, faceplates, and covers are in place. Filler motherboards and filler modules and cover panels are used to:

- Prevent exposure to hazardous voltages and currents inside the chassis
- Help contain EMI (electromagnetic interference) that might disrupt other equipment
- Direct the flow of cooling air through the chassis
- Protect the backplane from dust

Disposing of the System

Dispose of the system and its components (including batteries) as specified by all national laws and regulations.

Regulatory Standards Compliance

This section includes the regulatory compliance, safety, and EMC standards. It also lists the warnings applicable to different countries.

[Table 1](#) lists the regulatory standards compliance specifications for the Cisco ONS 15540 ESPx, Cisco ONS 15540 ESP, Cisco ONS 15530, and Cisco ONS 15501.

Table 1 *Regulatory Standards Compliance*

Specification	Description
Regulatory Compliance	Products bear CE Marking indicating compliance with the 89/336/EEC and 73/23/EEC directives, which includes the following safety and EMC standards.
Safety	UL 60950 CAN/CSA-C22.2 No.60950 EN 60950 IEC 60950 TS 001 AS/NZS 3260 IEC 60825-1 IEC 60825-2 EN 60825-1 EN 60825-2 21CFR 1040
EMC	FCC Part 15 (CFR 47) Class A ICES-003 Class A EN 55022 Class A CISPR22 Class A AS/NZS 3548 Class A VCCI Class A EN 55024 ETS 300 386 EN 50082-1 EN 61000-3-2 EN 61000-3-3

Table 2 lists the telecom specifications for the Cisco ONS 15540 ESPx.

Table 2 *Telecom Specifications*

Specification	Description
SONET OC-3, OC-12, OC-48 and OC-192 interfaces	GR-253-Core Synchronous Optical Network (SONET) transport systems: common generic criteria ¹
SDH	G.957 Optical interfaces for equipment and systems relating to the SDH ¹ G.825 The control of jitter and wander within digital networks that are based on the SDH ² G.692 Optical interfaces for multichannel systems with optical amplifiers ³

1. Applies to extended range transponders only.
2. Applies to transponders on the Cisco ONS 15530, Cisco ONS 15540 ESP, and Cisco ONS 15540 ESPx and extended range transponders with SFP optics.
3. ITU wavelengths only.

European Community, Switzerland, Norway, Iceland and Liechtenstein

Declaration of Conformity with Regard to the Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC

Deutsch:	Dieses Gerät entspricht den wesentlichen Anforderungen und weiteren Bestimmungen der Richtlinien 73/23/EWG und 89/336/EWG mit der Ergänzung durch Richtlinie 93/68/EWG.
Dansk:	Denne udstyr er i overensstemmelse med de ufravigelige hensyn og andre bestemmelser i direktiv 73/23/EEC og 89/336/EEC som ændret i direktiv 93/68/EEC.
English:	This equipment is in compliance with the essential requirements and other provisions of Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC.
Español:	Este equipo cumple con los requisitos esenciales y otras disposiciones de las Directrices 73/23/EEC y 89/336/EEC de acuerdo a las modificaciones de la Directriz 93/68/EEC.
Ελληνικά:	Αυτός ο εξοπλισμός συμμορφώνεται με τις ουσιαστικές απαιτήσεις και τις λοιπές διατάξεις των Οδηγιών 73/23/EOK και 89/336/EOK, όπως τροποποιήθηκαν με την Οδηγία 93/68/EOK.
Français:	Cet appareil remplit les principales conditions requises et autres dispositions des Directives 73/23/EEC et 89/336/EEC, modifiées par la Directive 93/68/EEC.
Íslenska:	essirbúna ursamr mistlögbo numkröfum og ö rumákvæ umtilskipana 73/23/EBE og 89/336/EBE, me brætningum skv. tilskipun 93/68/EBE.
Italiano:	Questa apparecchiatura è conforme ai requisiti essenziali e altre disposizioni delle Direttive 73/23/EEC e 89/336/EEC modificate con la Direttiva 93/68/EEC.
Nederlands:	Deze apparatuur voldoet aan de belangrijkste eisen en andere voorzieningen van richtlijnen 73/23/EEC en 89/336/EEC zoals gewijzigd door richtlijn 93/68/EEC.
Norsk:	Denne utstyret samsvarer med de vesentligste kravene og andre regler i direktivene 73/23/EEC og 89/336/EEC samt i tilleggsdirektiv 93/68/EEC.

Português:	Este equipamento satisfaz os requisitos essenciais e outras provisões das Directivas 73/23/EEC e 89/336/EEC, conforme amendados pela Directiva 93/68/EEC.
Suomalainen:	Tämä laite on direktiivien 73/23/ETY ja 89/336/ETY (kuten muutettu direktiivissä 93/68/ETY) keskeisten vaatimusten ja määräysten mukainen.
Svenska:	Denna utrustning uppfyller de väsentliga kraven och andra villkor i direktiven 73/23/EEC och 89/336/EEC enligt ändringarna i direktiv 93/68/EEC.
Romania:	Prin prezenta, noi Cisco Systems România SRL, declarăm pe propria răspundere că produsul Cisco ONS 15500 Series, îndeplinește principalele cerințe de conformitate cu Directiva Europeană 89/336/EEC, 73/23/EEC.

EMC Environmental Conditions in the European Union

This equipment is intended to operate under the following environmental conditions with respect to EMC:

- A separate defined location under user's control.
- Earthing and bonding shall meet the requirements of ETS 300 253 or CCITT K27.
- Where applicable, AC power distribution shall be one of the following types: TN-S and TN-C as defined in IEC 364-3.

In addition, if equipment is operated in a domestic environment, interference may occur.

FCC Class A Warning



Warning

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B 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. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Canada Class A Warning



Warning

**This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.**

CISPR 22 Class A Warning



Warning

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.

Japan VCCI Class A Warning



Warning

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）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。

Taiwan (BSMI) Class A Warning



Warning

This is a Class A information product. It may cause radio frequency interference in residential environments. Under such circumstances, the user may be requested to take appropriate countermeasures.

警告使用者：這是甲類資訊產品，在居住環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Hungary Class A Warning



Warning

This equipment is a Class A product and should be used and installed properly according to the Hungarian EMC Class A requirements (MSZEN55022). The Class A equipment is derived for typical commercial establishments for which special conditions of installation and protection distance are used.

Figyelmeztetés a felhasználói kézikönyv számára: Ez a berendezés "A" osztályú termék, felhasználására és üzembe helyezésére a magyar EMC "A" osztályú követelményeknek (MSZ EN 55022) megfelelően kerülhet sor, illetve ezen "A" osztályú berendezések csak megfelelő kereskedelmi forrásból származhatnak, amelyek biztosítják a megfelelő speciális üzembe helyezési körülményeket és biztonságos üzemelési távolságok alkalmazását.

Korea Class A Warning



Warning

Class A Device This device is registered for EMC requirements for industrial use. The seller or buyer should be aware of this. If this type was sold or purchased by mistake, it should be replaced with a residential-use type.

기종별	사용자 안내문
A 급기기	이 기기는 업무용으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며 만약 잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

JATE Certification

The Cisco ONS 15500 Series meets the requirements of the Japan Approvals Institute for Telecommunications Equipment (JATE). [Table 3](#) lists the JATE approval details.

Table 3 JATE Approval

Applicant Name	Model Number	Approval Number
Nihon Cisco Systems	15540-TSP1-01A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-03A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-05A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-07A3	D02-0462JP

Table 3 *JATE Approval (continued)*

Nihon Cisco Systems	15540-TSP1-09A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-11A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-13A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-15A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-17A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-19A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-21A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-23A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-25A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-27A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-31A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-01B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-03B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-05B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-07B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-09B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-11B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-13B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-15B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-17B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-19B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-21B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-23B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-25B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-27B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-31B3	D02-0463JP
Nihon Cisco Systems	15540-TSP2-0100	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1100	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2100	D02-0464JP

Table 3 JATE Approval (continued)

Nihon Cisco Systems	15540-TSP2-2300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-3100	D02-0464JP

Translated Safety Warnings

This section includes translations in multiple languages of the warnings that may appear in the Cisco ONS 15500 Series product documents.

Unterminated Fiber Warning



Warning

Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not stare into the beam or view directly with optical instruments. Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. Use of controls or adjustments or performance of procedures other than those specified may result in hazardous radiation exposure.

Waarschuwing

Er kunnen onzichtbare laserstralen worden uitgezonden vanuit het uiteinde van de onafgebroken vezelkabel of connector. Niet in de straal kijken of deze rechtstreeks bekijken met optische instrumenten. Als u de laseruitvoer met bepaalde optische instrumenten bekijkt (zoals bijv. een oogloep, vergrootglas of microscoop) binnen een afstand van 100 mm kan dit gevaar voor uw ogen opleveren. Het gebruik van regelaars of bijstellingen of het uitvoeren van procedures anders dan opgegeven kan leiden tot blootstelling aan gevaarlijke straling.

Varoitus

Päättämättömän kuitukaapelin tai -liittimen päästä voi tulla näkymätöntä lasersäteilyä. Älä tuijota sädettä tai katso sitä suoraan optisilla välineillä. Lasersäteen katsominen tietyillä optisilla välineillä (esim. suurennuslasilla tai mikroskoopilla) 10 cm:n päästä tai sitä lähempää voi olla vaarallista silmille. Säätimien tai säätöjen käyttö ja toimenpiteiden suorittaminen ohjeista poikkeavalla tavalla voi altistaa vaaralliselle säteilylle.

Attention

Des émissions de radiations laser invisibles peuvent se produire à l'extrémité d'un câble en fibre ou d'un raccord sans terminaison. Ne pas fixer du regard le rayon ou l'observer directement avec des instruments optiques. L'observation du laser à l'aide certains instruments optiques (loupes et microscopes) à une distance inférieure à 100 mm peut poser des risques pour les yeux. L'utilisation de commandes, de réglages ou de procédures autres que ceux spécifiés peut entraîner une exposition dangereuse à des radiations.

Warnung	Eine unsichtbare Laserstrahlung kann vom Ende des nicht angeschlossenen Glasfaserkabels oder Steckers ausgestrahlt werden. Nicht in den Laserstrahl schauen oder diesen mit einem optischen Instrument direkt ansehen. Ein Betrachten des Laserstrahls mit bestimmten optischen Instrumenten, wie z.B. Augenlupen, Vergrößerungsgläsern und Mikroskopen innerhalb eines Abstands von 100 mm kann für das Auge gefährlich sein. Die Verwendung von nicht spezifizierten Steuerelementen, Einstellungen oder Verfahrensweisen kann eine gefährliche Strahlenexposition zur Folge haben.
Avvertenza	L'estremità del connettore o del cavo ottico senza terminazione può emettere radiazioni laser invisibili. Non fissare il raggio od osservarlo in modo diretto con strumenti ottici. L'osservazione del fascio laser con determinati strumenti ottici (come lupette, lenti di ingrandimento o microscopi) entro una distanza di 100 mm può provocare danni agli occhi. L'adozione di controlli, regolazioni o procedure diverse da quelle specificate può comportare il pericolo di esposizione a radiazioni.
Advarsel	Usynlig laserstråling kan emittere fra enden av den ikke-terminerte fiberkabelen eller koblingen. Ikke se inn i strålen og se heller ikke direkte på strålen med optiske instrumenter. Observering av laserutgang med visse optiske instrumenter (for eksempel øyelupe, forstørrelsesglass eller mikroskop) innenfor en avstand på 100 mm kan være farlig for øynene. Bruk av kontroller eller justeringer eller utførelse av prosedyrer som ikke er spesifiserte, kan resultere i farlig strålingseksponering.
Aviso	Radiação laser invisível pode ser emitida pela ponta de um conector ou cabo de fibra não terminado. Não olhe fixa ou diretamente para o feixe ou com instrumentos ópticos. Visualizar a emissão do laser com certos instrumentos ópticos (por exemplo, lupas, lentes de aumento ou microscópios) a uma distância de 100 mm pode causar riscos à visão. O uso de controles, ajustes ou desempenho de procedimentos diferentes dos especificados pode resultar em exposição prejudicial de radiação.
¡Advertencia!	El extremo de un cable o conector de fibra sin terminación puede emitir radiación láser invisible. No se acerque al radio de acción ni lo mire directamente con instrumentos ópticos. La exposición del ojo a una salida de láser con determinados instrumentos ópticos (por ejemplo, lupas y microscopios) a una distancia de 100 mm puede comportar lesiones oculares. La aplicación de controles, ajustes y procedimientos distintos a los especificados puede comportar una exposición peligrosa a la radiación.
Varning!	Osynlig laserstrålning kan komma från änden på en oavslutad fiberkabel eller -anslutning. Titta inte rakt in i strålen eller direkt på den med optiska instrument. Att titta på laserstrålen med vissa optiska instrument (t.ex. lupper, förstoringsglas och mikroskop) från ett avstånd på 100 mm kan skada ögonen. Om andra kontroller eller justeringar än de angivna används, eller om andra processer än de angivna genomförs, kan skadlig strålning avges.

Wrist Strap Warning



Warning

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.

Waarschuwing

Drag tijdens deze procedure aardingspolsbanden om te vermijden dat de kaart beschadigd wordt door elektrostatische ontlading. Raak het achterbord niet rechtstreeks aan met uw hand of met een metalen werktuig, omdat u anders een elektrische schok zou kunnen oplopen.

Varoitus	Käytä tämän toimenpiteen aikana maadoitettuja rannesuojia estääksesi kortin vaurioitumisen sähköstaattisen purkauksen vuoksi. Älä kosketa taustalevyä suoraan kädelläsi tai metallisella työkalulla sähköiskuvaaran takia.
Attention	Lors de cette procédure, toujours porter des bracelets antistatiques pour éviter que des décharges électriques n'endommagent la carte. Pour éviter l'électrocution, ne pas toucher le fond de panier directement avec la main ni avec un outil métallique.
Warnung	Zur Vermeidung einer Beschädigung der Karte durch elektrostatische Entladung während dieses Verfahrens ein Erdungsband am Handgelenk tragen. Bei Berührung der Rückwand mit der Hand oder einem metallenen Werkzeug besteht Elektroschockgefahr.
Figyelem!	Az elektromos kisülés okozta meghibásodás elkerülése érdekében az eljárás során viseljen földelő csuklópántot. Se kézzel, se fém eszközzel ne érjen hozzá a kártya hátlapjához, mert különben áramütést szenvedhet.
Avvertenza	Durante questa procedura, indossare bracciali antistatici per evitare danni alla scheda causati da un'eventuale scarica elettrostatica. Non toccare direttamente il pannello delle connessioni, né con le mani né con un qualsiasi utensile metallico, perché esiste il pericolo di folgorazione.
Advarsel	Bruk jordingsarmbånd under prosedyren for å unngå ESD-skader på kortet. Unngå direkte berøring av bakplanet med hånden eller metallverktøy, slik at du ikke får elektrisk støt.
Aviso	Durante este procedimento e para evitar danos ESD causados à placa, use fitas de ligação à terra para os pulsos. Para evitar o risco de choque eléctrico, não toque directamente na parte posterior com a mão ou com qualquer ferramenta metálica.
¡Advertencia!	Usartiras conectadas a tierra en las muñecas durante este procedimiento para evitar daños en la tarjeta causados por descargas electrostáticas. No tocar el plano posterior con las manos ni con ninguna herramienta metálica, ya que podría producir un choque eléctrico.
Varning!	Använd jordade armbandsremmar under denna procedur för att förhindra elektrostatisk skada på kortet. Rör inte vid baksidan med handen eller metallverktyg då detta kan orsaka elektrisk stöt.
Предупреждение	При выполнении данной процедуры наденьте заземленные браслеты, чтобы избежать повреждения платы электростатическим разрядом. Не дотрагивайтесь до задней панели рукой или металлическим предметом, поскольку это может привести к поражению электрическим током.
警告	在此过程中，请佩戴接地腕带以避免ESD损坏插卡。请勿用手或任何金属工具直接接触后面板，否则您可能受到电击。
警告	この手順を行う際には、ESDによるカードの損傷を防ぐため、静電気防止用リストストラップを着用してください。電気ショックを防ぐために、装置の背面を直接手や金属で触らないようにします。

Restricted Area Warning



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.

Waarschuwing

Deze eenheid is bestemd voor installatie in plaatsen met beperkte toegang. Toegang tot een dergelijke plaats kan alleen verkregen worden door middel van een speciaal instrument, een slot en sleutel of een ander veiligheidsmiddel.

Varoitus

Tämä laite on tarkoitettu asennettavaksi paikkaan, johon pääsy on rajoitettua. Tällaiseen paikkaan pääsee vain erikoistyökälua, lukkoon sopivaa avainta tai jotakin muuta turvalaitetta käyttämällä.

Attention

Cet appareil est à installer dans des zones d'accès réservé. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.

Warnung

Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.

Figyelem!

A készülék korlátozottan hozzáférhető területre történő beszerelésre készült. A korlátozottan hozzáférhető területekhez csak speciális szerszám, zár és kulcs vagy más biztonsági berendezés segítségével lehet hozzáférni.

Avvertenza

Questa unità è prevista per essere installata in un'area ad accesso limitato, vale a dire un'area accessibile solo mediante l'uso di un attrezzo speciale, come lucchetto e chiave, o altri dispositivi di sicurezza.

Advarsel

Denne enheten er beregnet på installasjon i områder med begrenset tilgang. Et begrenset tilgangsområde kan bare nås ved hjelp av et spesielt verktøy, lås og nøkkel, eller andre sikkerhetsanordninger.

Aviso

Esta unidade foi concebida para instalação em áreas de acesso restrito. Uma área de acesso restrito é uma área à qual apenas tem acesso o pessoal de serviço autorizado, que possua uma ferramenta, chave e fechadura especial, ou qualquer outra forma de segurança.

¡Advertencia!

Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.

Varning!

Denna enhet är avsedd för installation i områden med begränsat tillträde. Ett område med begränsat tillträde kan endast tillträdas med hjälp av specialverktyg, lås och nyckel eller annan säkerhetsanordning.

Предупреждение

Данное устройство предназначено для установки в помещениях с ограниченным доступом. В такие помещения можно попасть, только имея специальное устройство доступа, карту или ключ или пройдя проверку другими средствами обеспечения безопасности.

警告 此部件应安装在限制进出的场所。限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

警告 この装置は立ち入り制限区域内に設置することが前提になっています。立ち入り制限区域とは、鍵、錠、またはその他の保全手段を使用しないと立ち入ることができない区域です。

Qualified Personnel Warning



Warning Only trained and qualified personnel should be allowed to install or replace this equipment.

Waarschuwing Installatie en reparaties mogen uitsluitend door getraind en bevoegd personeel uitgevoerd worden.

Varoitus Ainoastaan koulutettu ja pätevä henkilökunta saa asentaa tai vaihtaa tämän laitteen.

Avertissement Tout installation ou remplacement de l'appareil doit être réalisé par du personnel qualifié et compétent.

Achtung Gerät nur von geschultem, qualifiziertem Personal installieren oder auswechseln lassen.

Figyelem! A berendezést csak szakképzett személy helyezheti üzembe és cserélheti ki.

Avvertenza Solo personale addestrato e qualificato deve essere autorizzato ad installare o sostituire questo apparecchio.

Advarsel Kun kvalifisert personell med riktig opplæring bør montere eller bytte ut dette utstyret.

Aviso Este equipamento deverá ser instalado ou substituído apenas por pessoal devidamente treinado e qualificado.

¡Atención! Estos equipos deben ser instalados y reemplazados exclusivamente por personal técnico adecuadamente preparado y capacitado.

Varning Denna utrustning ska endast installeras och bytas ut av utbildad och kvalificerad personal.

Предупреждение Установку и замену этого оборудования может осуществлять только специально обученный квалифицированный персонал.

警告 只有经过培训且具有资格的人员才能安装或更换此设备。

警告 この装置の設置または交換は、訓練を受けた相応の資格のある人のみが行ってください。

Card Handling Warning



Warning

High-performance devices on this card can get hot during operation. To remove the card, hold it by the faceplate and bottom edge. Allow the card to cool before touching any other part of it or before placing it in an antistatic bag.

Waarschuwing

Geavanceerde onderdelen op deze kaart kunnen tijdens het gebruik heet worden. Als u de kaart wilt verwijderen, moet u deze vastpakken bij de voorkant en onderrand. Laat de kaart afkoelen voordat u andere delen van de kaart aanraakt of voordat u de kaart in een antistatische verpakking plaatst.

Varoitus

Tämän kortin suorituskykyiset mekanismit voivat kuumeta käytössä. Kortin voi poistaa tarttumalla siihen tasopinnasta ja alareunasta. Anna kortin jäähtyä, ennen kuin kosket sen muihin osiin tai ennen kuin laitat sen antistaattiseen pussiin.

Attention

Les périphériques hautes performances de cette carte emmagasinent de la chaleur en cours de fonctionnement. Pour retirer la carte, tenez-la par le cache et par la partie inférieure. Attendez qu'elle refroidisse avant de toucher les autres parties ou avant de la mettre dans un sac antistatique.

Warnung

Hochleistungsgeräte auf dieser Karte können während des Betriebs sehr heiß werden. Um die Karte zu entfernen, halten Sie sie an der Frontplatte und der Unterkante. Lassen Sie die Karte abkühlen, bevor Sie sie an einer anderen Stelle berühren oder in einen Antistatikbehälter stecken.

Avvertenza

Le apparecchiature ad alte prestazioni montati su questa scheda possono surriscaldarsi durante il funzionamento. Per rimuovere la scheda, tenerla tra la piastra anteriore e il bordo inferiore. Attendere che la scheda si raffreddi prima di toccare le altre componenti o di porla in un sacchetto antistatico.

Advarsel

Enkelte høykapasitets komponenter på dette kortet kan bli varme under bruk. Hvis du skal ta ut kortet, må du holde i kortet ved frontplaten og den nederste kanten. La kortet bli avkjølt før du tar på andre deler av kortet eller putter det i en antistatisk pose.

Aviso

Os dispositivos de alta performance nesta placa podem aquecer durante o funcionamento. Para retirar a placa, segure-a pela borda do prato e da base. Deixe a placa arrefecer antes de tocar em qualquer outra zona da mesma ou antes de a colocar num saco antiestático.

¡Advertencia!

Los dispositivos de alto rendimiento contenidos en la tarjeta pueden alcanzar elevadas temperaturas durante su funcionamiento. Para extraer la tarjeta, sujétela por el extremo inferior y la cubierta. Permita que se enfríe la tarjeta antes de tocar ninguna pieza de la misma y de colocarla en una bolsa antiestática.

Varning!

Detta korts högprestandaenheter kan bli mycket varma under drift. Ta ut kortet genom att hålla det på frontpanelen och nedre kanten. Låt kortet svalna innan du vidrör någon annan del av det eller innan du placerar det i en antistatisk påse.

Warning Definition



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. To see translations of the warnings that appear in this publication, refer to the translated safety warnings that accompanied this device.

Note: SAVE THESE INSTRUCTIONS

Note: This documentation is to be used in conjunction with the specific product installation guide that shipped with the product. Please refer to the Installation Guide, Configuration Guide, or other enclosed additional documentation for further details.

Waarschuwing

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Voor een vertaling van de waarschuwingen die in deze publicatie verschijnen, dient u de vertaalde veiligheidswaarschuwingen te raadplegen die bij dit apparaat worden geleverd.

Opmerking BEWAAR DEZE INSTRUCTIES.

Opmerking Deze documentatie dient gebruikt te worden in combinatie met de installatiehandleiding voor het specifieke product die bij het product wordt geleverd. Raadpleeg de installatiehandleiding, configuratiehandleiding of andere verdere ingesloten documentatie voor meer informatie.

Varoitus

TÄRKEITÄ TURVALLISUUTEEN LIITTYVIÄ OHJEITA

Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista. Tässä asiakirjassa esitettyjen varoitusten käännökset löydät laitteen mukana toimitetuista ohjeista.

Huomautus SÄILYTÄ NÄMÄ OHJEET

Huomautus Tämä asiakirja on tarkoitettu käytettäväksi yhdessä tuotteen mukana tulleen asennusoppaan kanssa. Katso lisätietoja asennusoppaasta, kokoonpano-oppaasta ja muista mukana toimitetuista asiakirjoista.

Attention IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions d'avertissements figurant dans cette publication, consultez les consignes de sécurité traduites qui accompagnent cet appareil.

Remarque CONSERVEZ CES INFORMATIONS

Remarque Cette documentation doit être utilisée avec le guide spécifique d'installation du produit qui accompagne ce dernier. Veuillez vous reporter au Guide d'installation, au Guide de configuration, ou à toute autre documentation jointe pour de plus amples renseignements.

Warnung WICHTIGE SICHERHEITSANWEISUNGEN

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewusst. Übersetzungen der in dieser Veröffentlichung enthaltenen Warnhinweise sind im Lieferumfang des Geräts enthalten.

Hinweis BEWAHREN SIE DIESE SICHERHEITSANWEISUNGEN AUF

Hinweis Dieses Handbuch ist zum Gebrauch in Verbindung mit dem Installationshandbuch für Ihr Gerät bestimmt, das dem Gerät beiliegt. Entnehmen Sie bitte alle weiteren Informationen dem Handbuch (Installations- oder Konfigurationshandbuch o. Ä.) für Ihr spezifisches Gerät.

Figyelem! FONTOS BIZTONSÁGI ELŐÍRÁSOK

Ez a figyelmeztető jel veszélyre utal. Sérülésveszélyt rejtő helyzetben van. Mielőtt bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplő figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található.

Megjegyzés ŐRIZZE MEG EZEKET AZ UTASÍTÁSOKAT!

Megjegyzés Ezt a dokumentációt a készülékhez mellékelt üzembe helyezési útmutatóval együtt kell használni. További tudnivalók a mellékelt Üzembe helyezési útmutatóban (Installation Guide), Konfigurációs útmutatóban (Configuration Guide) vagy más dokumentumban található.

Avvertenza IMPORTANTI ISTRUZIONI SULLA SICUREZZA

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Per le traduzioni delle avvertenze riportate in questo documento, vedere le avvertenze di sicurezza che accompagnano questo dispositivo.

Nota CONSERVARE QUESTE ISTRUZIONI

Nota La presente documentazione va usata congiuntamente alla guida di installazione specifica spedita con il prodotto. Per maggiori informazioni, consultare la Guida all'installazione, la Guida alla configurazione o altra documentazione acclusa.

Advarsel VIKTIGE SIKKERHETSINSTRUKSJONER

Dette varselssymbolet betyr fare. Du befinner deg i en situasjon som kan forårsake personskade. Før du utfører arbeid med utstyret, bør du være oppmerksom på farene som er forbundet med elektriske kretssystemer, og du bør være kjent med vanlig praksis for å unngå ulykker. For å se oversettelser av advarslene i denne publikasjonen, se de oversatte sikkerhetsvarslene som følger med denne enheten.

Merk TA VARE PÅ DISSE INSTRUKSJONENE

Merk Denne dokumentasjonen skal brukes i forbindelse med den spesifikke installasjonsveiledningen som fulgte med produktet. Vennligst se installasjonsveiledningen, konfigureringsveiledningen eller annen vedlagt tilleggsdokumentasjon for detaljer.

Aviso INSTRUÇÕES IMPORTANTES DE SEGURANÇA

Este símbolo de aviso significa perigo. O utilizador encontra-se numa situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha em atenção os perigos envolvidos no manuseamento de circuitos eléctricos e familiarize-se com as práticas habituais de prevenção de acidentes. Para ver traduções dos avisos incluídos nesta publicação, consulte os avisos de segurança traduzidos que acompanham este dispositivo.

Nota GUARDE ESTAS INSTRUÇÕES

Nota Esta documentação destina-se a ser utilizada em conjunto com o manual de instalação incluído com o produto específico. Consulte o manual de instalação, o manual de configuração ou outra documentação adicional inclusa, para obter mais informações.

¡Advertencia! INSTRUCCIONES IMPORTANTES DE SEGURIDAD

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Vea las traducciones de las advertencias que acompañan a este dispositivo.

Nota GUARDE ESTAS INSTRUCCIONES

Nota Esta documentación está pensada para ser utilizada con la guía de instalación del producto que lo acompaña. Si necesita más detalles, consulte la Guía de instalación, la Guía de configuración o cualquier documentación adicional adjunta.

Varning! VIKTIGA SÄKERHETSANVISNINGAR

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Se översättningarna av de varningsmeddelanden som finns i denna publikation, och se de översatta säkerhetsvarningarna som medföljer denna anordning.

OBS! SPARA DESSA ANVISNINGAR

OBS! Denna dokumentation ska användas i samband med den specifika produktinstallationshandbok som medföljde produkten. Se installationshandboken, konfigurationshandboken eller annan bifogad ytterligare dokumentation för närmare detaljer.

Предупреждение ВАЖНЫЕ СВЕДЕНИЯ ПО БЕЗОПАСНОСТИ

Этот символ предупреждает о наличии опасности. При неправильных действиях возможно получение травм. Перед началом работы с любым оборудованием необходимо ознакомиться с ситуациями, в которых возможно поражение электротоком, и со стандартными действиями для предотвращения несчастных случаев. Переведенный текст предупреждений содержится в соответствующем документе, поставляемом вместе с устройством.

Примечание СОХРАНЯЙТЕ ЭТУ ИНСТРУКЦИЮ

Примечание Эта инструкция должна использоваться вместе с руководством по установке конкретного изделия, входящим в комплект поставки. Дополнительные сведения см. в руководстве по установке, руководстве по настройке и другой документации, поставляемой с изделием.

警告 有关安全的重要说明

这个警告符号指有危险。您所处的环境可能使身体受伤。操作设备前必须意识到电流的危险性，务必熟悉操作标准，以防发生事故。如果需要了解本说明中出现的警告符号的译文，请参阅本装置所附之安全警告译文。

注意 保存这些说明

注意 本文件应与本产品附带的具体安装说明一并阅读。如欲了解详情，请参阅《安装说明》、《配置说明》或所附的其他文件。

警告 安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止対策に留意してください。このマニュアルに記載されている警告の各国語版は、装置に付属の「Translated Safety Warnings」を参照してください。

注 これらの注意事項を保管しておいてください。

注 この資料は、製品に付属のインストラクション ガイドと併用してください。詳細は、インストラクション ガイド、コンフィギュレーション ガイド、または添付されているその他のマニュアルを参照してください。

Disconnect Device Warning



Warning

A readily accessible two-poled disconnect device must be incorporated in the fixed wiring.

Waarschuwing

Er moet een gemakkelijk toegankelijke, tweepolige stroomverbreker opgenomen zijn in de vaste bedrading.

Varoitus

Kiinteään johdotukseen on liitettävä kaksinapainen kytkinlaite, johon on helppo päästä käsiksi.

Attention	Un disjoncteur bipolaire facile d'accès doit être intégré dans le câblage fixe.
Warnung	Die feste Verdrahtung muß eine leicht zugängliche, zweipolige Trennvorrichtung enthalten.
Figyelem!	Fix bekötés esetén jól hozzáférhető kétpólusú megszakítóeszközt kell beépíteni!
Avvertenza	Nei cablaggi fissi va incorporato un sezionatore a due poli facilmente accessibile.
Advarsel	En lett tilgjengelig, topolet frakoblingsenhet må være innebygd i det faste ledningsnettet.
Aviso	Deverá incorporar-se um dispositivo de desconexão de dois pólos de acesso fácil, na instalação eléctrica fixa.
Advertencia	El cableado fijo debe incorporar un dispositivo de desconexión de dos polos y de acceso fácil.
Varning!	En lättillgänglig tvåpolig fränkopplingsenhet måste ingå i den fasta kopplingen.
Предупреждение	Стационарная электропроводка должна быть снабжена легкодоступным двухполюсным устройством отключения.
警告	若采用固定布线，必须装配一个方便使用的两端具有接头的断开设备。
警告	固定配線の中で、常に手が届く場所に、2極型切断装置を組み込む必要があります。

DC Protection

The following DC protection applies to the Cisco ONS 15530, Cisco ONS 15540 ESP, and the Cisco ONS 15540 ESPx.



Warning

This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a Listed and Certified fuse or circuit breaker 25A, minimum 60VDC, is used on all current-carrying conductors.

Waarschuwing

Dit product moet worden beveiligd tegen kortsluiting (overstroom) door de installatie van het gebouw. Zorg dat er een goedgekeurde zekering of stroomonderbreker (25 A, minimaal 60 V gelijkstroom) op alle stroomdragende geleiders staat.

Varoitus

Tämä laite käyttää rakennuksen oikosulkusuojausta (ylivirtasuojausta). Varmista, että kaikissa virtajohtimissa käytetään hyväksytyjä sulakkeita tai katkaisijoita (25 A, vähintään 60 V tasavirtaa).

Attention	La protection de ce produit contre les courts-circuits (surtensions) doit être assurée par la configuration électrique du bâtiment. Vérifiez que tous les conducteurs de courant sont équipés d'un fusible ou d'un disjoncteur de 25 A et d'un minimum de 60 V cc, normalisé et homologué.
Warnung	Dieses Produkt erfordert Gebäude-Absicherung gegen Kurzschlüsse (Überstrom). Achten Sie darauf, daß auf allen stromführenden Leitern eine anerkannte, zugelassene Sicherung oder ein Stromkreisunterbrecher 25A, Minimum 60VDC, verwendet wird.
Avvertenza	Questo prodotto fa affidamento sulla protezione dell'edificio contro i cortocircuiti. Accertarsi che un fusibile o interruttore di circuito omologato da 25 A, 60 V c.c. minimo, venga utilizzato su tutti i conduttori sotto tensione.
Advarsel	Dette produktet er avhengig av bygningens installasjon for beskyttelse mot kortslutning (overspenning). Påse at en oppført og godkjent sikring eller strømbryter, på 25 A, minimum 60 volt likestrøm, brukes på alle strømførende ledere.
Aviso	Este produto depende da instalação existente no edifício para a protecção contra curto-circuito (sobrecarga). Certifique-se de que um fusível ou disjuntor listado e certificado de 25 A, mínimo 60 VDC, seja utilizado em todos os condutores de transporte de corrente.
Advertencia	Este producto cuenta con la instalación del edificio para la protección de cortocircuitos (sobrecorriente). Asegúrese de usar un fusible listado y certificado o cortocircuitos 25A, mínimo 60 V cc, en todos los conductores de corriente.
Varning!	Denna produkt förlitar sig på byggnadens installation för skydd mot kortslutning (överström). Se till att en registrerad och certifierad säkring eller ett överspanningsskydd på 25 A, minst 60 V likström, används på alla strömförande ledare.

DC Protection

The following DC protection warning applies to the Cisco ONS 15501.



Warning

This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a Listed and Certified fuse or circuit breaker 20A, minimum 60VDC, is used on all current-carrying conductors.

Waarschuwing

Dit product moet worden beveiligd tegen kortsluiting (overstroom) door de installatie van het gebouw. Zorg dat er een goedgekeurde zekering of stroomonderbreker (20 A, minimaal 60 V gelijkstroom) op alle stroomdragende geleiders staat.

Varoitus

Tämä laite käyttää rakennuksen oikosulkusuojausta (ylivirtasuojaausta). Varmista, että kaikissa virtajohtimissa käytetään hyväksytyjä sulakkeita tai katkaisijoita (20 A, vähintään 60 V tasavirtaa).

Attention	La protection de ce produit contre les courts-circuits (surtensions) doit être assurée par la configuration électrique du bâtiment. Vérifiez que tous les conducteurs de courant sont équipés d'un fusible ou d'un disjoncteur de 20 A et d'un minimum de 60 V cc, normalisé et homologué.
Warnung	Dieses Produkt erfordert Gebäude-Absicherung gegen Kurzschlüsse (Überstrom). Achten Sie darauf, daß auf allen stromführenden Leitern eine anerkannte, zugelassene Sicherung oder ein Stromkreisunterbrecher 20A, Minimum 60VDC, verwendet wird.
Avvertenza	Questo prodotto fa affidamento sulla protezione dell'edificio contro i cortocircuiti. Accertarsi che un fusibile o interruttore di circuito omologato da 20 A, 60 V c.c. minimo, venga utilizzato su tutti i conduttori sotto tensione.
Advarsel	Dette produktet er avhengig av bygningens installasjon for beskyttelse mot kortslutning (overspenning). Påse at en oppført og godkjent sikring eller strømbryter, på 20 A, minimum 60 volt likestrøm, brukes på alle strømførende ledere.
Aviso	Este produto depende da instalação existente no edifício para a protecção contra curto-circuito (sobrecarga). Certifique-se de que um fusível ou disjuntor listado e certificado de 20 A, mínimo 60 VDC, seja utilizado em todos os condutores de transporte de corrente.
Advertencia	Este producto cuenta con la instalación del edificio para la protección de cortocircuitos (sobrecorriente). Asegúrese de usar un fusible listado y certificado o cortacircuitos 20A, mínimo 60 V cc, en todos los conductores de corriente.
Varning!	Denna produkt förlitar sig på byggnadens installation för skydd mot kortslutning (överström). Se till att en registrerad och certifierad säkring eller ett överspänningskydd på 20 A, minst 60 V likström, används på alla strömförande ledare.

Related Documentation

The most recent documentation listed below for the Cisco ONS 15501 can be found at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/mels/15501/index.htm>

The most recent documentation listed below for the Cisco ONS 15530 can be found at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/mels/15530/index.htm>

The most recent documentation listed below for the Cisco ONS 15540 ESP can be found at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/mels/15540/index.htm>

The most recent documentation listed below for the Cisco ONS 15540 ESPx can be found at the following URL:

<http://www.cisco.com/univercd/cc/td/doc/product/mels/15540x/index.htm>

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco web sites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Registered Cisco.com users can order the Documentation CD-ROM (product number DOC-CONDOCCD=) through the online Subscription Store:

<http://www.cisco.com/go/subscription>

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products Marketplace:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Registered Cisco.com users can order the Documentation CD-ROM (Customer Order Number DOC-CONDOCCD=) through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can e-mail your comments to bug-doc@cisco.com.

You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) Website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

To obtain customized information and service, you can self-register on Cisco.com at this URL:

<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The avenue of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Cisco TAC Website

You can use the Cisco TAC website to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC website, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://tools.cisco.com/RPF/register/register.do>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

<http://www.cisco.com/en/US/support/index.html>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC website so that you can describe the situation in your own words and attach any necessary files.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:
http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco monthly periodical that provides industry professionals with the latest information about the field of networking. You can access *Packet* magazine at this URL:
http://www.cisco.com/en/US/about/ac123/ac114/about_cisco_packet_magazine.html
- *iQ Magazine* is the Cisco monthly periodical that provides business leaders and decision makers with the latest information about the networking industry. You can access *iQ Magazine* at this URL:
http://business.cisco.com/prod/tree.taf%3fasset_id=44699&public_view=true&kbns=1.html
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in the design, development, and operation of public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training, with current offerings in network training listed at this URL:
http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

Cisco Limited 5-Year Hardware and 1-Year Software Warranty Terms

There are special terms applicable to your hardware warranty and various services that you can use during the warranty period. Your formal Warranty Statement, including the warranty applicable to Cisco software, is included on the CD that accompanies your Cisco product. Follow these steps to access and download the *Cisco Information Packet* and your warranty document from the CD or from Cisco.com.

1. Launch your browser, and go to this URL:
http://www.cisco.com/univercd/cc/td/doc/es_inpk/cetrans.htm
The Warranties and License Agreements page appears.
2. To read the *Cisco Information Packet*, follow these steps:
 - a. Click the **Information Packet Number** field, and make sure that the part number 78-5235-02F0 is highlighted.
 - b. Select the language in which you would like to read the document.
 - c. Click **Go**.

The Cisco Limited Warranty and Software License page from the Information Packet appears.

- d. Read the document online, or click the **PDF** icon to download and print the document in PDF format (Adobe Portable Data File).



Note You must have Adobe Acrobat Reader to view and print PDF files. You can download the reader from Adobe's website: <http://www.adobe.com>

3. To read translated and localized warranty information about your product, follow these steps:
 - a. Enter this part number in the Warranty Document Number field:
78-13712-01B0
 - b. Select the language in which you would like to read the document.
 - c. Click **Go**.
The Cisco warranty page appears.
 - d. Read the document online, or click the **PDF** icon to download and print the document in PDF format (Adobe Portable Data File).

You can also contact the Cisco service and support website for assistance:

http://www.cisco.com/public/Support_root.shtml.

Duration of Hardware Warranty

Five (5) Years

Duration of Software Warranty

One (1) Year

Replacement, Repair, or Refund Policy for Hardware

Cisco or its service center will use commercially reasonable efforts to ship a replacement part for delivery within fifteen (15) working days after receipt of the defective product at Cisco's site. Actual delivery times of replacement products can vary, depending on the customer location.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

To Receive a Return Materials Authorization (RMA) Number

Contact the company from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

Complete the information below, and keep it for reference.

Company product purchased from	
Company telephone number	
Product model number	
Product serial number	
Maintenance contract number	

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