Regulatory compliance

Regulatorycompliance lists agency approval declarations and installation safety notes.

Health and safety

Thehealth, safety and welfare of engineers and support staff is of paramount importance to Ciena. Implementing a safe system of work with safe people is an integral component of our procedures and an absolute requirement under the provisions of the Health & Safety at Work Act 1974.

Cienarecognizes the importance of all matters of Health & Safety. By suitably addressing Health & Safety issues from the outset, engineers and operatives are able to implement installation contract safely, smoothly and efficiently.

Acomprehensive set of procedures exist to control our activities and define our Health and Safety requirements. These are rigorously adhered to by all Ciena employees.

Reference statements re H&SWA 1974 and Management of H&SWA Regulations 1998. Prior to commencement of installation, Supplier representativesneed to be aware of any site specific risk assessments / processes / evacuation procedures etc.

Standards compliance

The following table lists the standards that the ONT complies with.

Table 1: Regulatory approval declarations

Issue	Approvalor declaration
AgencyMarks	CE (Europe)
	UKCA(UK)
	NRTL(NA)
	RCM(Australia and New Zealand)
	VCCI(Japan)
Emissionsand Immunity (EMC)	CISPR32 Class B
	CISPR35
	EN55032 Class B
	EN 55035
	AS/NZSCISPR 32 Class B
	FCCPart 15B Class B
	ICES-003Class B
	VCCICISPR 32 Class B
	ETSIEN 300 386
Environmental	RoHSDirective 2011/65/EU and 2015/ 863
	WEEE2012/19/EU
LaserSafety	FDA21 CFR subpart (J)
	IEC60825-1
	EN60825-1
	ANSIZ136
	EN 50689
Safety	CAN/CSAC22.2 No. 62368-1
	IEC62368-1
	EN62368-1
	UL62368-1
	AS/NZS 62368-1

Compliance information

Class 1M laser product notice

The ONT, when operating normally with all doors and access covers installed, allenergized fiber cabling connected, and protective caps/covers installed on all unused optical connectors, is a Class 1 laser product.

Environmental impact statement

The equipment contains no hazardous materials as defined by the United States Environmental Protection Agency (USEPA). we recommend that all failed products be returned for failure analysis and proper disposal.

Federal Communications Commission: Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the of the of the Federal Communications Commission (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 unintentional radio frequency (RF) energy and, if not installed and used in accordance with the instructionmanual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interferencein which case the user will be required to correct the interference at their own expense.

Note This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Food and Drug Administration (FDA) laser safety warning

This product contains a laser diode.

We recommend that users and maintenance and service personnel comply with the standards and regulations in the design, modification, operation, maintenance, and service of lasers and fiber-optic devices.

It is further recommended that the owner of this equipment determine and ensure conformance with any specific and applicable local regulations.

Telcordia document standards

The format and structure of this document is derived from the Telcordia Generic Requirements for Supplier-Provided Documentation, GR-454- CORE.

Toxic emissions

The equipment releases no toxic emissions.

Safety information and instructions

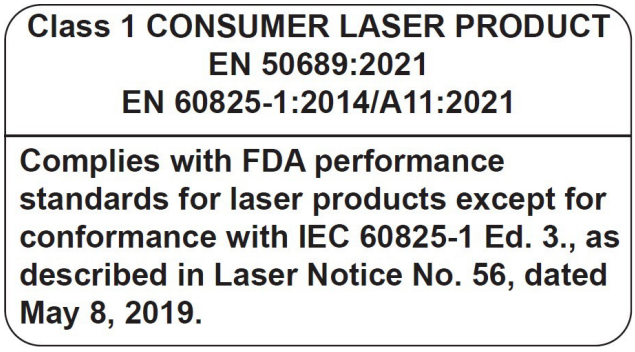
This manual is intended for customers, certified system installation technicians, test engineers, technical support technicians, and other personnel responsible for installing the ONT.

The procedures in this manual require the user to understand and follow the safety practices at your site as well as those identified in this manual. Before applying power and turning up any hardware, check the installation location for adequate temperature, humidity and electrical requirements. This manual describes the electrical, physical and environmental specifications for the ONT. Turn-up and test personnel should work closely with systems integration personnel to ensure a functional installation.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product. When installing,

operating, or maintaining this equipment, basic safety precautions should always be followed to reduce the risk of fire, electrical shock and injury to persons:

- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser radiation exposure.
- Read and understand all instructions before executing any activity.
- Follow all warnings and instructions marked on this product.
- Fori nformation on proper mounting instructions, read the appropriate section of this manual.
- The metallic telecommunications interface should not leave the building premises unless connected to telecommunication devices providing primary and secondary protection as applicable.
- This product should only be operated from the type of power source indicated on the marking label.
- Do not install telecommunications wiring during a lightning storm.
- Do not touch un-insulated wiring or terminals carrying direct current or leavethis wiring exposed. Protect and tape wiring and terminals to avoid risk of fire, electric shock, and injury to service personnel.
- Do not touch un-insulated wires or terminals unless the line has been disconnected at the network interface.
- Tor educe the risk of electrical shock, do not disassemble this product. Trained personnel should only perform service. Opening or removing covers and/or circuit boards can expose dangerous voltages or other risks. Incorrect re-assembly can cause electric shock or fire when the system is subsequently used.
- Ensure that there is no exposed wire when the input power cables are connected to the system.
- Do not stack anything on top of the system.
- At the end of life of the system, it shall be disposed of according to local laws.



Caution Use of controls or adjustments or performance of procedures other that those specified herein may result in hazardous radiation exposure.

CE compliance

The CE mark on the ONT signifies that the system meets all relevant European directives and standards requirements.

FCC statement

This device complies with Part 15 of the FCC Rules.

Operationis subject to the following conditions:

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

If this equipment does cause interference to radio or television reception, the user is encouraged to try to correct the interference using the following measures:

- Reorient the receiving antenna.
- Relocate the equipment with respect to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/ television technician for additional suggestions.

Modifications to this product not authorized could void the FCC approval and negate your authority to operate the product.

Fiberbreak and damaged fiber precautions

Ifa fiber break occurs or a damaged fiber is seen, observe the following precautions:

- Power off all laser sources to the fiber or disconnect the fiber end from the laser source.
- Notify the facility manager or supervisor about the damaged or broken fiber.
- Identify where the fiber is damaged or broken.

Be careful when handling damaged or broken optical fibers to avoid eye injuries caused by invisible fiber fragments.

General static electricity precautions

A damaging static electrical charge can be generated by the rubbing and sliding of materials against each other.

Different materials have different potentials of generating and holding a static electric charge. Plastic materials similar to nylon and polyester are capable of generating and holding a potentially large damaging static electricity charge.

Materials similar to cotton do not typically have the potential to generate and hold a charge. The buildup of static electricity can be of a sufficient potential to damage electronic circuitry. When working on equipment or any interconnecting electrical/optical cabling, always wear an approved personnel ground device.

Industry experience has shown that all devices containing integrated circuits can be damaged by static electricity that builds up on work surfaces and personnel. The effect of ESD damage may be immediate failure or it may manifest itself as a latent failure affecting the reliability of the equipment.

The static charges and discharges are produced by various charging effects of movement and contact with other objects. Dry air allows greater static charges to accumulate on a body.

Observe the following precautions to avoid static charges and discharges:

- Assume that all modules contain solid state electronic components that can be damaged by ESD.
- Handle all modules by the faceplate or latch and by the top and bottom outermostedges. Never touch the components, conductors, or connector pins.
- When handling modules (that is, storing, installing, removing, and so forth) orwhen working on the backplane, always wear a grounded wrist strap or wear a heel strap and stand on a grounded, static-dissipating floor mat.
- Observe all warning labels on bags and cartons.
- If possible, do not remove modules from antistatic packaging until they are ready for use.
- If possible, open all module packaging at a static-safe work station using properly grounded wrist straps and static-dissipating table mats.
- Always store and transport modules in static-safe packaging.
- Keep all static-generating material, such as food wrappers, plastics, and styrofoam containers, away from all modules.
- When removing modules from an enclosure, immediately place them in static-safe packages.
- Whenever possible, maintain relative humidity above 20 percent.

Optical fiber handling precautions

When handling or connecting optical fibers, observe the following precautions:

- Always wear safety glasses when handling fibers.
- Avoid indirect eye or direct skin exposure to the ends of optical connectors and fibers, because laser energy may be present.
- Install protective covers or caps on all fiber optical connectors when they are not in use.

Precautions for handling and storing the ONT

When handling, installing, or removing an ONT, observe the following precautions:

- Wear wrist straps or other suitable ESD-grounding devices before touchingand/or removing a ONT from the equipment shelf or ESD- protective packaging.
- Ensure the protective covers or caps are installed on all optical connectors when the connectors are not in use.
- Store all ONT in suitable ESD-protective packaging when they are not installed in an equipment shelf.

Voltage precaution

Personnel should exercise safety precautions when connecting, measuring, and disconnecting all voltage supply lines.

Observe the following precautions to avoid voltage shock:

- Never use both hands when working on or near a voltage source.
- Use the buddy system when working around voltage sources.
- Ensure that rescue and first aid equipment is available and accessible.

- Remove watches, rings, necklaces, and other conductive devices that might come in contact with live voltages or high energy sources.
- Before activating circuits, ensure that other personnel are not in contact with voltage sources.
- Deactivate power whenever possible before performing maintenance on system components.