

1. Product Overview

The Nokia Optical Network Terminal (ONT) XS-221X-A is a temperature-hardened ONT and is designed to cater to business and residential customer requirements. These ONTs offer data and video services to the subscribers through FTTH or fiber to the premises (FTTP) applications. The XS-221X-A provides one RF video port, two POTS ports, one 10 Gigabit Ethernet (GigE), and one GigE interface.

The XS-221X-A is part of the industry-leading Nokia ONT product family and is compatible with the Nokia ISAM and Lightspan fiber to the x (FTTx) product line. The Nokia ONT terminates the 10G symmetrical Passive Optical Network (XGS-PON) fiber interface that is compliant with a Full Service Access Network (FSAN).

The Nokia ONT XS-221X-A is designed for small businesses and residential customers. The XS-221X-A is a temperature-hardened ONT suitable for outdoor or indoor deployments. For indoor deployment, the ONT can be desk or wall mounted. For outdoor deployment, the XS-221X-A should be mounted in a Nokia universal outdoor ONT enclosure. The ONT XS-221X-A is compliant with ITU-T G.9807.1, supporting a line rate of 10 GB/s downstream and 10 GB/s upstream. Compliant with the standard optical network unit (ONU) management and control interface (OMCI) definition, the ONT XS-221X-A can be managed from a remote site and supports the full range of fault, configuration, accounting, performance, and security (FCAPS) functions.



A. Technical Specifications

- Height: 34.3 mm (1.3 in)
- Width: 142 mm (5.6 in)
- Depth: 208 mm (8.2 in)
- Weight: 550 g (1.2 lb)

Power consumption:

- Standby mode: 7 W
- Typical mode: 9 W

Installation

- Desk mountable
- Wall mountable with bracket
- Outdoor mounting in a Nokia universal ONT enclosure

B. Manufacturer Information

For Products Purchased in EU/EAA Countries

The products are manufactured and imported by Nokia Solutions and Networks Oy.

Karakaari 7, 02160 Espoo, Finland.

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For Products Purchased in the United States

The products are imported by Nokia of America Corporation.

- Offices: <https://www.nokia.com/contact-us/offices/#north-america>
- Support: <https://www.nokia.com/networks/business-support/>
- Other contacts: <https://www.nokia.com/contact-us/>

Please contact your Internet Services Provider in case of questions on the product.

2. Safety Guidelines

ALWAYS READ THE PRODUCT GUIDE BEFORE SET UP OR USE OF THE PRODUCT. IT IS YOUR RESPONSIBILITY TO FAMILIARIZE YOURSELF WITH THE PRODUCT GUIDE AND WARNINGS, AND TO USE A PRODUCT PROPERLY. CONTACT YOUR INTERNET SERVICES PROVIDER FOR FURTHER QUESTIONS.

Warning - Risk of electric shock or fire

Connect the Product power adaptor or cord to the right supply voltage (for example, 230V in Europe, Turkey, Ukraine, 120V AC in US, 230V in Australia and New Zealand, 230V in South Africa, 220V in Russia, Morocco).

The socket-outlet shall be easily accessible.

Pay attention to the power load of the electrical outlet and possible extension cord. An overburdened power outlet or damaged cords and plugs may cause electric shock or fire. Check the power cords regularly. If you find any damage, replace the cord immediately.

Do not connect the plug into an extension cord, receptacle, or other outlet unless the plug can be fully inserted with no part of the blades exposed.

Leave adequate space for heat dissipation to avoid any damage caused by overheating the Product. Do not cover the Product or its ventilation holes. Blocking the ventilation holes may cause fire.

Use the power adapter provided with your Product and do not fasten the power cable to building surfaces. Ensure the cable can move freely. Do not place heavy objects on the cable.

In case the product is deployed outdoors, it must be installed with a qualified enclosure and cables. Do not touch the box or the cabling. Please contact your CSP for professional installation service.

Nokia ONT XS-221X-A Quick Reference Guide

Do not install, use, or service this Product during a thunderstorm. There is a remote risk of electric shock from lightning.

Caution - Potential equipment damage

Follow these recommendations to protect yourself and the Product from harm:

- Do not look directly at the optical port without protection.
- Do not insert any sharp object into the openings of a Product.
- Do not put the Product near a heat source. Avoid placing the Product in direct sunlight.
- Do not put the Product in damp or wet locations; for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool. Do not spill any liquid on the Product.
- Do not touch the Product or its power adapter or cord with wet hands.
- Do not place the Product on an unstable surface or support.
- Do not place heavy objects on top of the Products.
- Do not use liquid or aerosol cleaners; unplug the Product and use a soft, dry cloth for cleaning.
- When connecting a PC or other electronic device to a Product, make sure you use the right cables and connect the device to the right port of the Product. Incorrect connections may damage the device and/or the Product.
- Do not open or try to open the Product. Opening or removing covers can expose you to dangerous high voltage points or other risks.

It is recommended that users and other individuals maintain a distance of at least 10 cm between themselves and the Product to avoid exposure. The Product contains components that emit an electromagnetic field and could interfere with pacemakers or other electronic medical devices. If you have a pacemaker or other implantable or personal medical device, please consult your physician or medical device manufacture about the required minimum safe distance between the Product and your medical device.

Keep your product and accessories out of reach of pets. They could damage it and cause injury or electrocuting.

If the Product malfunctions or fails to perform as expected, stop using it immediately.

The product is expected to operate at a temperature of -40 to 65 degrees Celsius for a relative humidity between 5% and 95%.

3. Install the ONT

1. Connect the power cable to the case on the PWR power port.
2. Connect the power socket to the wall socket
3. Remove the protective cap on the OPTICAL port of the case.
4. Remove the protective cap from the fiber optic.
5. Connect the optical fiber to the optical port of the case.
6. Connect the case to the home router via the Ethernet cable.

7. Push the ON/OFF button to be "ON".

4. FCC Declaration of Conformity

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

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 or more 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.

No Unauthorized Modifications:

Do not make any changes or modifications to the Product without the prior express written approval of Nokia. Any changes or modifications made without express written approval could void the user's authority to operate the device.

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