

1. Product Overview

The Nokia Optical Network Terminal (ONT) TW-210X-A comes with one 10 Gigabit Ethernet (10 GbE), two plain old telephone service (POTS) ports and an XFP cage to accept an Nokia approved NGPON2 XFP optics module. The Nokia ONT terminates the Next -Generation Passive Optical Network 2 (NGPON2) fiber interface. It is part of the industry-leading Nokia ONT product family and is compatible with a specific CSP's OpenOMCI fiber to the home (FTTH) environment to single family units (SFUs) where multi-gig data and voice are required.



The Nokia ONT TW-210X-A is designed for residential customers. This ONT offers data and voice services to the subscriber through FTTH or fiber to the premises (FTTP) applications. The temperature hardened ONT TW-210X-A is suitable for indoor deployments and outdoor deployment in compatible outdoor enclosure. The ONT is compliant with ITU-T G.988 series standards, with NGPON2 as the uplink interface supporting a line rate of 10 Gb/s downstream and 10 Gb/s upstream. The ONT is compliant with the standard optical network unit (ONU) management and control interface (OMCI) definition.

A. Technical Specifications

- Height: 227.1 mm
- Width: 157.1 mm
- Depth: 35.6 mm
- Weight: 0.68 kg

Wall mounted or desk mounted with the stand included in the desktop kit

Power consumption:

- Standby mode: 5.6 W
- Typical mode: 9.5 W

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.

Do not use the Product outside, and make sure all the connections are indoors.

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.

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- 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 able to operate at an outdoor temperature of -40 to 65 degrees Celsius without solar loading, or an indoor temperature of 0 to 40 degrees Celsius, for a relative humidity between 5% and 95% (non-condensing), where the appropriate optics module must be equipped to fulfil the environmental specifics. Contact your CSP in case of questions on the deployment environment.

3. Install the ONT

1. Remove the fiber lock cap from the ONT's enclosure expose the XFP cage. Insert Nokia approved optics module into the XFP cage.
2. Remove the protective cap from the fiber optic cable.
3. Plug the fiber optic cable into the optics module's PON port, install the fiber lock cap back on the enclosure.
4. Connect the ONT's LAN port to the home router's WAN port via an Ethernet cable.
5. Connect the power cable from the power adapter to the ONT's power port.
6. Plug in the power adapter to a wall socket to power on the ONT.

4. FCC Declaration of Conformity

FCC 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.

FCC Information to User

Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

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