



# Cisco XGS-PON ONT Overview

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This document is intended to direct network technicians and system administrators in the installation of the Cisco XGS-PON Optical Network Terminal (ONT).

## **Intended audience**

This document is intended for network technicians and system administrators who will install the Cisco XGS-PON ONT.

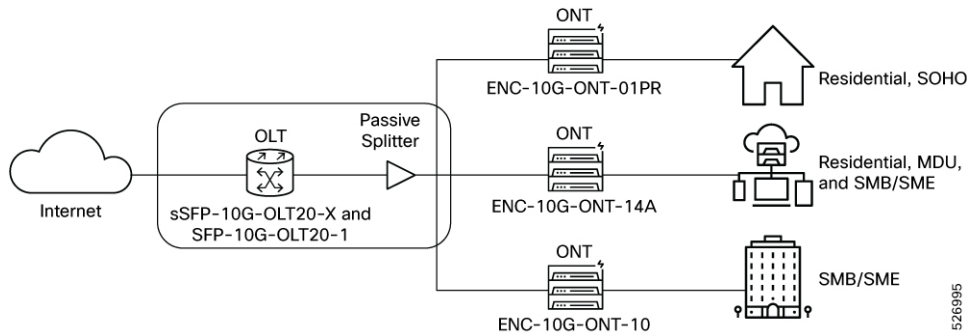
It assumes that the intended users possess basic knowledge of, but not limited to:

- Proper hardware installation
- Proper hardware diagnostics
- Ethernet concepts
- IEEE standards
- IETF standards
- ITU-T standards
- Open Systems Interconnection (OSI) Seven Layer Model
- Local Area Networks (LANs)
- Virtual Local Area Networks (VLANs)
- Passive Optical Networks (PONs)
- [Cisco Routed PON ONT, on page 1](#)

## Cisco Routed PON ONT

Cisco 10G Routed PON ONTs are fully compliant with the XGS-PON ITU-T G.9807.1 standard, supporting symmetrical 10-Gbps downstream and upstream optical connectivity via an SC/APC optical connector to meet current and future networking needs. With integrated XGS-PON optics, MAC, and Ethernet switching capabilities, these ONTs help network operators optimize Total Cost of Ownership by reducing edge transport, switching, and routing costs, as well as minimizing footprint and power consumption. Used with Cisco routed PON modules, Cisco PON ONTs provide an ideal end-to-end solution for cost-effective, agile, and diverse networking requirements.

Figure 1: Example of a Passive Optical Network (PON)



### Supported Cisco 10G Routed XGS-PON ONT

- ENC-10G-ONT-10 XGS-PON ONT
- ENC-10G-ONT-14A XGS-PON ONT
- ENC-10G-ONT-01PR XGS-PON ONT

### ENC-10G-ONT-10 XGS-PON ONT

The ENC-10G-ONT-10 XGS-PON Optical Network Unit (ONT) is a Carrier Class Ethernet ONT hardware system designed for business services.

The system provides:

- ITU-T G.9807.1 XGS-PON uplink port with embedded Ethernet-to-PON Media Access Control (MAC) bridge and optics
- 1 x 10/100/1000/2500 MbE Ethernet RJ-45 port
- 1 x 1G/10G SFP/SFP+ port

### ENC-10G-ONT-14A XGS-PON ONT

ENC-10G-ONT-14A XGS-PON ONT is purpose-built for residential, multi-dwelling unit (MDU), and small/home office (SOHO) applications.

The system provides:

- ITU-T G.9807.1 (XGS-PON) with built-in XGS-PON optics and Media Access Control (MAC)
- 1 x 1/2.5/5/10 GbE Ethernet RJ-45
- 4 x 10/100/1000 MbE Ethernet RJ-45
- 1 x RJ-11 with FXS capability
- UPS powering option

### ENC-10G-ONT-01PR XGS-PON ONT

The ENC-10G-ONT-01PR is a temperature-hardened XGS-PON ONT with Ethernet port(s), designed for residential and Small Office or Home Office (SOHO) applications. It is typically wall mounted vertically in weatherproof clamshell on the outside wall of a home or SOHO.

The ENC-10G-ONT-01PR XGS-PON ONT is a Power over Ethernet (PoE) Powered Device (PD), compliant to IEEE 802.3af. The ONT can also power up from 12V DC using 2-pin Phoenix connector or 2x4 Molex connector.

The system provides:

- ITU-T G.9807.1 (XGS-PON) with built-in XGS-PON optics and Media
- Access Control (MAC)
- 1 x 10/100/1000/2500 MbE RJ-45 port

## Ports

Connect the ports available in the system to appropriate cables. The following figure shows the ports available in the system.

*Figure 2: ENC-10G-ONT-10 XGS-PON ONT Ports*

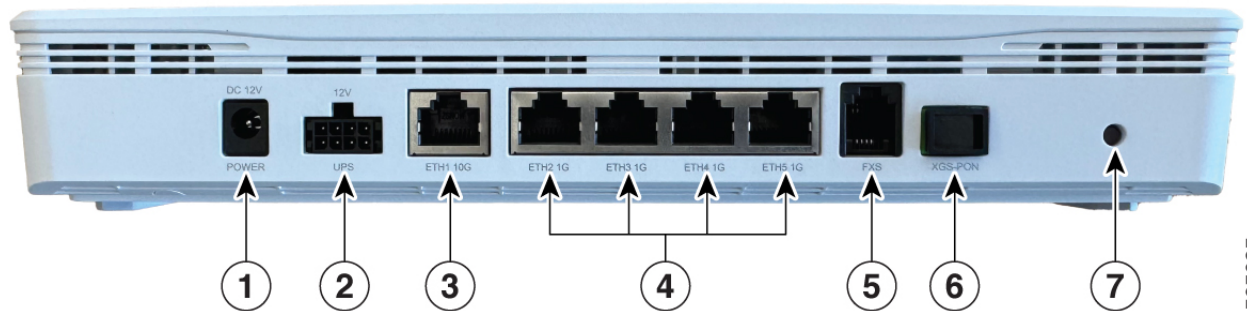


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The available ports are summarized below:

- XGS-PON
- 10GE LAN
- Power

Figure 3: ENC-10G-ONT-14A XGS-PON ONT Ports



Port label	Description
1	DC 12V
2	UPS 12V
3	10G Ethernet LAN
4	1G Ethernet LANs
5	FXS
6	SC/APC, XGS-PON
7	Reset

#### ENC-10G-ONT-01PR XGS-PON ONT Ports

Connect the ports available in the system to appropriate cables.

The following figure shows the ports available in the system.

Figure 4: ENC-10G-ONT-01PR XGS-PON ONT Ports



The available ports are summarized below:

- SC/APC, XGS-PON
- 2.5G Ethernet LAN
- UPS 12V

- DC 12V

