Cisco 10G Routed PON ONT

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Cisco 10G Routed PON ONT Devices.

Product overview

Cisco® 10G Routed PON ONT devices incorporate interoperability, key customers' specific requirements, and cost-efficiency to deliver triple-play services to the subscriber in Fiber-To-The-Premises (FTTP) applications. Compliant with the standard ONU Management and Control Interface (OMCI) definition, the Cisco 10G routed Passive Optical Networking (PON) Optical Network Terminals (ONT) can be managed remotely and are fully interoperable with the Cisco Routed PON solution.

Cisco 10G Routed PON ONT devices support 10G XGS-PON downstream wavelength operating at 1577nm, while the upstream wavelength operates at 1270nm. The 10G PON transceiver meets the N2 class maximum optical link budget in the ITU-T G.9807.1 standard, supporting symmetrical 10G data rates up to a 1:64 split ratio on 20-km Optical Distribution Links (ODLs).

ENC-10G-ONT-10

The ENC-10G-ONT-10 comes with built-in XGS-PON optics and MAC, an Ethernet switch, and one 10G RJ-45 interface that also supports 1G, 2.5G, and 5G. This small, slim desktop ONT can be deployed in a variety of indoor environments as determined by end-user circumstances, while delivering a small footprint and low noise, making it ideal for FTTP and mobile backhaul services.

Figure 1.
ENC-10G-ONT-10

ENC-10G-ONT-14A

The ENC-10G-ONT-14A provides a single-box solution for access and service delivery and is designed to support residential, Small Office/Home Office (SOHO), and business broadband and voice requirements. It has multiple ports and an integrated Analog Terminal Adapter (ATA). This desktop ONT comes with built-in XGS-PON optics and MAC, an Ethernet switch, and support for multiple ports, including:

- 4x 100M/1G (RJ-45)
- 1x 1G/2.5G/5G/10G (RJ-45)
- 1x FXS voice port (RJ-11)
- 1x XGS-PON (SC/APC fiber connector)

ENC-10G-ONT-01PR

The ENC-10G-ONT-01PR is temperature hardened and purpose-built for residential and small office/home office (SOHO) applications, with low-cost access in mind. The small, slim, ruggedized design enables this ONT to be deployed in a variety of outdoor environments and comes with built-in XGS-PON optics and MAC, an Ethernet switch, and one 10M/100M/1000M/2500M RJ-45 port.

Product specifications

Tables 1, 2, and 3 list the Cisco 10G Routed PON ONT parameters and characteristics.

Cabling and optical characteristics

Table 1.   Cabling

Product number	Connector type	Media	Cable type
ENC-10G-ONT-10	SC/APC	SMF	Single fiber
ENC-10G-ONT-14A	SC/APC	SMF	Single fiber
ENC-10G-ONT-01PR	SC/APC	SMF	Single fiber

Table 2.   Optical characteristics

Product number	Average (Tx) launch power	Rx sensitivity	DS wavelengths	US wavelengths
ENC-10G-ONT-10	4 to 9 dBm	-8 to -28 dBm	1575nm to 1580nm	1260nm to 1280nm
ENC-10G-ONT-14A	4 to 9 dBm	-8 to -28 dBm	1575nm to 1580nm	1260nm to 1280nm
ENC-10G-ONT-01PR	4 to 9 dBm	-8 to -28 dBm	1575nm to 1580nm	1260nm to 1280nm

Environmental and operational characteristics

Table 3.   Environmental and operational characteristics

Product number	Operating temp range	Humidity	Dying Gasp support	Maximum power consumption (W)
ENC-10G-ONT-10	0° to 40°C (32° to 104°F)	10% to 95% relative humidity	Yes	< 10W
ENC-10G-ONT-14A	0° to 40°C (32° to 104°F)	10% to 95% relative humidity	Yes	< 10W
ENC-10G-ONT-01PR	-40° to 65°C (-40° to 149°F)	10% to 95% relative humidity	Yes	< 5W

Dimensions

- ENC-10G-ONT-10: (L x W x H): 145 x 110 x 30 mm (5.71 x 4.33 x 1.18 in.)

- ENC-10G-ONT-14A: (L x W x H): 260 x 175 x 44 mm (10.24 x 6.89 x 1.73 in.)

- ENC-10G-ONT-01PR: (L x W x H): 176 x 130 x 35 mm (6.93 x 5.12 x 1.38 in.)

Features

- IEEE 802.1D MAC bridges

- IEEE 802.1Q VLANs, including .1p priority

- VLAN 802.1ad provider bridging (Q-in-Q) VLAN, tag classification, and manipulation

- Layer 2 control frame tunneling

- Management via OMCI

Regulatory and standard compliance

- FCC/ETL compliant

- CE compliant

- ITU-T G.9807.1 and G.988 (XGS-PON) compliant

- Compliant with ITU-T G.9807 Class N2

Ordering information

To place an order, visit the Cisco Ordering Home Page. Table 4 lists the ordering information for the Cisco 10G Routed PON ONT.

Table 4.   Ordering information

Product description	Product number
XGS-PON ONT	ENC-10G-ONT-10
Multi-port and ATA XGS-PON ONT	ENC-10G-ONT-14A
Ruggedized XGS-PON ONT with PoE	ENC-10G-ONT-01PR

Warranty

- Standard warranty: 5 year

- Expedited replacement available via a Cisco SMARTnet® Service support contract.

Cisco environmental sustainability

Information about Cisco's environmental sustainability policies and initiatives for our products, solutions, operations, and extended operations or supply chain is provided in the "Environment Sustainability" section of Cisco's Corporate Social Responsibility (CSR) Report.

Reference links to information about key environmental sustainability topics (mentioned in the "Environment Sustainability" section of the CSR Report) are provided in the following table:

Table 5.   Links to sustainability topics

Sustainability topic	Reference
Information on product material content laws and regulations	Materials
Information on electronic waste laws and regulations, including products, batteries, and packaging	WEEE compliance

Cisco makes the packaging data available for informational purposes only. It may not reflect the most current legal developments, and Cisco does not represent, warrant, or guarantee that it is complete, accurate, or up to date. This information is subject to change without notice.

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