

ONT-12

High performance enterprise and residential GPON ONT



- ITU G.984-compliant GPON ONT
- Enterprise and residential applications
- Enhanced QoS and multicast for video

ONT-12 is a versatile ONT product featuring four interfaces for 10/100/1000 Mbps Ethernet, one USB and two IEEE 802.11a/b/g/n/ac-compliant MIM WiFi access points. It is part of RAD's full GPON solution that includes both OLT (Optical Line Terminal) and ONT (Optical Network Terminal) platforms.

ONT-12 complies with ITU-T G.984, G.988 and TR69 set of standards.

MARKET SEGMENTS AND APPLICATIONS

RAD offers a series of advanced GPON ONT products designed for FTTH (Fiber-to-the-Home) and FTTB (Fiber-to-the-Building) deployments of next-generation Optical Access networks. The product line addresses the rapidly growing service provider needs for flexible, high-capacity fixed-line broadband solutions to support emerging video applications (e.g., CCTV, mobile backhaul, MTU, VOD) in enterprises, residential deployments, aggregation of backhaul traffic from LTE cell sites, enterprise VPN services and SD-WAN networks based on the NFV paradigm.

SERVICES

Using standard OMCI and TR69 protocols, ONT-12 can be configured to provide mobile backhaul, MTU, VOD, Internet, IPTV, WiFi services and more.

ETHERNET

ONT-12 has four Ethernet interfaces to cater for applications such as IPTV and Internet.

REGULATORY COMPLIANCE

ONT-12 complies with WiFi 802.11 a/b/g/n/AC standards for hotspot applications.

ONT-14 also complies with Part 15 of FCC/UL rules; RoHS (6/6) standards.

Specifications

ETHERNET INTERFACE

Number of Ports	4
Compliance	Meets 802.3 specifications
Type	10/100/1000 Mbps
Connector	RJ-45
Modes	Half-duplex and full-duplex operation 10/100/1000 Mbps auto-negotiation MDI/MDIX auto detection
Packet Size	up to 2 kB

GPON INTERFACE

Connector	SC/APC
Wavelength	1490 nm/1310 nm
Distance	Up to 20 km depending on split ratio
Transmission	As per ITU-T G.984
Optical Module	Class B+
Optical Transmit Power	+0.5 to +5 dBm
Receive Sensitivity	-28 dBm
Data Rates	2488 Mbps downstream 1244 Mbps upstream
GEM Ports	32 TCONT and 128 GEM port IDs
Monitoring	HW dying gasp Ranging and activation process



ONT-12

High performance enterprise and residential GPON ONT

WIRELESS INTERFACE

Compliance	802.11 a/b/g/N/AC with channel bandwidth: 20/40/80 MHz (for 802.11 AC) with 2x2 MIMO
Frequency of Operation	2.4 GHz/5 GHz
SSID per Radio	4
Features	AP isolation MAC restrict mode MAC filter-based probe response WMM
Operational Capabilities	ERP, HT, VHT
Preamble	Configurable between short/long
Beacon Interval	Configurable
Security	Open, 802.1x, WPA, WPA-PSK, WPA2, WPA2-PSK

MANAGEMENT

Protocols	OMCI, TR69
Options	SNMP

TRAFFIC MANAGEMENT

Downstream	AES-128 encryption and key exchange process FEC, RS (255,239) Dedicated independent TX queues for PLOAM and CPU packets
Upstream	FEC, RS (255,239) Normal queues for PLOAM and CPU packets
Layer 2 Capabilities	Non-blocking wire speed reception and transmission Source and destination MAC address filtering

MONITORING AND DIAGNOSTICS

Features (upstream only)	Performance monitoring Faults and alarms BER monitor
---------------------------------	--

GENERAL

Environment

Operating Temperature	-5°C to +55°C (23°F to 131°F)
Altitude	Up to 4000m
Humidity	5 to 93%, non-condensing

Power

Power Saving	As per ITU-T 984.3 (01/2014) of ONU power management aspects
Power Supply	12 VDC ,2A +/-5%, round barrel-type connector for power input

Physical

Form Factor	Table top and wall mount enclosure
--------------------	------------------------------------

Ordering

Please contact your Regional Sales Manager.

International Headquarters

24 Raoul Wallenberg St., Tel Aviv 6971923, Israel
Tel 972-3-6458181 | Fax 972-3-7604732
Email market@rad.com

North American Headquarters

900 Corporate Drive, Mahwah, NJ 07430, USA
Tel 201-529-1100 | Toll Free: 800-444-7234 | Fax: 201-529-5777
Email market@radusa.com



Your Network's Edge®

www.rad.com

556-110-10/21 (1.0) Specifications are subject to change without prior notice. © 2020–2021 RAD Data Communications Ltd. The RAD name, logo, logotype, and the product names Airmux, IPmux, MiNID, MiCLK, Optimux, and SecFlow are registered trademarks of RAD Data Communications Ltd.. All other trademarks are the property of their respective holders.