

ONT-14ET

High Performance Enterprise and Residential GPON ONT



- Standard ITU G.984 compliant GPON ONT
- Enterprise, residential, POTS and IoT applications
- Dual band, dual mode, dual radio, high performance Wi-Fi
- Enhanced QoS, and multicast for Video

ONT-14ET is a versatile ONT supporting 10/100/1000 Mb Ethernet, featuring dual Wi-Fi, and dual POTS interfaces. It is part of RAD's full GPON solution that includes both OLT (Optical Line Terminal) and ONT (Optical Network Terminal) platforms.

ONT-14ET is compliant to 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 next-generation optical access networks delivering FTTH (Fiber-to-the-Home) and FTTB (Fiber-to-the-Building) services. 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., mobile backhaul, MTU, VOD) in enterprise and 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-14ET can be configured to provision, mobile backhaul, MTU, VOD, IoT, Internet, IPTV, VoIP, WiFi services and more.

ETHERNET

ONT-14ET has 4 Ethernet interfaces to cater for such applications as IPTV, Internet or any other application requiring Ethernet connectivity.

REDUNDANT WAN INTERFACE

A 3G/4G/4.5G dongle can be connected to the USB interface of ONT-14ET to attain WAN redundancy. If a GPON interface fails, Internet traffic is routed via alternate WAN connection.

POTS

ONT-14ET has two POTS interfaces for voice services to public switched telephone networks (PSTN).

WIFI

ONT-14ET features dual band, dual concurrent WiFi, in compliance with IEEE 802.11 a/b/g/n/ac standards to support enhanced WiFi coverage for home applications.

CERTIFICATIONS AND REGULATORY STANDARDS

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



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Specifications

ETHERNET INTERFACE

Number of Ports	Up to 4
Compliance	Meets 802.3 specifications
Type	10/100/1000 Mbps
Connector	RJ-45
Ethernet Packets	Up to 2 kB (Jumbo)

POTS INTERFACE

Number of Ports	Up to 4
Type	FXS
Connector	RJ-11
Signaling	SIP (RFC 3261)
Locale Selection	Based on country profile
Codecs	G.711 a-law, G.711 u-law, G.729 Media and signal are separated
Fax	Transparent FAX, T.38
DTMF	Inband, RFC2833, SIP Info, V.18 support
Voice Activity Detection	Supported SIP
Transport	UDP & TCP

USB 3.0 INTERFACE

Number of Ports	1
Type	A
Connector	USB
Compatibility	USB 1.1, USB 2.0 backward support

GPON INTERFACE

Connector	SC/APC
Wavelength	1490 nm/1310 nm
Distance	20 km (12.4 miles) between closest and farthest ONT from OLT, as per GPON standards
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

WIRELESS INTERFACE

Compliance	802.11 a/b/g/N/AC with channel bandwidth: 20/40/80MHz
Frequency of Operation	2.4 GHz/5 GHz
SSID per Radio	4
Features	AP isolation Mac restrict mode Mac filter-based probe response WMM MIMO: 2x2 Beam forming Band steering
Max Clients	32 per radio
No of TX/RX Chains	2 for 2.4 GHz 2 for 5 GHz
Preamble	Configurable between short/long
Beacon Interval	Configurable
Security	Open, 802.1x, WPA, WPA-PSK, WPA2, WPA2-PSK

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MANAGEMENT

Protocols	G.988 (OMCI), TR69
Options	CLI, 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 2/3 Capabilities	4K/8K/16K/32K flow-based connections Port/VLAN bridging IPV4/IPV6 flow routing for policy rate IPOE/DHCP/PPPoE/DS-Lite/PPTP/L2T Protocols NAT/NAPT

GENERAL

Environment

Operating Temperature	0°C to +45°C (14°F to 113°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	Tabletop and wall mount enclosure
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Ordering

ONT-14ET/ATYPE/#/@/&GPON/APC

#	Ethernet Ports	
1GEU	Single 10/100/1000 Mbps port	
4GEU	4 10/100/1000 Mbps ports	
@	FXS Ports	
1FXS	Single FXS port	
4FXS	4 FXS ports	
&	WiFi Interface	
WF	Wireless LAN	

RECOMMENDED CONFIGURATIONS

ONT-14ET/ATYPE/1GEU/1FXS/GPON/APC

ONT-14ET/ATYPE/1GEU/WF/GPON/APC

ONT-14ET/ATYPE/4GEU/4FXS/GPON/APC

ONT-14ET/ATYPE/4GEU/4FXS/WF/GPON/APC

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