



T083G HGU ONT (4 GE, 2 POTS, 1 USB, WIFI)

T-Series ONT
EDA 1500 Portfolio



The T083G is a GPON Home Gateway ONT that uses the latest wireless-N technology combined with a gigabit router to deliver the same home networking high-performance users expect from a fiber connection. Designed for high bandwidth Triple Play services, it offers an integrated solution for delivering data, voice, and entertainment over flexible home networking options including high powered WiFi, Ethernet, and USB. The T083G offers four Gigabit Ethernet ports and two POTS ports.

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T083G

INDOOR GPON ONT

Hi-speed IP Convergence at the Home

The T083G includes integrated data applications, built-in Voice over IP, support for wireline-WiFi convergence, and IGMP snooping for efficient video distribution. The T083G is fully provisioned and managed from the OLT using OMCI and TR-069, allowing operators to control their services and route or bridge them to any given Ethernet port.

Home Networking Options

The T083G contains a WiFi interface with multiple SSID support including Voice over IP and high-speed Internet access. The wireless-N feature uses the multiple-input multiple-output (MIMO) technology with twin antennas to double the speed and reach compared to the older WiFi technologies. The T083G gateway uses a 4-port GigE switch for blazing speeds to all Ethernet ports - as required for on-line gaming and fast downloads - and a USB port for connectivity to USB capable devices or network drives.

IPTV Services

The T083G home gateway supports multiple multicast streams serving up to 128 concurrent channels as well as unicast video-on-demand. This capability removes the need to transport multiple copies of the same content, greatly improving bandwidth efficiency.

The T083G optimizes multicast switching performance using the IGMP snooping/proxying standard, which monitors the join and leave messages generated by the set-top box to selectively deliver multicast streams only to the involved ports.

Advanced Data Services

Data capabilities for the T083G include data transfer and built-in GigE switch with auto-negotiation and auto-sensing. The T083G built-in GigE switch features VLAN manipulation and service classification to provide Quality of Service.

VoIP Services

The T083G includes an integrated SIP user access and enables the option for wireless VoIP phones to be used.

Quality of Service

The T083G supports an advanced DSCP IP-QoS to ensure a positive user experience when combining voice and high-definition IPTV with ultrafast Internet download speeds.



TECHNICAL SPECIFICATIONS

T083G

GENERAL FEATURES

Compliance

- ITU-T G.984.1 - GPON: General characteristics
- ITU-T G.984.2 - GPON: Physical Media Dependent (PMD) layer specification
- ITU-T G.984.3 - GPON: Transmission convergence layer specification
- ITU-T G.984.4 - GPON: ONT Management and Control Interface (OMCI) specification
- ITU-T G.984.5 - Enhancement band for gigabit capable optical access networks
- RFC 3550, RFC 3551, RFC 2833 - Transport Protocol for Real-Time Applications (RTP)
- RFC 3261, 3265, 3311, 3262, 3515 - Session Initiation Protocol (SIP)
- IEEE 802.1, 802.1D, 802.3i, 802.1p, 802.1q, 802.3u, 802.3ab

Layer 2 protocol

- Ethernet over GPON Encapsulation Method (GEM)
- 8 T-CONTs
- 32 GEM Port ID
- Full remote management and firmware upgrades through OMCI and TR-069
- Supports FEC and AES encryption

NETWORK INTERFACE

- Class B+ GPON optical transceiver
- Diplexer fiber class B+
- Line rate at 2488 Mbps downstream and 1244 Mbps upstream
- 8 KHz framing downstream

Transmitter (upstream):

- DFB laser diode
- Wavelength: 1310 nm \pm 20 nm
- Average optical transmit power: up to +5 dBm

Receiver (downstream):

- APD receiver
- Wavelength: 1490 nm \pm 10 nm
- Sensitivity: -28 dBmSubscriber Interfaces

ETHERNET PORTS

- Four 10/100/1000Base-T Gigabit Ethernet ports with RJ45 connectors
- Ethernet ports are autosensing and autonegotiating

- Supports VLAN QoS and T-CONT types 1–5
- 802.1D learning bridge
- 802.1p mapper with classifier, 8 priority levels
- 802.1Q tag-based VLANs, WPS under WiFi support

IPTV SUPPORT

- PON multicast
- 128 simultaneous multicast streams
- Unicast video-on-demand (VoD)
- IGMP snooping, v2, v3

WIFI SUPPORT

- 802.11a/b/g/n Wireless access point interface
- Multiple-input multiple-output (MIMO)
- Multiple SSID Support*
- WMM for QoS*
- WPA/WPA2 for encryption
- External WLAN antennas

USB SUPPORT*

- Hi-speed USB 2.0 Host Port
- Type A Female USB connector
- 500 mA and 5V interface

POTS PORTS

- Two POTS ports
- RJ11 connectors
- Voice Signaling: VoIP using SIP
- Call Features: Outgoing, Incoming call, Call waiting, Call transfer, Three-party conference, DTMF in/out band
- Caller ID FSK, DTMF
- Modem voice band data over IP, support up to v.90
- G168 Echo cancellation
- Configurable dial plan
- G.711 (μ -law, A-law) voice codec

RESIDENTIAL GATEWAY FEATURES

Basic and Advance Networking

- DHCP Server for LAN
- Network Address Translation: NAT, NATP
- DNS Server/Client

Network Security*

- Stateful Firewall
- End-user DMZ concept
- Configurable port forwarding for user applications
- V1.0 UPnP Internet Gateway Device Category
- Parental controls

PHYSICAL SPECIFICATIONS

Dimensions

HxWxD: 43.8 x 238 x 173 mm
(HxWxD: 1.7 x 9.4 x 6.8 inch)

Weight

645 gram (1.4 lb)

Mounting Options

Desktop or wall mounting

Fiber Management

Integrated fiber slack storage

LED Indicators

Power, Alarm, PON Link, PON Act, Gigabit Ethernet 1–4, VoIP 1-2, WLAN, IPTV

Power

Power adaptor: Input 100–240V, 50–60Hz
Output: 12 VDC/1.5A
Power consumption: Less than 18W
EU, US, UK power supply plug connectors

UPS 8-Pin Connector Signals:

- Battery missing
- On battery
- Battery low
- Replace battery

ENVIRONMENTAL

Operating Temperature

0°C to 45°C (32°F to 113°F)

Operating Relative Humidity

10 to 90%, noncondensing

REGULATORY

EMC: EN 300 386 Class B
Safety: EN 60950-1, IEC 60950-1
RoHS: EU Directive 2002/95/EC

* Supported in future releases