

ISCOM HGU- GPON Home Gateway

▼ Introduction

RAISECOM GPON indoor residential home gateways are designed for advanced triple-play deployments in Fiber-to-the-Home/Premise applications.

RAISECOM HGUs (Home Gateway Unit) provide rich features including QoS, VoIP, and multicast video. The series supports flexible service combinations of four 10/100/1000Mbps LAN Ports, two FXS ports, one USB port, one CATV, and WiFi (with internal antennas) in a compact box for indoor use.

The entire RAISECOM HGU portfolio complies with ITU-T 984/988 standards, with rich IOP for GPON.

RAISECOM HGU include OMCI and TR069 support and can be easily integrated into operator's management system such as ACS or OSS.

GPON HGUs support an additional WEB (UI) for local configuration

▼ Specifications

Hardware

- Power adapter input: 100–240 VAC (50/60 Hz)
- Power adapter output: 12 VDC, 2 A
- Operating temperature: 0–50°C
- Operating humidity: 10%–93% (non-condensing)



International Headquarters

East-11, Raisecom Building, No.10 Xibeiwang East Road,
Haidian District, Beijing. 100094, China
Tel: +86 10 8288 3305
Fax: +86 10 8288 3056
www.raisecom.com

U.S.A. Headquarters

Raisecom, Inc. – U.S. HQ, Florida
Email: sales@raisecominc.com
Tel: 1-888-816-4808
Address: 3031 North Rocky Point Drive
West Suite 100, Tampa, Florida 33607 USA

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HGU Specifications	HT803G-U	HT803G-W	HT803G-VN	HT803G-V	HT803G-N
Dimensions (mm) (H*W*D)	174*129*38	174*129*38	140*105*33	140*105*33	140*105*33
Power Consumption (W) (Max.)	18	18	5	5	5
Weight (Kg)	0.5	0.4	0.3	0.3	0.3
XPON	GPON	GPON	GPON	GPON	GPON
GE (10/100/1000 BT)	4	4	1	1	1
FE			1	1	3
POTS (FXS)	2	2	1	1	
WLAN	802.11b/g/n	802.11b/g/n	802.11b/g/n		802.11b/g/n
CATV (RF)	1				

GPON interface

- Interface type (SMF): SC/APC for the PON interface
- Transmission rate: 1.25 Gbit/s in the uplink and 2.5 Gbit/s in the downlink
- Central wavelength: 1310 nm for Tx and 1490 nm for Rx
- Tx optical power: 0–4 dBm
- Maximum Rx sensitivity: -28 dBm
- Overloading optical power: -8 dBm

CATV

- Optical connector form: SC/APC
- Range of the CATV Rx wavelength: 1100–1600 nm
- Range of the Rx optical power: -15 to 2 dBm
- The RF output impedance is 75 Ω,
- RF output level: > 82 dBuV

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GE/FE Interface

- 10/100/1000Base-T, 10/100Base-T RJ45
- Auto-negotiation or manual configuration of the Ethernet interface
- Auto-MDI/MDIX

POTS interface

- RJ-11 interface
- Balanced ringing, 55 V RMS
- DTMF dialup
- Multiple coding schemes
- G.711 (μ -law and A-law)
- G.729 (A and B)
- G.723.1
- Echo cancellation
- VAD and CNG
- SIP (RFC3261)
- SDP (RFC2327)

Data

- Ethernet auto-negotiation and auto-MDI/MDIX
- IEEE 802.11b/g/n WLAN interface
- Embedded with Layer 2 switching
- Embedded with Layer 3 router and home gateway
- Advanced data functions, such as processing VLAN Tags, traffic classification, and packet filtering
- USB 2.0 Flash

WLAN

- IEEE 802.11b/g/n
- 2.4 GHz
- MIMO: 2x2
- Multiple SSIDs
- 64-bit and 128-bit WEP
- WPA and WPA-PSK
- WPS for WIFI switching

- RTP (RFC3550/3551)
- RFC2833 DTMP coding or SIP INFO method
- Multiple classified services, CID, call waiting, call forwarding, call transfer, call switching, three-way calling, classified ringing
- G.711 faxes, modem, and TTY devices
- T.38 fax
- Configurable dial-up plan
- Configurable rings for different countries
- DHCP Client and static IP address

IP Routing and Firewall

- Multiple WAN interfaces
- WAN connection
 - PPPoE
 - DHCP
 - Static configuration
- DHCP Server
- DHCP Relay
- NAT
- NAPT
- Interface forwarding, static route, ALGs, UPnP, firewall, DMZ, DDNS, NTP, and IGMP Proxy

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Video

- 2 video services: video stacking and data delivering (through unicast and multicast)
- IGMP Snooping. The ISCOM HT803G-U can purposely choose to send multicast data streams upon detection of a member joining and leaving the multicast group.

VOICE

- Multiple voice coding schemes
- Echo cancellation, VAD, and CNG
- Static or dynamic jitter buffer
- Various classified services: CID, call waiting, call forward, and call transfer
- SIP (RFC3261) and H.248 (MEGACOv2) voice protocols

OAM

- Various services, including Ethernet, WLAN, VoIP, and RF
- Alarm and performance monitoring
- Mirror-downloading, activating, and restarting software remotely through the OLT
- 2 software mirroring inventories, and checking software integrity

Ethernet Bridge

- Wire-speed forwarding
- Hardware-based priority queues support CoS in both the uplink and downlink.
- IEEE 802.1q virtual switching
- IEEE 802.1d bridge
- Up to 2K MAC addresses and 4K VLAN groups
- Up to 256 multicast groups
- Adding/Removing VLAN tag to/from packets of the Ethernet interface
- Mapping from IP ToS/DSCP to IEEE 802.1p
- CoS based on UNI, VLAN-ID, 802.1p bit, and ToS/DSCP
- IEEE 802.1p marking and remarking
- IGMPv1/v2/v3 Snooping
- Rate limiting on broadcast/multicast packets
- MAC address limit

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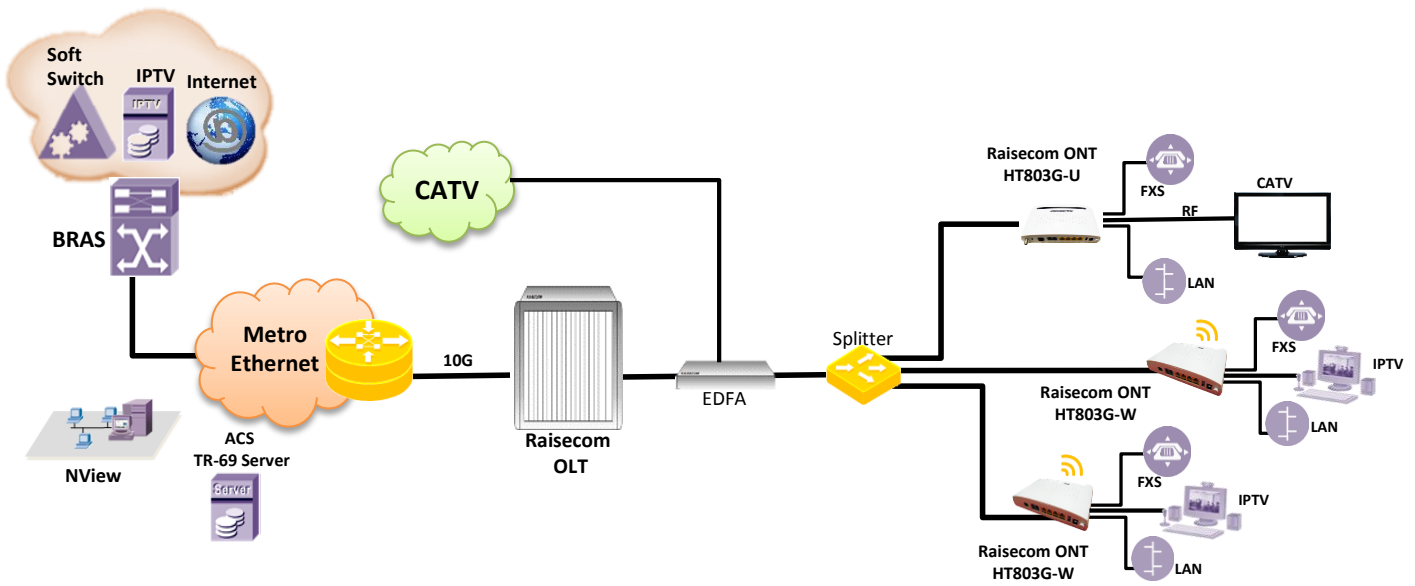
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▼ Typical applications



- A pay-as-you-grow approach, scalable OLT that will enable fast deployment and future growth (by adding additional slots)
- Service flexibility through array of ONT, Raisecom' s ONT line up allowed the service provider to offer different service bundles to different users
- Carrier Class Network management solution, reduce Capex with "Zero Touch" provisioning towards the ONT and TR69 option enables auto configuration of ONT from ACS Server



Ordering information

Module	Ver.	Description
ISCOM HT803G-W	T.00(GJ01)	GPON uplink(SC/APC), 4 GE + 2 FXS + 1 USB 2.0 + 802.11b/g/n(2*2 MIMO) WLAN , and external power supply adapter
ISCOM HT803G-U	T.00(GJ01)	GPON uplink(SC/APC)+ 4 GE + 2 FXS + 1 USB 2.0 + 802.11b/g/n(2*2 MIMO) WLAN + 1 CATV, and external power supply adapter
ISCOM HT803G-N	T.00(GJ01)	GPON uplink(SC/APC), 1 GE + 3FE + 802.11b/g/n(2*2 MIMO) WLAN, and external power supply adapter
ISCOM HT803G-V	T.00(GJ01)	GPON uplink(SC/APC), 1 GE + 1FE + 1 FXS and external power supply adapter
ISCOM HT803G-VN	T.00(GJ01)	GPON uplink(SC/APC), 1 GE + 1FE +1 FXS + 802.11b/g/n(2*2 MIMO) WLAN and external power supply adapter

- The ONT's can be ordered with : European, American, UK and Brazilin adaptor

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