Pro Brand Technology (TW) INC

PBT-H510

Wi-Fi 11 AC1200 GPON HGU with 4-port GbE

Comprehensive Home Solution of Optical Network

Pro Brand Technology (TW) INC

Address: 8F-8, No.118, Cihyun Rd., East Dist., Hsinchu City 300, Taiwan (R.O.C)
Web site: www.pbt.com.tw
Tel: +886-3-6687085
Fax: +886-3-6687036
Email: sales@pbt.com.tw

Trademarks and Permissions

Pro Brand trademarks are trademarks of Pro Brand Technology (TW) INC, All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The information in this document is confidential and is subject to change without notice. Unless otherwise stated on the document, all statements, information, in this document does not constitute a warranty of any kind, expressed or implied. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Revision History

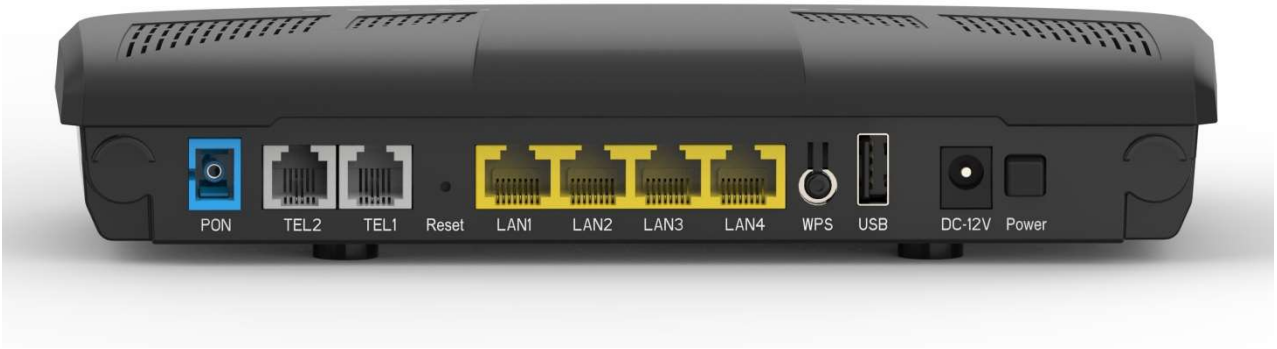
Revision	Release Date	Comment	Revised by
V1.0	23-Nov-18	Initial draft	Bobby Hsieh
V1.1	10-Dec-18	1. Remove Band Support , Interface, Specification and Multicast feature from Technical Specification 2. Add Hardware, GPON, Network, Storage Environment to Technical Specification 3. Modify to Security & QoS to Security	James Huang
V1.2	14-May-19	1. Update HGU Product ID photo 2. Add VoIP and Management to Technical Specification 3. Remove DS-Lite/PPTP/L2TP WAN, 802.1w, 802.1s from Network of Technical Specification 4. Remove some detail description from QoS of Network	James Huang
V1.3	25-Jun-19	Correct the typo with NAND Flash	James Huang
V1.4	30-Jun-19		Frankie Chen
V1.5.1	18-Oct-19	Update Final Casing design	Bobby Hsieh
V1.5.2	18-May-20	Modify temperature range	Kingee Hsiao
V1.7.0	25-Feb-22	Update H510 appearance pictures	Pisu Tsai
V1.7.1	01-Mar-22	Modify Pro Brand Technology to Pro Brand Technology (TW) INC	Pisu Tsai
V1.7.2	16-Aug-22	Update H510 appearance pictures	Dylan Wu
V1.7.3	01-Dec-22	1、Update H510 appearance pictures 2、Update Model name	Dylan Wu

Introducing the Pro Brand PBT-H510 Optical network terminal (ONT) is a High performance home gateway, using the latest GPON technology with ultra-broadband access provide the best experience through homes and triple play users. The PBT-H510 provided 4 LAN ports with GE/FE auto-adapting Ethernet port, partner with high performance Wi-Fi 11ac solution for stable and easy connection for wireless clients. PBT-H510 also provided excellent throughput capabilities to ensure extremely reliable experience with IPTV and VoIP (Voice over IP) services.

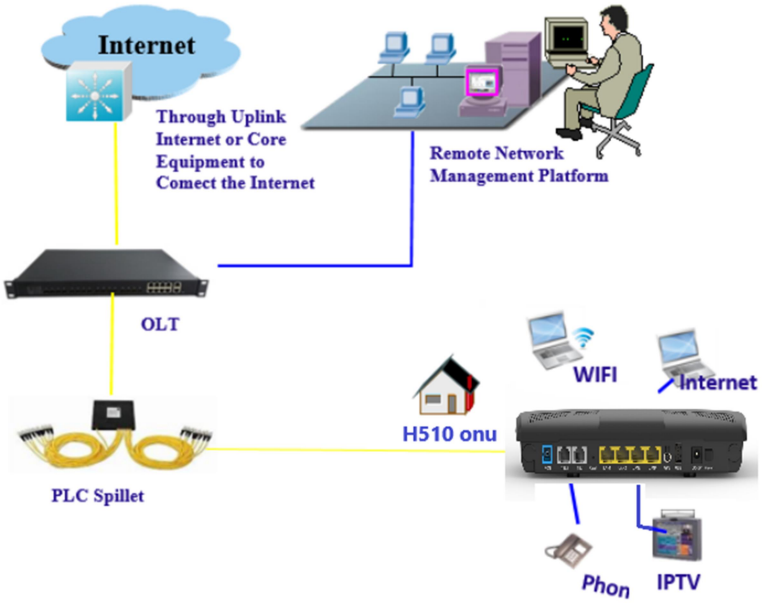
Key Features

- *ITU G.984 GPON compliant*
- *Provide all around triple-play services include Voice, Data, and Video (IPTV).*
- *Multiple Interfaces to meet different networking requirements.*
- *Fully featured router and firewall, secure wireless transmission and authentication*

I. Rear Panel Design



- **1x Optical Interface: OPTICAL**
- **1x Reset Button**
- **4xAuto-sensing 10/100/1000 Base-T Ethernet Interfaces (RJ-45)**
- **2x VoIP Telephone Interfaces (RJ-11)**
- **1x USB 2.0**
- **1x WPS Button**
- **1x DC Power Interface**
- **1xPower Switch: ON/OFF**



II. Front and Rear Panel Design

- **Power Indicator**
- **Wi-Fi 2.4G & 5G Indicator**
- **WPS Indicator**
- **GPON Indicators**
- **Ethernet Indicators**
- **VoIP Telephone Indicator**
- **USB Indicator**

III. Technical Specification

Hardware

- CPU: Dual Core, MIPS InterAptiv™900MHz
- CPU: RLX5281 500MHz (VoIP)
- 256MB SDRAM
- 128MB NAND Flash
- GPON SC/APC * 1(or SC/UPC *1)
- Gigabit Ethernet* 4
- Wi-Fi 2.4GHz 2x2 MIMO
- Wi-Fi 5GHz 2x2 MIMO
- VOIP * 1 (or 2)
- USB 2.0 * 1

GPON

- ITU-T G.984.x
- Bandwidth US 1.244Gbps, DS 2.488Gbps
- 32 T-CONTs and 128 GEM Ports
- Forward Error Correction (FEC)
- Port/VLAN Binding
- Dying Gasp

Network

- IPv4/IPv6 Flow Routing for Policy Route
- GPON WAN IPoE/DHCP/PPPoE
- 802.1Q VLAN
- NAT/NAPT
- QoS/DSCP/802.1p
- IGMP v1/v2/v3

Wireless

- IEEE 802.11a/b/g/n/11ac
- PHY Rate
  - 2.4G 40MHz 300 Mbps
  - 5G 80MHz 866.7 Mbps
- Wi-Fi Protected Setup (WPS)
- WEP: 64 or 128 bits Key Length
- WPA-PSK/WPA2-PSK (TKIP and AES-CCMP)
- MIMO/MU-MIMO
- DFS/TPC
- STBC/LDPC
- Auto Rate Adaptive
- Auto Channel Selection
- QoS: Wi-Fi Multimedia (WMM)
- Wireless Distribution System (WDS)
- Band Steering
- Mesh

VoIP

- Multiple SIP Server
- Call Forwarding/Call Waiting/Call Transferring
- Three-way Conference
- FAX T.38
- Codec G.711
- Echo Cancellation

Management

- TR069
- OMCI

Security

- NAT (RFC3022) Basic Firewall Support
- MAC/IP/URL Filtering
- Parental Control
- DOS Attack Prevention

Operating Environment

- Temperature: 0°C to 45°C (32°F to 113°F)
- Humidity: 10% to 85% RH (Non-condensing)

Storage Environment

- Temperature: -30°C to 60°C (-22°F to 140°F)
- Humidity: 10% to 90% RH (Non-condensing)

Power

- Power Adapter Input: 90-240 V AC, 50-60Hz
- Whole-device Power Supply: 11-14V DC, 1.5A
- Power Consumption: max.< 15W, avg.< 8W
- EEE and EEE+ Power Saving Function

Certification

- EMC : CE / FCC TBD
- Safety : CE / FCC TBD
- ROHS Compliant
- WFA

FCC Caution:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC’s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.