



**TECHNICAL DATA SHEET  
FOR XPON ONU**

**P8421C**

**4GE+1POTS+2.4GWIFI+5GWIFI+1RF**



## 1. Product overview

4GE+1POTS+2.4GWiFi+5GWiFi+1RF GPON/EPON HGU terminal devices are designed for Fulfilling FTTH and triple play service demand of fixed network operators. These boxes are based on the mature Chipset (Realtek) technology, which have high ratio of performance to price, and the technology of IEEE802. 11b/g/n/ac WiFi, Layer 2/3. Support full management of HGU devices through OLT.



## 2. Special Features

- Support full management of HGU functions.
- Plug and play, features auto-detecting, auto-configuration, and auto firmware upgrade , etc.
- Integrated OAM/OMCI remote configuration and maintenance function.
- Support rich QinQ VLAN functions and IGMP Snooping multicast features.
- Fully compatibility with OLT based on Broadcom/PMC/Cortina chipset.
- Support TR069 one-key batch configuration.
- Support 802. 11b/g/n/ac WiFi(2T2R) function.
- Support NAT, Firewall function.
- Support IPv4 and IPv6 dual stack.
- Support SIP protocol.
- Integrated line testing compliant with GR-909 on POTS.

### 3. Technical indicator

Technical item	4GE + 1POTS + 2.4GWiFi + 5GWiFi + 1RF
PON interface	1 G/ EPON port( EPON PX20 + and GPON Class B+ ) Receiving sensitivity: < - 28dBm Transmitting optical power: 0 ~ +4dBm Transmission distance: 20KM
Wavelength	Tx1310nm, Rx1490nm
Optical interface	SC/APC connector
LAN interface	1 x 10/100/1000Mbps and 1 x 10/100Mbps auto adaptive Ethernet interfaces. Full/Half, RJ45 connector
POTS interface	1 x RJ11 connectors Support: G.711A/G.711U/G.723/G.729 codec Support: T.30/T.38/G.711 Fax mode, DTMF Relay
WiFi interface	Compliant with IEEE802. 11a/b/g/n/ac 2.4GHz Operating frequency: 2.400-2.483GHz 5.0GHz Operating frequency: 5.150-5.825GHz Support MIMO, 2 x 2T2R, 5dBi external antenna, rate up to 1.167Gbps Support: multiple SSID TX power: 11n-22dBm/11ac-24dBm
LED	POWER/PON/LOS/LAN2/LAN1/WiFi/FXS/RF
Operating condition	Temperature: 0°C ~ +50°C Humidity: 10% ~ 90% ( non- condensing)
Storing condition	Temperature: -30°C ~ +60°C Humidity: 10% ~ 90% ( non- condensing)
Power supply	DC 12V/1.5A
Power supply	<9W
Dimension	241mmx151mmx30mm ( LxWxH)
Net weight	0.3Kg

### 4. Management Mode

- OAM/OMCI WEB/TR069.
- Support full management of HGU functions.

## 5.Data Service Functions

- Full speed non-blocking switching.
- Support 2K MAC address table.
- Support 4K VLAN.
- Support QinQ VLAN, 1: 1 VLAN, VLAN trunk, etc.
- Integrated port monitoring, port mirroring, port rate limiting, etc.
- Support auto polarity detection of Ethernet ports (AUTO MDIX).
- Integrated IEEE802. 1p QoS with eight priority queues.
- Support IGMP/MLD snooping.
- Support SFU, HGU and mixed mode.

## 6.WiFi Service Functions

- Integrated 802. 11b/g/n/ac
- Support max 10 SSID.
- Authentication : WEP/WPA2/WPA2 Mixed/WPA3/WPA2+WPA3 Mixed.
- Modulation type: DSSS, CCK and OFDM.
- Encoding scheme: BPSK, QPSK, 16QAM and 64QAM.

## 7.POTS Service Function

- Call protocol: SIP(IMS compatible) seamless compatible with all popular call agent.
- Integrate heartbeat function and support active/standby call agent.
- Voice coding: ITU-T G.711/G.722/G.729, auto-negotiate with call agent.
- Echo cancellation exceeding ITU-T G.165/G. 168-2002, up to 128ms tail length.
- Support high/low speed fax, bypass fax, and T38 fax.
- Support high speed MODEM(56Kbps) dial access.
- Support RFC2833 and redundant RFC2833, difference rings, MD5 authentication, call forward, call waiting, hot-line call, alarm clock, and all kinds of value-added voice service.

## 8.Functional characteristics

