# A Smarter Way
## for Your Broadband Life

Huawei HG8321R,  an intelligent routing-type ONT

Smart service

Smart interconnection

Smart O&M

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# Device Parameters

| | | | |
|---|---|---|---|
| Dimensions (H x W x D) | 135 mm x 115 mm x 27 mm | System power supply | 11–14 V DC, 0.5 A |
| Weight | < 500 g | Static power consumption | 4 W |
| Operating temperature | 0° C to +40° C | Maximum power consumption | 5.5 W |
| Operating humidity | 5% RH to 95% RH (non-condensing) | Ports | 1POTS+1GE+1FE |
| Power adapter input | 100–240 V AC, 50–60 Hz | Indicators | POWER/PON/LOS/LAN/TEL |

# Interface Parameters

## GPON Port

- Class B+
- Receiver sensitivity: -27dBm
- Wavelengths: US 1310nm, DS 1490nm
- Wavelength blocking filter (WBF)
- Flexible mapping between GEM Port and TCONT
- GPON: consistent with the SN or password authentication defined in G.984.3
- Bi-directional FEC
- SR-DBA and NSR-DBA

## Ethernet Port

- Ethernet port-based VLAN tags and tag removal
- 1:1 VLAN, N:1 VLAN, or VLAN transparent transmission
- QinQ VLAN
- Limit on the number of learned MAC addresses
- MAC address learning

## POTS Port

- Maximum REN: 4
- G.711A/µ, G.729a/b, and G.722 encoding/decoding
- T.30/T.38/G.711 fax mode
- DTMF
- Emergency calls (with the SIP protocol)

# Product Function

## Smart interconnection
- SIP/H.248 auto-negotiation
- Any port any service
- Parental control

## Smart O&M
- IPTV video quality diagnosis (V300R015C10)
- Variable-length OMCI messages
- Active/Passive rogue ONT detection and isolation
- PPPoE/DHCP simulation testing
- Call emulation, and circuit test and loop-line test

## Security
- SPI firewall
- Anti-DoS attack
- Filtering based on MAC/IP/URL addresses

## Power Saving
- Dynamic power saving
- Indicator power saving
- COCv4

## QoS
- Ethernet port rate limitation
- 802.1p priority
- SP/WRR/SP+WRR
- Broadcast packet rate limitation

## Layer 3 Features
- PPPoE/Static IP/DHCP
- NAT/NAPT
- Port forwarding
- ALG, UPnP
- DDNS/DNS server/DNS client
- IPv6/IPv4 dual stack, and DS-Lite
- Static/Default routes
- Multiple services on one WAN port

## Multicast
- IGMP v2/v3 snooping
- IGMP v2/v3 proxy
- MLD v1/v2 snooping

## Common O&M
- OMCI/Web UI/TR069
- Dual-system software backup and rollback

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