# HG8245B7N Datasheet

Huawei intelligent GPON and Wi-Fi 7 routing-type ONT

## Overview

The Huawei OptiXstar HG8245B7N is a GPON and Wi-Fi 7 routing-type ONT. It uses the GPON and Wi-Fi 7 technologies to implement ultra-broadband access, high performance and wide coverage for users. The high forwarding performance ensures the user experience of voice and data services, and provides customers with an ideal all-optical access solution and future-oriented service support capability.

It provides one 2.5GE port, three GE ports, two POTS port, one USB port and 2.4GHz&5GHz Wi-Fi 7 function.

- Next generation Wi-Fi 7 technology
- Smart service
- Smart interconnection
- Smart O&M


## Device Parameters

| | | | |
|---|---|---|---|
| **Dimensions (H x W x D)** | 140 mm x 188 mm x 35 mm (excluding the base) | **Static power consumption** | 8.5 W |

| | | | |
|---|---|---|---|
| **Weight** | About 350 g | **Maximum power consumption** | 18 W |
| **Operating temperature** | 0°C to 40°C | **NNI** | GPON |
| **Operating humidity** | 5% RH to 95% RH (non-condensing) | **UNI** | 1x2.5GE+3xGE+2xPOTS+1xUSB2.0*+2.4GHz/5GHz Wi-Fi |
| **Power adapter input** | 100–240 V AC, 50/60 Hz | **Optical connector** | SC/APC |
| **System power supply** | 12 V DC, 1.5 A | **Indicators** | Power/PON/LOS/2.5GLAN/LAN2/LAN3/LAN4/VoIP/WLAN |
| **Memory** | 512 MB Flash, 512 MB RAM | - | - |

NOTE

*: A plug-and-play USB port reserved for users.

# Interface Parameters

**GPON port**

- Class B+
- Receiver sensitivity: -27 dBm
- Overload optical power: -8 dBm
- Wavelengths: US 1310 nm, DS 1490 nm
- Wavelength blocking filter (WBF) of G.984.5
- 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

**POTS port**

- Maximum ringer equivalence number (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)

**USB port**

- USB2.0
- FTP-based network storage
- File/Print sharing based on SAMBA
- DLNA function

**WLAN**

- IEEE 802.11 b/g/n/ax/be (2.4GHz)
- IEEE 802.11 a/n/ac/ax/be (5GHz)
- 2×2 MIMO (2.4GHz&5GHz)
- Antenna gain: 4dBi (2.4GHz), 5dBi (5GHz)
- Air interface rate: 688 Mbit/s (2.4GHz), 2882 Mbit/s (5GHz)
- 4096 QAM
- 160 MHz frequency bandwidth
- OFDMA
- MU-MIMO
- DCM
- BSS Coloring
- Beamforming
- Band steering
- WPA3

**Ethernet port**

- 1x2.5GE+3xGE
- 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
- GE port supports auto-adaptive 10 Mbit/s, 100 Mbit/s or 1000 Mbit/s
- 2.5GE port supports auto-adaptive 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s or 2500 Mbit/s

| | |
|---|---|
| • MLO (Multi-Link Operation)<br>• Multi-RU<br>• WMM/Multiple SSIDs/WPS | |

# Product Function

| Smart interconnection | Smart service | Smart O&M |
|---|---|---|
| • Smart Wi-Fi coverage<br>• SIP/H.248 auto-negotiation<br>• Any port any service<br>• Parental control | • Scheduled Wi-Fi shutdown<br>• Smart Wi-Fi sharing: Portal/802.1x authentication; SoftGRE-based sharing<br>• Association of one account with two POTS ports | • IPTV video quality diagnosis<br>• eMDI<br>• Rogue ONT detection and isolation from the OLT<br>• Call emulation, and circuit test and loop-line test<br>• PPPoE/DHCP simulation testing<br>• Neighboring AP scanning |
| **Multicast** | **Power saving** | |
| • IGMP v2/v3 snooping<br>• IGMP v2/v3 proxy<br>• MLD v1/v2 snooping | • Indicator power saving<br>• CoC v9 | |
| **Security** | **Common O&M** | **Layer 3 features** |
| • SPI firewall<br>• Filtering based on MAC/IP/URL addresses<br>• Secure boot | • OMCI/Web UI/TR069<br>• Variable-length OMCI messages<br>• Dual-system software backup and rollback | • PPPoE/Static IP/DHCP<br>• NAT/NAPT<br>• Port forwarding<br>• ALG, UPnP<br>• DDNS/DNS server/DNS client<br>• IPv6/IPv4 dual stack, DS-Lite and IPv6 SPI<br>• Static/Default routes<br>• Multiple services on one WAN port |
| **QoS** | **Home network feature** | |
| • Ethernet port rate limitation<br>• 802.1p priority<br>• SP/WRR/SP+WRR<br>• Broadcast packet rate limitation | • Visualized home network management<br>• User-defined bandwidth allocation<br>• Wi-Fi optimization & Wi-Fi roaming<br>• Wi-Fi O&M | |



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