Huawei OptiXstar EN8145B7Ns Datasheet 01

Huawei intelligent XGS-PON and Wi-Fi 7 routing-type ONT

Overview

Huawei OptiXstar EN8145B7Ns is an XGS-PON and Wi-Fi 7 routing-type ONT. It uses the XGS-PON 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, one POTS port, one USB port and 2.4GHz&5GHz Wi-Fi 7 functions.

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

Device Parameters

Dimensions (H x W x D)	157 mm x 250 mm x 30 mm (excluding the base)	**System power supply**	12 V DC, 1.5 A
Weight (without power adapter)	About 543 g (excluding the base)	**Static power consumption**	6.6 W
Installation mode	Vertically placed on a desk or mounted on a wall	**Maximum power consumption**	18 W
Operating temperature	0°C to +40°C	**NNI**	XGS-PON
Power adapter input	100 V to 240 V AC, 50/60 Hz	**UNI**	1x2.5GE+3xGE+1xPOTS+1xUSB2.0 +2.4GHz&5GHz Wi-Fi 7
Operating humidity	5%–95% RH, non-condensing	**Optical connector**	SC/APC
Memory	128 MB Flash, 512 MB RAM	**Indicator**	• Indicator on front panel (Power+LOS+PON integrated) • Indicators on rear panel: WLAN/WPS/USB/LAN/TEL

Interface Parameters

XGS-PON port

- Class XGSN2
- Receiver sensitivity: -28 dBm
- Wavelengths: 1260–1280 nm upstream, 1575–1580 nm downstream
- Upstream and downstream rate: 9.953 Gbit/s upstream, 9.953 Gbit/s downstream
- Wavelength blocking filter (WBF)
- Flexible mapping between GEM Port and TCONT
- SN/Password/SN+Password/Bi-directional authentication based on OMCI
- Upstream and downstream 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
- Limitation on the number of learned MAC addresses
- MAC address learning
- GE port supports 10 Mbit/s, 100 Mbit/s and 1000 Mbit/s auto-adaptation
- 2.5GE port supports 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s and 2500 Mbit/s auto-adaptation

WLAN

- IEEE 802.11 b/g/n/ax/be (2.4 GHz)
- IEEE 802.11 a/n/ac/ax/be (5 GHz)
- 2×2 MIMO (2.4 GHz&5 GHz)
- Antenna gain: 5 dBi
- WMM (Wi-Fi Multi Media)
- Air interface rate: 688 Mbit/s(2.4 GHz); 2882 Mbit/s(5 GHz)
- 4096 QAM
- 160 MHz frequency bandwidth
- WPA3/WPA2/WPA1
- WPS
- Multiple SSIDs
- MU-MIMO
- MLO (Multi-Link Operation)
- Multi-RU

POTS port	USB 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)	• USB2.0 • FTP-based network storage • File/Print sharing based on SAMBA • DLNA function

Product Function

Smart interconnection	Smart service	Smart O&M	Common O&M
• Smart Wi-Fi coverage • SIP/H.248 auto-negotiation • Any port any service • Parental control	• Scheduled Wi-Fi shutdown • Smart Wi-Fi sharing: Portal/802.1x authentication; SoftGRE-based sharing	• IPTV video quality diagnosis • eMDI • Rogue ONT detection and isolation from the OLT • Call emulation, and circuit test and loop-line test • PPPoE/DHCP simulation testing • WLAN emulation	• OMCI/Web UI/TR069 • Variable-length OMCI messages • Dual-system software backup and rollback
Multicast	**Security**	**Layer 3 features**	**Home network feature**
• IGMP v2/v3 proxy • IGMP v2/v3 snooping • MLD v1/v2 snooping	• SPI firewall • Anti-DOS attack • Filtering based on MAC/IP/URL addresses	• PPPoE/Static IP/DHCP • NAT/NAPT • Port forwarding • ALG, UPnP • DDNS/DNS server/DNS client • IPv6/IPv4 dual stack, DS-Lite and IPv6 SPI • Static/Default routes • Multiple services on one WAN port	• Visualized home network management • User-defined bandwidth allocation • Wi-Fi optimization & Wi-Fi roaming • Wi-Fi O&M • intelligent identification and anti-interference
Power saving	**QoS**		
• Indicator power saving • COC V8	• Ethernet port rate limitation • 802.1p priority • SP/WRR/SP+WRR • Broadcast packet rate limitation		

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