

# Huawei OptiXstar HX8145B7s-6X Datasheet 01

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

## Overview

Huawei OptiXstar HX8145B7s-6X is an XGS-PON/XG-PON and Wi-Fi 7 routing-type ONT. It uses the XGS-PON/XG-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 10GE port, three GE ports, one POTS port, one USB port and 2.4GHz&5GHz&6GHz Wi-Fi 7 function.

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



### NOTE

The appearance shown in this document may be different from the actual appearance of the product. The actual product prevails.

## Device Parameters

<b>Dimensions (H x W x D)</b>	165 mm x 255 mm x 38 mm (without the base)	<b>System power supply</b>	12 V DC, 3 A
<b>Weight</b>	About 650 g	<b>Static power consumption</b>	12 W
<b>Operating temperature</b>	0°C to 40°C	<b>Maximum power consumption</b>	36 W

<b>Operating humidity</b>	5% RH to 95% RH (non-condensing)	<b>NNI</b>	XGS-PON/XGPON auto-sensing
<b>Power adapter input</b>	100–240 V AC, 50/60 Hz	<b>UNI</b>	1x10GE+3xGE+1xUSB2.0*+1xPOTS+2.4GHz&5GHz&6GHz Wi-Fi 7
<b>Memory</b>	128 MB Flash, 512 MB RAM	<b>Optical connector</b>	SC/APC
<b>Indicators</b>	Power/PON/LOS/TEL/LAN1/LAN2/LAN3/10GLAN/USB/WLAN/WPS		

## NOTE

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

## Interface Parameters

<b>XGS-PON/XG-PON port</b>	<b>POTS port</b>
<ul style="list-style-type: none"> <li>• XGS-PON: Class N1/N2</li> <li>• XG-PON: Class N1/N2a/E1</li> <li>• Receiver sensitivity: -28 dBm</li> <li>• Wavelengths: 1260-1280 nm upstream, 1575-1580 nm downstream</li> <li>• Upstream and downlink rate: <ul style="list-style-type: none"> <li>– XGS-PON: 9.953 Gbit/s upstream, 9.953 Gbit/s downstream</li> <li>– XG-PON: 2.488 Gbit/s upstream, 9.953 Gbit/s downstream</li> </ul> </li> <li>• Wavelength blocking filter (WBF)</li> <li>• Flexible mapping between GEM Port and TCONT</li> <li>• SN/Password/SN+Password/Bi-directional authentication based on OMCI</li> <li>• Upstream and downstream FEC</li> <li>• SR-DBA and NSR-DBA</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum REN: 4</li> <li>• G.711A/μ, G.729a/b and G.722 encoding/decoding</li> <li>• T.30/T.38/G.711 fax mode</li> <li>• DTMF</li> <li>• Emergency calls (with the SIP protocol)</li> </ul>
	<b>USB port</b>
	<ul style="list-style-type: none"> <li>• USB2.0</li> <li>• FTP-based network storage</li> <li>• File/Print sharing based on SAMBA</li> <li>• DLNA function</li> </ul>
<b>WLAN</b>	<b>Ethernet port</b>
<ul style="list-style-type: none"> <li>• IEEE 802.11 b/g/n/ax/be (2.4GHz)</li> <li>• IEEE 802.11 a/n/ac/ax/be (5GHz)</li> <li>• IEEE 802.11 a/n/ac/ax/be (6GHz)</li> <li>• 3 × 3 MIMO (2.4GHz&amp;5GHz&amp;6GHz)</li> <li>• Antenna gain: 3 dBi (2.4GHz); 4 dBi (5GHz); 4 dBi (6GHz)</li> <li>• Air interface rate: 1032 Mbit/s (2.4GHz), 4323 Mbit/s (5GHz), 4323 Mbit/s (6GHz)</li> <li>• 4096 QAM</li> <li>• OFDMA</li> <li>• MU-MIMO</li> <li>• DCM</li> <li>• BSS Coloring</li> <li>• Beamforming</li> </ul>	<ul style="list-style-type: none"> <li>• 1x10GE+3xGE</li> <li>• Ethernet port-based VLAN tags and tag removal</li> <li>• 1:1 VLAN, N:1 VLAN, or VLAN transparent transmission</li> <li>• QinQ VLAN</li> <li>• Limit on the number of learned MAC addresses</li> <li>• MAC address learning</li> <li>• GE port supports auto-adaptive 10 Mbit/s, 100 Mbit/s or 1000 Mbit/s</li> <li>• 10GE port supports auto-adaptive 100 Mbit/s, 1000 Mbit/s, 2500 Mbit/s, 5000 Mbit/s or 10000 Mbit/s</li> </ul>

<ul style="list-style-type: none"> <li>• Band steering</li> <li>• WPA3</li> <li>• MLO (Multi-Link Operation)</li> <li>• Multi-RU</li> <li>• WMM/Multiple SSIDs/WPS</li> <li>• Zero-DFS</li> </ul>	
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## Product Function

Smart interconnection	Smart service	Smart O&M	Common O&M
<ul style="list-style-type: none"> <li>• Smart Wi-Fi coverage</li> <li>• SIP/H.248 auto-negotiation</li> <li>• Any port any service</li> <li>• Parental control</li> </ul>	<ul style="list-style-type: none"> <li>• Scheduled Wi-Fi shutdown</li> <li>• Smart Wi-Fi sharing: Portal/802.1x authentication; SoftGRE-based sharing</li> </ul>	<ul style="list-style-type: none"> <li>• IPTV video quality diagnosis</li> <li>• Rogue ONT detection and isolation from the OLT</li> <li>• Call emulation, and circuit test and loop-line test</li> <li>• PPPoE/DHCP simulation testing</li> <li>• Neighboring AP scanning</li> <li>• Trouble Free</li> </ul>	<ul style="list-style-type: none"> <li>• OMCI/Web UI/TR069</li> <li>• Variable-length OMCI messages</li> <li>• Dual-system software backup and rollback</li> </ul>
Multicast	Security	Layer 3 features	Home network feature
<ul style="list-style-type: none"> <li>• IGMP v2/v3 proxy/snooping</li> <li>• MLD v1/v2 snooping</li> </ul>	<ul style="list-style-type: none"> <li>• SPI firewall</li> <li>• Filtering based on MAC/IP/URL addresses</li> <li>• Secure boot</li> </ul>	<ul style="list-style-type: none"> <li>• Static IP/DHCP</li> <li>• NAT/NAPT</li> <li>• Port forwarding</li> <li>• ALG, UPnP</li> <li>• DDNS/DNS server/DNS client</li> <li>• IPv6/IPv4 dual stack, DS-Lite and IPv6 SPI</li> <li>• Static/Default routes</li> <li>• Multiple services on one WAN port</li> </ul>	<ul style="list-style-type: none"> <li>• Visualized home network management</li> <li>• User-defined bandwidth allocation</li> <li>• Wi-Fi optimization &amp; Wi-Fi roaming</li> <li>• Wi-Fi O&amp;M</li> <li>• Intelligent identification and anti-interference</li> </ul>
Power saving	QoS		
<ul style="list-style-type: none"> <li>• Indicator power saving</li> <li>• COC V9</li> </ul>	<ul style="list-style-type: none"> <li>• Ethernet port rate limitation</li> <li>• 802.1p priority</li> <li>• SP/WRR/SP+WRR</li> <li>• Broadcast packet rate limitation</li> </ul>		

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