

# Huawei OptiXstar EN8145X6Ns Datasheet 01

Huawei intelligent XGS-PON and Wi-Fi 6 routing-type ONT

## Overview

Huawei OptiXstar EN8145X6Ns is an XGS-PON and Wi-Fi 6 routing-type ONT. It uses the XGS-PON and Wi-Fi 6 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 4 GE ports, 1 POTS port, 1 USB port and 1 2.4GHz&5GHzWi-Fi 6 port.

- Next generation Wi-Fi 6 technology
- Smart service
- Smart interconnection
- Smart O&M



## Device Parameters

<b>Dimensions</b>	230mm x 156mm x 35mm (without external antenna and pads)	<b>System power supply</b>	12 V DC, 2 A
<b>Weight</b>	About 570 g	<b>Static power consumption</b>	8 W
<b>Operating temperature</b>	0°C to 40°C	<b>Maximum power consumption</b>	22 W
<b>Operating humidity</b>	5% RH to 95% RH (non-condensing)	<b>NNI</b>	XGS-PON
<b>Power adapter input</b>	170 to 240 V AC, 50/60 Hz	<b>UNI</b>	4xGE+1xUSB+1x POTS+2.4GHz&5GHz Wi-Fi 6
<b>Memory</b>	128M flash, 512M RAM	<b>Optical connector</b>	SC/APC
<b>Indicators</b>	Power/PON/LOS/LAN/TEL/USB/WLAN/WPS		

## Interface Parameters

<b>XGS-PON port</b>	<b>POTS port</b>
<ul style="list-style-type: none"> <li>Class N1/N2/E1</li> <li>Receiver sensitivity: -28 dBm</li> <li>Wavelengths: US 1260-1280 nm, DS 1575-1580 nm</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> <li>9.95328 Gbit/s upstream, 9.95328 Gbit/s downstream</li> <li>Type B (single-homing&amp;dual-homing)</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 (2.4GHz)</li> <li>IEEE 802.11 a/n/ac/ax (5GHz)</li> <li>2×2 MIMO (2.4GHz&amp;5GHz)</li> <li>Antenna gain: 5 dBi</li> <li>WMM (Wi-Fi Multi Media)</li> <li>Multiple SSIDs</li> <li>WPS</li> <li>2.4GHz/5GHzconcurrent</li> <li>Air interface rate: 2. 4GHz: 574 Mbit/s; 5GHz: 2402 Mbit/s</li> <li>Beamforming</li> <li>Band steering</li> <li>DL MU-MIMO</li> <li>1024QAM</li> </ul>	<ul style="list-style-type: none"> <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> </ul>

- 160MHz bandwidth
- WPA3


## 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>• eMDI</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>• WLAN emulation</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> </ul>	<ul style="list-style-type: none"> <li>• PPPoE/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 V7.1</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>		

Copyright © Huawei Technologies Co., Ltd. 2022. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

### Trademarks and Permissions

 HUAWEI and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

### Notice

The purchased products, services and features are stipulated by the contract made between Huawei and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

### Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base Bantian,  
Longgang Shenzhen 518129 People's  
Republic of China

Website: <http://www.huawei.com>