

# EG8145X6 Datasheet 01

Huawei intelligent GPON and Wi-Fi 6 routing-type ONT

## Overview

The Huawei OptiXstar EG8145X6 is an intelligent GPON and Wi-Fi 6 routing-type ONT. It uses the GPON Wi-Fi 6 technology to implement ultra-broadband access, high performance and wide coverage for users. The high forwarding performance ensures the user experience of voice, data and HD video 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 2.4G&5G Wi-Fi port.

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



# Device Parameters

<b>Operating temperature</b>	0°C to 40°C	<b>NNI</b>	GPON
<b>Operating humidity</b>	5% RH to 95% RH (non-condensing)	<b>UNI</b>	4*GE+1*POTS+2.4G/5G Wi-Fi 6+1USB
<b>Power adapter input</b>	100–240 V AC, 50/60 Hz	<b>Optical connector</b>	SC/APC
<b>System power supply</b>	11–14 V DC, 1.5 A	<b>Indicators</b>	Power/PON/LOS/LAN/TEL/USB B/WLAN/WPS
<b>Static power consumption</b>	6 W	<b>Weight</b>	About 372 g
<b>Maximum power consumption</b>	18 W	<b>Dimensions (H x W x D) (without external antenna and pads)</b>	35 mm x 195 mm x 125 mm
<b>Memory</b>	128M Flash, 256M RAM		

# Interface Parameters

<b>GPON port</b>	<b>POTS port</b>
<ul style="list-style-type: none"> <li>• Class B+</li> <li>• Receiver sensitivity: -27 dBm</li> <li>• Overload optical power: -8 dBm</li> <li>• Wavelengths: US 1310 nm, DS 1490 nm</li> <li>• Wavelength blocking filter (WBF) of G.984.5</li> <li>• Flexible mapping between GEM Port and TCONT</li> <li>• GPON: consistent with the SN or password authentication defined in G.984.3</li> <li>• Bi-directional FEC</li> <li>• SR-DBA and NSR-DBA</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 (2.4G)</li> <li>• IEEE 802.11 a/n/ac/ax (5G)</li> <li>• 2 x 2 MIMO (2.4G)</li> <li>• 2 x 2 MIMO (5G)</li> <li>• Antenna gain: 5 dBi</li> <li>• WMM/Multiple SSIDs/WPS</li> <li>• 2.4G&amp;5G concurrent</li> <li>• Air interface rate: 574 Mbit/s (2.4G), 2402 Mbit/s (5G)</li> <li>• Beamforming</li> <li>• Band steering</li> <li>• DL OFDMA</li> <li>• DL MU-MIMO</li> <li>• 1024QAM</li> <li>• 160MHz frequency bandwidth</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>• Auto-adaptive 10 Mbit/s, 100 Mbit/s or 1000 Mbit/s</li> </ul>

- 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</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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