

**Echolife ONT HG8546M**

# Port Specifications

**Issue**                    01  
**Date**                     2019-01-24



**Copyright © Huawei Technologies Co., Ltd. 2019. 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>

Email: [support@huawei.com](mailto:support@huawei.com)

---

# Contents

---

1 GPON Port Specifications.....	1
2 GE Port Specifications.....	2
3 POTS port.....	3
4 USB Port.....	4
5 Wireless Network Access.....	5
6 ZigBee/Z-Wave Access.....	7

# 1 GPON Port Specifications

This topic describes specifications and standards compliance of the GPON interfaces.

**Table 1-1** GPON port specifications

Parameter	Specifications
Transmission rate	Rx: 2.488 Gbit/s Tx: 1.244 Gbit/s
Connector	SC/APC
Maximum reach	20 km
Standard compliance	ITU-T G.984.2 CLASS B+
Center wavelength	Tx: 1310 nm Rx: 1490 nm
Tx optical power	0.5 dBm to 5.0 dBm
Extinction ratio	> 10 dB
Minimum receiver sensitivity	-27 dBm
Maximum overload optical power	-8 dBm

# 2 GE Port Specifications

This topic describes the specifications and standards compliance of Gigabit Ethernet (GE) ports.

**Table 2-1** Specifications of a GE port

Parameter	Specifications
Connector type	RJ-45
Port rate	10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s
Maximum transmission distance	100 m
Working mode	Auto-adaptive 10 Mbit/s, 100 Mbit/s or 1000 Mbit/s
Cable specifications	Category 5 UTP
Compliant standard	IEEE 802.3i IEEE 802.3u IEEE 802.3ab

# 3 POTS port

This topic describes the specifications and standards for the plain old telephone service (POTS) port supported by the ONT.

**Table 3-1** POTS Port Specifications

Parameter	Specifications
Connector type	RJ-11
Transmission rate	64 kbit/s
Cable type	Twisted pair
Line coding	Pulse code modulation (PCM)
Frame protocol	Time division multiplexing (TDM)
Standard compliance	ITU-T Q.551 ITU-T Q.552

# 4 USB Port

This topic describes the specifications of the USB port on the ONT.

**Table 4-1** Specifications of the USB port

Parameter	Specification
Transmission rate	480 Mbit/s
Support type	USB 2.0 HOST and USB 1.1

# 5 Wireless Network Access

This topic describes the wireless network access indicators of the ONT.

**Table 5-1** 2.4GHz Wireless network access indicators

Parameter	Indicator
Standards compliance	802.11b/g/n
Specification	<ul style="list-style-type: none"> <li>● 4 SSIDs</li> <li>● 13 working channels</li> <li>● Automatic rate adjustment</li> <li>● Transmit power adjustment</li> </ul>
Authentication	<ul style="list-style-type: none"> <li>● Open system or shared key authentication mode</li> <li>● WPA-PSK, WPA2-PSK, WPA, WPA2, AES, or TKIP authentication mode</li> </ul>
Encryption	64-bit and 128-bit WEP encryption

**Table 5-2** 5GHz Wireless network access indicators

Parameter	Indicator
Standards compliance	802.11a/n/ac
Specification	<ul style="list-style-type: none"> <li>● 4 SSIDs</li> <li>● DFS (Dynamic Frequency Selection)</li> <li>● Automatic rate adjustment</li> <li>● Transmit power adjustment</li> </ul>



Parameter	Indicator
Authentication	<ul style="list-style-type: none"><li>● Open system or shared key authentication mode</li><li>● WPA-PSK, WPA2-PSK, WPA, WPA2, AES, or TKIP authentication mode</li></ul>
Encryption	64-bit and 128-bit WEP encryption

# 6 ZigBee/Z-Wave Access

This topic introduces the wireless network access indicators of the ONT.

**Table 6-1** Zigbee/Z-Wave access indicators

Indicator	Value(ZigBee)	Value(Z-Wave)
Standards compliance	IEEE 802.15.4 For ZHA1.2 and ZLL1.0 device management	ITU-T G.9959 For device plus management
Communication frequency	2.4GHz	<ul style="list-style-type: none"> <li>● Australian standard: 908.4-916 MHz</li> <li>● U.S. standard: 919.8-921.42 MHz</li> <li>● Europe standard: 868.4-869.8 MHz</li> </ul> <p><b>NOTE</b> Frequency bands are used according to specific countries.</p>
Transmission rate	250 kbit/s (highest)	100 kbits/s
Tx power	2 dBm	2 dBm
Transmission distance	100 m	100 m
Specifications	<ul style="list-style-type: none"> <li>● Supports separated home IDs.</li> <li>● Every node ID is allocated by the controller.</li> <li>● A maximum of 16 sensors (slaves) are recommended.</li> </ul>	<ul style="list-style-type: none"> <li>● Supports separated home IDs.</li> <li>● Every node ID is allocated by the controller.</li> <li>● A maximum of 16 sensors (slaves) are recommended.</li> </ul>