

# F1002-AC-H1 Datasheet

Date: 2024-11-26

## Overview

Huawei eKitOptiX F1002-AC-H1 is an enterprise optical gateway. The device provides optical port and Ethernet ports in the uplink direction, and optical ports, Ethernet ports, and USB port in the downlink direction.

- Automatic networking with optical APs, plug-and-play, supports Wi-Fi roaming, the roaming handover delay is 50 ms.
- Connect 256 ONU/Optical APs, maximum of 1000 devices connected.
- The security-based 1 Gbit/s IPSec VPN access is implemented. The hardware encryption engine ensures tunnel performance and data security.



### NOTE

- The schematic diagrams in this document may differ from the actual product.
- The optical gateway does not provide Wi-Fi itself, but can configure Wi-Fi for downstream optical APs. That is, you can configure Wi-Fi parameters on the optical gateway. These Wi-Fi parameters are then automatically synchronized to downstream optical APs.
- Automatic Wi-Fi channel selection under the same optical gateway
- Downstream optical APs Wi-Fi roaming (User terminals must support 802.11k/802.11v)

## Hardware Specifications

Specification	Parameters
<b>Dimensions (H x W x D)</b>	442mm × 220mm × 43.6mm
<b>NNI</b>	1 × XGS-PON/XG-PON(BOB) or 1 × 10 GE(SFP)(WAN/LAN multiplexing) + 4 × GE(WAN/LAN multiplexing) <b>NOTE</b> <ul style="list-style-type: none"> <li>• When the XGS-PON/XG-PON(BOB) port is used for upstream transmission, the XGE (SFP) port is unavailable.</li> <li>• When the XGE (SFP) port is used for upstream transmission, the XGS-PON/XG-</li> </ul>

Specification	Parameters
	PON (BOB) port is unavailable.
<b>UNI</b>	<p>4 × GE + 4×GE (WAN/LAN multiplexing) + 1 × 10 GE(SFP)(WAN/LAN multiplexing) + 2 × GPON/XGS-PON &amp; GPON Combo (SFP) + 1 × USB3.0*</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>*: plug-and-play USB port reserved for users.</li> <li>WAN1/LAN1~WAN4/LAN4 are WAN/LAN multiplexing.</li> <li>LAN5 to LAN8 share 1 Gbit/s bandwidth.</li> </ul>
<b>Rated power supply</b>	AC: 100 – 240V AC, 50/60 Hz, 0.7 A
<b>Static power consumption</b>	14.71 W
<b>Maximum power consumption</b>	24.62 W
<b>Operating temperature</b>	-10°C to +55°C
<b>Operating humidity</b>	5% RH – 95% RH, non-condensing
<b>Weight (excluding adapter)</b>	About 2.25kg
<b>Protection rating</b>	IP20
<b>Surge protection</b>	AC power supply: 6 kV in common mode and 6 kV in differential mode GE: 4 kV in common mode
<b>Heat dissipation</b>	Fan cooling
<b>Installation mode</b>	Desktop, 19-inch cabinet, and network box

## Port Parameters

Name	Parameter
<b>Uplink-PON</b>	<ul style="list-style-type: none"> <li>Port mode: XGS-PON <ul style="list-style-type: none"> <li>Port type: SC/UPC</li> <li>Standards compliance: ITU-T G.9807.1, Class N1/N2</li> <li>Receiver sensitivity: -28 dBm</li> <li>Overload optical power: -9 dBm</li> <li>Transmission rate: 9.953 Gbit/s downstream and 9.953 Gbit/s upstream</li> </ul> </li> <li>Port mode: XG-PON <ul style="list-style-type: none"> <li>Port type: SC/UPC</li> <li>Class N1/N2a</li> <li>Receiver sensitivity: -28dBm</li> <li>Overload optical power: -8dBm</li> <li>Transmission rate: 9.953 Gbit/s downstream and 2.488 Gbit/s upstream</li> </ul> </li> </ul>
<b>WAN9/LAN9</b>	<p>Supports GE and 10GE optical modules</p> <p><b>NOTE</b></p> <p>GE (RJ45) optical modules are not supported.</p>
<b>Downlink-PON1–Downlink-PON2</b>	Supports GPON/XGS-PON&GPON Combo optical modules
<b>WAN1/LAN1–WAN4/LAN4</b>	<ul style="list-style-type: none"> <li>RJ-45 port</li> </ul>

Name	Parameter
LAN5–LAN8	<ul style="list-style-type: none"> <li>Standards compliance: IEEE802.3</li> <li>10/100/1000 Mbit/s auto-sensing</li> <li>Half duplex/full duplex auto-negotiation and configuration</li> <li>VLAN tagging/tag removal based on Ethernet port</li> </ul>
USB	USB 3.0

## Product Functions

Feature	Description
Automatic service provisioning	<ul style="list-style-type: none"> <li>OMCI/Web UI/TR069</li> <li>PPPoE/DHCP simulation</li> </ul>
L3 features	<ul style="list-style-type: none"> <li>Default/Static/Policy/Service route</li> <li>VLAN binding</li> <li>ALG/UPnP/ARP</li> <li>DDNS/DMZ/DNS/NAPT</li> <li>PPPoE/Static IP address/DHCP</li> <li>Port mapping/Port trigger</li> <li>IPv6</li> </ul>
Security	<ul style="list-style-type: none"> <li>IPv6/IPv4 firewall</li> <li>MAC address filtering/IP address filtering</li> <li>Anti-DoS/anti-ARP attack</li> <li>Port-level MAC address and IP address binding</li> <li>Device access control</li> <li>Local Portal authentication</li> </ul>
Multicast	<ul style="list-style-type: none"> <li>IGMP v2/v3 snooping</li> <li>Dynamic controllable multicast</li> <li>IGMP proxy</li> <li>MLDv1/MLDv2 snooping</li> </ul>
QoS	<ul style="list-style-type: none"> <li>Ethernet port rate limitation</li> <li>802.1p priority</li> <li>SP/WRR/SP+WRR</li> </ul>
VPN	<ul style="list-style-type: none"> <li>L2TP VPN</li> <li>VXLAN tunnel</li> <li>IPsec encryption</li> </ul>
Layer 2 management	<ul style="list-style-type: none"> <li>DHCP Option82</li> <li>PITP</li> <li>BPDU transparent transmission</li> <li>LLDP</li> </ul>

---

**Copyright © Huawei Technologies Co., Ltd. 2025. 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:<https://eKit.huawei.com>