

F1001-DC-H1 Datasheet

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Overview

Huawei eKitOptiX F1001-DC-H1 is an optical gateway launched by Huawei. It supports all-optical ultra-gigabit access for enterprises and works with optical APs to provide gigabit Wi-Fi coverage for enterprises. The product applies to small- and micro-sized enterprises (SMEs) and commercial buildings.



NOTE

The appearances shown in this document may differ from the actual appearances of the products. The actual products prevail.

Highlights

Simplified Deployment

- Simplified networking, lower hardware cost, and higher O&M efficiency
- Automatic networking with optical APs, plug-and-play

Ultimate Experience

- Supporting 32 optical APs or ONUs, and providing stable connections for up to 300 users
- Supporting Wi-Fi roaming with a handover latency about 50 ms
- Secure 200 Mbit/s IPsec VPN access and hardware encryption engine, ensuring tunnel performance and data security

Smart O&M

- Cloud-based NMS, scenario-based fast deployment by scanning codes on the eKit app, visualized enterprise network topology, and remote Wi-Fi optimization
- One-click acceptance, automatic delivery reports, simplified delivery process, and closed-loop deployment
- One-click diagnosis, network inspection, and E2E fault demarcation and locating to quickly resolve problems

Hardware Specifications

Specification	Parameter
Network-side interface	<ul style="list-style-type: none"> • 1xXGS-PON/XG-PON (BOB) • 1x2.5GE (WAN/LAN multiplexing)+4xGE (WAN/LAN multiplexing)
User-side interface	<ul style="list-style-type: none"> • 1xGPON (BOB) • 1x2.5GE (WAN/LAN multiplexing)+4xGE (WAN/LAN multiplexing)
Installation mode	Placed horizontally on a desk or in a network box
System power supply	12 V, 1 A
Static power consumption	5.95 W
Maximum power consumption	8.8 W
IP rating	IP20
Operating temperature	-5°C to +40°C
Operating humidity	5%–95% RH, non-condensing
Dimensions (H x W x D)	43.6 mm x 250 mm x 180 mm
Weight (excluding power adapter)	About 1.12 kg

Port Parameters

Port Type	Port Parameter
Extranet optical port	<ul style="list-style-type: none"> • Port type: SC/UPC • XGS-PON <ul style="list-style-type: none"> - Class N1, Na - Receiver sensitivity: -28 dBm - Overload optical power: -9 dBm - Transmission rate: 9.953 Gbit/s upstream and 9.953 Gbit/s downstream • XG-PON <ul style="list-style-type: none"> - Class N1/N2a - Receiver sensitivity: -28 dBm - Overload optical power: -8 dBm - Transmission rate: 2.488 Gbit/s upstream and 9.953 Gbit/s downstream • Type B single-homing protection • Type B dual-homing protection
Intranet optical port	<ul style="list-style-type: none"> • Port type: SC/UPC • Transmitter optical parameters <ul style="list-style-type: none"> - Minimum transmit optical power (AVG): -3.5 dBm - Maximum transmit optical power (AVG): 0 dBm • Asymmetric GPON: <ul style="list-style-type: none"> - Receiver sensitivity: -23.5 dBm

Port Type	Port Parameter
	<ul style="list-style-type: none"> - Overload optical power: 0 dBm - Transmission rate: 2.488 Gbit/ downstream and 1.244 Gbit/s upstream
2.5GE extranet 1/intranet 1 interface	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s and 2500 Mbit/s autonegotiation optical/electrical Combo interfaces; only one interface working at a time
Extranet/intranet interfaces 2-5	<ul style="list-style-type: none"> • RJ-45 port • 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s autonegotiation • Standards compliance: IEEE802.3

Product Functions

<p>Smart O&M</p> <ul style="list-style-type: none"> • OMCI, Web UI, and TR069 management • PPPoE/DHCP simulation test 	<p>Layer 3 features</p> <ul style="list-style-type: none"> • PPPoE client, static IP address, DHCP server, DHCP client • IPv6, DHCPv6 server, DHCPv6 client • DDNS, DNS • Static route • NAT, NAT, static one-to-one address translation • DMZ, port mapping, port trigger • ALG/UPnP/ARP
<p>VPN</p> <ul style="list-style-type: none"> • L2TP VPN • VXLAN tunnel • IPsec encryption 	
<p>Layer 2 management</p> <ul style="list-style-type: none"> • VLAN management • MAC bridge management • Loop detection • LLDP-MED • DHCP Option82 • PITP • BPDU transparent transmission 	<p>QoS</p> <ul style="list-style-type: none"> • Ethernet port rate limitation • 802.1p priority • SP/WRR/SP+WRR • Broadcast packet rate limitation
<p>Security</p> <ul style="list-style-type: none"> • SPI firewall • IPv4/IPv6 firewall • Anti-DoS attack • MAC, IP, and URL address filtering • Static MAC addresses binding • Local portal authentication • Authentication-free whitelist 	<p>Multicast</p> <ul style="list-style-type: none"> • IGMP v2/v3 snooping • IGMP proxy • MLDv1/MLDv2 snooping • Multicast simulation • GPON interoperation multicast

NOTE

The F1001-DC-H1 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 F1001-DC-H1. These Wi-Fi parameters are then automatically synchronized to downstream optical APs.

Wi-Fi management

- Automatic Wi-Fi channel selection under the same optical gateway
- Downstream ONU Wi-Fi roaming

NOTE

User terminals must support 802.11k/802.11v.

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