

F1001-DC-H1 Datasheet

Date: 2024-06-30

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

Smart O&M <ul style="list-style-type: none"> OMCI, Web UI, and TR069 management PPPoE/DHCP simulation test 	Layer 3 features <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
VPN <ul style="list-style-type: none"> L2TP VPN VXLAN tunnel IPsec encryption 	
Layer 2 management <ul style="list-style-type: none"> VLAN management MAC bridge management Loop detection LLDP-MED DHCP Option82 PITP BPDU transparent transmission 	QoS <ul style="list-style-type: none"> Ethernet port rate limitation 802.1p priority SP/WRR/SP+WRR Broadcast packet rate limitation
Security <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 	Multicast <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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