

eKitOptiX F1001-AC Datasheet

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Overview

Huawei eKitOptiX F1001-AC is an enterprise optical gateway. It supports Ethernet GE or XG-PON upstream transmission and implements all-optical gigabit access for enterprises. It provides downlink PoF ports (through advanced fiber with power(AFwP)) and works with optical APs to implement Wi-Fi wireless access. In addition, it provides downlink PON ports and works with optical APs to implement wired or wireless access of terminals. F1001-AC is suitable for small enterprises, supermarkets, kindergartens, and community hospitals.



NOTE

The schematic diagrams in this document may differ from the actual product.

Highlights

Simplified Deployment

The built-in advanced fiber with power(AFwP) power adapter supplies power to the downstream optical AP through the PoF port. The remote optical AP is not required to obtain power locally.

Ultimate Experience

- Maximum of 300 devices connected.
- Supports Wi-Fi roaming, the roaming handover delay is 50 ms.
- Supports 6 Gbit/s VXLAN, provides high-speed storage and access channels.
- The security-based 200 Mbit/s IPSec VPN access is implemented. The hardware encryption engine ensures tunnel performance and data security.

Hardware Specifications

Specification	Parameter
NNI	<ul style="list-style-type: none"> • 4 x GE (WAN/LAN multiplexing) • 1 x XG-PON
UNI	4 x GE (WAN/LAN multiplexing) +8 x GPON(XC/UPC, PoF)+16 x GPON(SC/UPC)
AC power supply	100 ~ 240 V AC, 50/60 Hz
Maximum input current	2 A
Static power consumption	9 W
Maximum power consumption	14 W NOTE The maximum output power of the PoF cable is 135 W.
Degree of protection	IP20
Operating ambient temperature	-10 °C - +40 °C
Operating environment humidity	5 % RH to 95 % RH, non-condensing
Dimensions (W x D x H)	442 mm x 245 mm x 43.6 mm
Weight	Approx. 3.0 kg

Port Parameters

Interface Classification	Interface Name	Interface parameter
Network-side port	GE port	<ul style="list-style-type: none"> • Interface type: RJ-45 • Supports auto-sensing of the 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s interface rate • Compliant with IEEE802.3
	XG-PON port	<ul style="list-style-type: none"> • Interface type: SC/UPC • Class N1/N2a • Receiver sensitivity: -28 dBm • Overload optical power: -8 dBm • Transmission rate: 2.488 Gbit/s in the uplink and 9.953 Gbit/s in the downlink
User-side port	XC/UPC port	<ul style="list-style-type: none"> • PoF port, connected to the optical/electrical composite cable • Transmission rate: downlink 2.488 Gbit/s; uplink 1.244 Gbit/s
	SC/UPC port	Transmission rate: downlink 2.488 Gbit/s; uplink 1.244 Gbit/s
LAN port	GE port	<ul style="list-style-type: none"> • Interface type: RJ-45 • Supports auto-sensing of the 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s interface rate • Compliant with IEEE802.3

Product Functions

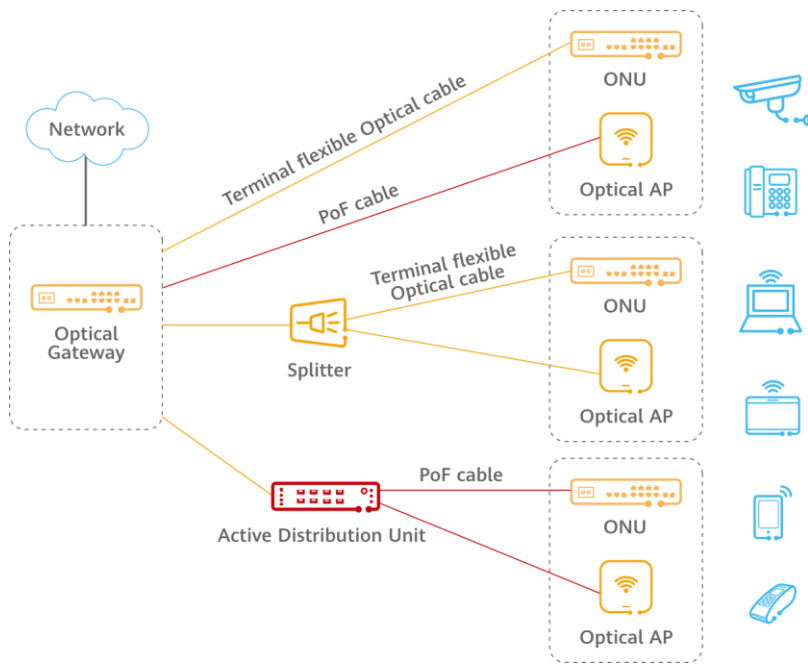
<p>Intelligent O&M</p> <ul style="list-style-type: none"> • OMCI/Web UI/TR069 management • Call emulation and internal/external line test • PPPoE/DHCP emulation test 	<p>Layer 3 features</p> <ul style="list-style-type: none"> • PPPoE Client/Static IP/DHCP Server/DHCP Client • IPv6/DHCPv6 Server/DHCPv6 Client • DDNS/DNS • Static route • NAT/NAPT/static one-to-one address translation • DMZ/Port Mapping/Port Tigger • ALG/UPnP/ARP
<p>VPN</p> <ul style="list-style-type: none"> • L2TP VPN • VXLAN tunnel • IPSec encryption 	<p>Wi-Fi management</p> <ul style="list-style-type: none"> • Automatic Wi-Fi channel selection under management of the same optical gateway. • Wi-Fi roaming is supported. The Wi-Fi roaming handover delay within the Optical AP is 50 ms (802.11k/802.11v).** <p>QoS</p> <ul style="list-style-type: none"> • Ethernet port rate limit • 802.1p priority • SP/WRR/SP+WRR • Broadcast packet rate limit
<p>Layer 2 management</p> <ul style="list-style-type: none"> • VLAN Management • MAC Bridge Management • Loop detection • Supports LLDP-MED. • DHCP Option82 • PITP • BPDU transparent transmission 	<p>Multicast</p> <ul style="list-style-type: none"> • IGMP v2/v3 snooping • IGMP proxy • MLDv1/MLDv2 snooping • Multicast emulation • GPON interworking multicast
<p>Security</p> <ul style="list-style-type: none"> • SPI Firewall • IPv4/IPv6 firewall • Anti-DoS attack • MAC address/IP address/URL address filtering • Static MAC address binding • Local Portal authentication • Authentication-free trustlist 	<p>*: The user terminal must support 802.11k/802.11v.</p> <p>* *: The F1001-AC does not support Wi-Fi, but the Wi-Fi can be configured for the downstream optical APs. That is, the Wi-Fi parameters are configured on the F1001-AC. The Wi-Fi configuration automatically overwrites the downstream optical APs.</p>

Typical Application

The following figure shows the MiniFTTO networking scenario.

- The optical gateway F1001-AC connects to the downstream optical AP through the PoF (advanced fiber with power(AFWP)) and supplies power to the remote ONU. A maximum number of 8 ONUs can be connected.
- The optical gateway F1001-AC connects to the downstream ONU through optical fiber. A maximum number of 16 ONUs can be connected.

MiniFTTO networking scenario



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