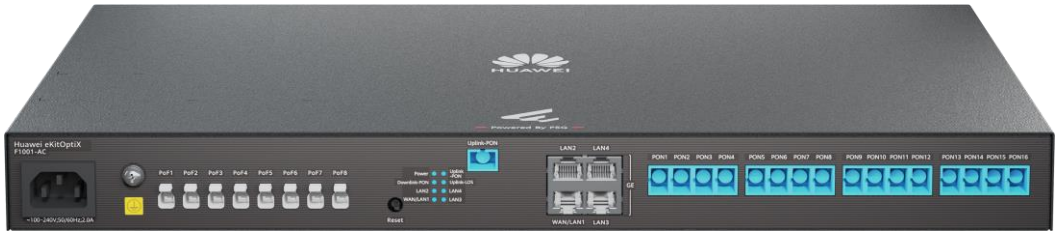
eKitOptiX F1001-AC Datasheet

Date: 2024-07-19

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	• 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**	• 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	• 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**	• 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**	• 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

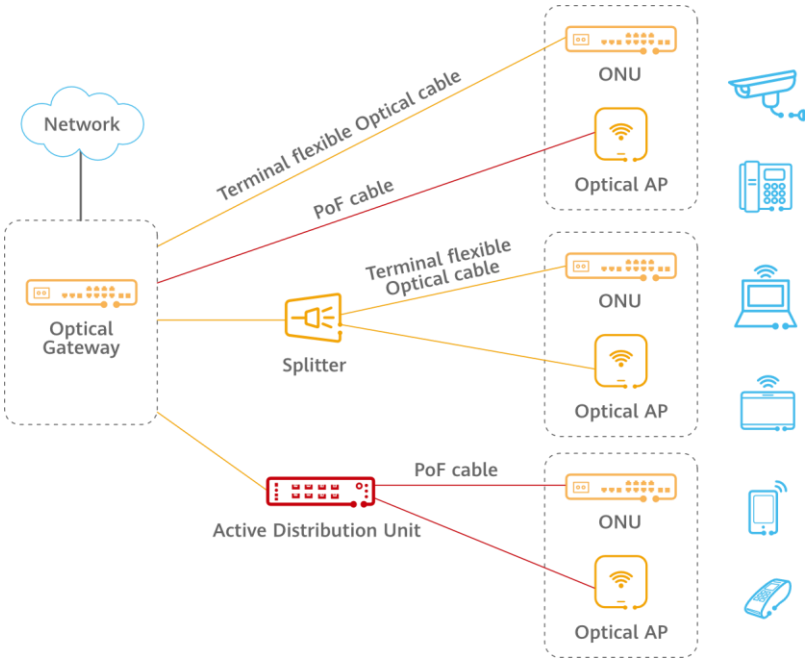
<table>
<tr>
<td rowspan="2">Intelligent O&M
OMCI/Web UI/TR069 management
Call emulation and internal/external line test
PPPoE/DHCP emulation test</td>
<td>Layer 3 features
PPPoE Client/Static IP/DHCP Server/DHCP Client
IPv6/DHCPv6 Server/DHCPv6 Client
DDNS/DNS
Static route
NAT/NAPT/static one-to-one address translation
DMZ/Port Mapping/Port Tigger
ALG/UPnP/ARP</td>
</tr>
<tr>
<td>Wi-Fi management
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).**</td>
</tr>
<tr>
<td>VPN
L2TP VPN
VXLAN tunnel
IPSec encryption</td>
<td>QoS
Ethernet port rate limit
802.1p priority
SP/WRR/SP+WRR
Broadcast packet rate limit</td>
</tr>
<tr>
<td>Layer 2 management
VLAN Management
MAC Bridge Management
Loop detection
Supports LLDP-MED.
DHCP Option82
PITP
BPDU transparent transmission</td>
<td>Multicast
IGMP v2/v3 snooping
IGMP proxy
MLDv1/MLDv2 snooping
Multicast emulation
GPON interworking multicast</td>
</tr>
<tr>
<td>Security
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</td>
<td>*: The user terminal must support 802.11k/802.11v.
* *: 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.</td>
</tr>
</table>

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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