

OptiXstar F1001-AC Datasheet

Overview

Huawei OptiXstar 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
---------------	-----------

Specification	Parameter
NNI	• 4 x GE (WAN/LAN multiplexing) • 1 x XG-PON
UNI	4 x GE (WAN/LAN1 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

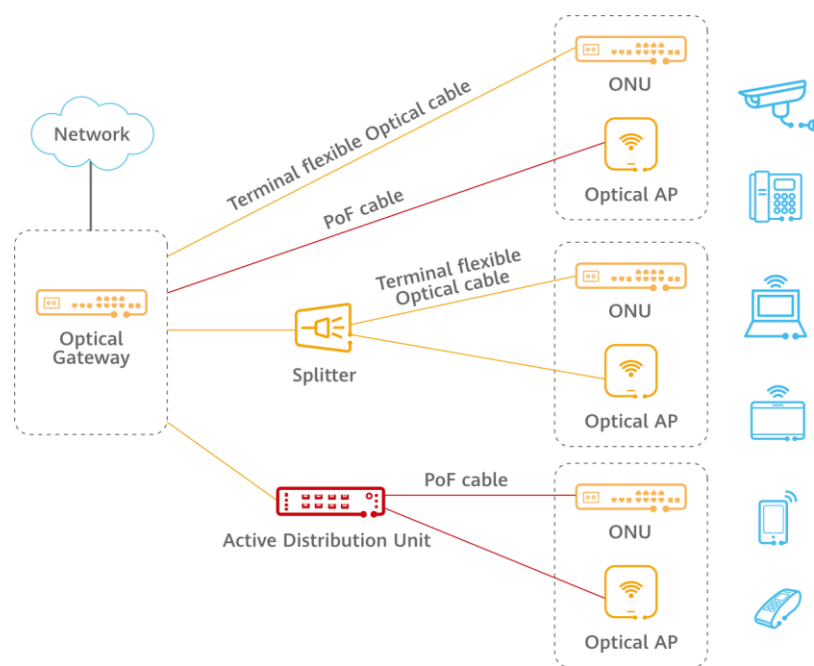
Intelligent O&M	Layer 3 features
----------------------------	-------------------------

• OMCI/Web UI/TR069 management • Call emulation and internal/external line test • PPPoE/DHCP emulation test	• 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 Wi-Fi management • Automatic Wi-Fi Channel Selection Under OLT Management of the Same Gateway • Wi-Fi roaming is supported. The Wi-Fi roaming handover delay within the Optical AP is 50 ms (802.11k/802.11v).**
VPN • L2TP VPN • VXLAN tunnel • IPSec encryption	QoS • Ethernet port rate limit • 802.1p priority • SP/WRR/SP+WRR • Broadcast packet rate limit
Layer 2 management • VLAN Management • MAC Bridge Management • Loop detection • Supports LLDP-MED. • DHCP Option82 • PITP • BPDU transparent transmission	Multicast • IGMP v2/v3 snooping • IGMP proxy • MLDv1/MLDv2 snooping • Multicast emulation • GPON interworking multicast
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	*: 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 ONU. That is, the Wi-Fi parameters are configured on the F1001-AC. The Wi-Fi configuration automatically overwrites the downstream ONU.

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.



Copyright © Huawei Technologies Co., Ltd. 2024. 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>