AN5231-F24U
XGS-PON Optical Network Unit
Datasheet

Overview

The AN5231-F24U is a XGS-PON ONU independently developed by FiberHome for FTTB / FTTC applications. Equipped with Ethernet and voice ports, it provides information, communication, and entertainment services in multiple forms like data and voice for subscribers in residential communities and enterprises.

It can be flexibly deployed: placed on a plane, secured on a wall, or mounted in a cabinet as needed.

Highlights

- Multiple mounting modes, easy installation, and flexible deployment
- Highly reliable, with IEEE 802.1x-compliant authentication and Type B protection switching
- High-class lightning protection for stable operation

Appearance and Specifications

AN5231-F24U
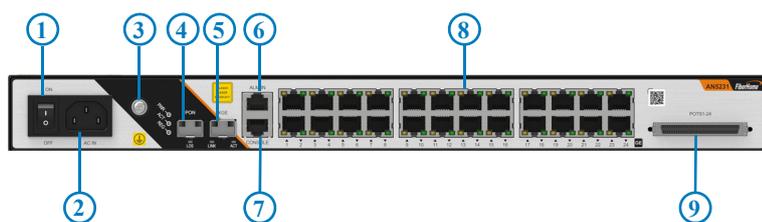
① Power switch
② Power interface
③ Earth ground screw
④ PON port
⑤ XGE port
⑥ ALM IN port
⑦ CONSOLE port
⑧ GE ports
⑨ POTS ports

Classification	Item	Specification
Mechanical parameters	Dimensions (H × W × D)	43.5 mm × 440 mm × 225 mm
	Weight	About 3.375 kg
Power supply	Voltage	220 V AC
	Current	≤ 1.8 A
Power consumption	Static power consumption	19.6 W
	Maximum power consumption	59 W
Environment	Operating temperature	-30°C to 55°C
	Storage temperature	-40°C to 80°C
	Ambient humidity	5% to 95% (non-condensing)
Lightning protection		• Lightning protection for power supply and service ports, compliant with EMC standards CISPR 35 and CISPR 55035 • Power supply: 6 kV in both common and differential modes • GE ports: 4 kV in common mode and 0.5 kV in differential mode • POTS interface: 4 kV in both common and differential modes
Mounting mode		Plane mounting, wall mounting and cabinet mounting
Network side interface	Quantity	1 × XGS-PON port (housing a pluggable optical module)
	Type	SC/UPC
	Rate	Upstream: 9.953 Gbit/s; downstream: 9.953 Gbit/s
	Standard	ITU-T G.9807.1
	Functions	• Encryption based on the AES-128 algorithm • Type B protection
LAN port	Quantity	24 × GE ports, 1 × XGE optical port
	Type	• GE ports: RJ-45 • XGE optical port: SFP+
	Rate	• GE ports: auto-negotiated to 10 / 100 / 1000 Mbit/s • XGE optical port: 10 Gbit/s
	Standard	IEEE 802.3
	Functions	• Statistics of Ethernet port performance • Configuration of Ethernet port rate, port enabling, negotiation mode, and flow control using Pause frames • Port-specific rate control and MAC address limit • Automatic configuration of MDI / MDIX • Loop detection
Voice port	Quantity	24 × POTS ports
	Type	SCSI

Functions and Features

Multicast

- IGMP V2/V3 Snooping
- MLD V1/V2 Snooping

QoS and ACL

- ACL
- QoS with three scheduling modes: SP, WRR and SP+WRR
- Queue mapping: Packets are mapped to different queues according to their 802.1p / DSCP priority.
- Traffic rate control and priority remarking based on traffic classification rules
- ONU-specific bandwidth control to guarantee services with a higher priority

Layer 2 Management

- Transparent transmission of OSFP / BPDU / EAP packets
- LLDP
- IEEE 802.1p and 802.1Q
- Transparent transmission and translation of VLAN tags
- VLAN stacking and VLAN QinQ
- VLAN-specific traffic control

Security

- Protection against various network attacks (including ARP, ICMP, DoS, and BPDU attacks)
- Packet filtering; suppression of unknown unicast, unknown multicast, and broadcast packets
- User MAC / IP address white / black list
- DHCP anti-spoofing; filtering / binding of MAC / IP addresses
- Alarms for power failure, fiber disconnection, and loops on ports

Intelligent OAM

- Management through OMCI
- Local management via web, where ONU settings like logical SN and password can be modified
- Remote management through Telnet on a local PC, where ONU status can be displayed and debugging information can be printed
- Remote and local upgrade
- DHCP line identification
- PPPoE+

VOIP

- SIP; G.711 and G.729 encoding
- Static IP address or dynamic IP address obtained through DHCP
- Instant and delayed hotline service
- Fax
- Call waiting
- Three-way calling