

# AN5231-F8U XGS-PON Optical Network Unit Datasheet

## Overview

The AN5231-F8U is an FTTB / FTTH XGS-PON ONU independently developed by FiberHome for indoor network access. Designed with eight GE service ports and eight POTS phone ports, it provides broadband Internet access, safeguarding, monitoring, and high-definition video services for enterprise zones, bringing about superior service experience.

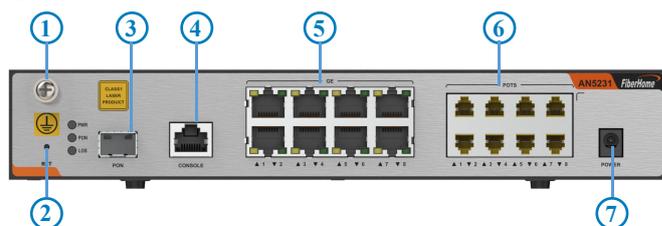
It can be flexibly deployed: placed on a plane, secured on a wall, or mounted in a cabinet as needed.

## Highlights

- Easy to access for ordinary phone service through eight RJ-11 POTS ports
- Highly reliable, with IEEE 802.1x-compliant authentication and Type B protection switching
- Well-adapted to environments with natural air cooling, high-strength aluminum housing, and 4 kV lightning protection
- Easy to install and flexible to deploy with multiple mounting modes

## Appearance and Specifications

### AN5231-F8U



- ① Earth ground screw
- ② Switch for restart
- ③ XGS-PON port
- ④ Console port
- ⑤ GE ports
- ⑥ POTS ports
- ⑦ Power input interface

Classification	Item	Specification
Mechanical parameters	Dimensions (H × W × D)	43.5 mm × 260 mm × 185 mm
	Weight	1.4 kg
Power supply parameters	Voltage	DC 12 V (external power adapter)
	Current	≤ 2.5 A
Power consumption parameters	Static power consumption	10 W
	Maximum power consumption	20 W
Environment parameters	Operating temperature	-10°C to 55°C
	Storage temperature	-40°C to 80°C
	Ambient humidity	5% to 95% (non-condensing)
Lightning protection parameters		<ul style="list-style-type: none"> <li>● Lightning protection for power supply and service ports, complaint with the EMC standards CISPR 35 and EN 55035</li> <li>● Power supply: 4 kV in both common and differential modes</li> <li>● GE ports: 4 kV in common mode and 0.5 kV in differential mode</li> <li>● Voice ports: 4 kV in both common and differential modes</li> </ul>
Mounting modes		Plane mounting, wall mounting and cabinet mounting
Network side interfaces	Quantity	1 × XGS-PON port (housing a pluggable optical module)
	Type	SC/UPC
	Rate	Upstream / downstream: 10 Gbit/s
	Standard	ITU-T G.9807.1
	Functions	<ul style="list-style-type: none"> <li>● Encryption based on the AES-128 algorithm</li> <li>● Type B protection</li> </ul>
LAN interfaces	Quantity	8 × GE ports
	Type	RJ-45
	Rate	Auto-negotiated to 10 / 100 / 1000 Mbit/s
	Standard	IEEE 802.3
	Functions	<ul style="list-style-type: none"> <li>● Full-duplex / half-duplex working mode</li> <li>● Statistics of Ethernet port performance</li> <li>● Rate control and MAC address limit based on LAN ports</li> <li>● User MAC address white list</li> <li>● Automatic configuration of MDI / MDIX</li> <li>● Loop detection</li> </ul>
Voice interfaces	Quantity	8 × POTS ports
	Type	RJ-11

## Functions and Features

### Multicast

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

### QoS and ACL

- ACL: Traffic is analyzed and processed according to ACL rules.
- 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-based bandwidth control to guarantee services with high priority
- Rate control on Ethernet ports

### Layer 2 Management

- Line identifiers
- Transparent transmission of BPDUs
- LLDP: User devices connected to GE ports can be detected and identified.
- IEEE 802.1p and 802.1Q
- VLAN stacking and QinQ
- Transparent transmission and 1:1 translation of VLAN IDs
- VLAN tags carried by multicast packets
- Adding / stripping of VLAN tags based on Ethernet ports

### Security

- Limit on number of MAC addresses per port
- Broadcast storm suppression on user ports and upstream ports
- Protection against various network attacks (including ARP, ICMP, DOS, and BPDU attacks)
- Authentication based on IEEE 802.1x and EAP-MD5/PEAP
- MAC / IP address filtering
- Binding static MAC addresses
- Firewall

### Intelligent OAM

- Web-based network management, allowing login to the ONU via a user LAN port to view information of the ONU and modify its settings like logical SN and password
- Remote management through Telnet on a local PC, where ONU status can be displayed and debugging information can be printed
- Management by an OLT through OMCI
- DHCP line identifiers
- PPPoE+

### VoIP

- Eight RJ-11 voice ports
- Compliance with SIP and H.248, with voice coding compliant with ITU-T G.711 and G.729
- T.30 and T.38 fax modes
- Immediate and delayed hotline services
- Call-waiting
- Three-way call