

A decorative pattern of small grey dots is arranged in a grid-like shape, tapering off to the right, located to the right of the main title.

# AN5221-F24U XGS-PON Optical Network Unit Datasheet

## Overview

The AN5221-F24U is a XGS-PON ONU independently developed by FiberHome for FTTB / FTTC applications. Equipped with Ethernet ports, it provides various information, communication, and entertainment services in multiple data forms for subscribers in residential communities and enterprises.

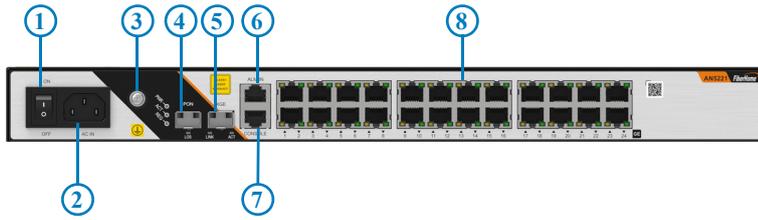
It can be flexibly deployed: placed on a plane, secured on a wall, or mounted in a cabinet as needed.

## 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

### AN5221-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        |

Classification	Item	Specification
Mechanical parameters	Dimensions (H × W × D)	43.5 mm × 440 mm × 225 mm
	Weight	About 2.7 kg
Power supply	Voltage	220 V AC
	Current	≤ 1.8 A
Power consumption	Static power consumption	14.1 W
	Maximum power consumption	27.6 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		<ul style="list-style-type: none"> <li>Lightning protection for power supply and service ports, compliant with EMC standards CISPR 35 and CISPR 55035</li> <li>Power supply: 6 kV in both common and differential modes</li> <li>GE ports: 4 kV in common mode and 0.5 kV in differential mode</li> </ul>
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	<ul style="list-style-type: none"> <li>Encryption based on the AES-128 algorithm</li> <li>Type B protection</li> </ul>
User side interface	Quantity	24 × GE ports, 1 × XGE optical port
	Type	<ul style="list-style-type: none"> <li>GE ports: RJ-45</li> <li>XGE optical port: SFP+</li> </ul>
	Rate	<ul style="list-style-type: none"> <li>GE ports: auto-negotiated to 10 / 100 / 1000 Mbit/s</li> <li>XGE optical port: 10 Gbit/s</li> </ul>
	Standard	IEEE 802.3
	Functions	<ul style="list-style-type: none"> <li>Statistics of Ethernet port performance</li> <li>Configuration of Ethernet port rate, port enabling, negotiation mode, and flow control using Pause frames</li> <li>Port-specific rate control and MAC address limit</li> <li>Automatic configuration of MDI / MDIX</li> <li>Loop detection</li> </ul>

## 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+