ZYXEL
COMMUNICATIONS





PM7500-00

XGS-PON SFU with 10GbE LAN

The Zyxel PM7500-00 XGS-PON SFU with 10GbE LAN features one XGS-PON uplink and one 10GbE LAN for downlink interface and allows existing fiber networks to transition to 10 Gigabit broadband access with minimal CAPEX. Service providers can now deliver 10/10G symmetric business-grade internet speeds for subscribers with high-bandwidth needs or backhaul services.

Benefits

Next-gen GPON offers seamless triple-play services

The Zyxel PM7500-00 serves as a simple bridge that enables service providers to deliver symmetric 10/10G data access to subscribers under the P2MP structure. The PM7500-00 provides high-quality triple-play services such as voice, data, and video over fiber optics.

Same user experience with advanced product combinations

The P2MP structure enables service providers to create a truly converged network. The PM7500-00 performs as a Layer-2 Optical Network Terminal (ONT) connecting to any Layer-3 devices such as routers, WiFi APs, and home gateways. Given the rapid evolution of WLAN technology and gateway interface requirements, a two-box solution offers service providers the flexibility to substitute the second box for the same user experience.

- Integrated internet services through 10G fiber
- Compact design for flexible deployment
- Remote management via TR-069 and OMCI
- Zyxel-developed OPAL for superior flexibility and faster time to market
- Comprehensive QoS for enhanced triple-play experience

Comprehensive QoS for superior network efficiency

Based on your service offerings to customers – you can freely define the QoS policies and prioritize mission-critical traffic such as voice. Defining the QoS will improve your customer's network efficiency and give them the super-fast multi-play service quality they want.

Zyxel OPAL firmware realizes the flexibility and faster time to market

Compliant with the same OPAL firmware trunk applied in all Zyxel CPEs, the PM7500-00 inherits a rich, field-proven feature set including TR-069 and more. Service providers can ensure the same user experience, after migrating to new devices.

TR-069 remote management for lower OPEX

Compliant with TR-069 standard, the PM7500-00 significantly simplifies deployment complexity and lowers operating and maintenance costs with its remote management capabilities.

Specifications

System specifications

XGS-PON compliance
- Comply with ITU-T G.9807.1
- DS/US speed: 9.95328 /9.95328 Gbps
- Wavelength: 1577 nm (DS) & 1270 nm (US)
- Comply with class B+ type PMD
- Physical distance reach to 20 km
- Dynamic Bandwidth Allocation (DBA)
- Configurable AES DS and FEC DS/US
- GPON Encapsulation Method (GEM) supports Ethernet packet
- Supports GEM header removal/ insertion and data extraction/ segmentation (GEM SAR)
- Supports up to 32 T-CONs each with priority queues (US); Supports up to 256 GEM ports
- Flexible mapping between T-CONT and GEM port

Layer 2 networking features
- MAC address learning
- MAC filtering
- Multicast transparent
- IPv6 address transparent

Multicast
- IGMP v1/v2/v3 snooping
- IGMP immediate leave
- IPv6 MLD v1/v2 snooping

Feature capability
- VLAN IEEE 802.1Q
- Ethernet port based VLAN tag and untag
- Supports protocol based VLAN
- 1:1 VLAN, N:1 VLAN, VLAN transparent bridge
- LAN port-based VLAN tag add and tag removal
- Q in Q VLAN
- Supports at most 64 concurrent configurable VLANs with VLAN ID between 1 and 4095
- Supports up to 2K MAC address entries

QoS
- Traffic classification and tagging via DSCP/ VLAN/802.1P-bit
- Gem port rate limitation for US/DS traffic
- Per-port QoS and CoS mapping according to IEEE 802.1q and IEEE 802.1p priority
- SP/WRR/SP+WRR

Security
- Stateful Packet Inspection (SPI) firewall
- MAC/IP/URL addresses filtering
- Supports protection against illegal message (DoS, ARP) attacks
- Multicast/Broadcast/unicast storm control
- Supports the ACL function to match traffic based on the ACL rules

Management
- Standard OMCI (ITU-T G.988)
- Telnet (CLI)
- Web GUI (HTTP/HTTPS)

Hardware specifications

WAN
- One XGS-PON uplink with SC/APC connector

LAN
- One 10G Gbps RJ45 port
- Reset: one reset/restore factory default button
- Power switch: one push type button
- LEDs indicators:
  - Power
  - PON
  - LOS
  - LAN
- Power supply: 12 V DC/1 A

Power consumption
- 12 Watt max

Physical specifications
- Item dimensions (WxDxH): 128 x 115 x 35 mm (5.04" x 4.53" x 1.38")
- Item weight: 203 g (0.48 lb.)
- Packing dimensions (WxDxH): 260 x 140 x 40 mm (10.24" x 5.51" x 1.57")
- Packing weight: 423 g (0.93 lb.)

Environmental specifications

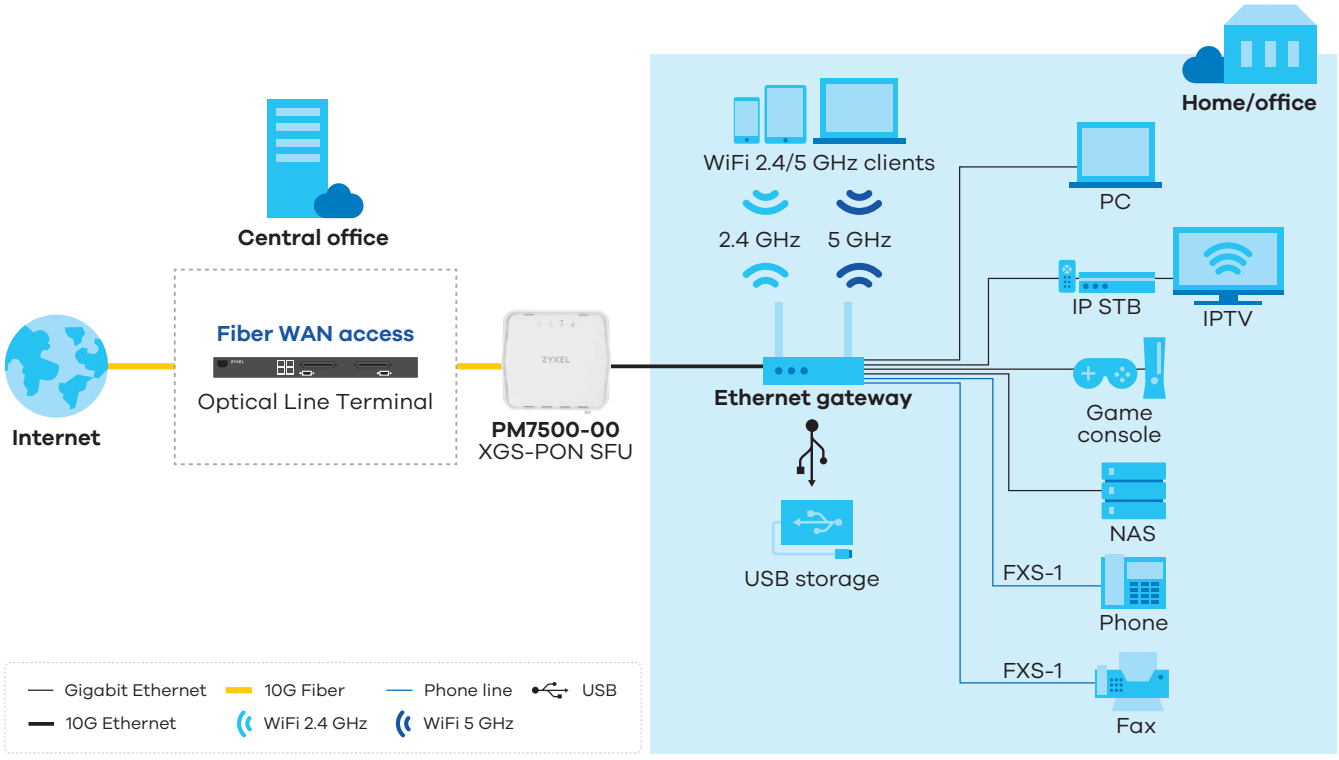
Operating environment
- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% RH (non-condensing)

Storage environment
- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% RH (non-condensing)

Certification
- EMC: CE
- Safety: CE LVD
- Energy saving: ErP

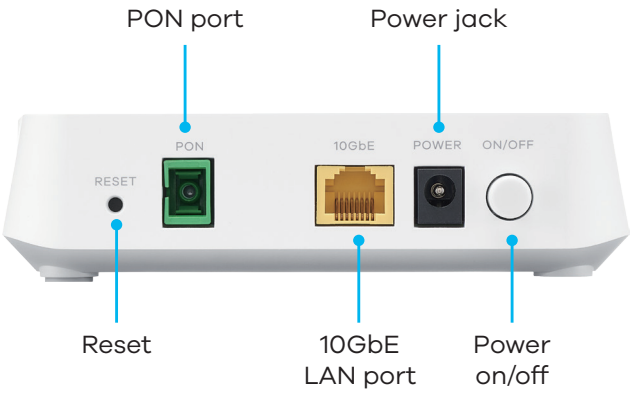
Package contents
- Device
- Power adapter
- Ethernet cable
- Safety warning & DoC letter
- Quick Start Guide

Application diagram



Hardware description





For more product information, visit us on the web at https://www.zyxel.com/service-provider

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Datasheet PM7500-00