



## PM7516-R0

### XGS-PON VoIP Bridge ONT with 10G LAN

The Zyxel PM7516-R0 XGS-PON VoIP Bridge ONT with 10G LAN features high bandwidth with symmetric 10/10G profile, which aims to upgrade the existing GPON network to 10 Gigabit broadband access with minimized CAPEX investments.

#### Benefits

##### Next-gen PON offers seamless network migration

The PM7516-R0 gives service providers the scalability and flexibility to upgrade the existing network. With a 10G WAN and LAN interface, the PM7516-R0 enables symmetric, unblocking 10/10G data access to meet subscribers' quickly evolving bandwidth demands.

##### Excellent user experience with customized product combinations

Adding Zyxel PM7516-R0 to a network as a Layer-2 ONT helps service providers meet a range of subscriber demands, leaving room for further customization by adding any Layer-3 device based on deployment needs.

##### Longer infrastructure lifecycle

The fiber tray design prevents damage to fiber cables, increases infrastructure management efficiency, and reduces the cost of on-site support by shielding, protecting, and distributing fiber cables.



Integrated internet services via symmetric 10G fiber



One 10GbE LAN port for optimized bandwidth utilization



VoIP SIP protocol with 3-way conference calls



Remote management via OMCI

# Specifications

## System specifications

### XGS-PON compliance

- Complies with ITU-T G.9807.1 XGS-PON standard
- Complies with ITU-T G.988 OMCI standard
- DS/US speeds: 9.95328/9.95328 Gbps
- Wavelength: 1575~1580 nm (Rx) & 1260~1280 nm (Tx)
- Tx output: 4~9 dBm, RX sensitivity: -28 dBm
- Physical distance reach to 20 km
- Supports up to 8 T-CONs each with priority queues (US)
- Supports up to 32 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 v2/v3 snooping
- IGMP immediate leave
- IPv6 MLD v1/v2 snooping

### VLAN functional specifications

- VLAN IEEE 802.1Q
- Supports protocol-based VLAN
- 1:1 VLAN, N:1 VLAN, VLAN transparent bridge
- LAN port-based VLAN tag add and tag removal
- QinQ VLAN

### QoS

- 802.1p priority with 8 queues
- Classification based on VLAN ID, 802.1p, VLAN ID + 802.1p
- Scheduling mode: strict priority, WRR

## Management

- Standard OMCI (ITU-T G. 988)
- SSH (CLI)
- Web GUI (HTTPS)
- Firmware upgrade via HTTPS/OMCI

## VoIP

- SIP (Section Initiating Protocol, RFC 3261)
- Codec: G.711 a/μ, G.726, G.722
- Fax/modem detection and pass-through
- Voice Active Detector (VAD) (silence suppression)
- Comfort Noise Generation (CNG)
- Supports fax T.38
- Dynamic jitter buffer
- DTMF detection and generation
- DTMF relay by in-band and out-of-band (RFC 2833, SIP INFO)
- SIP account (URL type included)
- Caller ID
- Call forwarding (no condition, busy, no answer)
- Call transferring (attended, unattended)
- Call hold/call retrieve
- Three-way conference (local mixer)
- Call waiting

## Hardware specifications

- WAN: one XGS-PON (with SC/APC connector)
- LAN: one RJ45 port (with 100 Mbps, 1 Gbps, 2.5 Gbps, 5 Gbps, 10 Gbps data rates)
- VoIP: one RJ11 port
- Reset: one reset button
- UPS: one 8-pin Molex connector for UPS power supply
- LED indicators:
  - Power
  - UPS
  - PON
  - VoIP

## Power consumption

- Power supply: 12 V DC/1 A
- 12 Watt max

## Physical specifications

- Item dimensions (WxDxH): 145 x 125 x 45 mm (5.7" x 4.9" x 1.8")
- Item weight: 345 g (0.76 lb.)
- Packing dimensions (WxDxH): 233 x 170 x 53 mm (9.2" x 6.7" x 2.1")
- Packing weight: 620 g (1.36 lb.)

## Environment 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)

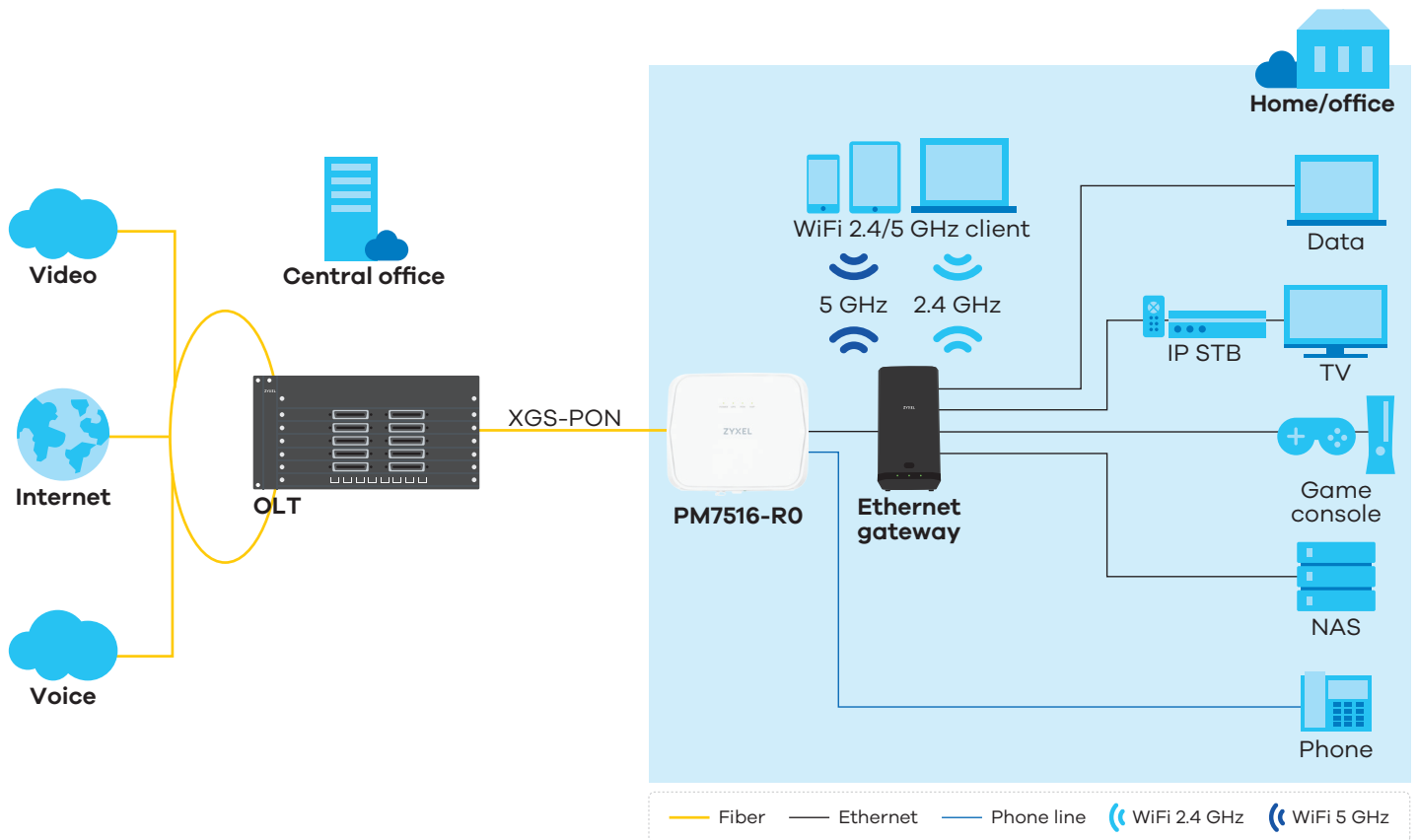
## Certification

- EMC: FCC
- Safety: FDA, UL

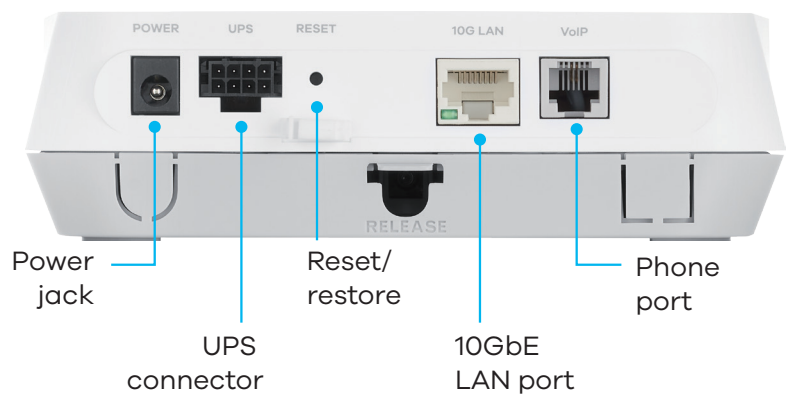
## Package contents

- Device
- Power adapter
- Ethernet cable Cat. 6
- Phone cable
- Quick Start Guide

## Application diagram



## Hardware description





For more product information, visit us on the web at [www.zyxel.com](http://www.zyxel.com)

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