



## PMG2005-T20E

### GPON ONT with 1-port GbE LAN

The Zyxel PMG2005-T20E GPON ONT with 1-port GbE LAN provides high-speed passive fiber internet access to meet the market requirements for high-performance Gigabit bandwidth.

#### Benefits

##### Flexibility that boosts the efficiency of the existing infrastructure

The bridge/router function allows Zyxel PMG2005-T20E to be configured as an SFU or HGU. This allows service providers to start a new deployment or upgrade their service by connecting to the subscriber's existing broadband router. This dual-mode flexibility not only minimizes the CAPEX, but also saves future costs when service demand or deployment scenarios change.

##### Excellent user experience with customizable product combinations

Adding Zyxel PMG2005-T20E into the network as a Layer-2 ONT can help service providers to meet different subscribers' demands as it leaves room for further customization by adding any Layer-3 device based on the deployment needs.



Supports Gigabit data access via passive fiber



Bridge/router modes

# Specifications

## System specifications

### GPON features

- Complies with ITU-T G.984/G.988 GPON standards:
  - G.984.1 general characteristics
  - G.984.2 Physical Media Dependent (PMD) layer specifications
  - G.984.3 transmission convergence layer specifications
  - G.984.4 ONT management and control interface specification
  - G.988 ONU management and control interface (OMCI) specification
- Complies with class B+ type PMD
- Transmission rates: 2.488 Gbps (DS)/1.244 Gbps (US)
- Wavelength: 1490 nm (DS) & 1310 nm (US)
- 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)
- Flexible mapping between T-CONTs and GEM port
- Supports up to 8 T-CONTs with 32 GEM ports
- 8 priority queues (US) on each GPON T-CONT

### Networking features

- MAC address learning
- MAC filtering
- Multicast transparent
- IPv6 address transparent
- PPPoE pass-through
- Routing Information Protocol (RIP): static routing, dynamic routing
- Network Address Translation (NAT)/Network Address Port Translation (NAPT)
- IPv4 NAT, IPv4/IPv6 routing
- IPv4/IPv6 dual stack/IPv6 6RD/DS-lite
- Port forwarding
- PPPoE client
- Dynamic Host Configuration Protocol (DHCP)
- NAT(FTP)/IPSEC/PPTP ALG
- RTSP ALG

### Multicast

- IGMP v1/v2/v3 snooping
- IGMP fast leave
- IPv6 MLD v1/v2 snooping

### VLAN functional specifications

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

### QoS

- Per-port QoS and CoS mapping according to IEEE 802.1q and IEEE 802.1p priority
- Rate limitation
- Flow mapping base on 802.1p/VLAN ID
- 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

### Management

- Standard OMCI (ITU-T G.984.4)
- Telnet (CLI)
- Web GUI (HTTP/HTTPS)
- PLOAM
- TR-069 CPE WAN Management Protocol (CWMP) client
- Firmware upgrade via FTP/HTTP/OMCI, GUI local access

## Hardware specifications

### Hardware interface

- WAN: one Gigabit optical interface (SC/APC)
- LAN: one 10/100/1000 auto MDI/MDI-X RJ-45
- Reset: one reset/restore factory default button
- Power switch: one push-type button

- LEDs indicators:
  - Power
  - Passive Optical Network (PON)
  - Internet
  - LAN

## Power consumption

- 12 V DC/1 A

## Physical specifications

- Item dimensions (WxDxH): 109.4 x 83.6 x 36.5 mm (4.3" x 3.29" x 1.44")
- Item weight: 113 g (0.25 lb.)
- Packing dimensions (WxDxH): 131 x 130 x 95 mm (5.16" x 5.12" x 3.74")
- Packing weight: 342 g (0.75 lb.)

## Environment specifications

### Operating environment

- Temperature: 0°C to 40°C (32°F to 113°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)

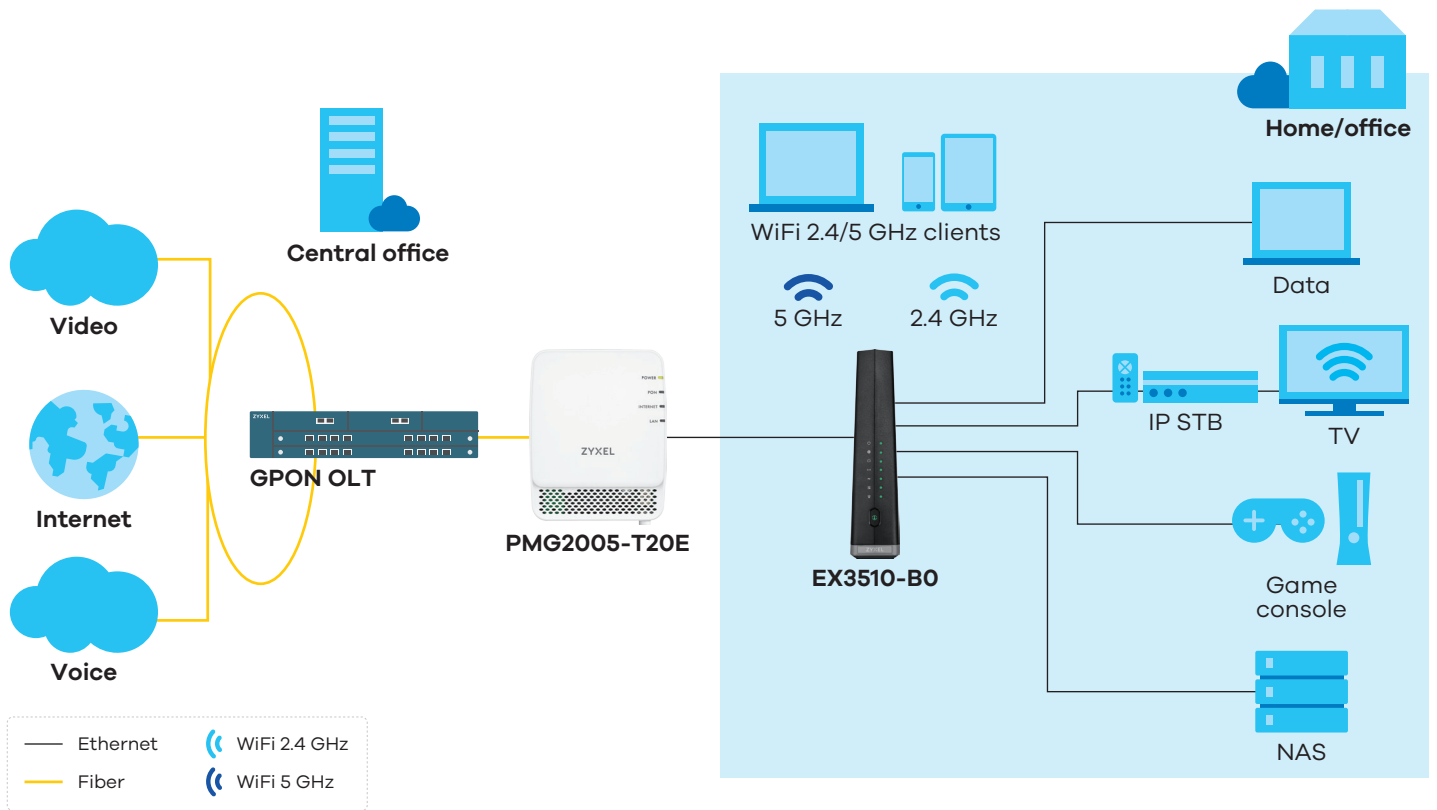
## Certification

- EMC: FCC, IC

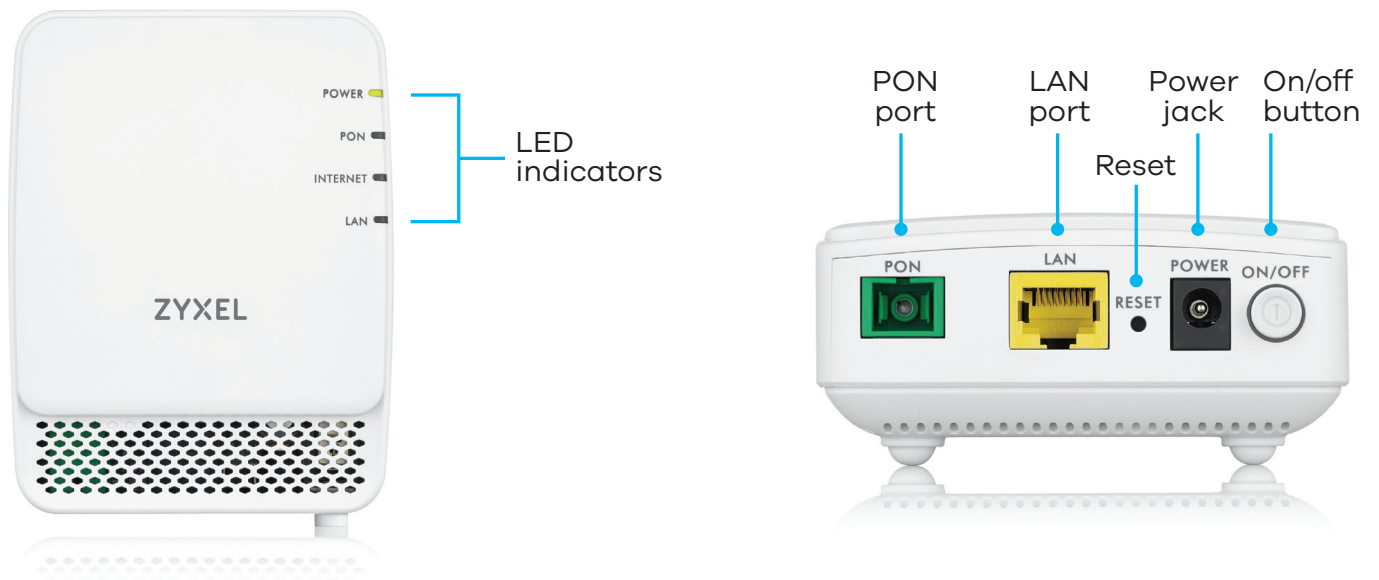
## Package contents

- Power adapter
- Ethernet 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)

Copyright © 2020 Zyxel and/or its affiliates. All rights reserved. All specifications are subject to change without notice.



15/10/20

Datasheet [PMG2005-T20E](#)