PM5311-T0

GPON VoIP Bridge ONT with 2.5GbE LAN

The Zyxel PM5311-T0 GPON VoIP Bridge ONT comes with one 2.5GbE LAN port for the downlink interface. Service providers can optimize existing GPON network infrastructure while delivering premium services for subscribers with demands for reliable high-bandwidth and ultra-fast internet speeds.

Benefits

Future-proof investment during service upgrade

Thanks to its superior interoperability, the PM5311-T0 can connect to any layer-3 devices such as routers, WiFi APs, and home gateways. Given the rapid evolution of WLAN technology and gateway interface requirements, service providers can always deliver premium services with cutting-edge technology without changing the entire fiber network infrastructure.

2.5GbE LAN interface for optimal bandwidth utilization

Equipped with one 2.5GbE LAN port, the PM5311-T0 empowers service providers to fully utilize the existing GPON network while delivering premium services to meet the rising demands for reliable and high bandwidth connections.

- Gigabit data access via passive fiber
- 2.5GbE LAN port for optimized bandwidth utilization
- Compact design for flexible deployment
- Remote management via OMCI
- Zyxel-developed OPAL for superior flexibility and faster time to market
- Support VoIP SIP protocol with three-way conference call

Zyxel OPAL firmware achieves superior flexibility and shortens time to market

Compliant with the same OPAL firmware trunk applied in all Zyxel CPEs, the PM5311-T0 inherits a rich, field-proven feature set for guaranteed same user experience after migrating to new devices.

OMCI remote management for lower OPEX

Supporting OMCI, the PM5311-T0 significantly simplifies deployment complexity and lowers operating and maintenance costs with its remote management capabilities.

Specifications

System specifications

GPON compliance

- Complies with ITU-T G.984
- DS/US speed: 2.488/1.244 Gbps
- Wavelength: 1490 nm (DS) & 1310 nm (US)
- Complies 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 256GEM ports

Layer 2 networking features

- Multicast transparent
- IPv6 address transparent

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

QoS

- Per-port QoS and CoS mapping according to IEEE 802.1q and IEEE
- 802.1p priority
- SP/WRR/SP+WRR

VoIP

- Section Initiating Protocol (SIP), RFC3261
- Codec: G.711 a/u (64K), G.726 (32K), G.722, G.729

- Echo cancellation
- Fax/modem detection and pass-through
- Voice Active Detection (VAD)
- Comfort Noise Generator (CNG)
- Dynamic jitter buffer
- DTMF detection and generation
- DTMF relay by in-band and out-of-band
- SIP account (URL type included)
- On-hook, off-hook and flash detection
- Caller ID
- Call transferring
- Call hold/Call retrieve
- Three way conference
- Call waiting
- DNS SRV

Management

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

Hardware specifications

- WAN: One gigabit optical interface SC/APC
- LAN: One 100M/1G/2.5G Gbps RJ-45 port
- FXS: One RJ-11 port
- Reset: One reset/restore factory default button
- Power switch: One push type button
- LED indicators:
  - Power
  - PON
  - LAN
  - FXS

Power consumption

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

Physical specifications

- Item dimensions (WxDxH): 124 x 107 x 33 mm (4.88" x 4.21" x 1.3")
- Item weight: 146 g (0.32 lb.)
- Packing dimensions (WxDxH): 215 x 135 x 43 mm (8.46" x 5.31" x 1.69")
- Packing weight: 353 g (0.78 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)
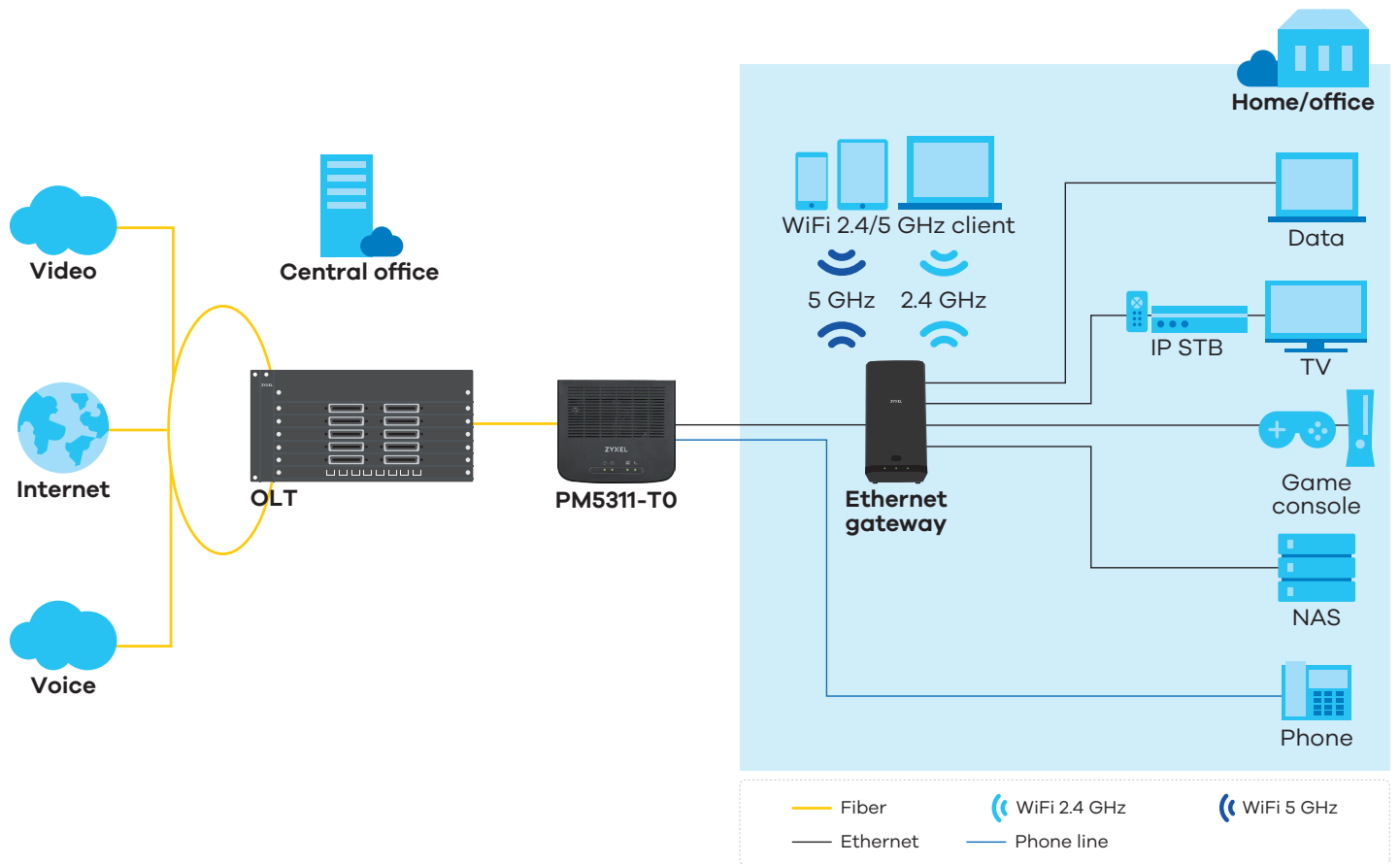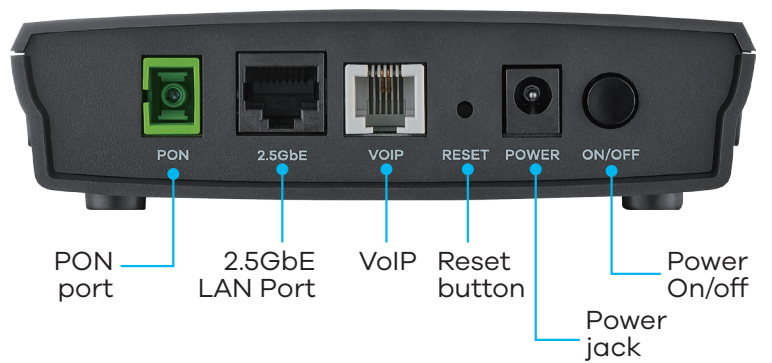- Humidity: 10% to 95% RH (non-condensing)

Certification

- FCC

Package contents

- GPON SFU
- Power adapter
- Ethernet cable
- Quick Start Guide

Application diagram

WiFi 2.4/5 GHz client

5 GHz   2.4 GHz

Home/office

Video

Internet

Voice

Central office

OLT

PM5311-T0

Ethernet gateway

Data

IP STB

TV

Game console

NAS

Phone

── Fiber		◖ WiFi 2.4 GHz	◖ WiFi 5 GHz
── Ethernet		── Phone line	

Hardware description

ZYXEL

PON port

2.5GbE LAN Port

VoIP

Reset button

Power jack

Power On/off

PON   2.5GbE   VOIP   RESET   POWER   ON/OFF

ZYXEL
COMMUNICATIONS

08/09/22

Datasheet PM5311-T0