



## PX3321-T1

### AX3000 WiFi 6 GPON VoIP Gateway ONT with 1-port USB

The Zyxel PX3321-T1 AX3000 WiFi 6 GPON VoIP Gateway ONT with 1-port USB delivers high-speed fiber connectivity for service providers to upgrade their customers' home networks. Compliant with the latest WiFi 6 (11ax) standard, the PX3321-T1 provides your customer with superior WiFi service for all their devices – anywhere in their home.

#### Benefits

##### Efficient port combination increases deployment flexibility and capacity

The PX3321-T1 ensures gigabit data rates through SC/APC WAN interface while bringing flexibility to support various deployment scenarios at the end-user site with its four GbE LANs and one FXS RJ-11 port.

##### Take your customer seamlessly to WiFi 6

The PX3321-T1 delivers 2400 Mbps\* with 5 GHz 3x3 (2 spatial streams) 802.11ax and 600 Mbps\* with 2.4 GHz 2x2 802.11ax. Compliant with the latest WiFi 6 (11ax) standard, the PX3321-T1 offers the optimal choice for any service providers who want to provide WiFi 6 service with gigabit-speed under an existing fiber infrastructure.

##### Premium MPro Mesh® for whole-home coverage

Featuring EasyMesh fully compliant Zyxel MPro Mesh® Solutions\*\*, the PX3321-T1 enhances your subscribers' experience by providing self-adapting, easy-to-manage whole-home WiFi coverage, while reducing your service OPEX.



Gigabit data access via passive fiber



WiFi 6 (11ax) 2x2+3x3 (2 spatial streams) for superior performance and coverage with 160 MHz in 5 GHz



Zyxel MPro Mesh® Solutions (compliant with EasyMesh standards)



Four GbE LAN ports for optimized bandwidth utilization



Remote management via OMCI and TR-069



Supports VoIP SIP protocol with three-way conference call



Zyxel-developed OPAL for superior flexibility and a faster time-to-market



Comprehensive QoS for network efficiency

## TR-069/OMCI remote management for lower OPEX

Compliant with TR-069/OMCI standard, the PX3321-T1 significantly simplifies deployment complexity and lowers operating and maintenance costs with its remote management capabilities.

## Zyxel OPAL firmware achieves superior flexibility and shortens time to market

Compliant with the same OPAL firmware trunk applied to all Zyxel CPEs, the PX3321-T1 inherits a rich, field-proven feature set for guaranteed same user experience after migrating to new devices.

## Specifications

### System specifications

#### GPON compliance

- Complies with ITU-T G.984.1/G.984.2/ G.984.3/G.984.4/G.988 standards
- DS/US speed: 2.488/1.244 Gbps
- Wavelength: 1490 nm (DS) & 1310 nm (US)
- Physical distance reach to 20 km
- Dynamic Bandwidth Allocation (DBA)

#### Networking features

- Full duplex IEEE 802.3x
- Bridge mode and router mode
- PPPoE (RFC 2516)
- MAC encapsulation routing/IPoE
- Network Address Translation (NAT)
- Dynamic Domain Name Service (DDNS)
- NAT virtual server (port forwarding)
- DHCP client/server/relay
- Static IP/Static route
- IP multicast
- 802.1Q VLAN
- IPv6:
  - DHCPv6
  - SLAAC
  - DS-Lite IPv4/IPv6 dual stack

#### WLAN

- WiFi 6 (802.11ax) dual-band WiFi (AX3000):
  - 2.4 GHz–2x2 MIMO, max data rate: 574 Mbps\*
  - 5 GHz–3x3 (2 spatial streams) MIMO, max data rate: 2400 Mbps\*
- Advanced Encryption Standard (AES)
- Wireless Protected Setup (WPS)
- WPA-PSK/WPA2-PSK/WPA3 (WiFi protected access)
- Auto channel selection
- Supports multiple SSID (up to 4)

#### Security

- Static Packet Inspection (SPI) firewall
- Access control
- DoS attack prevention
- Packet filter (MAC/URL/IP address)
- Parental control

#### VoIP

- Session Initiating Protocol (SIP), RFC3261
- SIP proxy
- Codec: G.711, G.726, G.722, G.729
- G.168 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 (RFC2833, SIP Info)
- On hook, off hook and flash detection
- Caller ID
- Call transferring
- Call hold/Call retrieve
- Three way conference
- DNS SRV

#### Management

- Web (HTTP/HTTPS)
- TR-069
- OMCI

#### Maintenance

- System reboot
- Factory reset
- Firmware update
- Diagnostic
- System log
- NTP
- Configuration backup

### Hardware Specifications

- WAN/PON: One gigabit optical interface SC/APC
- LAN: Four 10/100/1000 Mbps Ethernet RJ-45 ports
- One FXS port RJ-11
- One USB 2.0 port

#### Button

- One power on/off button
- One power jack
- One reset button
- One WPS button

#### Antenna

- Two external antennas for WiFi 2.4 GHz
- Two external antennas for WiFi 5 GHz

#### Status LED indicators

- Power
- PON
- LOS
- Internet
- LAN 1 to 4
- 2.4 GHz/WPS
- 5 GHz/WPS
- Phone

### Power consumption

- Power supply: DC 12 V/1.5 A
- Power consumption: 18 Watt max

### Physical specifications

- Item dimensions (WxDxH): 170 x 127 x 40 mm (6.70" x 5.0" x 1.57")
- Item weight: 301 g (0.66 lb.)
- Packing dimensions (WxDxH): 240 x 191 x 48 mm (9.45" x 7.52" x 1.89")
- Packing weight: 588 g (1.30 lb.)

## Environment specification

### Operating environment

- Temperature: 0°C to 45°C (32°F to 113°F)
- Humidity: 10% to 90% (non-condensing)

### Storage environment

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

## Certification

- Anatel

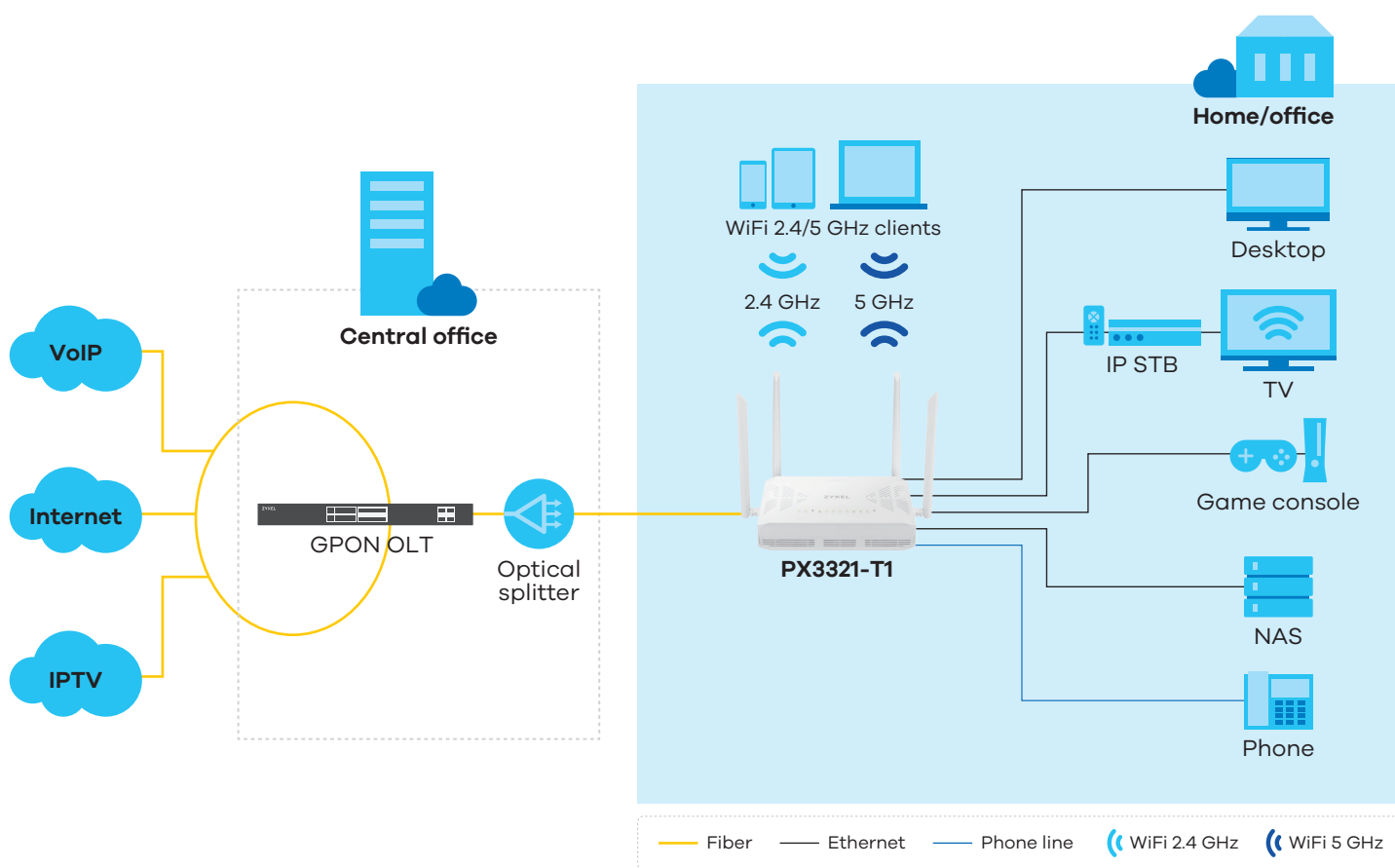
## Package contents

- Device
- Power adapter
- Ethernet cable
- Phone cable
- Safety warning card

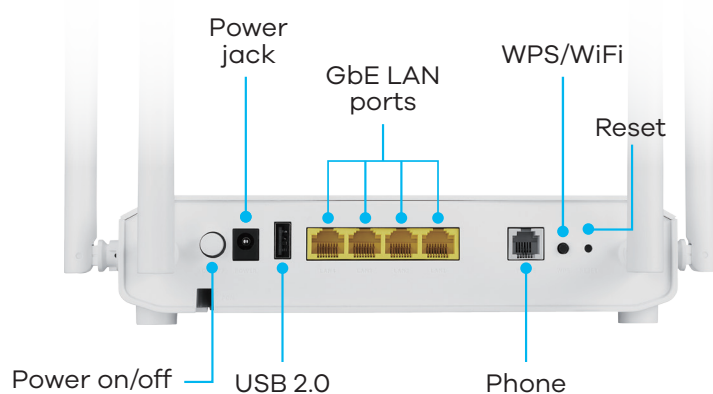
\* The maximum data rate is a theoretical value. The actual data rates depend on the network environment.

\*\* Combining PX3321-T1 with the EX3320-T0 Wireless Extender is advised for the ideal mesh network performance.

## Application diagram



## Interface description



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

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Datasheet [PX3321-T1](#)



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