



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
- Wi-Fi Alliance (WFA) certification

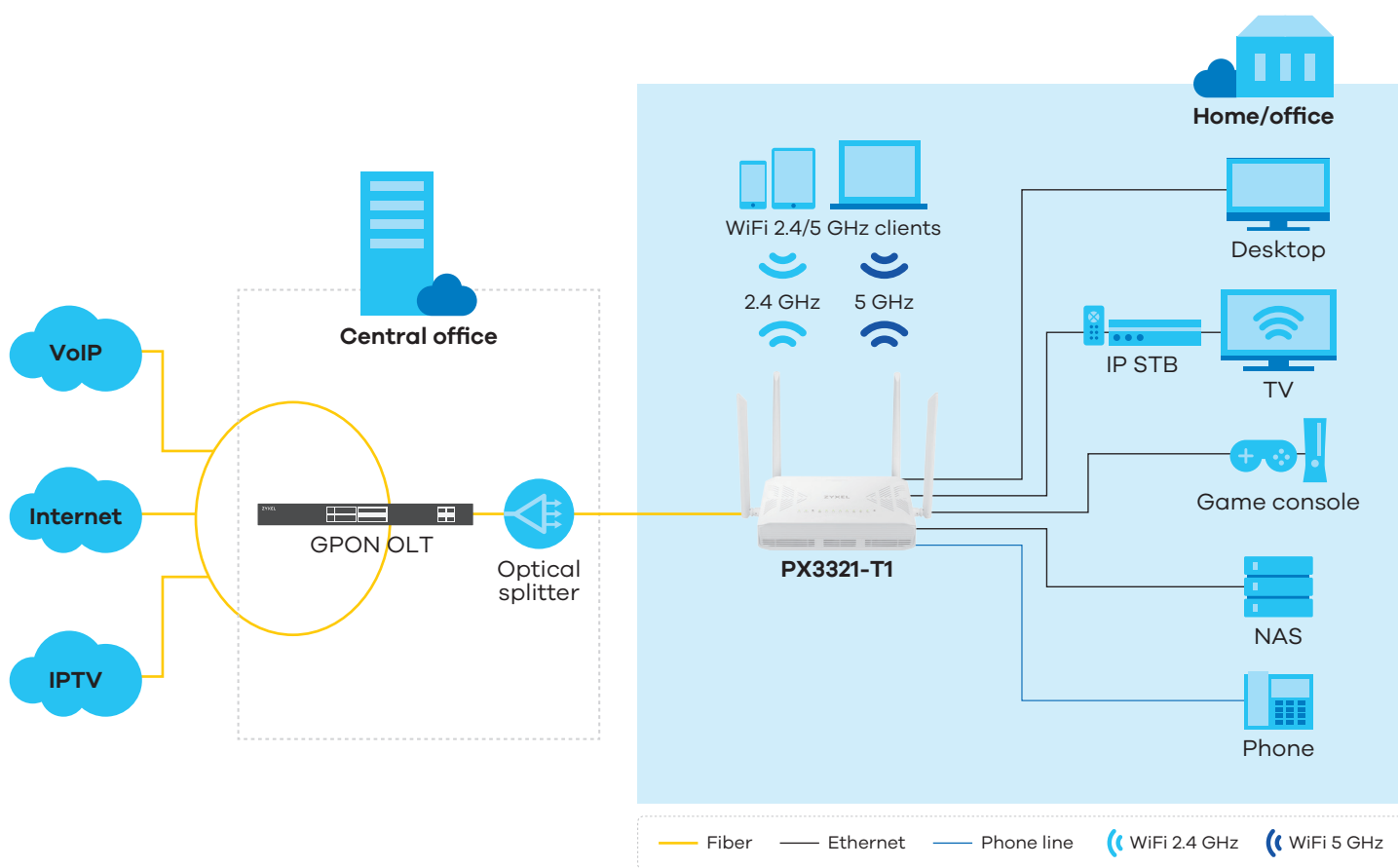
Package contents

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

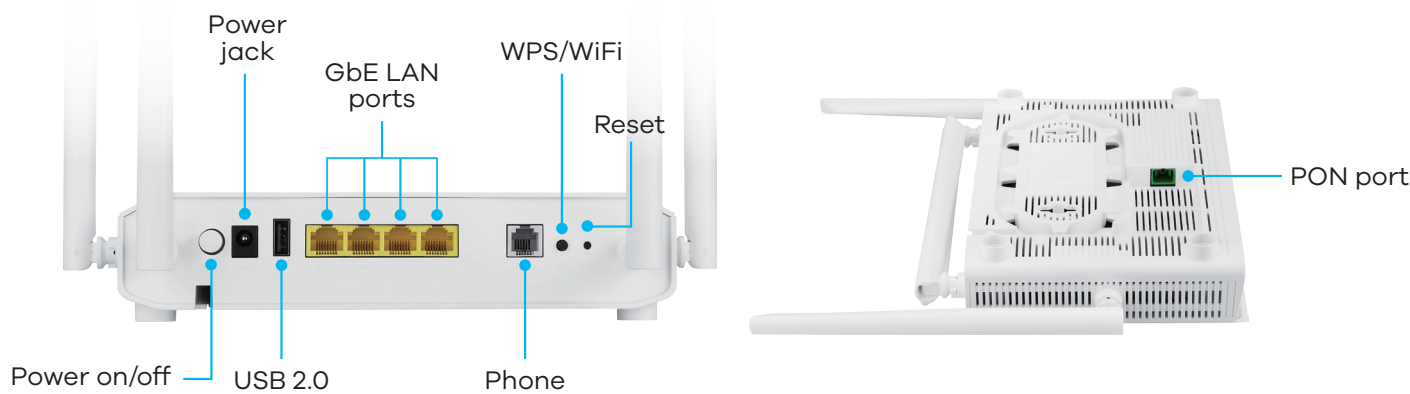
* The maximum data rate is a theoretical value. The actual data rates depend on the network environment.

** 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://www.zyxel.com/service-provider>

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