



EX5501-B Series

Dual-Band Wireless AX Gigabit Ethernet IAD

The WiFi 6 (11ax) standards-compliant Zyxel EX5501-B0 Wireless AX Gigabit Ethernet IAD provides the ultimate WiFi performance to maximize the value of your premium fiber service. Not only do the dedicated 2.5GbE WAN and LAN ports allow premium service for subscribers' bandwidth-intensive needs, but also the high interoperability enables flexible, cost-effective deployment to extend fiber-grade service as new technology emerges.

Benefits

Future-proof deployments with WiFi 6

The Zyxel EX5501-B0 supports the WiFi 6 (11ax) standard to offer lightning-fast throughputs of up to 6000 Mbps* and wireless speeds of up to 4.8 Gbps* on the 5 GHz band and 1.1 Gbps* on 2.4 GHz.

Maximized network capacity for more devices

Supported by the unique uplink MU-MIMO, the Zyxel EX5501-B0 allows subscribers to enjoy multiple interactive applications such as VR/AR and video streaming at once with minimum latency. Moreover, the revolutionary Orthogonal Frequency Division Multiple Access (OFDMA) improves average throughputs with considerably minimized latency and increased network efficiency.



WiFi 6 (11ax) for superior performance and coverage



Uplink/downlink MU-MIMO and OFDMA



Zyxel MPro Mesh® Solutions (compliant with EasyMesh standards)



2.5GbE WAN port for premium fiber-grade service



Four 1GbE and one 2.5GbE LAN ports for optimized bandwidth utilization



Zyxel Execution Environment (ZyEE) for Linux container



Auto-provisioning and remote management through TR-069



In-house developed OPAL for superior flexibility and faster time-to-market

Dedicated 2.5GbE WAN and LAN port for Multi-Gig internet access

With one 2.5GbE WAN port, Zyxel EX5501-B0 is perfect for extending premium fiber service to subscribers' homes. Besides lightning fast WiFi 6 technology and the standard four 1GbE LAN ports, the Zyxel EX5501-B0 is equipped with one additional 2.5GbE LAN port that satisfies subscribers' bandwidth-intensive needs with optimized bandwidth utilization.

High interoperability facilitates flexible deployment

The highly interoperable Zyxel EX5501-B0 facilitates network service upgrades to the latest WiFi 6 standards. This provides superior network capacity without replacing existing fiber infrastructure, all while winning customer satisfaction and minimizing CAPEX.

Premium MPro Mesh® for whole-home WiFi coverage**

Featuring EasyMesh standards-compliant Zyxel MPro Mesh® Solutions, the Zyxel EX5501-B0 enhances subscribers' connectivity experience by providing self-adapting, easy-to-manage whole-home WiFi coverage, while reducing your service OPEX with mature remote management features and an in-house developed mobile app.

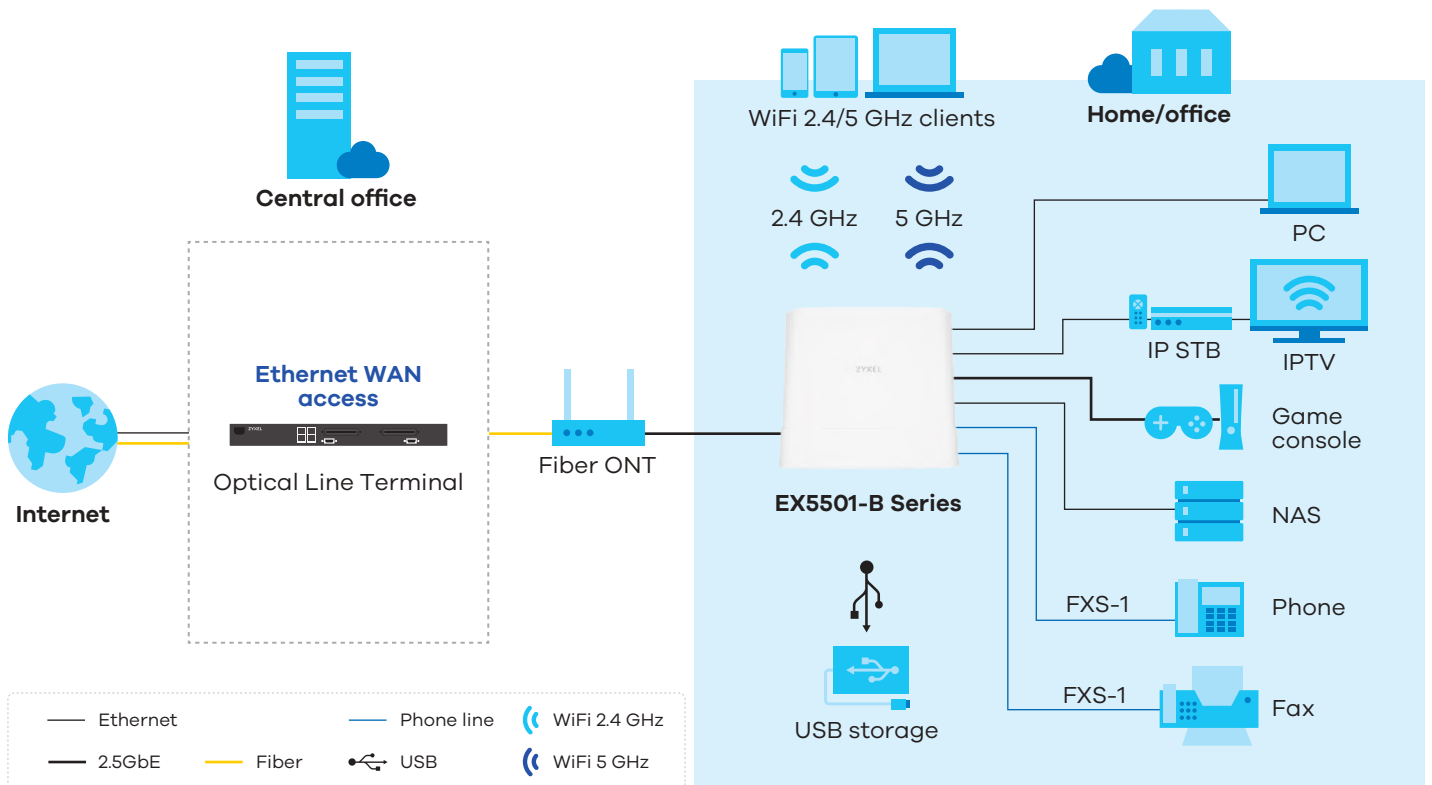
Zyxel OPAL firmware realizes the flexibility and faster time to market

Compliant with the same OPAL firmware trunk applied in all Zyxel CPEs, the EX5501-B0 inherits a rich, field-proven feature set including TR-069 and more. Service providers can ensure the same user experience after migrating to new devices.

Delivering secure and future-proof services with Zyxel ZyEE Linux kernel-based container

Zyxel ZyEE is a secure and future-proof Linux kernel-based execution environment, also known as a container. ZyEE creates a predictable environment isolated from other applications for software developers and service providers to develop, enable, install, and uninstall third-party applications without risking the core operating system. ZyEE's portability and scalability enhance software development agility by providing broader compatibility with various hardware environments. In addition, the compact and structurally simple ZyEE optimizes system computing resources. With ZyEE, service providers can deliver new features to subscribers with reduced time-to-market while remotely managing services through existing ACS servers.

Application diagram



Specifications

System specifications

Wireless standards

- IEEE 802.11 b/g/n/ac/ax 2.4 GHz
- IEEE 802.11 a/n/ac/ax 5 GHz

Wireless transfer rates

- Transmit:
 - 802.11ax (2.4 GHz): up to 1148 Mbps
 - 802.11ax (5 GHz): up to 4804 Mbps

Wireless security

- WPA2, WPA2-PSK
- WPA3

WLAN features

- Auto channel selection
- WiFi Multimedia (WMM)
- Wireless output power management
- Multiple SSID up to 4
- WiFi Protected Setup (WPS)
- Intra-BSS traffic block
- MAC address filtering
- WPS 2.0

Firewall

- IPv4/IPv6 firewall (Stateful Packet Inspection)
- Denial-of-Service (DoS) attack prevention
- ICMP blocking

Routing

- IPv4/IPv6
- NAT
- Port forwarding
- WAN connection type: DHCP, PPPoE
- DHCP option 60/121/125
- DHCP server on LAN
- IGMP v1/v2
- IGMP proxy
- Dynamic DNS

VPN pass-through

- PPTP
- L2TP
- IPsec

VLAN

- 802.1q tag/tag based VLAN
- VLAN to ETH port mapping
- Bridged/routed VLAN support

Management

- Web GUI (HTTP/HTTPS)
- TR-069/TR-098/TR-181
- SNMP v1/v2c & MIB II
- Firmware upgrade through GUI/TR-069
- 2-tier level access and administration

Other

- Content filter
- Parental control
- USB file sharing

Hardware specifications

WAN

- One 1/2.5GbE RJ-45 port

LAN

- Four 1GbE RJ-45 ports
- One 1/2.5GbE RJ-45 port

VoIP

- Two FXS ports

USB

- One USB 3.0 host

LED indicators

- Power
- Ethernet WAN
- Internet
- 2.5G LAN
- LAN1
- LAN2
- LAN3
- LAN4
- WLAN/WPS
- Phone
- USB

Buttons

- Power on/off
- Wireless on/off
- WPS
- Reset

Power consumption

- 12 V DC, 3.5 A
- 42 Watt max

Physical specifications

- Item dimensions (WxDxH):
250 x 32 x 187 mm
(9.84" x 1.26" x 7.36")
- Item weight: 473 g (1.045 lb.)
- Packing dimensions (WxDxH):
273 x 92 x 207 mm
(10.75" x 3.62" x 8.15")
- Packing weight: 1084 g (2.39 lb.)

Environment specifications

Operating environment

- Temperature:
0°C to 40°C (32°F to 104°F)
- Humidity:
10% to 90% (Non-condensing)

Storage environment

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

Certification

- CE

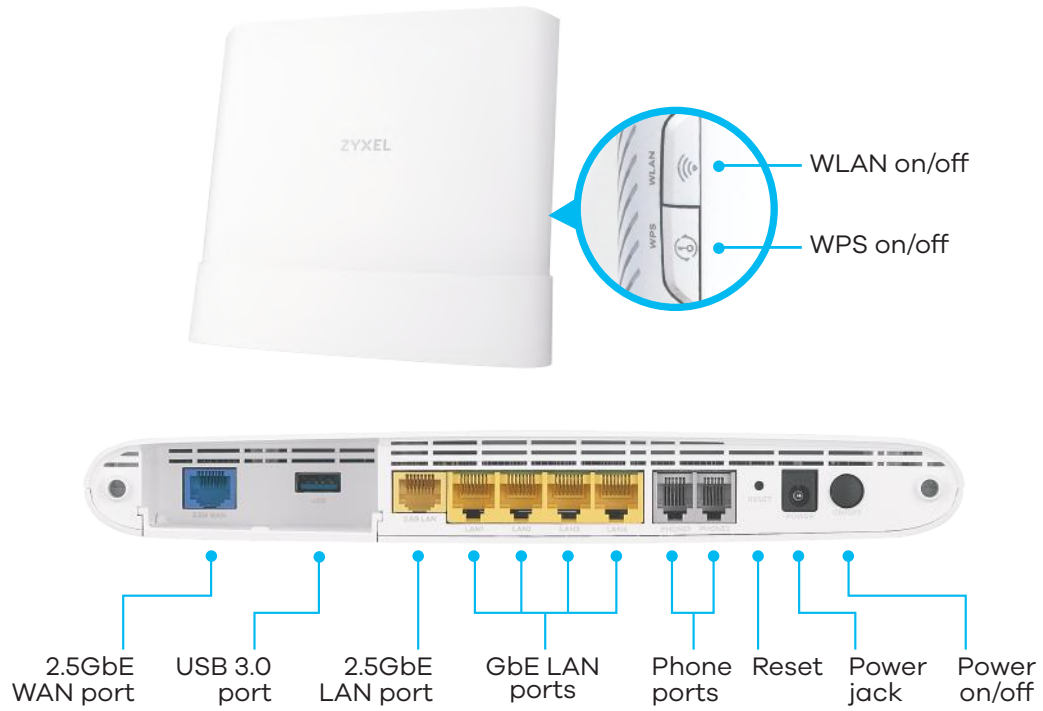
Package contents

- Wireless router
- Power adapter
- Ethernet cable
- Quick Start Guide

* The maximum wireless data transfer rate is derived from IEEE standard 802.11 specifications. Actual data transfer rate will vary from network environment including: distance, network traffic, building site materials/construction, interference from other wireless devices, and other adverse conditions.

**Combining EX5501-BO IAD with the WX3401 Wireless Extender is advised for the ideal mesh network performance. Please contact us for detailed mesh function availability.

Hardware interface



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

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