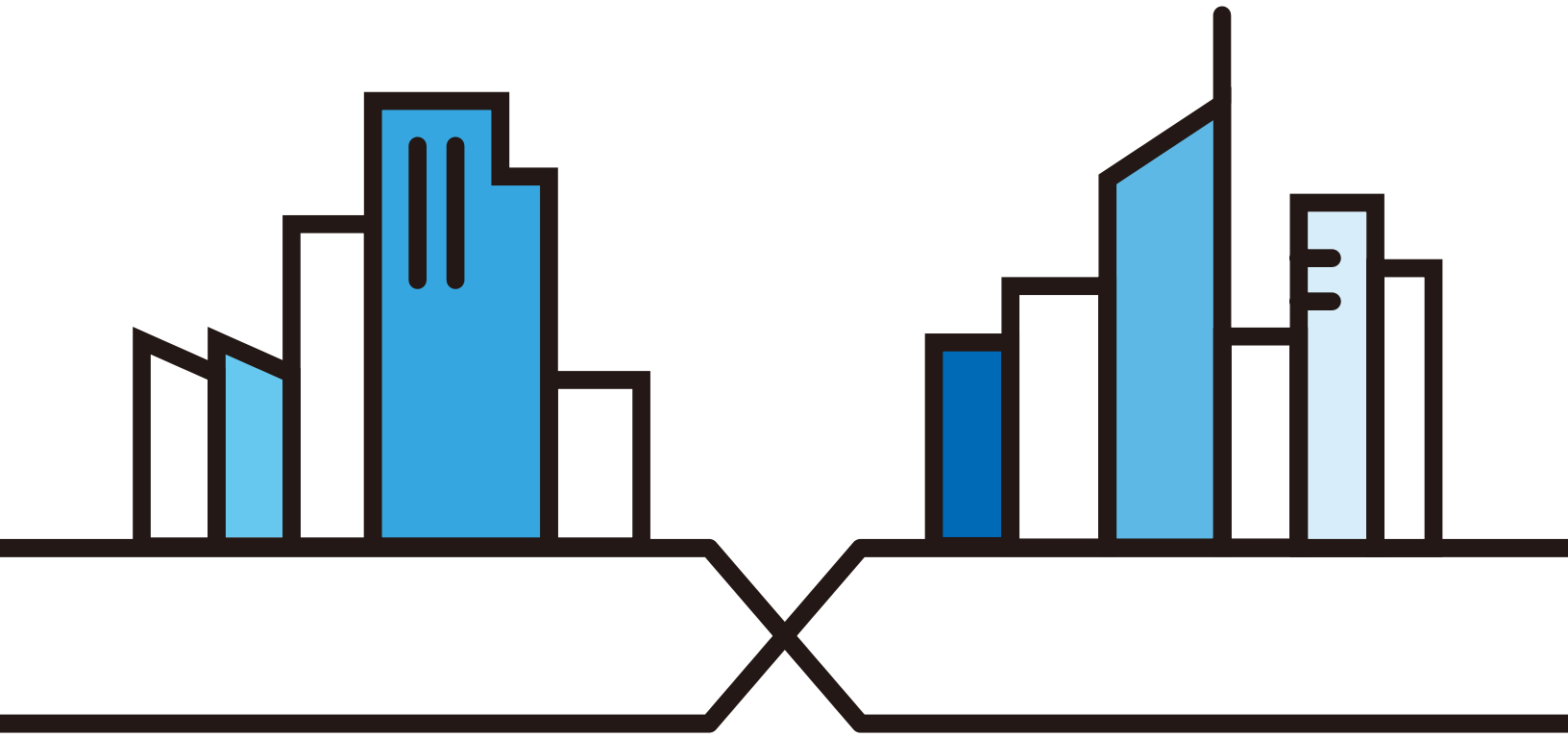
ZYXEL
COMMUNICATIONS

User's Guide

AX/DX/EE/EX/PX Series

Default Login Details	
LAN IP Address	https://192.168.1.1
Login	admin
Password	See the device label

Version 5.15-5.70 Ed 1, 06/2024



Copyright © 2024 Zyxel and/or its affiliates. All Rights Reserved.

IMPORTANT!

READ CAREFULLY BEFORE USE.

KEEP THIS GUIDE FOR FUTURE REFERENCE.

This is a User's Guide for a series of products. Not all products support all firmware features. Screenshots and graphics in this book may differ slightly from your product due to differences in product features or Web Configurator brand style. Every effort has been made to ensure that the information in this manual is accurate.

Related Documentation

- Quick Start Guide

  The Quick Start Guide shows how to connect the Zyxel Device.

- More Information

  Go to ***https://service-provider.zyxel.com/global/en/tech-support*** to find other information on Zyxel Device.

Document Conventions

Warnings and Notes

These are how warnings and notes are shown in this guide.

> **Warnings tell you about things that could harm you or your Zyxel Device.**

Note: Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations.

Syntax Conventions

- Product labels, screen names, field labels and field choices are all in **bold** font.
- A right angle bracket (>) within a screen name denotes a mouse click. For example, **Network Setting > Routing > DNS Route** means you first click **Network Setting** in the navigation panel, then the **Routing** submenu, and then finally the **DNS Route** tab to get to that screen.

Icons Used in Figures

Figures in this user guide may use the following generic icons. The Zyxel Device icon is not an exact representation of your Zyxel Device.

Zyxel Device 	Generic Router 	Switch 
Server 	Firewall 	USB Storage Device 
Printer 	4G LTE/5G NR Base Station 	

Contents Overview

Table of Contents

PART I
User's Guide

CHAPTER 1
Introducing the Zyxel Device

1.1 Overview

The Zyxel Device refers to the models listed in the tables.

1.1.1 AX Series

The AX Series are AON (Active Optical Network) routers that connect to the Internet though a fiber cable.

The following table describes the feature differences of the AX Series by model.

Table 1 Zyxel Device Comparison Table for AX Series

	AX7501-B0	AX7501-B1
WiFi7 Wireless Standard	NO	NO
WiFi6 Wireless Standard	YES	YES
Supported Frequency Bands	2.4 GHz 5 GHz	2.4 GHz 5 GHz
Port Control Protocol	YES	YES
Advanced Broadband	NO	NO
Parental Control Schedule	YES	YES
Parental Control URL Filter	YES	YES
Home Security URL filter	NO	NO
Operation Mode	NO	NO
MPro Mesh Extender Support	YES	YES
Multi-Gig WAN/LAN	10 Gbe LAN	10 Gbe LAN
Backup WAN	NO	NO
Uplink Port	1G Ethernet (SFP) 10G AON (SFP) 10G Ethernet (SFP) 10G XGPON (SFP+)	1G Ethernet (SFP) 10G AON (SFP) 10G Ethernet (SFP) 10G XGPON (SFP+)
USB Port for Cellular Backup, File Sharing and Media Server	USB 3.0	USB 3.0

Table 1 Zyxel Device Comparison Table for AX Series (continued)

	AX7501-B0	AX7501-B1
Phone Port (VoIP)	YES	YES
Wall Mount	YES	YES

1.1.2 DX Series

The DX Series are DSL routers, which provide Internet access over telephone lines.

The following table describes the feature differences of the DX Series by model.

Table 2 Zyxel Device Comparison Table for DX Series

	DX3300-T0	DX3300-T1	DX3301-T0	DX5401-B0	DX5401-B1
WiFi7 Wireless Standard	NO	NO	NO	NO	NO
WiFi6 Wireless Standard	YES	YES	YES	YES	YES
Supported Frequency Bands	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz
Port Control Protocol	YES	YES	YES	YES	YES
Advanced Broadband	NO	NO	YES	NO	NO
Parental Control Schedule	YES	YES	YES	YES	YES
Parental Control URL Filter	NO	NO	NO	NO	NO
Home Security URL filter	NO	YES	NO	NO	NO
Operation Mode	NO	NO	NO	NO	NO
MPro Mesh Extender Support	YES	YES	YES	YES	YES
Multi-Gig WAN/LAN	NO	NO	NO	NO	NO
Backup WAN	NO	YES	NO	NO	NO
Uplink Port	DSL	DSL	DSL	DSL 1G Ethernet (SFP)	DSL 1G Ethernet (SFP)
USB Port for Cellular Backup, File Sharing and Media Server	USB 2.0	USB 2.0	USB 2.0	USB 3.0	USB 3.0
Phone Port (VoIP)	NO	NO	YES	YES	YES
Wall Mount	YES	NO	YES	YES	YES

Note: For DX3300/3301-T0, IGMP/MLD are enabled by default and are not configurable. The default IGMP version is 3. The default MLD version is 2.

1.1.3 EX / EE Series

The EX / EE Series are Ethernet gateways/routers that provide Internet access through the Ethernet WAN port or an SFP port.

The following table describes the feature differences of the EX / EE Series by model.

Table 3 Zyxel Device Comparison Table for EX Series (Part 1)

	EX3300-T0	EX3300-T1	EX3301-T0	EX3500-T0	EX3501-T0	EX3600-T0	EX5401-B0
WiFi7 Wireless Standard	NO	NO	NO	NO	NO	NO	NO
WiFi6 Wireless Standard	YES	YES	YES	YES	YES	YES	YES
Supported Frequency Bands	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz
Port Control Protocol	YES	YES	YES	YES	YES	YES	YES
Advanced Broadband	NO	NO	NO	NO	NO	NO	NO
Parental Control Schedule	YES	YES	YES	YES	YES	YES	YES
Parental Control URL Filter	NO	NO	NO	NO	NO	NO	NO
Home Security URL filter	NO	YES	NO	YES	YES	YES	NO
Operation Mode	NO	NO	NO	NO	NO	YES	NO
MPro Mesh Extender Support	YES	YES	YES	YES	YES	YES	YES
Multi-Gig WAN/LAN	NO	NO	NO	NO	NO	NO	NO
Backup WAN	NO	YES	NO	NO	NO	NO	NO
Uplink Port	Ethernet	Ethernet	Ethernet	Ethernet	Ethernet	Ethernet	Ethernet 1G PON (SFP)
USB Port for Cellular Backup, File Sharing and Media Server	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 2.0	USB 3.0	USB 3.0
Phone Port (VoIP)	NO	NO	YES	NO	YES	NO	YES
Wall Mount	YES	YES	YES	NO	NO	YES	YES

Table 4 Zyxel Device Comparison Table for EX / EE Series (Part 2)

	EX5401-B1	EX5600-T1	EX5601-T0	EX5601-T1	EX7501-B0	EE6601-00
WiFi7 Wireless Standard	NO	NO	NO	NO	NO	YES With MLO
WiFi6 Wireless Standard	YES	YES	YES	YES	YES	YES
Supported Frequency Bands	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz 6 GHz
Port Control Protocol	YES	YES	YES	YES	YES	YES
Advanced Broadband	NO	NO	NO	NO	NO	NO
Parental Control Schedule	YES	YES	YES	YES	YES	YES
Parental Control URL Filter	NO	NO	NO	NO	NO	NO
Home Security URL filter	NO	YES	YES	YES	YES	YES
Operation Mode	NO	NO	NO	NO	NO	NO
MPro Mesh Extender Support	YES	YES	YES	YES	YES	YES
Multi-Gig WAN/ LAN	NO	2.5 Gbe WAN 2.5 Gbe LAN	2.5 Gbe WAN 2.5 Gbe LAN	2.5 Gbe WAN 2.5 Gbe LAN	10 Gbe WAN 10 Gbe LAN	10 Gbe WAN 10 Gbe LAN
Backup WAN	NO	NO	NO	NO	NO	NO
Uplink Port	Ethernet 1G PON (SFP)	Ethernet	Ethernet 1G Ethernet (SFP) 2.5G GPON (SFP)	Ethernet	Ethernet	Ethernet 1G Ethernet (SFP)
USB Port for Cellular Backup, File Sharing and Media Server	USB 3.0	USB 3.0	USB 3.0	USB 3.0	USB 3.0	USB 3.0
Phone Port (VoIP)	YES	NO	YES	YES	YES	YES
Wall Mount	YES	YES	YES	YES	YES	YES

Note: For EX3300/3301-T0, IGMP/MLD are enabled by default and are not configurable. The default IGMP version is 3. The default MLD version is 2.

1.1.4 PX Series

The PX Series are PON (Passive Optical Network) routers that connect to the Internet though a fiber cable.

The following table describes the feature differences of the PX Series by model.

Table 5 Zyxel Device Comparison Table for PX Series

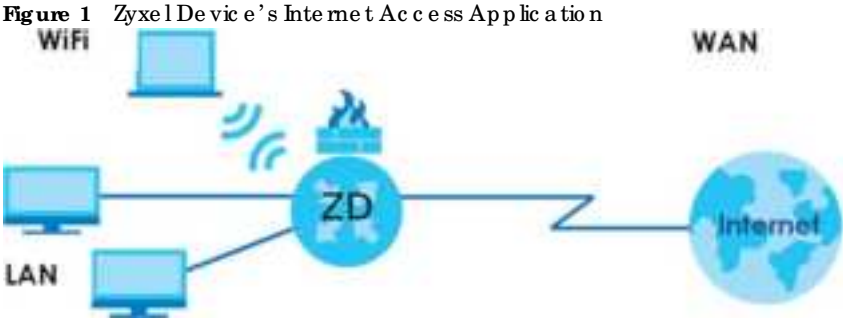
	PX3321-T1	PX5301-T0	PX5311-T0
WiFi7 Wireless Standard	NO	NO	NO
WiFi6 Wireless Standard	YES	YES	YES
Supported Frequency Bands	2.4 GHz 5 GHz	2.4 GHz 5 GHz	2.4 GHz 5 GHz
Port Control Protocol	YES	YES	YES
Advanced Broadband	NO	NO	NO
Parental Control Schedule	YES	YES	YES
Parental Control URL Filter	NO	NO	NO
Home Security URL filter	NO	NO	NO
Operation Mode	NO	NO	NO
MPro Mesh Extender Support	YES	YES	YES
Multi-Gig WAN/LAN	NO	NO	NO
Backup WAN	NO	NO	NO
Uplink Port	2.5G PON (SC-APC)	2.5G PON (SC-APC)	2.5G PON (SC-APC)
USB Port for Cellular Backup, File Sharing and Media Server	USB 2.0	USB 2.0	USB 2.0
Phone Port (VoIP)	YES	YES	YES
LAN Ports	4 10/100/1000 Mbps	LAN1 – LAN3 10/100/1000 Mbps LAN4 2.5 Gbps	4 10/100/1000 Mbps
Wall Mount	YES	YES	YES

1.2 Example Applications

This section shows a few examples of using the Zyxel Device in various network environments. Note that the Zyxel Device in the figure is just an example Zyxel Device and not your actual Zyxel Device.

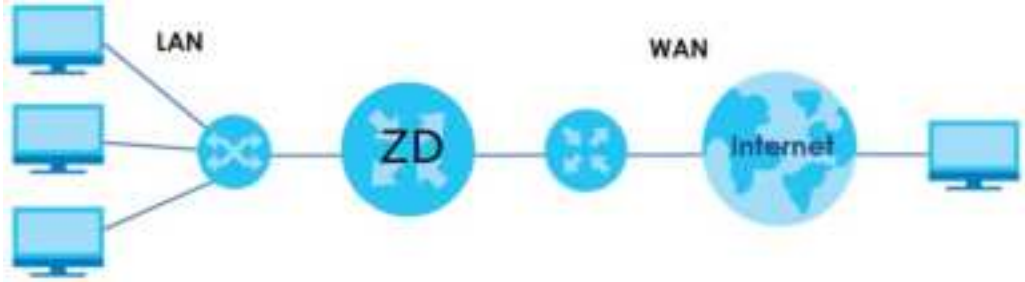
Connect the WAN port to a broadband modem or router for Internet connection. Connect computers to the Zyxel Device's LAN ports, or wirelessly, and access the Internet simultaneously.

Figure 1 Zyxel Device's Internet Access Application



You can also configure Firewall on the Zyxel Device for secure Internet access. When the Firewall is on, all incoming traffic from the Internet to your network is blocked by default unless it is initiated from your network. This means that probes from the outside to your network are not allowed, but you can safely browse the Internet and download files.

Figure 2 Zyxel Device's Internet Access Application: Ethernet WAN



1.2.1 WAN Priority

The WAN connection priority is as follows:

1. SFP
2. Ethernet WAN
3. DSL
4. Cellular WAN (3G/4G)
   See Section 1.2.6 on page 30 for more information about Cellular backup.

1.2.2 Dual-Band WiFi

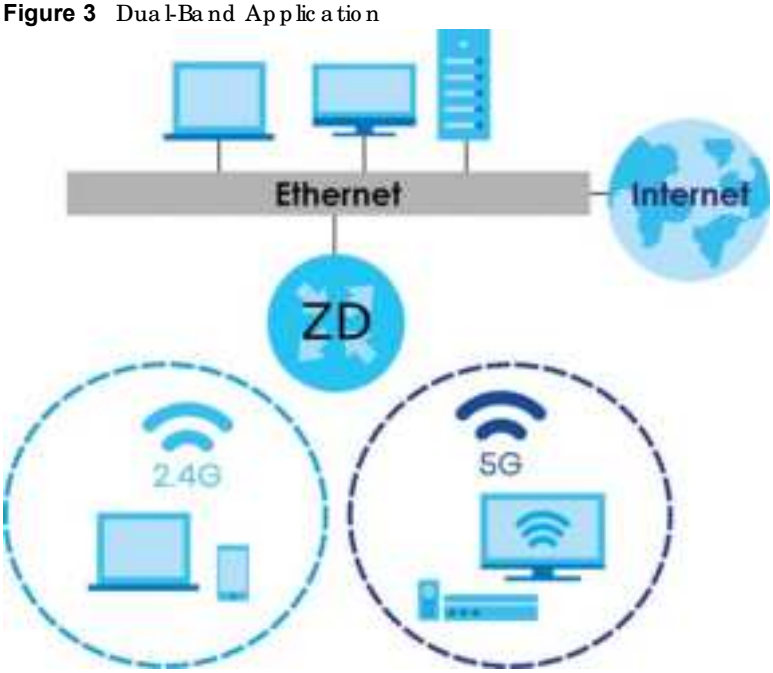
Note: Check Section Table 1 on page 20 to see if your Zyxel Device supports dual-band WiFi.

When WiFi is enabled on the Zyxel Device, IEEE 802.11a/b/g/n/ac/ax compliant clients, such as notebooks, tablets, and smartphones can wirelessly connect to the Zyxel Device to access network resources.

With dual-band, the Zyxel Device is a gateway that can use both 2.4G and 5G WiFi networks at the same time. WiFi clients could use the 2.4 GHz band for regular Internet surfing and downloading while using the 5 GHz band for time sensitive traffic like high-definition video, music, and gaming.

The Zyxel Device supports WiFi6 that is most suitable in areas with a high concentration of users.

Figure 3 Dual-Band Application



1.2.3 Triple-Band WiFi

Note: Check Section Table 1 on page 20 to see if your Zyxel Device supports triple-band WiFi.

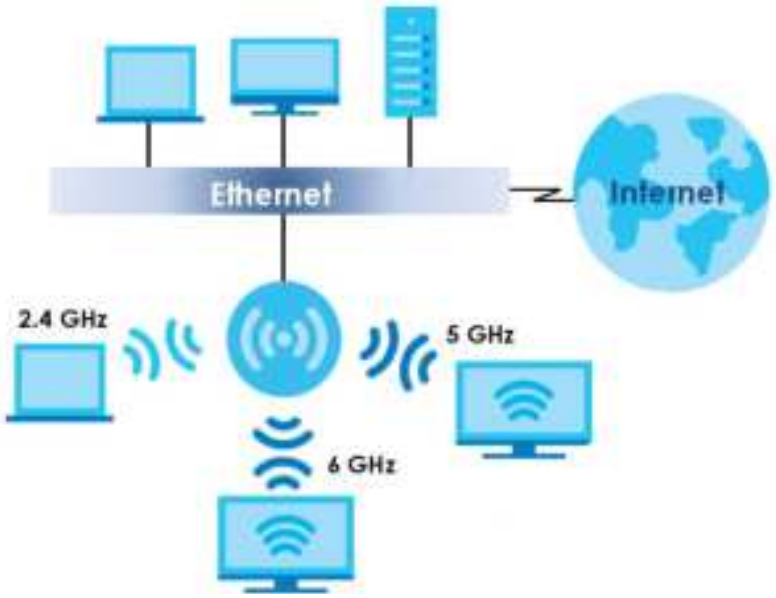
With triple-band, the Zyxel Device can use 2.4G/5G/6G bands to operate simultaneously.

The 6 GHz band provides less coverage but has the highest amount of channels among the three frequency bands. Use the 6 GHz band for the most congestion-free transmission if your client devices supports WiFi 6E.

Note: Due to each country's regulations on frequency band usage, the available bands (2.4 GHz, 5 GHz, and 6 GHz) may differ by countries or markets the Zyxel Device products are sold to.

WiFi clients could use the 2.4 GHz band for regular Internet surfing and downloading while using the 5 GHz or 6 GHz band for time sensitive traffic like high-definition video, music, and gaming.

Figure 4 Triple-Band Application



WiFi 7 (IEEE802.11be)

WiFi 7 (802.11be) is backward-s compatible with WiFi 6 and WiFi 6E. WiFi 7 is a WiFi standard that supports 2.4 GHz, 5 GHz and 6 GHz frequency bands with the following improvements over WiFi 6 and WiFi 6E.

Table 6 WiFi 6, WiFi 6E and WiFi 7 Comparison

FEATURES		WiFi 6	WiFi 6E	WiFi 7
Theoretical Maximum Speed (Up-to)		The same (9.6 Gbps).		46 Gbps
Supported Frequency Bands		2.4 GHz/5 GHz	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz/6 GHz
Supported Channel Bandwidth		20/40/80/160 MHz	20/40/80/160 MHz	20/40/80/160/320 MHz
Total Spectrum (Up-to)	2.4 GHz	80 MHz		80 MHz
	5 GHz	500 MHz		500 MHz
	6 GHz	Not supported.	1200 MHz	1200 MHz
Other Features (OFDMA/BSS Coloring/TWT/Two-Way MU-MIMO/ Beamforming/1024-QAM)		The same (WiFi 6E inherits all the features from WiFi 6).		WiFi 7 inherits all the features from WiFi 6 and WiFi 6E, with the addition of multi-link operation and preamble puncturing.

Faster Data Transmission

WiFi 7 allows faster data transmission using:

- 4096 QAM (Quadrature Amplitude Modulation) – enhances the amount of data transmitted over the available bandwidth.
- 320 MHz Channel Bandwidth – enlarges the supported channel bandwidth to 320 MHz, allowing higher data throughput.
- Multiple Resource Units (RUs) – allows an AP to allocate multiple RUs to a WiFi client.

Multi-Link Operation (MLO)

An AP can support multiple frequency bands (2.4 GHz, 5 GHz and 6 GHz), but a WiFi client can only connect to the AP using one of these frequency bands. The other frequency bands are unused. The client's data transmission speed depends on the frequency band they are connected to.

Figure 5 Without Multi-Link Operation

WiFi 7 MLO allows a WiFi client to connect to the AP using multiple frequency bands simultaneously. This increases speed and improves reliability of the WiFi connection. MLO makes WiFi 7 ideal for streaming 4K/8K videos, using augmented reality (AR), virtual reality (VR) applications and playing online games.

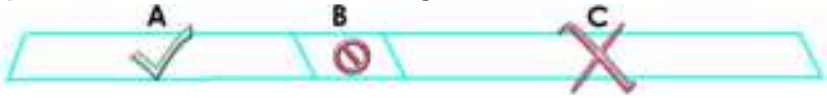
To use MLO, both the AP and the WiFi client have to support MLO.

Figure 6 Multi-Link Operation Example

Preamble Puncturing

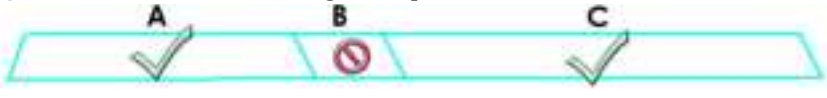
In WiFi 6 and earlier, any interference would cause the entire WiFi channel to become unavailable. In the figure below, if part of the WiFi channel (**B**) experiences interference, the rest of the WiFi channel (**C**) becomes unavailable.

Figure 7 Without Preamble Puncturing



WiFi 7 preamble puncturing allows you to block the specific portion of the channel that is experiencing interference while continuing to use the rest of the WiFi channel. In the figure below, if part of the WiFi channel (**B**) experiences interference, the rest of the WiFi channel (**C**) is still available.

Figure 8 Preamble Puncturing Example



1.2.4 Multi-Gigabit Ethernet

For Zyxel Devices that support 10 Gbps / 2.5 Gbps Multi-Gigabit Ethernet (GbE) WAN/LAN ports, the port speeds are backward compatible with standard Gigabit speed. The Zyxel Devices with an SFP port can also provide Internet access through a Multi-Gigabit GPON WAN or Ethernet connection.

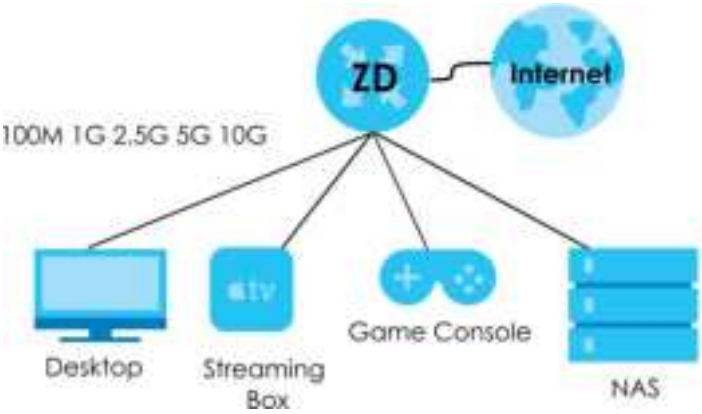
A 2.5 Gigabit Ethernet port supports speeds of 2.5 Gbps if the connected device supports 2.5 Gbps. While a 10 Gigabit Ethernet port supports speeds of 10 Gbps if the connected device supports 10 Gbps and a Cat 6a (up to 100 m) or Cat 6 cable (up to 50 m) is used.

Some network devices such as gaming computers, servers, network attached storage (NAS) devices, or access points may have network cards that are capable of 2.5 Gbps or 5 Gbps connectivity.

If these devices are connected to a 1 Gbps or 10 Gbps Ethernet port, they can only transmit or receive up to 1 Gbps as speeds of 2.5 Gbps / 10 Gbps cannot be attained. Moreover, if network devices with 2.5 Gbps / 10 Gbps network cards are connected to a 2.5 Gbps / 10 Gbps Ethernet port, you must use Cat 5e / Cat 6A or better Ethernet cables to achieve 2.5 Gbps / 10 Gbps speeds. Most buildings, at the time of writing, use Cat 5e or Cat 6 Ethernet cables.

Multi-Gigabit Ethernet ports automatically allow connections up to the speed of the connected network device (100 Mbps (not supported on EX5501-B0), 1 Gbp s, 2.5 Gbps or 5 Gbps), and you just need to use a Cat 5, Cat 5e or Cat 6 Ethernet cable.

Figure 9 Multi-Gigabit Application



See the following table for the cables required and distance limitation to attain the corresponding speed.

Table 7 Ethernet Cable Types

CABLE	TRANSMISSION SPEED	MAXIMUM DISTANCE	BANDWIDTH CAPACITY
Category 5	100M	100 m	100 MHz
Category 5e or better	1G / 2.5G / 5G*	100 m	100 MHz
Category 6	5G / 10G	100m / 55 m	250 MHz
Category 6a	10G	100 m	500 MHz
Category 7	10G	100 m	600 MHz
* A high quality Category 5e cable can support 5 Gbps and up to 100m with no electromagnetic interference.			

1.2.5 VoIP Applications

The Zyxel Device's VoIP function allows you to register up to two SIP (Session Initiation Protocol) accounts and use the Zyxel Device to make and receive VoIP telephone calls. The Zyxel Device sends your call to a VoIP service provider's SIP server which forwards the calls to either VoIP or PSTN phones.

Figure 10 VoIP Application

1.2.6 Zyxel Device's USB Support

The USB port of the Zyxel Device is used for cellular WAN backup, file-sharing, and media server.

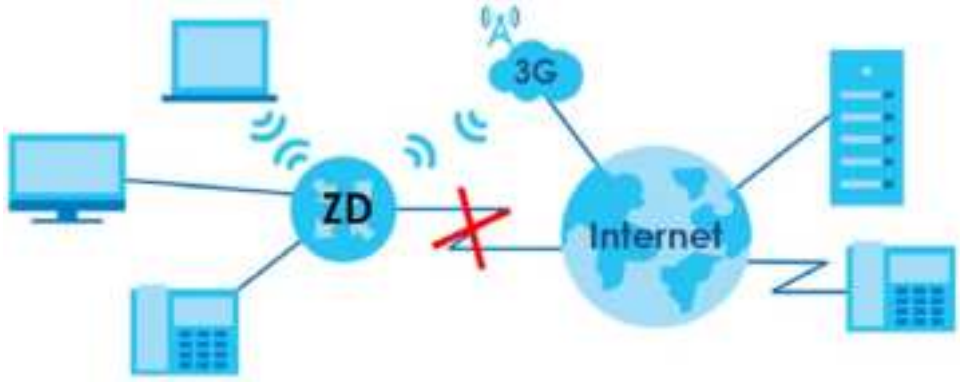
Cellular WAN Backup

Connect a supported cellular USB dongle with an active SIM card to the USB port. This adds a second WAN interface and allows the Zyxel Device to wirelessly access the Internet via a cellular network. The cellular WAN connection is a backup in case the DSL/Ethernet/Fiber connection fails.

To set up a cellular connection, click **Network > Broadband > Cellular Backup**.

To update the supported cellular USB dongle list, download the latest WWAN package from the Zyxel website and upload it to the Zyxel Device using the **Maintenance > Firmware Upgrade** screen.

Figure 11 Internet Access Application: Cellular WAN



File Sharing

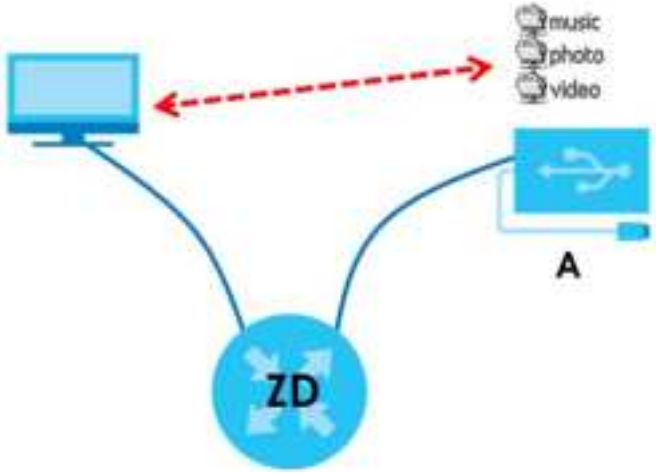
Use the built-in USB 3.0 port to share files on a USB memory stick or a USB hard drive (**A**). Use FTP to access the files on the USB device.

Figure 12 USB File Sharing Application

Media Server

You can also use the Zyxel Device as a media server. This lets anyone on your network play video, music, and photos from a USB device (**A**) connected to the Zyxel Device's USB port (without having to copy them to another computer).

Figure 13 USB Media Server Application



1.3 Ways to Manage the Zyxel Device

Use any of the following methods to manage the Zyxel Device.

- Web Configurator. This is recommended for management of the Zyxel Device using a (supported) web browser.
- Simple Network Management Protocol (SNMP). Use to monitor and/or manage the Zyxel Device by an SNMP manager.
- Secure Shell (SSH), Telnet. Use for troubleshooting the Zyxel Device by qualified personnel.
- FTP. Use FTP for firmware upgrades and configuration backup or restore.

1.4 Good Habits for Managing the Zyxel Device

Do the following things regularly to make the Zyxel Device more secure and to manage the Zyxel Device more effectively.

- Change the WiFi and Web Configurator passwords. Use a password that is not easy to guess and that consists of different types of characters, such as numbers and letters.
- Write down the passwords and put it in a safe place.
- Back up the configuration (and make sure you know how to restore it). Restoring an earlier working configuration may be useful if the device becomes unstable or even crashes. If you forget your password, you will have to reset the Zyxel Device to its factory default settings. If you backed up an earlier configuration file, you would not have to totally re-configure the Zyxel Device. You could simply restore your last configuration.

CHAPTER 2
Hardware

2.1 Hardware

This section describes the front and rear panels for each model. If your model is not shown here, refer to the Zyxel Device's Quick Start Guides to see the product drawings and how to make the hardware connections.

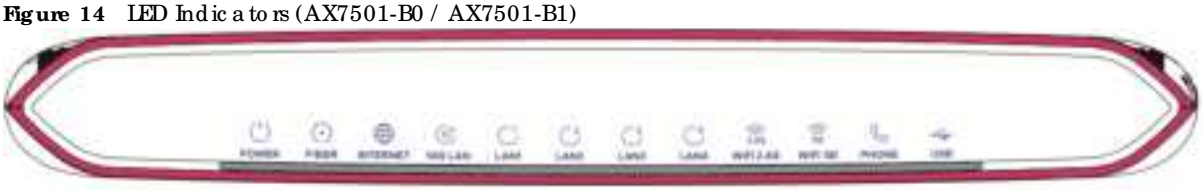
2.2 LED Indicators Panel

The following shows the Zyxel Device LED indicators panel and the LED behaviors.

None of the LEDs are on if the Zyxel Device is not receiving power.

2.2.1 AX7501

Figure 14 LED Indicators (AX7501-B0 / AX7501-B1)



Note: Note: The 2.5G LAN and 2.5G WAN LEDs are only for the Ethernet router. 10G LAN is only for the AON and PON routers. See Section 1.1 on page 20 for more information.

The following are the LED descriptions for your AX7501.

Table 8 LED Descriptions (AX7501)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is self-testing.
	Red	On	The Zyxel Device detected an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
2.5G WAN	Blue	On	The Zyxel Device has a successful 2.5 Gbps Ethernet connection on the WAN.
	Green	On	The Zyxel Device has a successful 1 Gbps Ethernet connection on the WAN.
		Off	The Zyxel Device does not have an Ethernet connection with the WAN.
			The LED will cycle Green > Blue > Off > repeat, when the Zyxel Device has an unsupported 100 Mbps Ethernet connection on the WAN.

Table 8 LED Descriptions (AX7501) (continued)

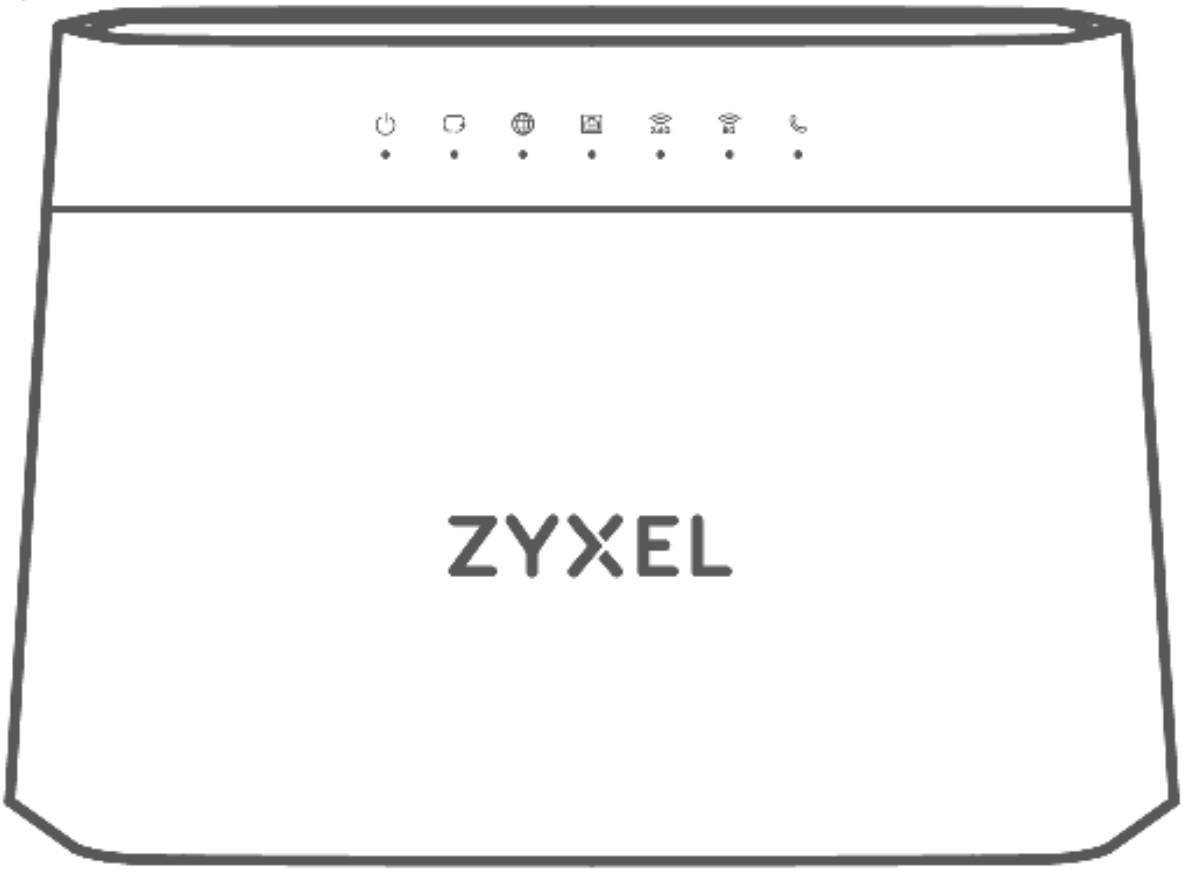
LED	COLOR	STATUS	DESCRIPTION
FIBER	Green	On	The FIBER port is connected to the ISP's ONT and the Zyxel Device is receiving optical signals normally.
		Blinking	The Zyxel Device's FIBER port is trying to build a PON connection.
	Red	On	The optical power received (the strength of optical signals transmitted on the remote optical module) is too low.
		Off	The connection to the ISP's ONT is down.
INTERNET	Green	On	The Zyxel Device has an IP connection but no traffic. Your device has a WAN IP address (either static or assigned by a DHCP server), PPP negotiation was successfully completed (if used).
		Blinking	The Zyxel Device is sending or receiving IP traffic. Note: For AON and PON routers only; see Section 1.1 on page 20 for more information.
		Off	There is no Internet connection or the gateway is in Bridge mode.
	Red	On	The Zyxel Device attempted to make an IP connection but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
		Blinking	The Zyxel Device has an unsupported 100 Mbps Ethernet connection on the WAN. Note: For Ethernet routers only, see Section 1.1 on page 20 for more information.
10G LAN (for AX7501-B0/ AX7501-B1)	Green	On	The Zyxel Device has a successful 10/100/10000 Mbps Ethernet connection with a device on the Local Area Network (LAN) through the 10G LAN port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN at 10/100/ 10000 Mbps through the 10G LAN port.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN through the 10G LAN port.
LAN1 – 4	Green	On	The Zyxel Device has a successful 10/100/1000 Mbps Ethernet connection with a device on the Local Area Network (LAN) through the LAN1 – 4 ports.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN at 10/100/ 1000 Mbps through the LAN1 – 4 ports. Note: For AON and PON routers only; see Section 1.1 on page 20 for more information.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN through the LAN1 – 4 ports.
WiFi 2.4G	Green	On	The 2.4G WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4G WiFi clients. Note: For AON and PON routers only; see Section 1.1 on page 20 for more information.
		Off	The 2.4G WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4G WiFi client.

Table 8 LED Descriptions (AX7501) (continued)

LED	COLOR	STATUS	DESCRIPTION
WiFi 5G	Green	On	The 5G WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5G WiFi clients. Note: For AON and PON routers only; see Section 1.1 on page 20 for more information.
		Off	The 5G WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 5G WiFi client.
PHONE	Green	On	A SIP account is registered for the phone port.
		Blinking	The telephone connected to this phone port has an incoming call or is off the hook.
		Off	The phone port does not have a SIP account registered.
	Amber	On	A SIP account is registered for the phone port, and there is a voice message in the corresponding SIP account.
		Blinking	The telephone connected to this phone port has an incoming call or is off the hook. There is a voice message in the corresponding SIP account.
USB	Green	On	The Zyxel Device recognizes a USB connection through the USB port.
		Blinking	The Zyxel Device is sending or receiving data to/from the USB device connected to it. Note: For AON and PON routers only; see Section 1.1 on page 20 for more information.
		Off	The Zyxel Device does not detect a USB connection through the USB port.

2.2.2 DX3300-T0, DX3301-T0, EX3300-T0 and EX3301-T0

Figure 15 LED Indicators (DX3300-T0 / DX3301-T0 / EX3300-T0 / EX3301-T0)



The following are the LED descriptions for your DX3300-T0 / EX3300-T0.

Table 9 LED Descriptions (DX3300-T0 / EX3300-T0)

LED	COLOR	STATUS	DESCRIPTION
Power	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is self-testing.
	Red	On	The Zyxel Device detected an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
DSL/ Ethernet WAN	Green	On	The VDSL/ ADSL link is up.
		Slow Blinking	The Zyxel Device is looking for a VDSL or ADSL link.
		Fast Blinking	The Zyxel Device is initializing the VDSL or ADSL link.

Table 9 LED Descriptions (DX3300-T0 / EX3300-T0) (continued)

LED	COLOR	STATUS	DESCRIPTION
Internet	Green	On	The Zyxel Device has an IP connection but no traffic. Your device has a WAN IP address (either static or assigned by a DHCP server), PPP negotiation was successfully completed (if used) and the DSL connection is up.
		Blinking	The Zyxel Device is sending or receiving IP traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to make an IP connection but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
LAN1 – 4	Green	On	The Zyxel Device has a successful 10/100/1000 Mbps Ethernet connection with a device on the Local Area Network (LAN).
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN at 10/100/1000 Mbps.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN.
2.4G WLAN/WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The link is down or disabled.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G WLAN/ WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
		Off	The link is down or disabled.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client.

The following are the LED descriptions for your DX3301-T0 / EX3301-T0.

Table 10 LED Descriptions (DX3301-T0 / EX3301-T0)

LED	COLOR	STATUS	DESCRIPTION
Power	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is self-testing.
	Red	On	The Zyxel Device detected an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
DSL/ Ethernet WAN	Green	On	The VDSL/ ADSL link is up.
		Slow Blinking	The Zyxel Device is looking for a VDSL/ ADSL link.
		Fast Blinking	The Zyxel Device is initializing the VDSL/ ADSL link.

Table 10 LED Descriptions (DX3301-T0 / EX3301-T0) (continued)

LED	COLOR	STATUS	DESCRIPTION
Internet	Green	On	The Zyxel Device has an IP connection but no traffic. Your device has a WAN IP address (either static or assigned by a DHCP server), PPP negotiation was successfully completed (if used) and the DSL connection is up.
		Blinking	The Zyxel Device is sending or receiving IP traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to make an IP connection but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
LAN1 – 4	Green	On	The Zyxel Device has a successful 10/100/1000 Mbps Ethernet connection with a device on the Local Area Network (LAN).
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN at 10/100/1000 Mbps.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN.
2.4G WLAN/WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The link is down or disabled.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G WLAN/WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
		Off	The link is down or disabled.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client.
Phone1, Phone2	Green	On	A SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	A telephone connected to one of the phone port has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	A SIP account is registered for the phone port and there is a voice message in the corresponding SIP account.
		Blinking	A telephone connected to the phone port has its receiver off the hook or there is an incoming call. There is voice message in the corresponding SIP account.
		Off	• The Zyxel Device is turned off. • The VoIP function is not activated. • The SIP account is not enabled. • The phone port does not have a SIP account registered.

2.2.3 DX3300-T1 and EX3300-T1

Figure 16 DX3300-T1

Figure 17 EX3300-T1

The following are the LED descriptions for your DX3300-T1 and EX3300-T1.

Table 11 LED Descriptions (DX3300-T1 / EX-3300-T1)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
DSL/WAN	Green	On	For DX3300-T1: The ADSL/VDSL link on the WAN is up.
		Slow Blinking	For DX3300-T1: The ADSL/VDSL link is down, and the Zyxel Device is looking for an ADSL/VDSL link.
		Fast Blinking	For DX3300-T1: The Zyxel Device is initializing the ADSL/VDSL link.
		Off	For DX3300-T1: The ADSL/VDSL link is down.

Table 11 LED Descriptions (DX3300-T1 / EX-3300-T1) (continued)

LED	COLOR	STATUS	DESCRIPTION
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving traffic.
	Red	On	The Zyxel Device attempted to obtain an WAN IP but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
		Off	There is no Internet connection or the gateway is in bridge mode.
LAN1-3	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the Local Area Network (LAN) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.
LAN4/WAN	Green	On	LAN mode: The Zyxel Device has a successful Ethernet connection with a device on the **LAN4/WAN** port. WAN mode: The Ethernet WAN connection is up on the **LAN4/WAN** port.
		Blinking	The Zyxel Device is sending or receiving data to/from the **LAN4/WAN** port.
		Off	LAN mode: The Zyxel Device does not have an Ethernet connection with a device on the **LAN4/WAN** port. WAN mode: The Ethernet WAN connection on the **LAN4/WAN** port is down.
2.4G	Green	On	The 2.4 GHz WiFi is activated.
		Blinking	The Zyxel Device is sending or receiving data to/from 2.4 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to a 2.4 GHz WiFi client through WPS.
		Off	The 2.4 GHz WiFi network is not activated.
5G	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is sending or receiving data to/from 5 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to a 5 GHz WiFi client through WPS.
		Off	The 5 GHz WiFi network is not activated.

2.2.4 EX3500-T0 and EX3501-T0

Figure 18 LED Indicators (EX3500-T0 / EX3501-T0)

The following are the LED descriptions for your EX3500-T0 and EX3501-T0.

Table 12 LED Descriptions (EX3500-T0 / EX3501-T0)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
WAN	Green	On	The Ethernet link on the WAN is up.
		Off	The Ethernet link on the WAN is down.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving Internet data.
	Red	On	The Zyxel Device attempted to obtain an WAN IP but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
		Off	There is no Internet connection or the gateway is in bridge mode.

Table 12 LED Descriptions (EX3500-T0 / EX3501-T0) (continued)

LED	COLOR	STATUS	DESCRIPTION
LAN1-3 	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the Local Area Network (LAN) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.
2.4G 	Green	On	The 2.4 GHz WiFi is activated.
		Blinking	The Zyxel Device is sending or receiving data to/from 2.4 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to a 2.4 GHz WiFi client through WPS.
		Off	The 2.4 GHz WiFi network is not activated.
5G 	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is sending or receiving data to/from 5 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to a 5 GHz WiFi client through WPS.
		Off	The 5 GHz WiFi network is not activated.
Phone1, Phone2 	Green	On	A SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	A telephone connected to one of the phone port has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	A SIP account is registered for the phone port and there is a voice message in the corresponding SIP account.
		Blinking	A telephone connected to the phone port has its receiver off the hook or there is an incoming call. There's voice message in the corresponding SIP account.
		Off	The phone port has a telephone connection, but it is not in use. VoIP is disabled, or there is no registered SIP account defined for the phone port.

2.2.5 EX3600-T0

Figure 19 LED Indicators

The following are the LED descriptions for your EX3600-T0.

Table 13 LED Descriptions

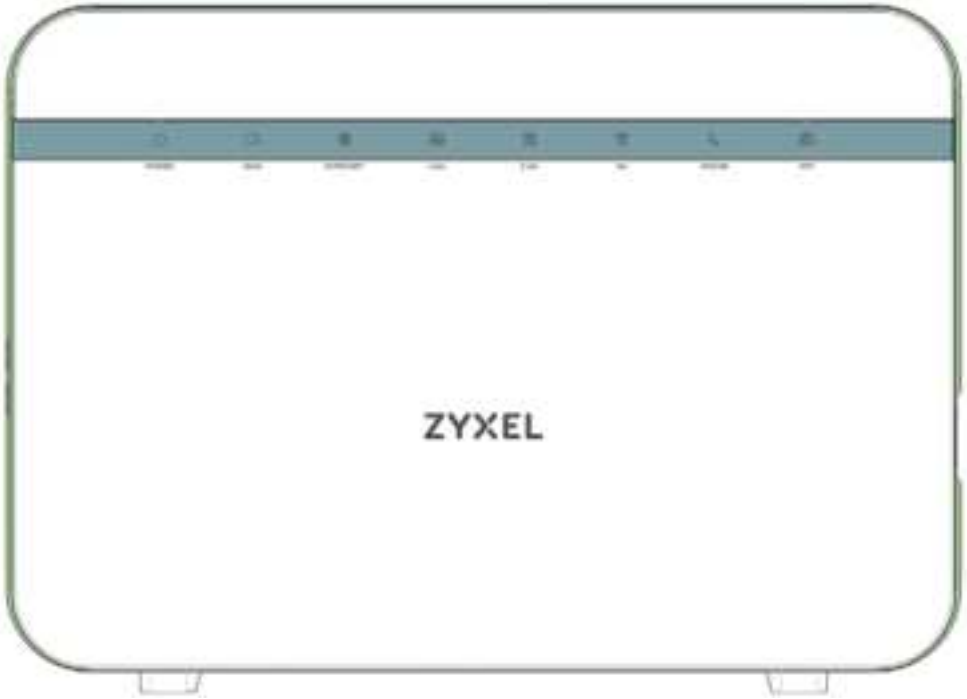
LED	COLOR	STATUS	DESCRIPTION
Power	Green	On	The Zyxel Device is receiving power and ready for use. The Zyxel Device is in **Extender** mode and the MPro Mesh pairing process is done.
		Blinking	The Zyxel Device is booting up. The Zyxel Device is in **Extender** mode and under the MPro Mesh pairing process.
	Red	On	The Zyxel Device detected an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
Ethernet WAN	Green	On	The Ethernet WAN port is connected successfully.
		Off	The Ethernet WAN port is not connected successfully.

Table 13 LED Descriptions (continued)

LED	COLOR	STATUS	DESCRIPTION
Internet	Green	On	The Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving IP traffic.
	Red	On	The Zyxel Device attempted to make an IP connection but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed. The Zyxel Device is in **Extender** mode and the Internet connection to the gateway modem/controller is weak.
		Off	There is no Internet connection or the gateway is in **Bridge** mode.
LAN1 – 4	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the Local Area Network (LAN).
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN.
2.4G WLAN/WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The link is down or disabled.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G WLAN/ WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
	Amber	On	The Zyxel Device is in **Extender** mode and under the MPro Mesh pairing process.
		Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client. The Zyxel Device is in **Extender** mode and the MPro Mesh pairing process has failed.
		Off	The link is down or disabled.

2.2.6 DX5401-B0/1 and EX5401-B0/1

Figure 20 LED Indicators (DX5401-B0 / DX5401-B1 / EX5401-B0 / EX5401-B1)



Note: The phone LED is for the Zyxel Device with phone ports only; see Section 1.1 on page 20 for more information.

The following are the LED descriptions for your DX5401-B0/B1 and EX5401-B0/B1.

Table 14 LED Descriptions (DX5401-B0/B1 / EX5401-B0/B1)

LED	COLOR	STATUS	DESCRIPTION
Power	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is self-testing.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
DSL/ Ethernet WAN	Green	On	The VDSL line or a successful 10/100/1000 Mbps Ethernet connection on the WAN is up.
		Slow Blinking	The Zyxel Device is looking for a VDSL line.
		Fast Blinking	The Zyxel Device is initializing the VDSL line.
		Off	There is no Ethernet connection on the WAN.
	Amber	On	The ADSL line on the WAN is up.
		Slow Blinking	The Zyxel Device is looking for an ADSL line
		Fast Blinking	The Zyxel Device is initializing the ADSL line.

Table 14 LED Descriptions (DX5401-B0/B1 / EX5401-B0/B1) (continued)

LED	COLOR	STATUS	DESCRIPTION
Internet	Green	On	The Zyxel Device has an IP connection but no traffic. Your device has a WAN IP address (either static or assigned by a DHCP server), PPP negotiation was successfully completed (if used) and the DSL connection is up.
		Blinking	The Zyxel Device is sending or receiving IP traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to make an IP connection but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
LAN1 – 4	Green	On	The Zyxel Device has a successful 10/100/1000 Mbps Ethernet connection with a device on the Local Area Network (LAN).
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN at 10/100/1000 Mbps.
		Off	The Zyxel Device does not have an Ethernet connection with the LAN.
2.4G WLAN/ WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
	Amber	On	The WPS process fails.
		Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
		Off	The 2.4 GHz WiFi network is not activated.
5G WLAN/ WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
	Amber	On	The WPS process fails.
		Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client.
		Off	The 5 GHz WiFi network is not activated.
Phone1, Phone2	Green	On	A SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	A telephone connected to one of the phone port has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	A SIP account is registered for the phone port and there is a voice message in the corresponding SIP account.
		Blinking	A telephone connected to the phone port has its receiver off the hook or there is an incoming call. There is voice message in the corresponding SIP account.

2.2.7 EX5600-T1, EX5601-T0 and EX5601-T1

Figure 21 LED Indicators (EX5600-T1)

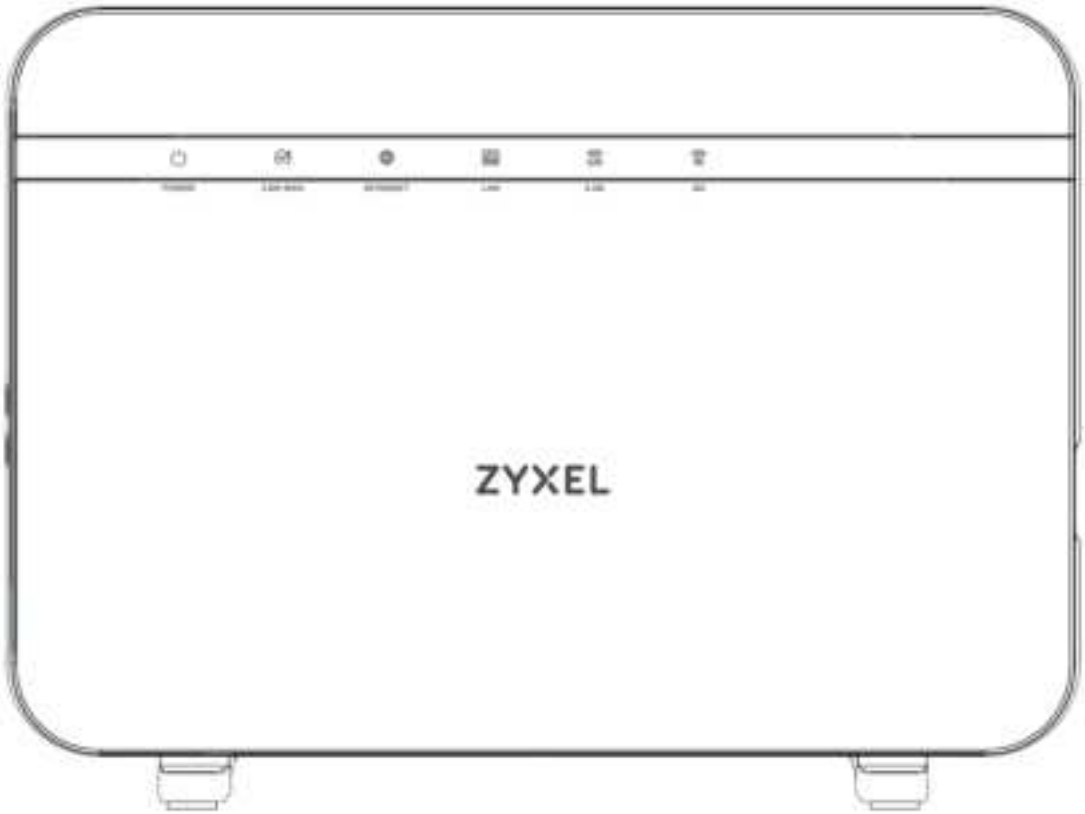


Figure 22 LED Indicators (EX5601-T0)

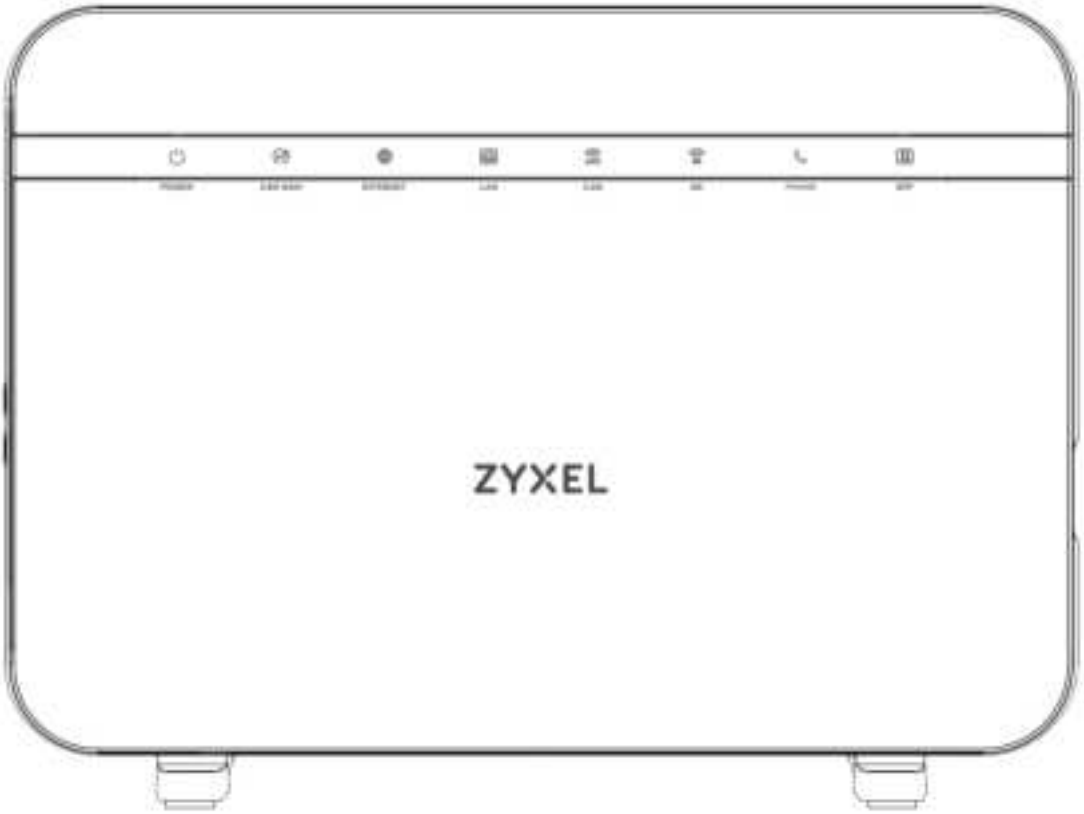
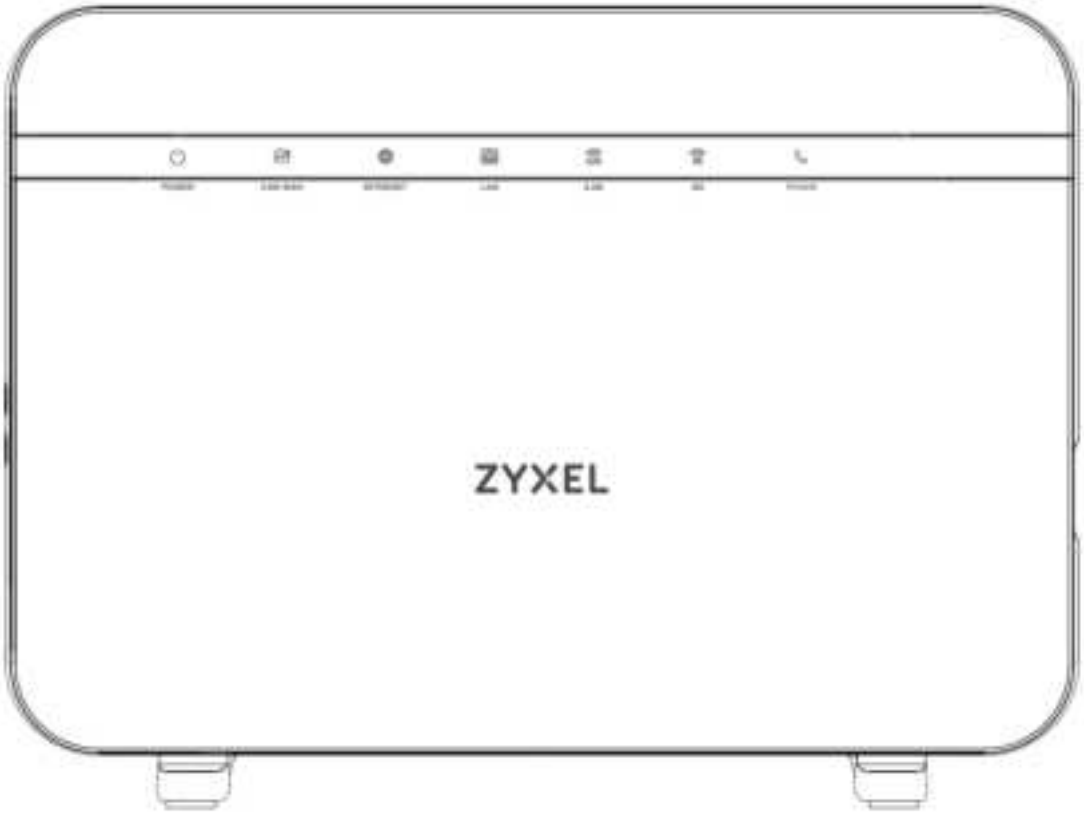


Figure 23 LED Indicators (EX5601-T1)



Note: The Phone LED is for the Zyxel Device with phone ports only; the SFP LED is for the Zyxel Device with an SFP port only; see Section 1.1 on page 20 for more information.

The following are the LED descriptions for your EX5600-T1 / EX5601-T0 / EX5601-T1.

Table 15 LED Descriptions (EX5600-T1 / EX5601-T0 / EX5601-T1)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
2.5G WAN	Green	On	The Zyxel Device has a successful Ethernet connection on the 2.5G WAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the 2.5G WAN port.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to obtain an WAN IP but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
LAN	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the Local Area Network (LAN).
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN.
2.4G	Green	On	The 2.4 GHz WiFi is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
		Off	The 2.4 GHz WiFi network is not activated.
5G	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to 5 GHz WiFi clients through WPS.
		Off	The 5 GHz WiFi network is not activated.
Phone	Green	On	All phone ports are on-hook. An SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	A telephone connected to one of the phone port has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	A SIP account is registered for the phone port and there is a voice message in the corresponding SIP account.
		Blinking	A telephone connected to the phone port has its receiver off the hook or there is an incoming call. There is voice message in the corresponding SIP account.
		Off	All phone ports are on-hook. The VoIP function is disabled, or there is no registered SIP account defined for any of the phone ports.

Table 15 LED Descriptions (EX5600-T1 / EX5601-T0 / EX5601-T1) (continued)

LED	COLOR	STATUS	DESCRIPTION
SFP	Green	On	The SFP port is connected to the ISP's ONT and the Zyxel Device is receiving optical signals normally, or the SFP port's Ethernet WAN connection is up.
		Off	The connection to the ISP's ONT or the Ethernet WAN connection is down.

Note: The phone LED is for the Zyxel Device with phone ports only; see Section 1.1 on page 20 for more information.

2.2.8 EX7501-B0

Figure 24 LED Indicators

The following are the LED descriptions for your EX7501-B0.

Table 16 LED Descriptions (EX7501-B0)

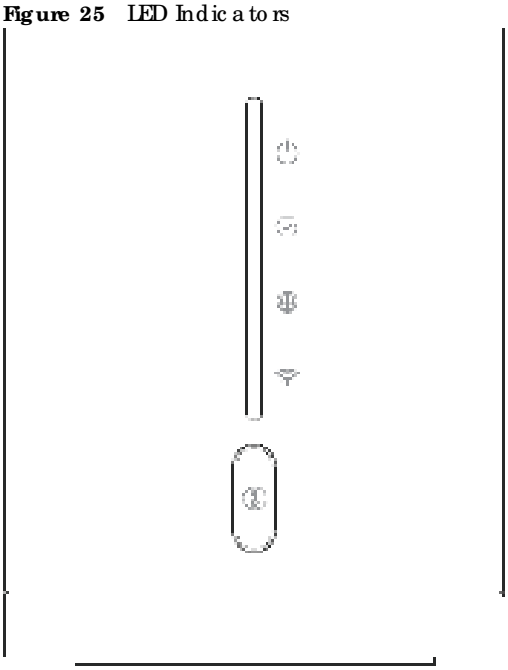
LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
10G WAN	Green	On	The Zyxel Device has a successful Ethernet connection on the 10G WAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the 10G WAN port.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to obtain an WAN IP but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
10G LAN	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the 10G LAN (Local Area Network) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the 10G LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the 10G LAN port.
LAN1-4	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the LAN (Local Area Network) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.

Table 16 LED Descriptions (EX7501-B0) (continued)

LED	COLOR	STATUS	DESCRIPTION
2.4G	Green	On	The 2.4 GHz WiFi is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
		Off	The 2.4 GHz WiFi network is not activated.
5G	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
	Amber	Blinking	The Zyxel Device is connecting to 5 GHz WiFi clients through WPS.
		Off	The 5 GHz WiFi network is not activated.
Phone	Green	On	All phone ports are on-hook. An SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	At least one telephone connected to one of the phone ports has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	All phone ports are on-hook. A SIP account is registered for the phone port and there is a voice message in the corresponding SIP account.
		Blinking	At least one telephone connected to the phone port has its receiver off the hook or there is an incoming call. There is voice message in the corresponding SIP account.
		Off	All phone ports are on-hook. The VoIP function is disabled, or there is no registered SIP account defined for any of the phone ports.
USB	Green	On	A device is connected to the USB port.
		Off	There is currently no device connected to the USB port.

2.2.9 EE6601-00

Figure 25 LED Indicators



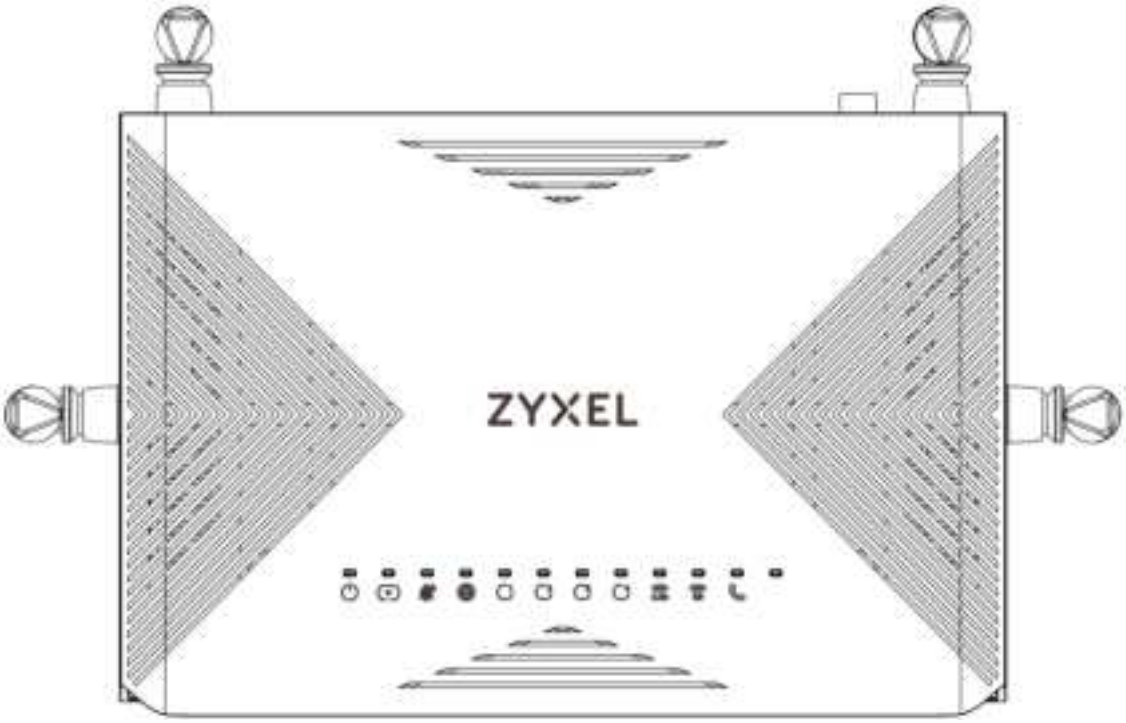
The following are the LED descriptions for your EE6601-00.

Table 17 LED Descriptions (EE6601-00)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up.
	Red	On	The Zyxel Device detects an error while self-testing, or there is a device malfunction.
		Blinking	The Zyxel Device is upgrading firmware.
		Off	The Zyxel Device is not receiving power.
Status	Green	On	All phone ports are on-hook. An SIP account is registered for at least one phone port, and there is no voice message in the corresponding SIP account.
		Blinking	At least one telephone connected to one of the phone ports has its receiver off the hook or there is an incoming call. There is no voice message in the corresponding SIP account.
	Amber	On	All phone ports are on-hook. SIP account registration failed.
		Off	All phone ports are on-hook. The VoIP function is disabled, or there is no registered SIP account defined for any of the phone ports.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving traffic.
		Off	There is no Internet connection or the gateway is in bridged mode.
	Red	On	The Zyxel Device attempted to obtain an WAN IP but failed. Possible causes are no response from a DHCP server, no PPPoE response, PPPoE authentication failed.
WiFi	Green	On	The WiFi is activated.
		Blinking	The Zyxel Device is communicating with WiFi clients.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a WiFi client.
		Off	The WiFi network is not activated.

2.2.10 PX3321-T1

Figure 26 LED Indicators (PX3321-T1)



The following are the LED descriptions for your PX3321-T1.

Table 18 LED Descriptions (PX3321-T1)

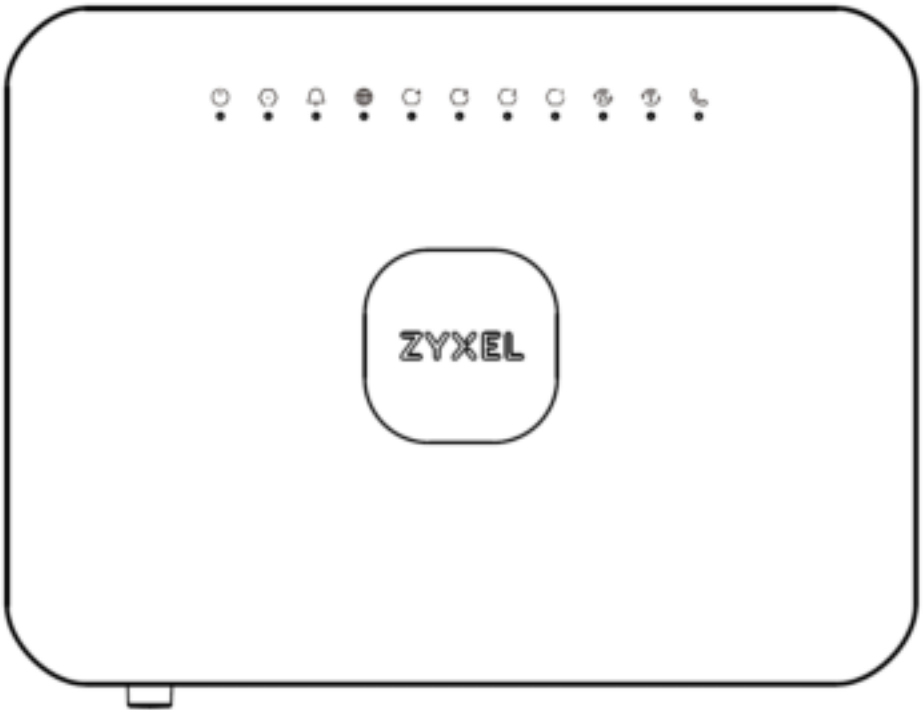
LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up or upgrading firmware.
		Off	The Zyxel Device is not receiving power.
PON	Green	On	The Zyxel Device is ready for PON connection.
		Blinking	The Zyxel Device is setting up a PON connection.
		Off	The Zyxel Device is not receiving an optical signal.
LOS	Red	On	The PON transceiver is not receiving an optical signal.
		Blinking	The optical signal the PON transceiver receiving is too weak or too strong.
		Off	The PON connection is ready.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is trying to build an Internet connection.
		Off	The Zyxel Device's WAN connection is down or in **Bridge** mode. You can select modes on the **Network Setting > Broadband > Modify** screen.
LAN 1–4	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the LAN (Local Area Network) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.

Table 18 LED Descriptions (PX3321-T1) (continued)

LED	COLOR	STATUS	DESCRIPTION
2.4G	Green	On	The 2.4 GHz WiFi is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The 2.4 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
		Off	The 5 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is connecting to 5 GHz WiFi clients through WPS.
Phone	Green	On	The phone port has a telephone connection, but it is not in use. A SIP account is registered for the phone port.
		Blinking	The phone port has a telephone connection, and it is in use.
		Off	The phone port has a telephone connection, but it is not in use. VoIP is disabled, or there is no registered SIP account defined for the phone port.

2.2.11 PX5301-T0

Figure 27 LED Indicators (PX5301-T0)



The following are the LED descriptions for your PX5301-T0.

Table 19 LED Descriptions (PX5301-T0)

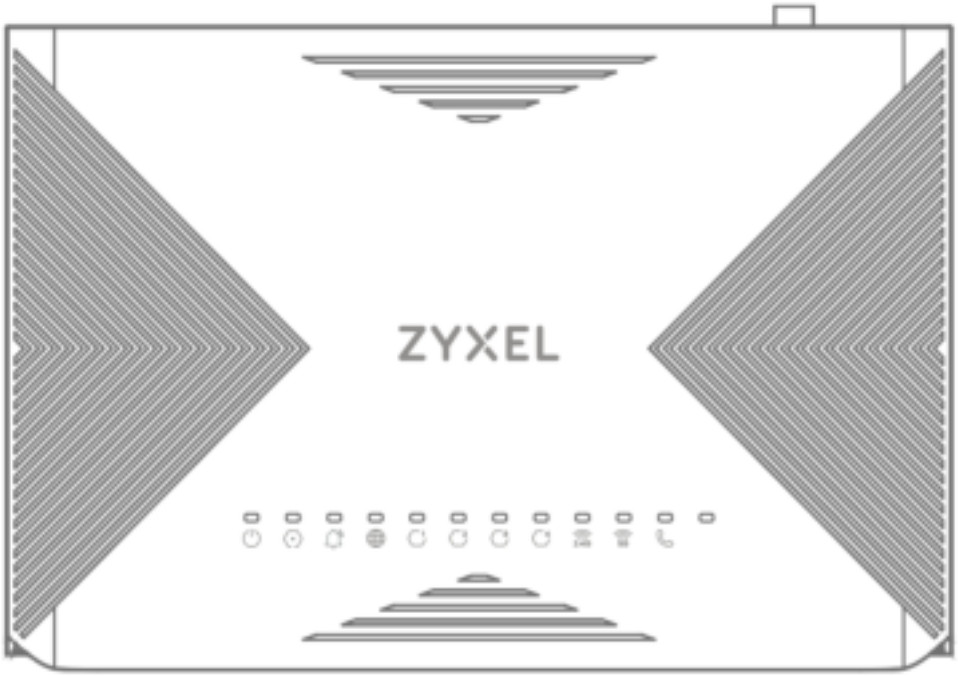
LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up or upgrading firmware.
		Off	The Zyxel Device is not receiving power.

Table 19 LED Descriptions (PX5301-T0) (continued)

LED	COLOR	STATUS	DESCRIPTION
GPON WAN	Green	On	The Zyxel Device is ready for GPON connection.
		Blinking	The Zyxel Device is setting up a GPON connection.
		Off	The Zyxel Device is not receiving an optical signal.
LOS	Red	On	The GPON transceiver is not receiving an optical signal.
		Blinking	The optical signal the GPON transceiver receiving is too weak.
		Off	The Zyxel Device is receiving stable optical power.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving Internet data.
		Off	There is no Internet connection or the Zyxel Device is in **Bridge** mode.
LAN 1–4	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the LAN (Local Area Network) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.
2.4G/WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The 2.4 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G/WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
		Off	The 5 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client.
Phone	Green	On	The phone port has a telephone connection, but it is not in use. A SIP account is registered for the phone port.
		Blinking	The phone port has a telephone connection, and it is in use.
		Off	The phone port has a telephone connection, but it is not in use. VoIP is disabled, or there is no registered SIP account defined for the phone port.

2.2.12 PX5311-T0

Figure 28 LED Indicators (PX5311-T0)



The following are the LED descriptions for your PX5311-T0.

Table 20 LED Descriptions (PX5311-T0)

LED	COLOR	STATUS	DESCRIPTION
POWER	Green	On	The Zyxel Device is receiving power and ready for use.
		Blinking	The Zyxel Device is booting up or upgrading firmware.
		Off	The Zyxel Device is not receiving power.
PON	Green	On	The Zyxel Device is ready for PON connection.
		Blinking	The Zyxel Device is setting up a PON connection.
		Off	The Zyxel Device is not receiving an optical signal.
LOS	Red	On	The PON transceiver is not receiving an optical signal.
		Blinking	The optical signal the PON transceiver receiving is too weak or too strong.
		Off	The PON connection is ready.
INTERNET	Green	On	The Zyxel Device has a WAN IP address (either static or assigned by a DHCP server) and the Internet connection is up.
		Blinking	The Zyxel Device is sending or receiving Internet data.
		Off	There is no Internet connection or the Zyxel Device is in **Bridge** mode.
LAN 1-4	Green	On	The Zyxel Device has a successful Ethernet connection with a device on the LAN (Local Area Network) port.
		Blinking	The Zyxel Device is sending or receiving data to/from the LAN port.
		Off	The Zyxel Device does not have an Ethernet connection on the LAN port.

Table 20 LED Descriptions (PX5311-T0) (continued)

LED	COLOR	STATUS	DESCRIPTION
2.4G/WPS	Green	On	The 2.4 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 2.4 GHz WiFi clients.
		Off	The 2.4 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 2.4 GHz WiFi client.
5G/WPS	Green	On	The 5 GHz WiFi network is activated.
		Blinking	The Zyxel Device is communicating with 5 GHz WiFi clients.
		Off	The 5 GHz WiFi network is not activated.
	Amber	Blinking	The Zyxel Device is setting up a WPS connection with a 5 GHz WiFi client.
Phone	Green	On	The phone port has a telephone connection, but it is not in use. A SIP account is registered for the phone port.
		Blinking	The phone port has a telephone connection, and it is in use.
		Off	The phone port has a telephone connection, but it is not in use. VoIP is disabled, or there is no registered SIP account defined for the phone port.

2.3 Ports Panel

The following shows the Zyxel Device ports panel and connection ports.

2.3.1 AX7501

Figure 29 AX7501-B0

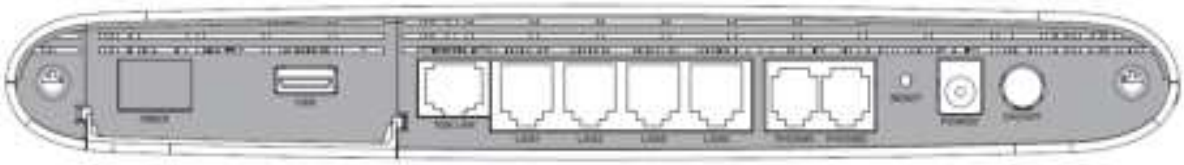
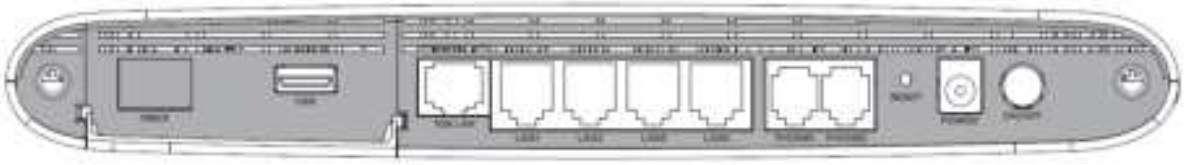


Figure 30 AX7501-B1



The following table describes the items on the ports panels of AX7501.

Table 21 Panel Ports and Buttons

LABEL	DESCRIPTION
FIBER	For AX7501-B0 / AX7501-B1 Insert a compatible SFP+ transceiver to the FIBER port and connect the fiber cable for Internet access.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.

Table 21 Panel Ports and Buttons (continued)

LABEL	DESCRIPTION
LAN1 – LAN4 2.5G LAN 10G LAN	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
PHONE1/2	Connect analog phones to the PHONE ports to make phone calls.
RESET	Press the button to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the ON/OFF button to start the device.
WPS	Press the WPS button for more than 5 seconds to quickly set up a secure WiFi connection between the device and a WPS-compatible client.
WLAN	Press the WLAN button for more than 2 seconds to enable the WiFi function.

2.3.2 DX3300-T0, DX3301-T0, DX5401-B0/B1, EX3300-T0, EX3301-T0 and EX5401-B0/B1

Figure 31 DX3300-T0

Figure 32 DX3301-T0

Figure 33 DX5401-B0 / DX5401-B1

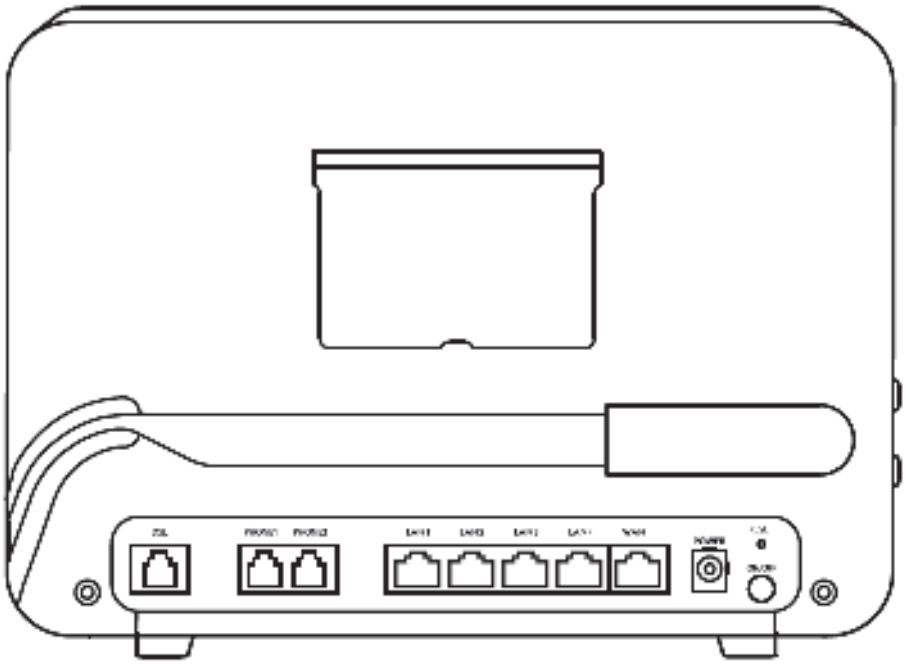
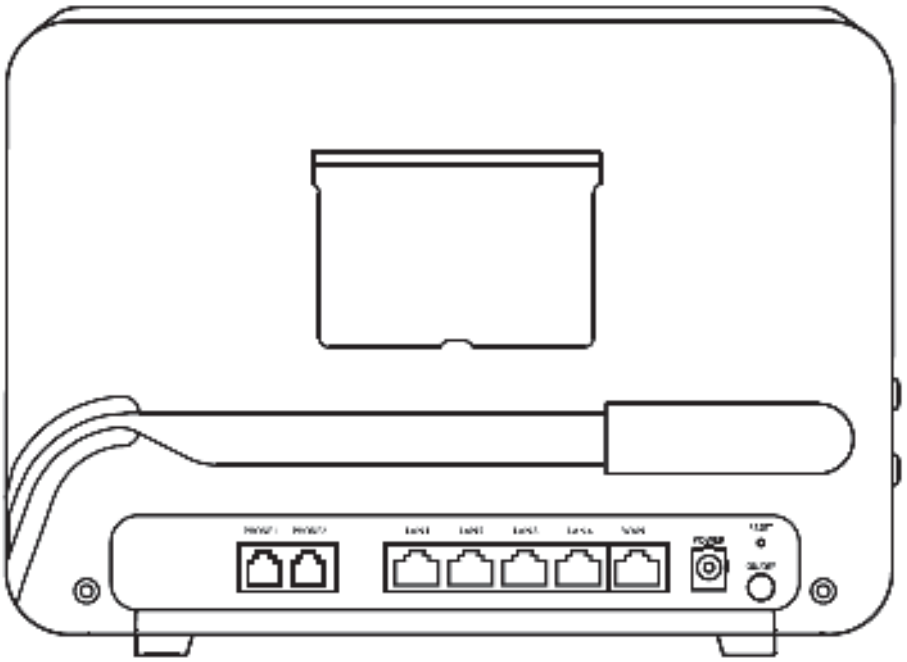


Figure 34 EX3300-T0

Figure 35 EX3301-T0

Figure 36 EX5401-B0 / EX5401-B1



The following table describes the items on the ports panels of DX3300-T0, DX3301-T0, DX5401-B0/B1, EX3300-T0, , EX3301-T0 and EX5401-B0/B1.

Table 22 Panel Ports and Buttons

LABEL	DESCRIPTION
WAN	For EX3300-T0, , EX3301-T0 and EX5401-B0/B1, use an Ethernet cable to connect the WAN port to a gateway/modem for Internet connection.
LAN1 – LAN4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
FIBER	For DX5401-B0 and EX5401-B0/B1, Insert a compatible SFP transceiver to the FIBER port and connect the fiber cable for Internet access.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
DSL	For DX3300-T0, DX3301-T0 and DX5401-B0/B1, connect a DSL cable to the **DSL** port for Internet connection.
PHONE1/2	For DX3301-T0, DX5401-B0/B1, EX3301-T0, and EX5401-B0/B1, connect analog phones to the **PHONE** ports to make phone calls.
RESET	Press the button to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.
WiFi ON/OFF	Press the **WiFi ON/OFF** button for more than 2 seconds to enable the WiFi function.

2.3.3 DX3300-T1 and EX3300-T1

Figure 37 DX3300-T1

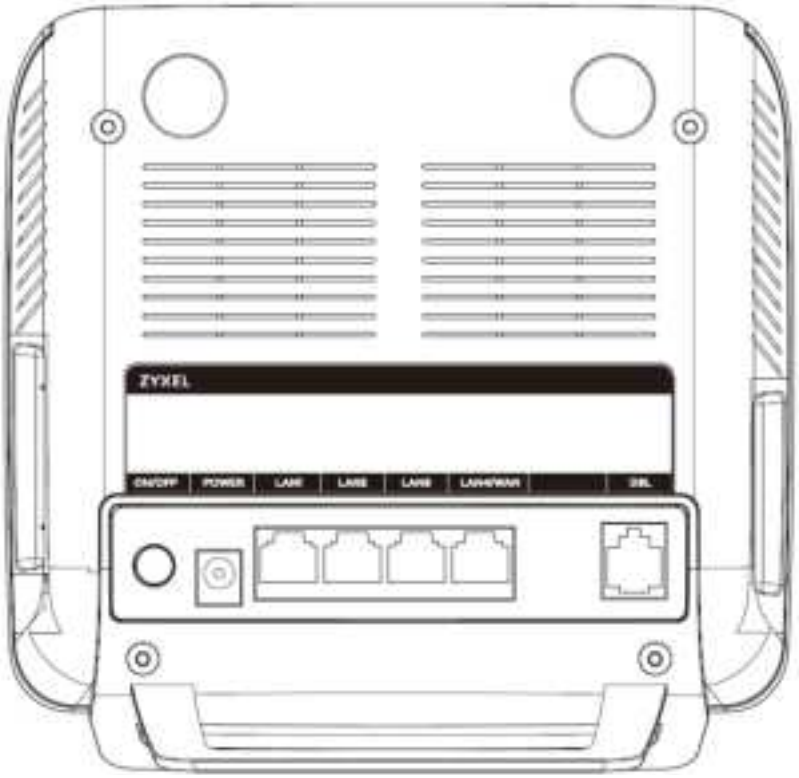
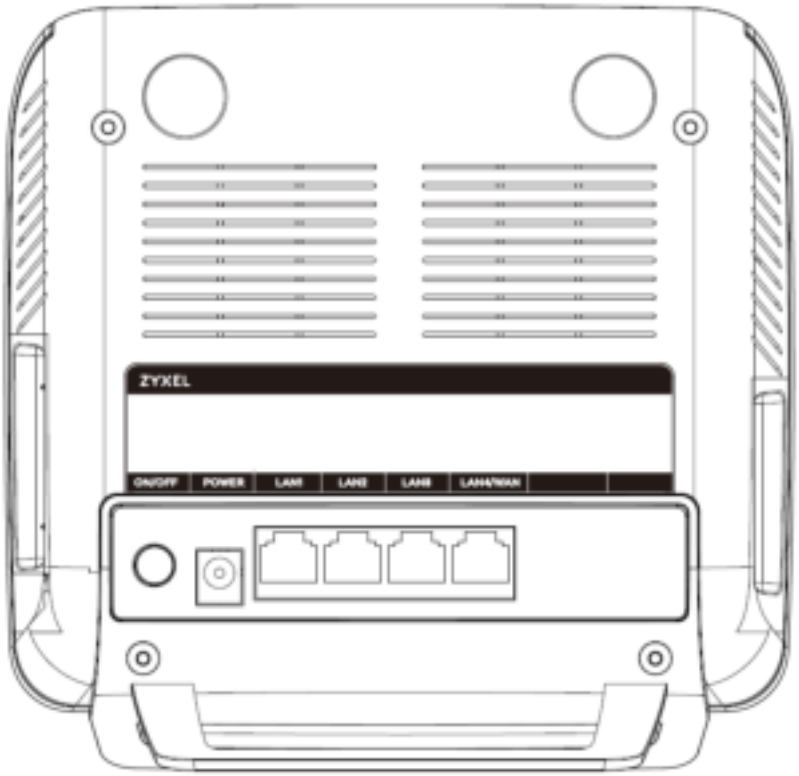


Figure 38 EX3300-T1



The following table describes the items on the ports panels of DX3300-T1 and EX3300-T1.

Table 23 Panel Ports and Buttons

LABEL	DESCRIPTION
DSL	For DX3300-T1, connect a DSL cable to the **DSL** port for Internet connection.
LAN1 – LAN3	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
LAN4/WAN	LAN mode: Connect computers or other Ethernet devices to the **LAN4/WAN** port for Internet access. WAN mode: Connect the **LAN4/WAN** port to a gateway/modem with an Ethernet cable for Internet connection.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
RESET	Press the button to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WLAN	Press the **WLAN** button for more than 1 second to enable the WiFi function.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.

2.3.4 EX3500-T0 and EX3501-T0

Figure 39 EX3500-T0

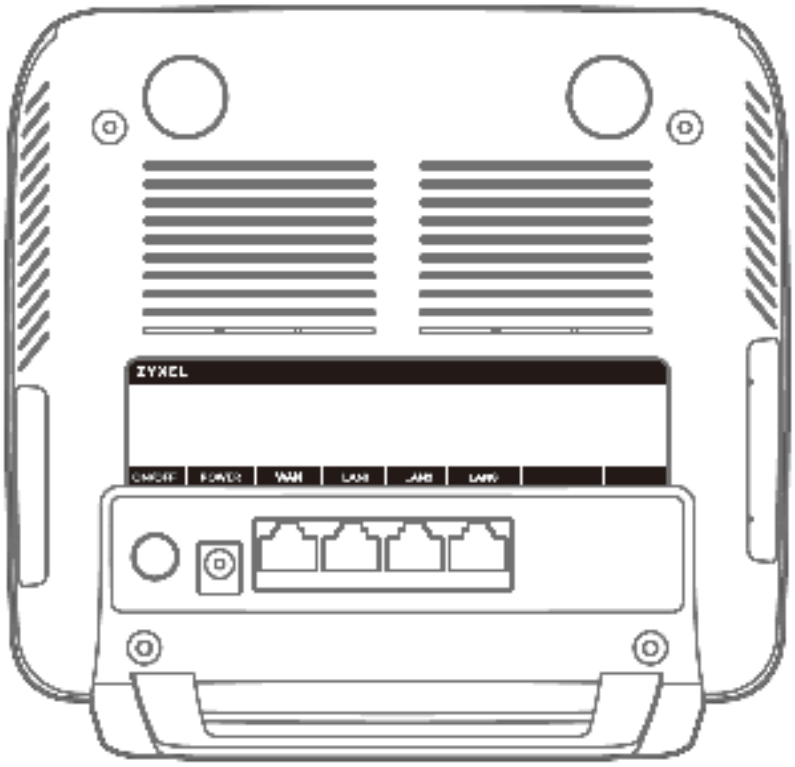


Figure 40 EX3501-T0

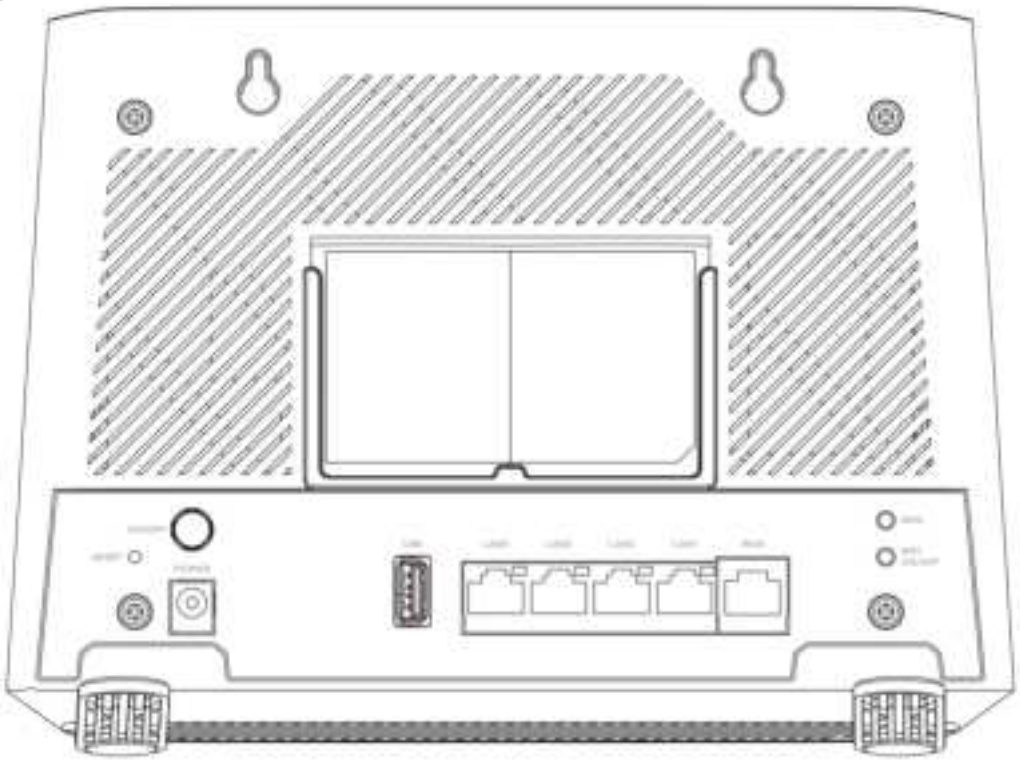
The following table describes the items on the ports panels of EX3500-T0 and EX3501-T0.

Table 24 Panel Ports and Buttons

LABEL	DESCRIPTION
WAN	Use an Ethernet cable to connect the **WAN** port to a gateway/modem for Internet connection.
LAN1 – LAN3	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
Phone1/2	Connect analog phones to the **PHONE** ports to make phone calls.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
RESET	Press the button to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WLAN	Press the **WLAN** button for more than 1 second to enable the WiFi function.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.

2.3.5 EX3600-T0

Figure 41 EX3600-T0



The following table describes the items on the ports panels of EX3600-T0.

Table 25 Panel Ports and Buttons

LABEL	DESCRIPTION
WAN	Use an Ethernet cable to connect the **WAN** port to a gateway/modem for Internet connection.
LAN1 – LAN4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
RESET	Press the button for more than 5 seconds to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WiFi ON/OFF	Press the **WiFi ON/OFF** button for more than 2 seconds to enable the WiFi function.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.

2.3.6 EX5600-T1, EX5601-T0 and EX5601-T1

Figure 42 EX5600-T1

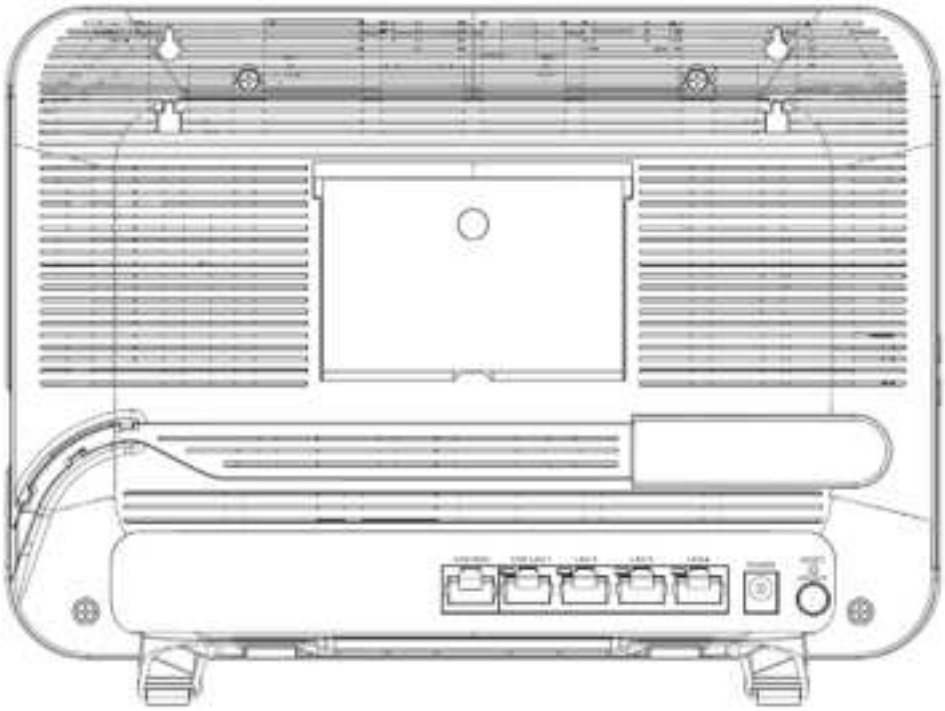
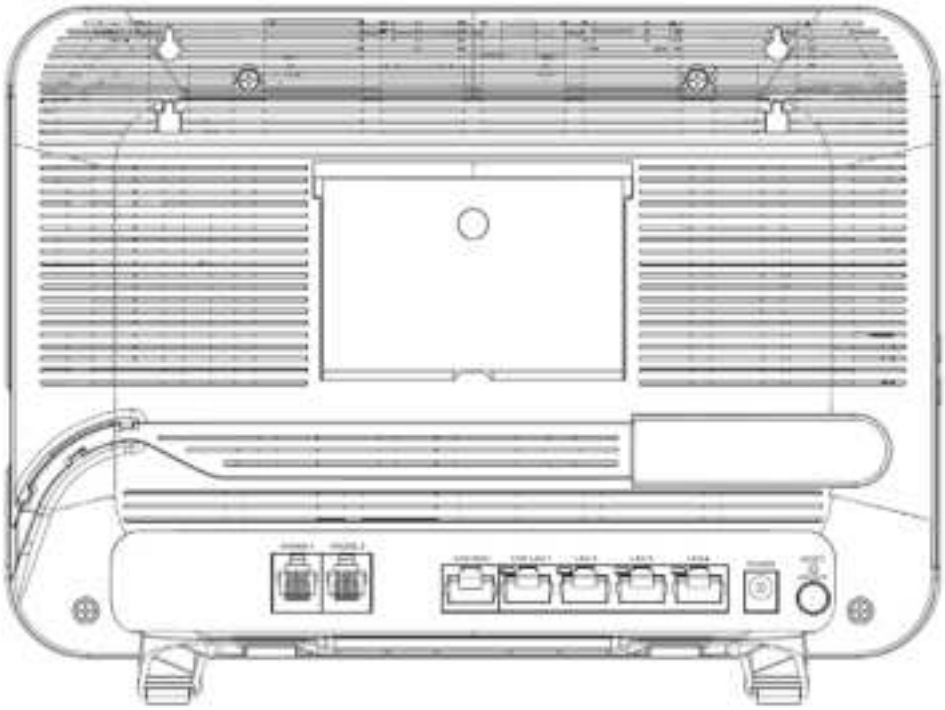
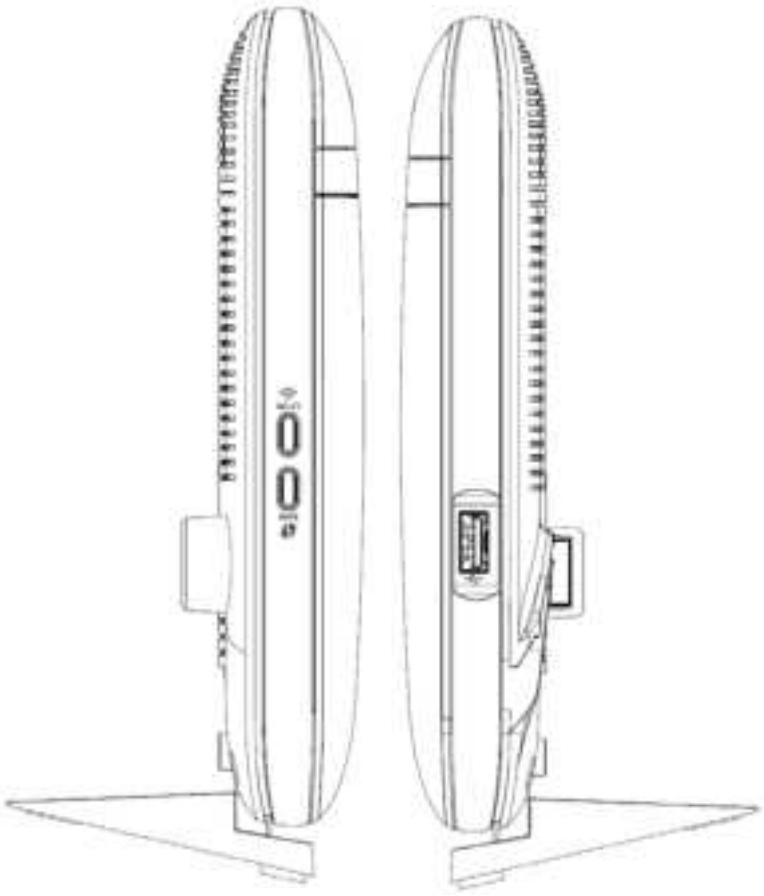


Figure 43 EX5601-T0 / EX5601-T1



Note: See Section 1.1 on page 20 to see if your Zyxel Device supports the SFP port.

Figure 44 EX5600-T1 / EX5601-T0 / EX5601-T1 Side Panels



The following table describes the items on the ports panels of EX5600-T1, EX5601-T0 and EX5601-T1.

Table 26 Panel Ports and Buttons

LABEL	DESCRIPTION
2.5G WAN	For EX5600-T1 and EX5601-T1, use an Ethernet cable to connect the 2.5G WAN port to a gateway/modem for an (up to) 2.5 Gbps Internet connection. For EX5601-T0, use an Ethernet cable to connect the 2.5G WAN port to a gateway/modem, or connect a fiber optic/Ethernet cable to the SFP port through an SFP transceiver for an (up to) 2.5 Gbps Ethernet connection.
2.5G LAN1	Connect computers or other Ethernet devices to the 2.5G LAN port for Internet access with speed up to 2.5 Gbps.
LAN2-4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
SFP	For EX5601-T0, insert a compatible SFP transceiver to the SFP port and connect a fiber optic or Ethernet cable for an (up to) 2.5 Gbps Internet connection.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
PHONE1/2	For EX5601-T0,and EX5601-T1, connect analog phones to the PHONE ports with RJ11 cables for VoIP services.
RESET	Press the button for more than 5 seconds to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.
WiFi	Press the **WiFi** button for more than 2 seconds to enable the WiFi function.

2.3.7 EX7501-B0

Figure 45 Bottom Panel

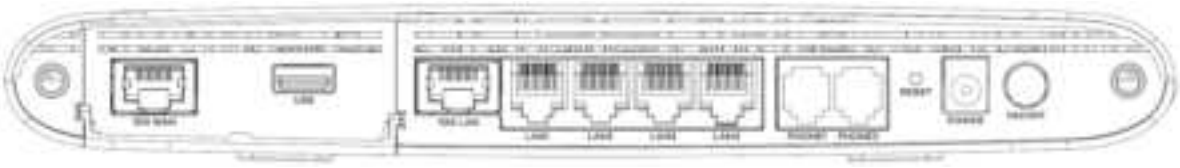
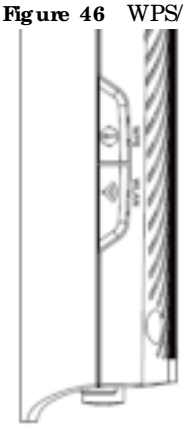


Figure 46 WPS/WIAN Buttons



The following table describes the items on the ports panels of EX7501-B0.

Table 27 Panel Ports and Buttons

LABEL	DESCRIPTION
10G WAN	Connect an Ethernet cable to the **10G WAN** port for an (up to) 10 Gbps Ethernet connection.
10G LAN	Connect computers or other Ethernet devices to the **10G LAN** port for Internet access with speed up to 10 Gbps.
LAN1–4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
PHONE1/2	Connect analog phones to the **PHONE** ports with RJ-11 cables for VoIP services.
RESET	Press the button for more than 5 seconds to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.
WLAN	Press the **WLAN** button for more than 2 seconds to enable the WiFi function.

2.3.8 EE6601-00

Figure 47 Rear Panel

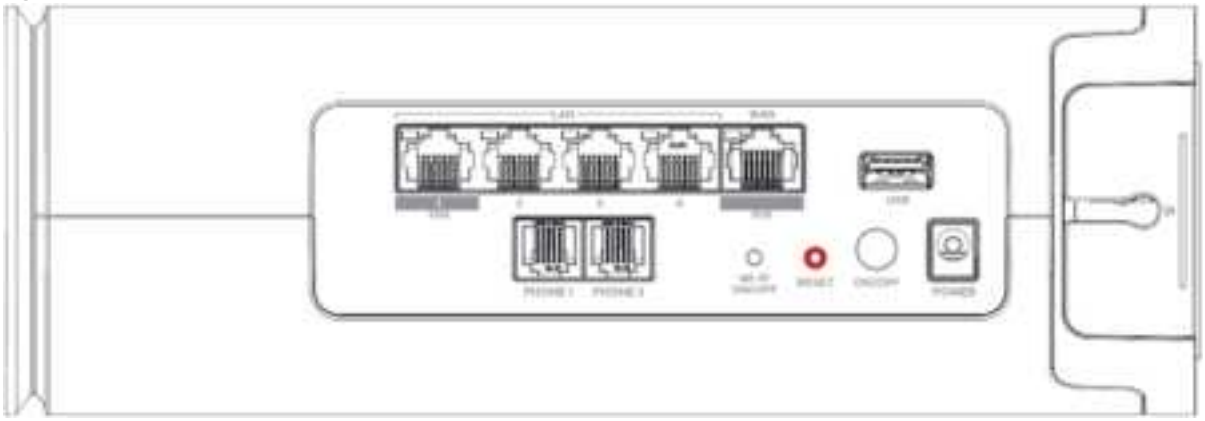
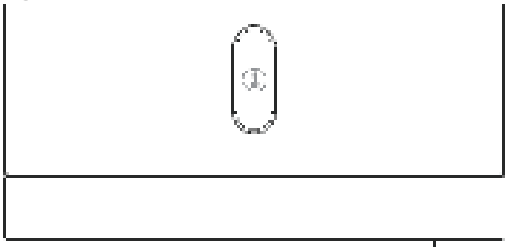


Figure 48 WPS/WLAN Buttons



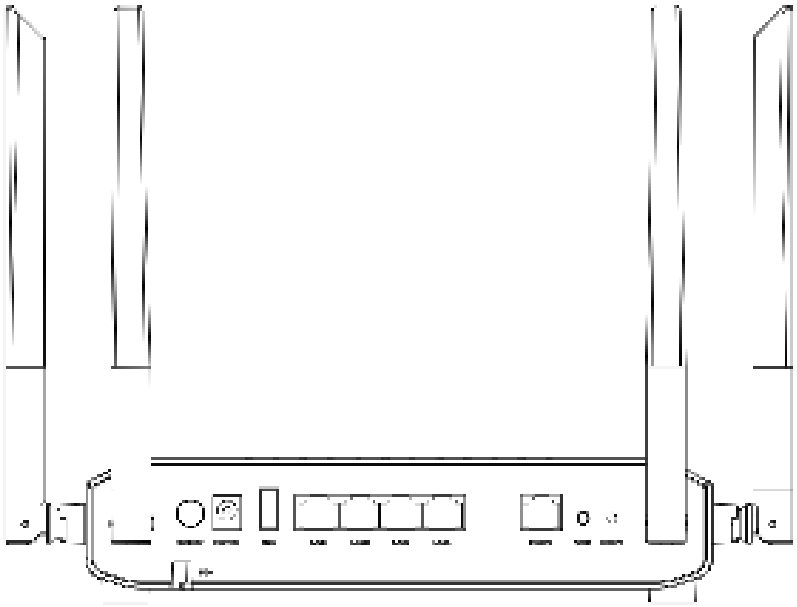
The following table describes the items on the ports panels of EE6601-00.

Table 28 Panel Ports and Buttons

LABEL	DESCRIPTION
10G WAN	Connect an Ethernet cable to the **10G WAN** port for an (up to) 10 Gbps Ethernet connection.
10G LAN	Connect computers or other Ethernet devices to the **10G LAN** port for Internet access with speed up to 10 Gbps.
LAN1–4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
PHONE1/2	Connect analog phones to the **PHONE** ports with RJ-11 cables for VoIP services.
Wi-Fi ON/OFF	Press the **Wi-Fi ON/OFF** button for more than 2 seconds to enable the WiFi function.
RESET	Press the button for more than 5 seconds to return the Zyxel Device to the factory defaults.
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
WPS	Press the **WPS** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client.

2.3.9 PX3321-T1

Figure 49 PX3321-T1



2.3.10 PX5301-T0

Figure 50 PX5301-T0 Rear Panel

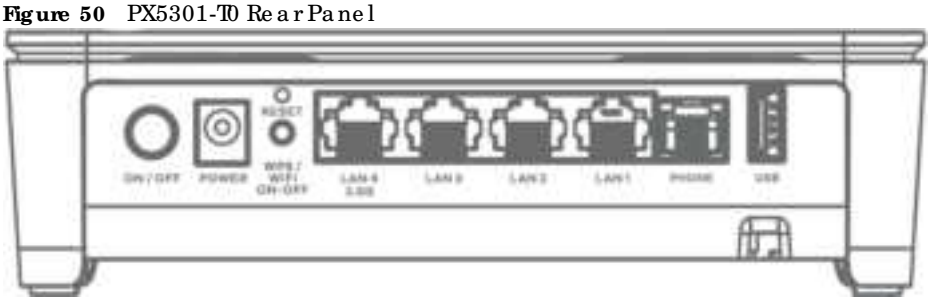
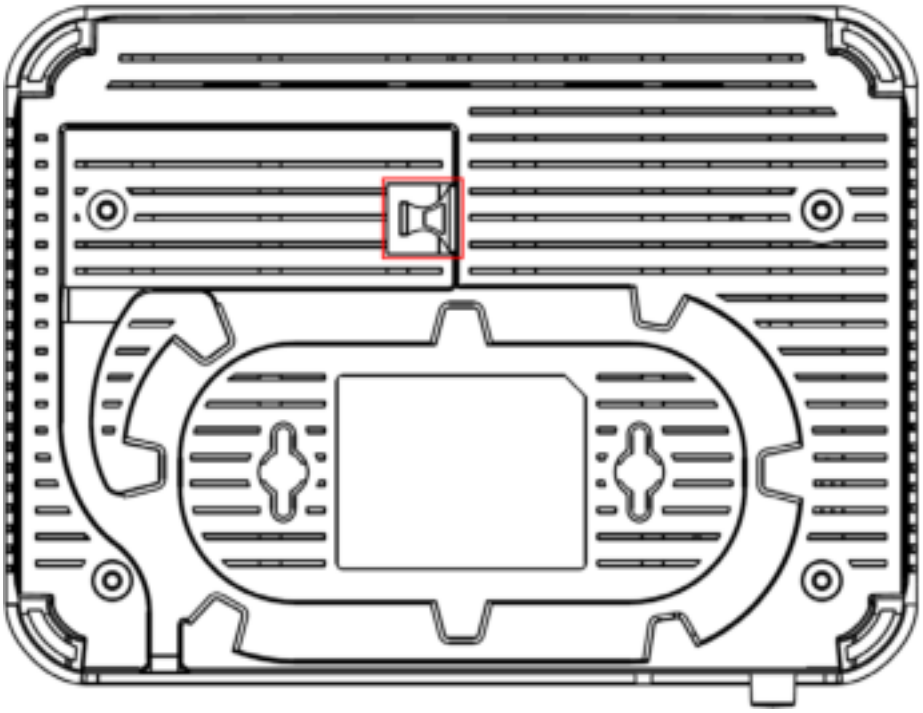
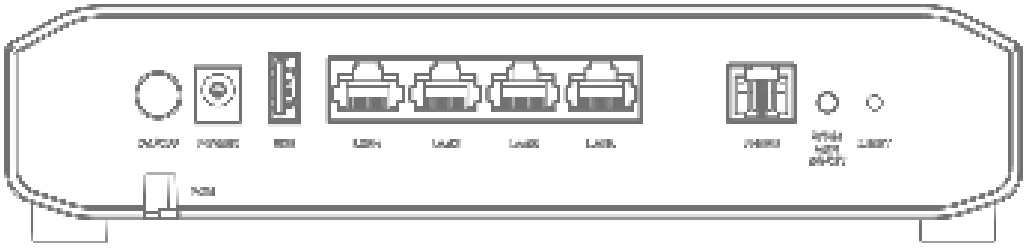


Figure 51 PX5301-T0 Bottom Panel (PON Port)



2.3.11 PX5311-T0

Figure 52 PX5311-T0



The following table describes the items on the ports panel of PX3321-T1, PX5301-T0 and PX5311-T0.

Table 29 Panel Ports and Buttons

LABEL	DESCRIPTION
POWER	Connect the power adapter and press the **ON/OFF** button to start the device.
USB	The USB port is used for cellular WAN backup, file-sharing, and media server.
LAN 1-4	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
Phone	Connect analog phone to the **PHONE** port with RJ11 cable for VoIP services.
WPS/WiFi On-Off	Press the **WPS/WiFi On-Off** button once within 3 seconds to quickly setup a secure WiFi connection between the device and a WPS-compatible client. Press the **WPS/WiFi On-Off** button once more than 3 seconds to enable or disable the WiFi. The WiFi is enabled by default.
RESET	Press the button for more than 5 seconds to return the Zyxel Device to the factory defaults.
PON	Connect the fiber optic cable to the PON (Passive Optical Network) port for Internet access.

2.3.12 Transceiver Installation/Removal

Transceiver Installation

Use the following steps to install an SFP transceiver.

1. Attach an ESD preventive wrist strap to your wrist and to a bare metal surface.
2. Align the transceiver in front of the slot opening.
3. Make sure the latch is in the lock position (latch styles vary), then insert the transceiver into the slot with the exposed section of PCB board facing down.
4. Press the transceiver firmly until it clicks into place.
5. The Zyxel Device automatically detects the installed transceiver. Check the LEDs to verify that it is functioning properly.
6. Remove the dust plugs from the transceiver and cables (dust plug styles vary).
7. Identify the signal transmission direction of the fiber optic cables and the transceiver. Insert the fiber optic cable into the transceiver.

Figure 53 Latch in the Lock Position

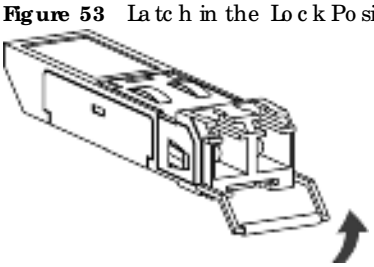


Figure 54 Transceiver Installation Example

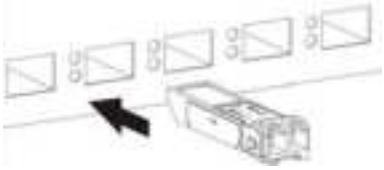
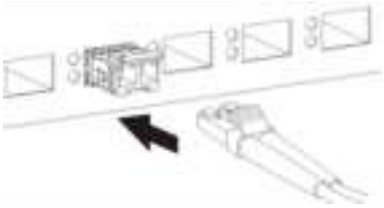


Figure 55 Connecting the Fiber Optic Cables



Transceiver Removal

Use the following steps to remove an SFP transceiver.

1. Attach an ESD preventive wrist strap to your wrist and to a bare metal surface on the chassis.
2. Remove the fiber optic cables from the transceiver.

3 Pull out the latch and down to unlock the transceiver (latch styles vary).

Note: Make sure the transceiver's latch is pushed all the way down, so the transceiver can be pulled out successfully.

4 Pull the latch, or use your thumb and index finger to grasp the tabs on both sides of the transceiver, and carefully slide it out of the slot.

Note: Do NOT pull the transceiver out by force. You could damage it. If the transceiver will not slide out, grasp the tabs on both sides of the transceiver with a slight up or down motion and carefully slide it out of the slot. If unsuccessful, contact Zyxel Support to prevent damage to your Zyxel Device and transceiver.

5 Insert the dust plug into the ports on the transceiver and the cables.

Figure 56 Removing the Fiber Optic Cables

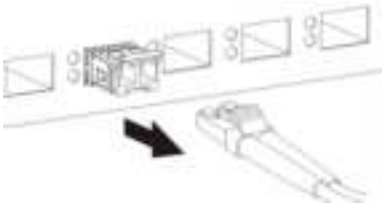
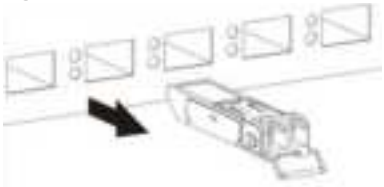


Figure 57 Opening the Transceiver's Latch Example

Figure 58 Transceiver Removal Example



2.3.13 WPS Button

You can use the **WPS** button to quickly set up a secure WiFi connection between the Zyxel Device and a WPS-compatible client by adding one device at a time.

To Activate WPS

1 Make sure the **POWER** LED is on and not blinking.

2 Press the **WPS** button once within 3 seconds (see the ports panel table of each Zyxel Device model in Section 2.3 on page 58 for more information) and release it.

3 Press the **WPS** button on another WPS-enabled device within range of the Zyxel Device (within 120 seconds). The **WPS** LED flashes green while the Zyxel Device sets up a WPS connection with the other wireless device.

4 Once the connection is successfully made, the **WPS** LED will light off.

2.3.14 RESET Button

If you forget your password or cannot access the Web Configurator, you will need to use the **RESET** button to reload the factory-default configuration file. This means that you will lose all configurations that you had previously. The password will be reset to the factory default (see the device label), and the LAN IP address will be "192.168.1.1".

1 Make sure the **POWER** LED is on (not blinking).

2 To set the device back to the factory default settings, press the **RESET** button for more than 5 seconds or until the **POWER** LED begins to blink and then release it. When the **POWER** LED begins to blink, the defaults have been restored and the device restarts.

CHAPTER 3
Web Configurator

3.1 Overview

The Web Configurator is an HTML-based management interface that allows easy system setup and management through Internet browser. Use a browser that supports HTML5, such as Microsoft Edge, Mozilla Firefox, or Google Chrome. The recommended minimum screen resolution is 1024 by 768 pixels.

In order to use the Web Configurator you need to allow:

- Web browser pop-up windows from your computer.
- JavaScript (enabled by default).
- Java permissions (enabled by default).

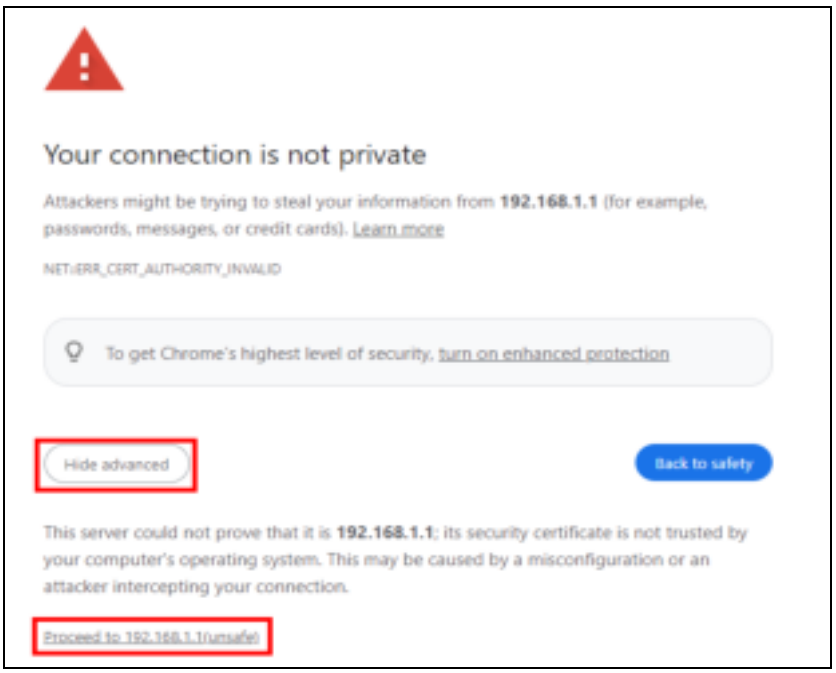
3.1.1 Access the Web Configurator

1 Make sure your Zyxel Device hardware is properly connected (refer to the Quick Start Guide).

2 Make sure your computer has an IP address in the same subnet as the Zyxel Device.

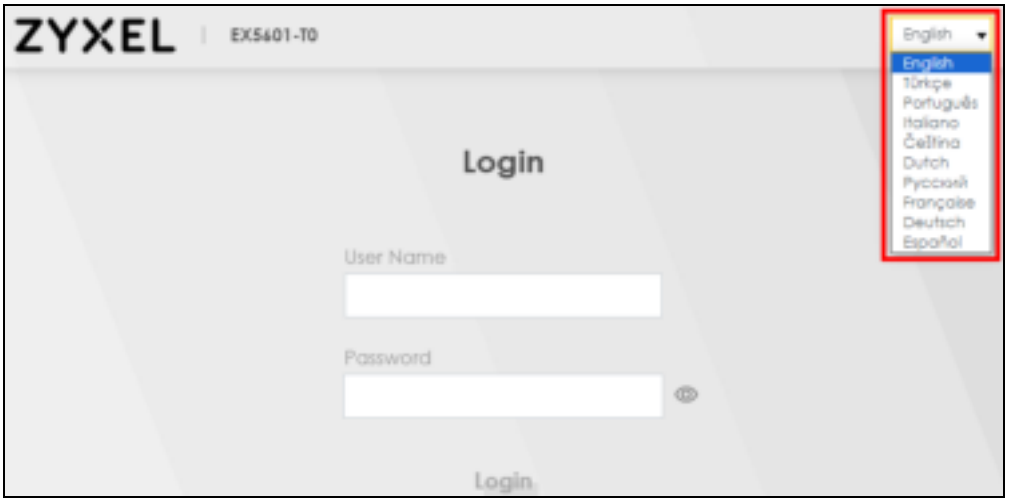
3 Launch your web browser. Type https://192.168.1.1 in your browser address bar.

4 If a "Your connection is not private" message appears, click **Advanced**, then click **Proceed to 192.168.1.1 (unsafe)** to go to the login screen.



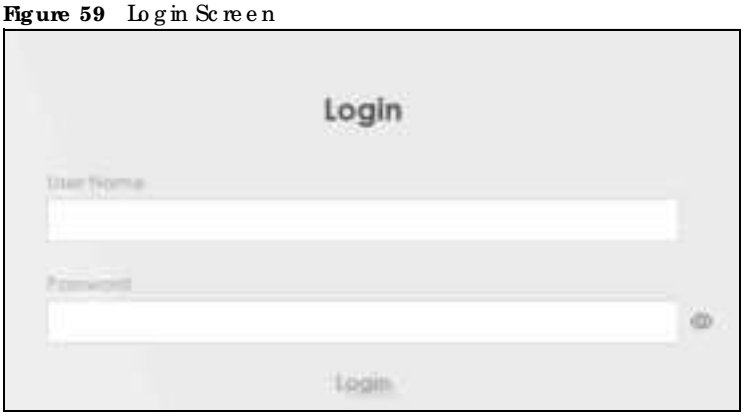
Note: If you see this warning page, it indicates that your browser has failed to verify the Secure Sockets Layer (SSL) certificate, which opens an encrypted connection. You can ignore this message and proceed to 192.168.1.1.

5 A login screen displays. Select the language you prefer (upper right).



6 To access the administrative Web Configurator and manage the Zyxel Device, enter the default user name **admin** and the randomly assigned default password (see the Zyxel Device label) in the **Login** screen and click **Login**. If you have changed the password, enter your password and click **Login**.

Figure 59 Login Screen

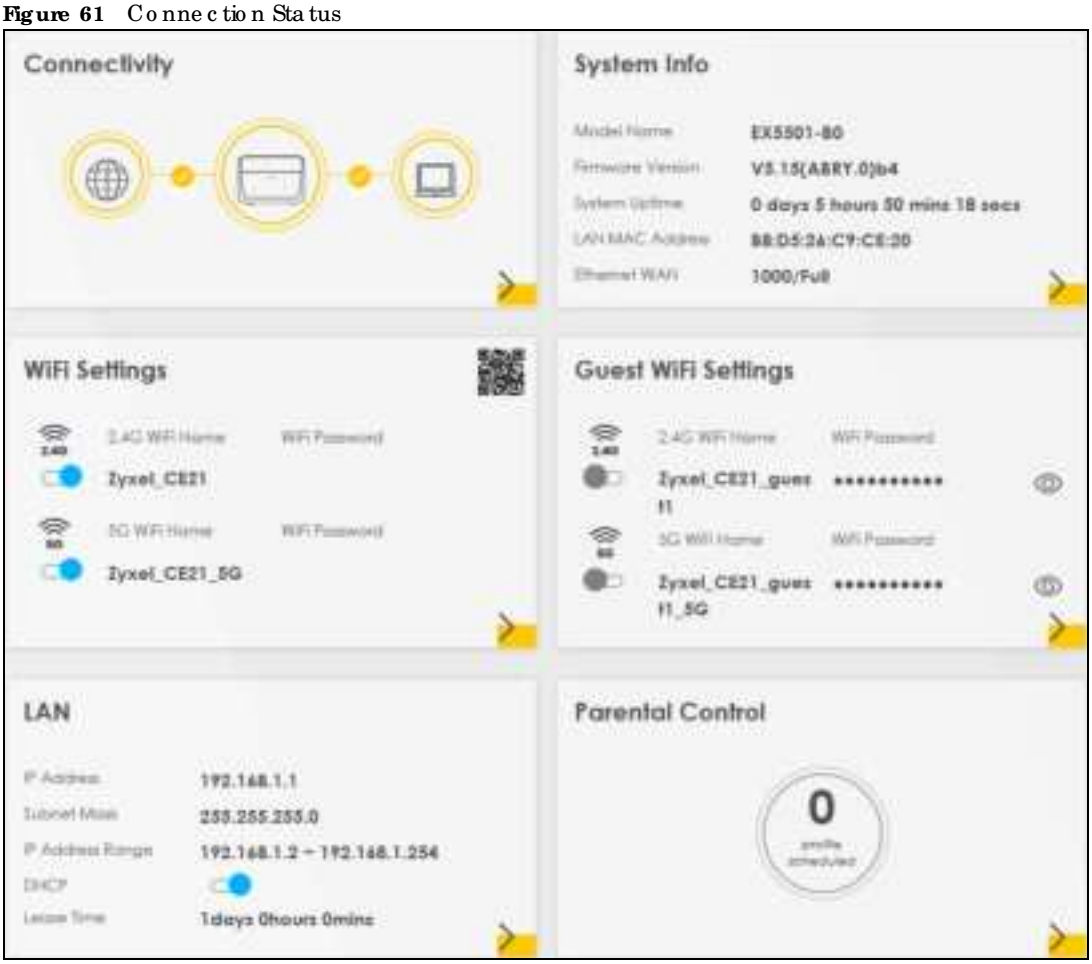


Note: The first time you enter the password, you will be asked to change it. Make sure the new password must be at least 8 characters, must contain at least one uppercase letter, one lowercase letter, one number, and one special character. For some models, the password must contain at least one English character and one number. Please see the password requirement displayed on the screen.

Figure 60 Change Password Screen

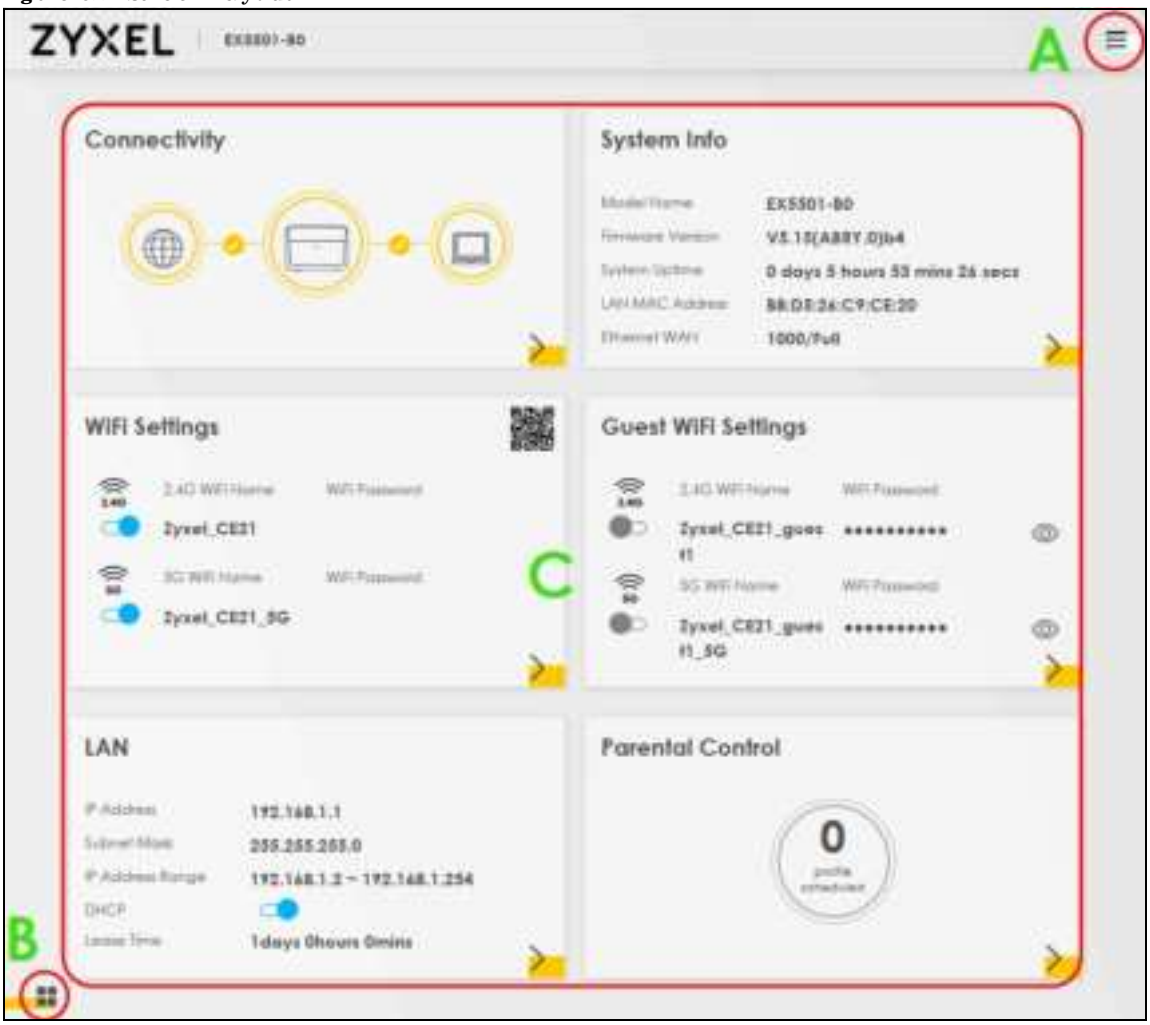
7 The **Connection Status** screen appears. Use this screen to configure basic Internet access and WiFi settings.

Figure 61 Connection Status



3.2 Web Configurator Layout

Figure 62 Screen Layout



As illustrated above, the main screen is divided into these parts:

- **A** – Settings Icon (Navigation Panel and Side Bar)
- **B** – Layout Icon
- **C** – Main Window

3.2.1 Settings Icon

Click this icon ( ) to see the side bar and navigation panel.

3.2.1.1 Side Bar

The side bar provides some icons on the right hand side.

Figure 63 Side Bar

The icons provide the following functions.

Table 30 Web Configurator Icons in the Title Bar

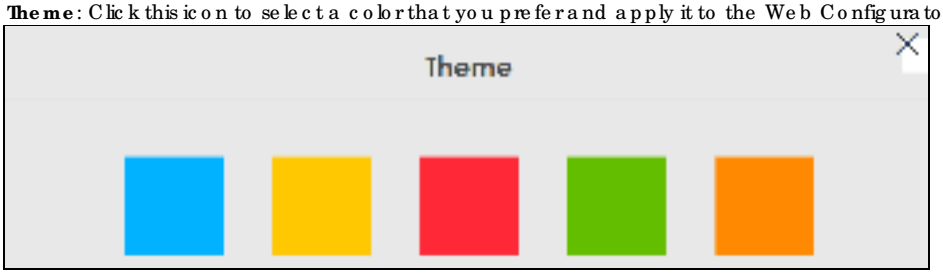
ICON	DESCRIPTION
	**LED**: Click this icon to turn off/on the Zyxel Device's panel LEDs.
	**Wizard**: Click this icon to open screens where you can configure the Zyxel Device's time zone and WiFi settings.
	**Theme**: Click this icon to select a color that you prefer and apply it to the Web Configurator. 

Table 30 Web Configurator Icons in the Title Bar (continued)

ICON	DESCRIPTION
	**Language**: Select the language you prefer.
	**Help:** Click this link to display web help pages. The help pages provide descriptions for all of the configuration screens.
	**Restart**: Click this icon to reboot the Zyxel Device without turning the power off.
	**Logout**: Click this icon to log out of the Web Configurator.

3.2.1.2 Navigation Panel

Click the menu icon ( ) to display the navigation panel that contains configuration menus and icons (quick links). Click **X** to close the navigation panel.

Use the menu items on the navigation panel to open screens to configure Zyxel Device features. The following tables describe each menu item.

Figure 64 Navigation Panel

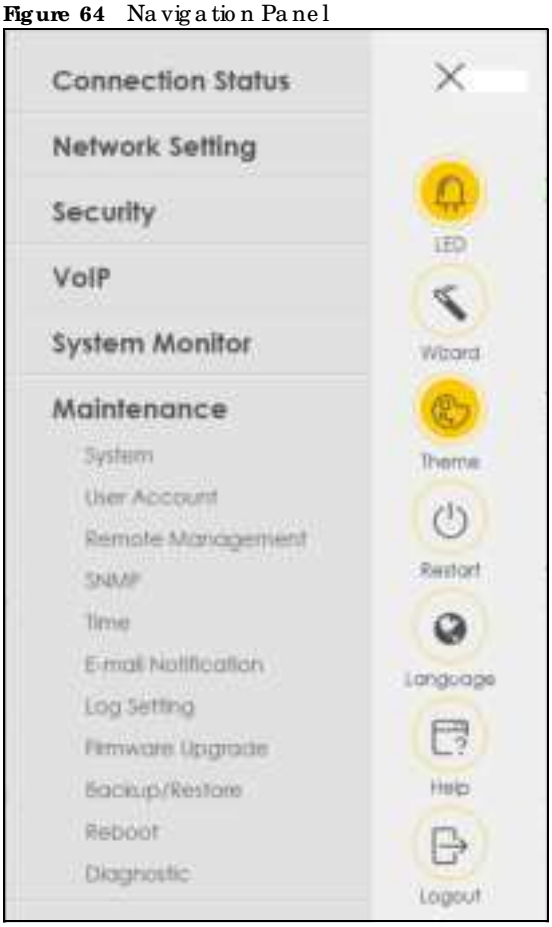


Table 31 Navigation Panel Summary

LINK	TAB	FUNCTION
Connection Status		Use this screen to configure basic Internet access, wireless settings, and parental control settings. This screen also shows the network status of the Zyxel Device and computers/devices connected to it.
Network Setting		
Broadband	Broadband	Use this screen to view and configure ISP parameters, WAN IP address assignment, and other advanced properties. You can also add new WAN connections.
	Cellular Backup	Use this screen to configure a cellular WAN connection as a backup to keep you online if the primary WAN connection fails.
Wireless	General	Use this screen to configure the WiFi settings and WiFi authentication or security settings.
	Guest/More AP	Use this screen to configure multiple BSSs on the Zyxel Device.
	MAC Authentication	Use this screen to block or allow wireless traffic from wireless devices of certain SSIDs and MAC addresses to the Zyxel Device.
	WPS	Use this screen to configure and view your WPS (WiFi Protected Setup) settings.
	WMM	Use this screen to enable or disable WiFi MultiMedia (WMM).
	Others	Use this screen to configure advanced WiFi settings.
	Channel Status	Use this screen to scan WiFi channel noises and view the results.
	MESH	Use this screen to enable or disable MPro Mesh.

Table 31 Navigation Panel Summary (continued)

LINK	TAB	FUNCTION
Home Networking	LAN Setup	Use this screen to configure LAN TCP/IP settings, and other advanced properties.
	Static DHCP	Use this screen to assign specific IP addresses to individual MAC addresses.
	UPnP	Use this screen to turn UPnP and UPnP NAT-T on or off.
	Additional Subnet	Use this screen to configure IP alias and public static IP.
	STB Vendor ID	Use this screen to configure the Vendor IDs of the connected Set Top Box (STB) devices, which have the Zyxel Device automatically create static DHCP entries for the STB devices when they request IP addresses.
	Wake on LAN	Use this screen to remotely turn on a device on the local network.
	TFTP Server Name	Use DHCP option 66 to identify a TFTP server name.
Routing	Static Route	Use this screen to view and set up static routes on the Zyxel Device.
	DNS Route	Use this screen to forward DNS queries for certain domain names through a specific WAN interface to its DNS servers.
	Policy Route	Use this screen to configure policy routing on the Zyxel Device.
	RIP	Use this screen to configure Routing Information Protocol to exchange routing information with other routers.
QoS	General	Use this screen to enable QoS and traffic prioritizing. You can also configure the QoS rules and actions.
	Queue Setup	Use this screen to configure QoS queues.
	Classification Setup	Use this screen to define a classifier.
	Shaper Setup	Use this screen to limit outgoing traffic rate on the selected interface.
	Policer Setup	Use this screen to configure QoS policers.
NAT	Port Forwarding	Use this screen to make your local servers visible to the outside world.
	Port Triggering	Use this screen to change your Zyxel Device's port triggering settings.
	DMZ	Use this screen to configure a default server which receives packets from ports that are not specified in the **Port Forwarding** screen.
	ALG	Use this screen to enable the ALGs (Application Layer Gateways) in the Zyxel Device to allow applications to operate through NAT.
	Address Mapping	Use this screen to change your Zyxel Device's IP address mapping settings.
	Sessions	Use this screen to configure the maximum number of NAT sessions each client host is allowed to have through the Zyxel Device.
	PCP	Use this screen to configure PCP (Port Control Protocol) to allow devices such as web or file sharing servers behind the Zyxel Device to receive incoming traffic.
DNS	DNS Entry	Use this screen to view and configure DNS routes.
	Dynamic DNS	Use this screen to allow a static hostname alias for a dynamic IP address.
IGMP/MLD	IGMP/MLD	Use this screen to configure multicast settings (IGMP for IPv4 and MLD for IPv6 multicast groups) on the WAN.
VLAN Group	VLAN Group	Use this screen to group and tag VLAN IDs to outgoing traffic from the specified interface.
Interface Grouping	Interface Grouping	Use this screen to map a port to create multiple networks on the Zyxel Device.
USB Service	File Sharing	Use this screen to enable file sharing through the Zyxel Device.

Table 31 Navigation Panel Summary (continued)

LINK	TAB	FUNCTION
	Media Server	Use this screen to use the Zyxel Device as a media server.
Security		
Firewall	General	Use this screen to configure the security level of your firewall.
	Protocol	Use this screen to add Internet services and configure firewall rules.
	Access Control	Use this screen to enable specific traffic directions for network services.
	DoS	Use this screen to activate protection against Denial of Service (DoS) attacks.
MAC Filter	MAC Filter	Use this screen to block or allow traffic from devices of certain MAC addresses to the Zyxel Device.
Home Security	Connected Home Security	Use this screen to set up a URL filter that blocks users on your network from accessing certain web sites.
Parental Control	Parental Control	Use this screen to define time periods and days during which the Zyxel Device performs parental control and/or block web sites with the specific URL.
Scheduler Rule	Scheduler Rule	Use this screen to configure the days and times when a configured restriction (such as parental control) is enforced.
Certificates	Local Certificates	Use this screen to view a summary list of certificates and manage certificates and certification requests.
	Trusted CA	Use this screen to view and manage the list of the trusted CAs.
VoIP		
SIP	SIP Account	Use this screen to set up information about your SIP account and configure audio settings such as volume levels for the phones connected to the Zyxel Device.
	SIP Service Provider	Use this screen to configure the SIP server information, and other SIP settings, such as QoS for VoIP calls, outbound proxy, DTMF mode and SIP timers.
	SIP TLS Common	Use this screen to change the default TLS local port if you need to, and select a local certificate for the SIP server to verify the Zyxel Device.
Phone	Phone Device	Use this screen to control which SIP accounts each phone uses to handle outgoing and incoming calls.
	Region	Use this screen to select your location and call service mode.
Call Rule	Call Rule	Use this screen to configure speed dial for SIP phone numbers that you often call.
Call History	Call History	Use this screen to view detailed information for each outgoing call you made or each incoming call from someone calling you. You can also view a summary list of received, dialed and missed calls.
System Monitor		
Log	System Log	Use this screen to view the status of events that occurred to the Zyxel Device. You can export or email the logs.

Table 31 Navigation Panel Summary (continued)

LINK	TAB	FUNCTION
	Security Log	Use this screen to view all security related events. You can select the level and category of the security events in their proper drop-down list window. Levels include: • Emergency • Alert • Critical • Error • Warning • Notice • Informational • Debugging Categories include: • Account • Attack • Firewall • MAC Filter
Traffic Status	WAN	Use this screen to view the status of all network traffic going through the WAN port of the Zyxel Device.
	LAN	Use this screen to view the status of all network traffic going through the LAN ports of the Zyxel Device.
	NAT	Use this screen to view NAT statistics for connected hosts.
VoIP Status	VoIP Status	Use this screen to view VoIP registration, current call status and phone numbers for the phone ports.
ARP Table	ARP Table	Use this screen to view the ARP table. It displays the IP and MAC address of each DHCP connection.
Routing Table	Routing Table	Use this screen to view the routing table on the Zyxel Device.
Multicast Status	IGMP Status	Use this screen to view the status of all IGMP settings on the Zyxel Device.
	MLD Status	Use this screen to view the status of all MLD settings on the Zyxel Device.
WLAN Station Status	WLAN Station Status	Use this screen to view the wireless stations that are currently associated to the Zyxel Device's WiFi.
Cellular Statistics	Cellular Statistics	Use this screen to look at the cellular Internet connection status.
GPON Status	GPON Status	Use this screen to view the optical fiber transceiver's TX power and RX power level and its temperature.
Maintenance		
System	System	Use this screen to set the Zyxel Device name and Domain name.
User Account	User Account	Use this screen to change the user password on the Zyxel Device.
Remote Management	MGMT Services	Use this screen to enable specific traffic directions for network services.
	Trust Domain	Use this screen to view a list of public IP addresses which are allowed to access the Zyxel Device through the services configured in the **Maintenance > Remote Management > MGMT Services** screen.
Power Monitor	Power Monitor	Use this screen to view the current and past amount of power consumed by the Zyxel Device.
SNMP	SNMP	Use this screen to configure SNMP (Simple Network Management Protocol) settings.
Time	Time	Use this screen to change your Zyxel Device's time and date.

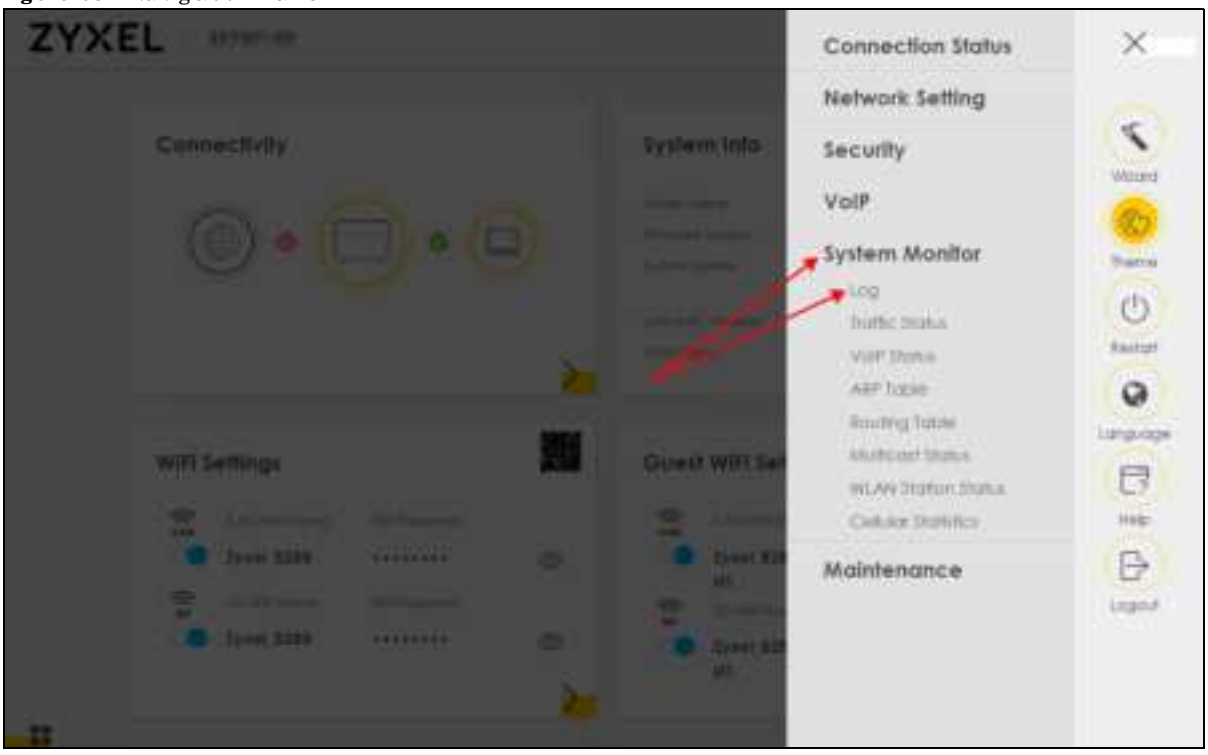
Table 31 Navigation Panel Summary (continued)

LINK	TAB	FUNCTION
E-mail Notification	E-mail Notification	Use this screen to configure up to two mail servers and sender addresses on the Zyxel Device.
Log Setting	Log Settings	Use this screen to change your Zyxel Device's log settings.
Firmware Upgrade	Firmware Upgrade	Use this screen to upload firmware to your Zyxel Device.
Backup/Restore	Backup/Restore	Use this screen to backup and restore your Zyxel Device's configuration (settings) or reset the factory default settings.
Reboot	Reboot	Use this screen to reboot the Zyxel Device / Zyxel Mesh system without turning the power off.
Diagnostic	Ping &Traceroute &Nslookup	Use this screen to identify problems with the Zyxel Device. You can use Ping, TraceRoute, or Nslookup to help you identify problems.
	802.1ag	Use this screen to configure CFM (Connectivity Fault Management) MD (maintenance domain) and MA (maintenance association), perform connectivity tests and view test reports.
	802.3ah	Use this screen to configure link OAM port parameters,

3.2.1.3 Dashboard

Use the menu items in the navigation panel on the right to open screens to configure the Zyxel Device's features.

Figure 65 Navigation Panel



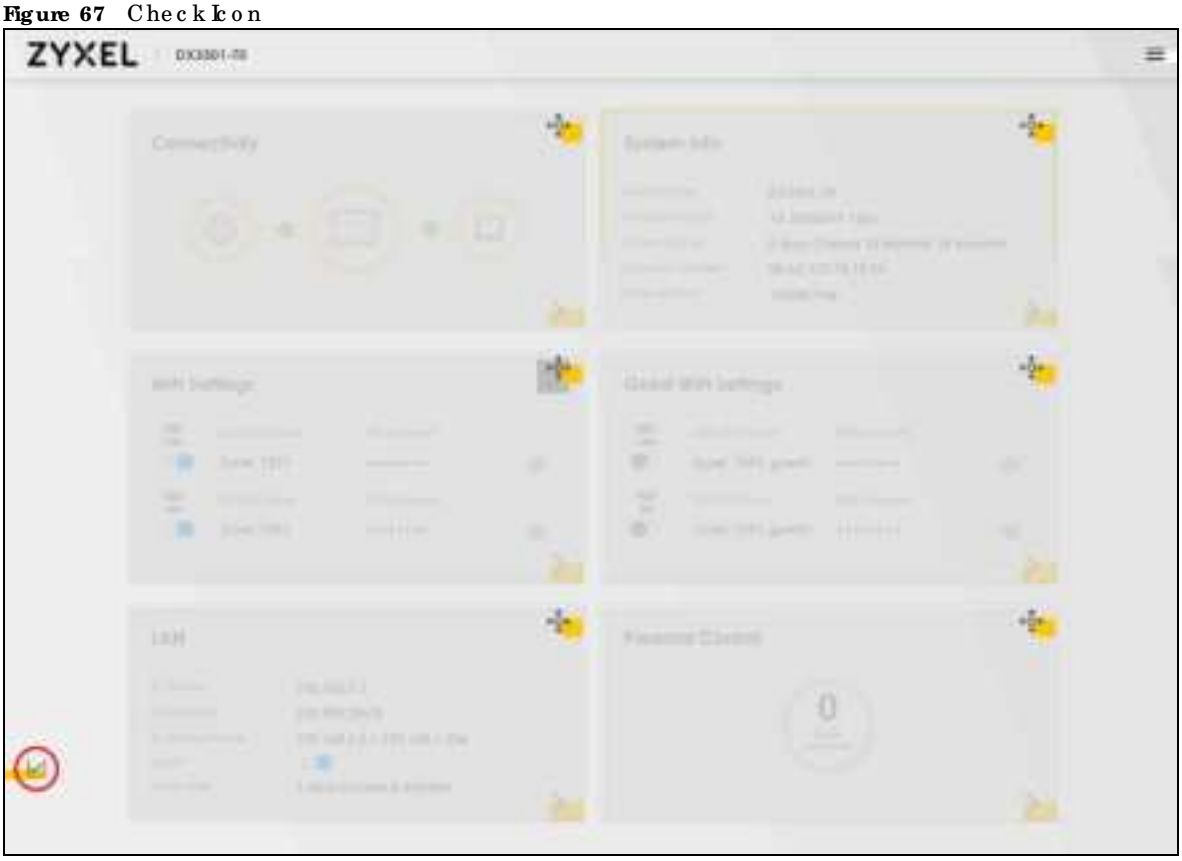
3.2.2 Widget Icon

Click the Widget icon ( ) in the lower left corner to arrange the screen order.

Figure 66 Dashboard Widget

The following screen appears. Select a block and hold it to move around. Click the Check icon ( ) in the lower left corner to save the changes.

Figure 67 Check Icon



CHAPTER 4
Quick Start

4.1 Quick Start Overview

Use the **Wizard** screens to configure the Zyxel Device's time zone and WiFi settings.

Note: See the technical reference chapters for background information on the features in this chapter.

4.2 Quick Start Setup

You can click the **Wizard** icon in the side bar to open the **Wizard** screens. After you click the **Wizard** icon, the following screen appears. Click **Let's go** to proceed with settings on time zone and WiFi networks. It will take you a few minutes to complete the settings on the **Wizard** screens. You can click **Skip** to leave the **Wizard** screens.

Figure 68 Wizard – Home

4.3 Quick Start Setup – Time Zone

Select the time zone of the Zyxel Device's location. Click **Next**.

Figure 69 Wizard – Time Zone

4.4 Quick Start Setup – Internet Connection

The Zyxel Device detects your Internet connection status. Click **Next** to continue.

Figure 70 Wizard – Internet

4.4.1 Successful Internet Connection

The Zyxel Device has Internet access.

Figure 71 Wizard – Successful Internet Connection

4.4.2 Unsuccessful Internet Connection

The Zyxel Device did not detect a WAN connection. See Section 46.4 on page 517 for troubleshooting the Zyxel Device WAN connection.

Figure 72 Wizard – Internet Connection is Down

4.5 Quick Start Setup – WiFi

Turn WiFi on or off. If you keep it on, record the **WiFi Name** and **Password** in this screen so you can configure your WiFi clients to connect to the Zyxel Device. If you want to show or hide your WiFi password, click the Eye icon ( ).

Select **Keep 2.4G and 5G the same** to use the same SSID for 2.4G and 5G WiFi networks. Otherwise, clear the checkbox to have two different SSIDs for 2.4G and 5G WiFi networks. The screen and fields to enter may vary when you select or clear the checkbox.
You have to disable **MPro Mesh** in the **Network > Wireless > MESH** screen to clear the **Keep 2.4G and 5G the same** checkbox. Click **Done**.

Figure 73 Wizard – WiFi

4.6 Quick Start Setup – Finish

Your Zyxel Device saves and applies your settings.