ZYXEL NETWORKS

User's Guide

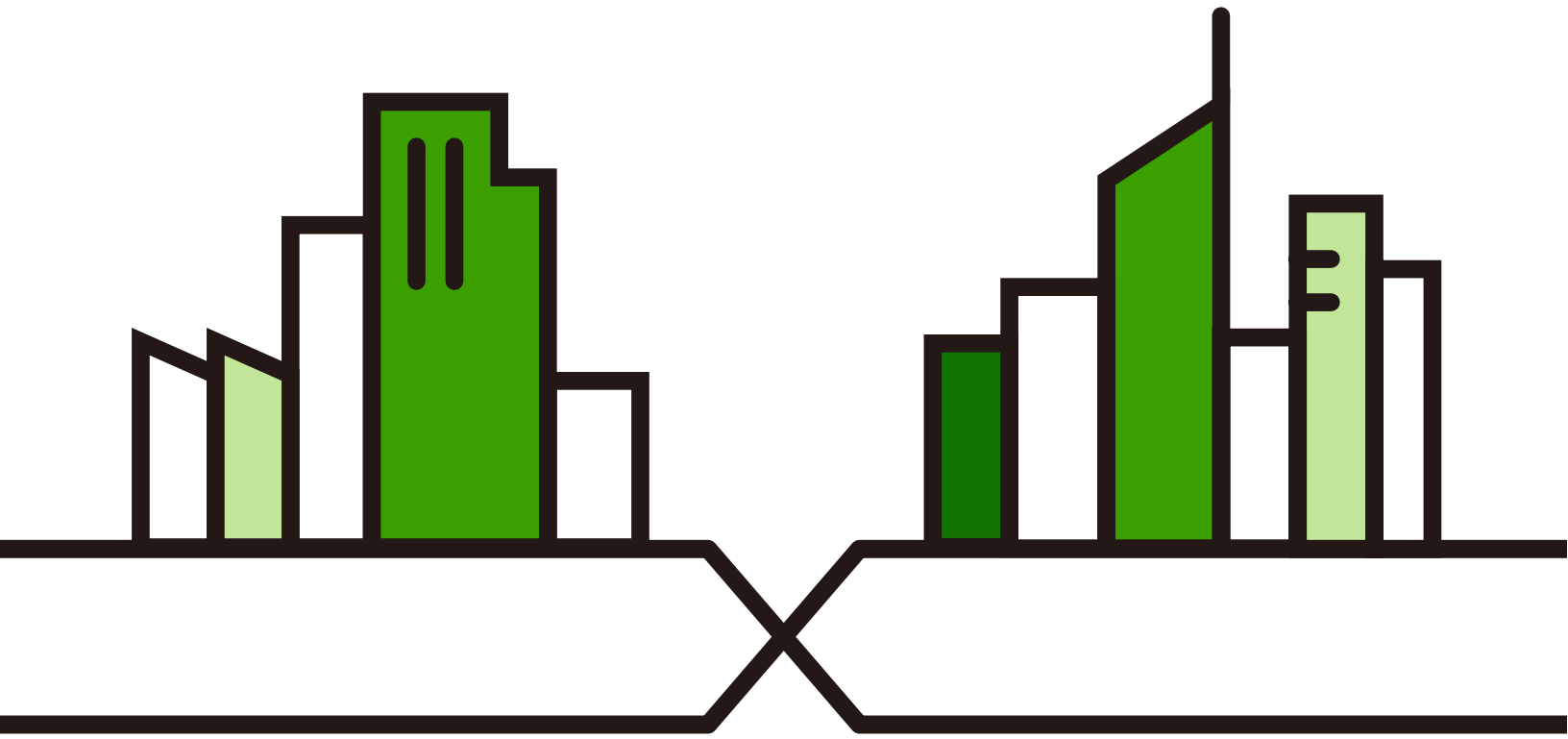
USG LITE 60AX

Security Router

Local GUI

Default Login Details	
LAN IP Address	https://192.168.168.1
User Name	admin
Password = WiFi Password	See the Zyxel Device label

Version 2.30 Edition 2, 02/2026



IMPORTANT!

READ CAREFULLY BEFORE USE.

KEEP THIS GUIDE FOR FUTURE REFERENCE.

Screenshots and graphics in this book may differ slightly from your product due to differences in your product firmware or your app version. Every effort has been made to ensure that the information in this User's Guide is accurate.

Note: The version number on the cover page refers to the Zyxel Device's latest firmware version to which this User's Guide applies.

Related Documentation

Note: This guide is for troubleshooting when your Zyxel Device cannot connect to NCC.

- Quick Start Guide

  The Quick Start Guide contains information on setting up your Zyxel Device using the Zyxel Nebula Mobile app.

- NCC (Nebula Control Center) *User's Guide* and *Online Help*

  Use NCC to configure your Zyxel Device using the *NCC portal*.

- More Information

  Go to *https://community.zyxel.com/en* for product discussions.
  Go to *support.zyxel.com* to find other information on the Zyxel Device.

Accessibility and Compatibility

Introduction

This User's Guide complies with the accessibility requirements set out in EAA (European Accessibility Act) (EU) 2019/882.

Accessibility makes this User's Guide usable for people with disabilities, including those with visual, auditory, motor, and cognitive impairments. Compatibility ensures this User's Guide works well with a wide range of devices, software, and assistive technologies.

Accessibility Feature – Screen Reader Support

The visually impaired may use screen readers, such as NVDA to read contents.

To use the screen reader, do the following:

1 Open your screen reader software.

2 Navigate to this User's Guide; the screen reader should automatically start reading the contents.

3 Use the keyboard shortcuts to navigate through this User's Guide (refer to the screen reader documentation).

Accessibility Feature – Keyboard Navigation

Keyboard navigation allows you to read the contents in this User's Guide without a mouse. Use the following keys.

- Tab key: navigate between interactive elements (for example, buttons, links, fields).
- Enter key: select or activate the highlighted item.
- Arrow keys: move between options in menus or lists.
- Esc (Escape) key: close pop-up windows or cancel actions.

How to Access Support Services

We offer the following ways to contact our Zyxel support team.

Email Support: support.zyxel.com

Send a detailed description of your issue, including any error messages, screenshots, or steps you have already taken to resolve the problem. The response time is typically within 24 hours.

User Forums and Community Support: *https://community.zyxel.com/en*

Table of Contents

PART I
Local GUI User's Guide

CHAPTER 1
Get to Know Your Zyxel Device

1.1 Overview

Your Zyxel Device is a Secure Cloud-managed Router that is controlled using the Zyxel NCC (Nebula Control Center). NCC is a cloud-based network management system that allows you to remotely manage and monitor your Zyxel Device. You need to create a Zyxel Account to log into the NCC for management first. You can access the NCC through the NCC web portal using a web browser on your computer or the Nebula Mobile app on your smartphone.

If your Zyxel Device cannot connect to NCC, see Configuration on using the Local GUI Web Configurator to configure the Zyxel Device's WAN settings.

1.1.1 Nebula Management Using the App/Web Portal

The Zyxel Device is managed and provisioned by the NCC when:

- It is connected to NCC.
- It has been registered on NCC.

Table 1 Management Methods

MANAGEMENT METHOD	WHEN TO USE IT
Nebula Mobile App	Registration, Monitoring and Basic Management
NCC Web Portal	Registration, Monitoring and Management

To set up a Zyxel Device, you need to:

1. Connect the Zyxel Device to a broadband modem or router that is connected to the Internet.
2. Install the Zyxel Nebula Mobile app and turn on Bluetooth on your smartphone to pair with your Zyxel Device. Make sure your smartphone also has Internet access.
3. Use the Zyxel Nebula Mobile app to set up the Zyxel Device and manage your Zyxel Device.

To install the Nebula Mobile app:

- Scan the QR code on the box
- Click the download link on the QSG.

1.1.2 Troubleshooting or WAN Configuration Using the Local GUI

Use the Local GUI Web Configurator when:

- You cannot connect to NCC, or
- You want to configure the WAN interface.

See Dashboard on how to access the Zyxel Device Local GUI Web Configurator and its settings.

1.2 Features

The Zyxel Device is a router that supports (but is not limited to) the following features:

Table 2 Features

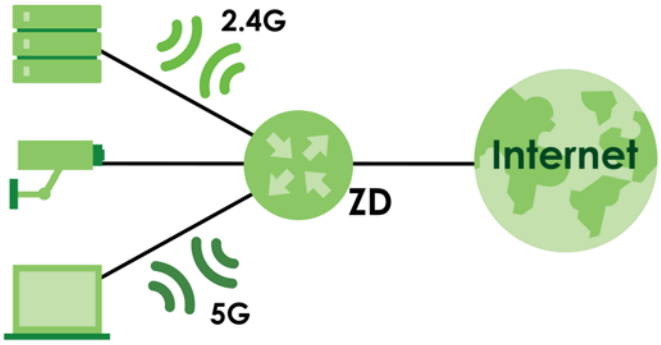
FEATURE	USG LITE 60AX
Maximum Bandwidth	6000
APP Management	YES
Local GUI Management (for troubleshooting and configuring the WAN interface only)	YES
Number of LAN Ports	5
Number of Internal Antennas	4
WAN Interface	Up to 2
Threat Management that protects against ransomware, blocking ads / intrusion / exploits / dark web / VPN proxy, and stopping mail fraud, phishing.	YES
Guest VLAN	YES
Firewall	YES
Country Restriction	YES
IPSec VPN	YES
Content Filtering and Application Control	YES

See the Quick Start Guide for how to do the hardware installation and Internet setup.

1.2.1 Dual-Band WiFi

The Zyxel Device supports dual-band 2.4 GHz and 5 GHz WiFi. IEEE 80211a/b/g/n/ac/ax compliant clients, such as notebooks, tablets, and smartphones can wirelessly connect to the Zyxel Device (ZD) to access network resources. WiFi clients can 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.

Figure 1 Dual-Band Application



1.2.2 WiFi 6 Introduction

The Zyxel Device supports the WiFi 6 standard and brings the following features for WiFi 6 compatible client devices.

WiFi 6 (IEEE 802.11ax)

WiFi 6 is a WiFi standard that supports both 2.4 GHz and 5 GHz frequency bands and brings the following major improvements:

Higher Data Transmission Speed

WiFi 6 provides faster transmission data rate than the previous WiFi standards with the following features:

- 1024-QAM (Quadrature Amplitude Modulation) – enhances the data capacity of each transmission unit.
- 160 MHz Channel Bandwidth – extends the supported channel bandwidth to 160 MHz, providing higher data throughput.

Enhanced Air Time Utilization

WiFi 6 increases transmission performance in high-density environments that have multiple client devices with the following features:

- OFDMA (Orthogonal Frequency-Division Multiple Access) – divides channels into sub-channels that enables multiple transmissions in a single channel.
- BSS Coloring – tags traffic by BSS (Basic Service Set) and identifies traffic from overlapping BSSs. The AP can ignore traffic of unrelated BSSs and transmit data when a channel is occupied.
- MU-MIMO (Multiple User-Multiple Input Multiple Output) – enables multiple users to connect to the AP and download/upload traffic simultaneously.

Extended Signal Range

Beamforming – forms the radiating signals into one direction. This enhances the signal strength and extends the signal transmission range.

Extended Battery Life

TWT (Target Wake Time) – The AP negotiates with client devices so client devices only wakes up and communicates with the AP in specific periods. This conserves client devices battery life.

CHAPTER 2
Hardware

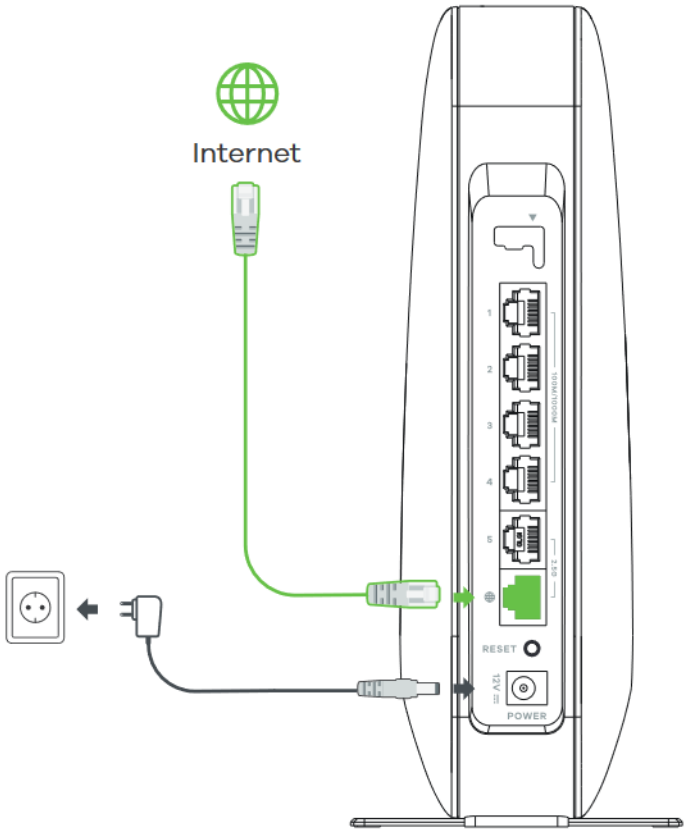
2.1 Hardware Connections

Place the Zyxel Device with the ports and RESET button facing you.

1 Use the included power cable to connect the Zyxel Device's power port to a power outlet.

2 Connect the Internet port of the Zyxel Device to a broadband modem or router that is connected to the Internet.

Figure 2 USG LITE 60AX Ports Panel



2.1.1 Desk Placement

You may place your Zyxel Device on a desk, table, shelf, and so on.

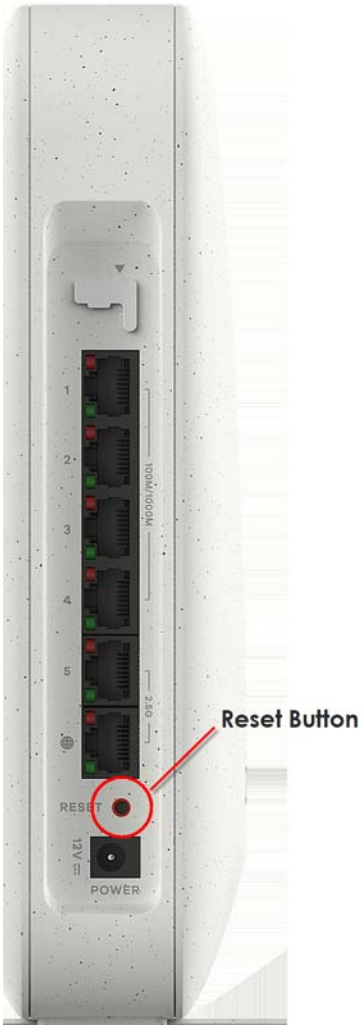
Attach the bottom of the Zyxel Device to the magnetic stand. Then, place the Zyxel Device on a desk, table, shelf, and so on.

Figure 3 Desk Placement

2.2 Reset Button

Place the Zyxel Device with the ports and RESET button facing you. If you need to return the Zyxel Device to its default settings, use the RESET button on the rear panel.

Figure 4 Reset Button



2.2.1 Reset the Zyxel Device Back to Factory Default Settings

For a factory reset, press the RESET button for at least 8 seconds.

2.3 Console Port

Place the Zyxel Device with the ports and RESET button facing you. The console port is located on the front panel as shown below. Slide the cover to the side and connect a UART-to-USB console port cable to a USB port on a computer.

Note: The console port is for troubleshooting by qualified personnel only.

Figure 5 USG LITE 60AX Console Port

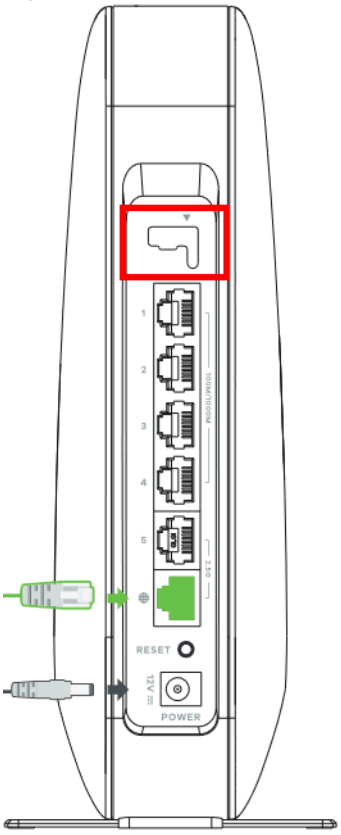


Figure 6 USG LITE 60AX Console Cable

From the view in Figure 5 on page 14, pin 4 is the leftmost pin, and pin 1 is the rightmost pin. RXD and TXD are the receive and transmit data pins, 3 and 2 respectively. The VCC pin is for 3.3 V DC power, and the GND pin is for grounding (0 V).

Table 3 Console Port Pins

PIN	DEFINITION
4	GND
3	RXD
2	TXD
1	VCC (3.3 V)

The following is the default configuration for console port login using a Terminal emulation software:

- Baud rate: 115200

- Data: 8-bit
- Parity: None
- Stop bit: 1-bit
- Flow control: None

2.4 LED Indicator

Place the Zyxel Device with the LED facing you. Look at the LED behavior to determine the status of the Zyxel Devices. See Table 4 on page 15 for more information.

Figure 7 USG LITE 60AX LED

The following are the LED descriptions for your Zyxel Device.

Table 4 USG LITE 60AX LED Descriptions

COLOR		STATUS	DESCRIPTION
	Amber Green	Fast blinking between amber and green (300 milliseconds interval).	The Zyxel Device is booting up.
	Amber Green	Slow blinking between amber and green (1 second interval).	The Zyxel Device is setting up a connection with NCC.
	Green	Slow Blinking (1 second interval)	• The Zyxel Device is not registered with NCC. • The Zyxel Device-Extender pairing has failed or the Zyxel Device-Extender connection has expired. • WiFi is disabled, or no SSID is enabled in NCC.
		Fast Blinking (300 milliseconds interval).	The Zyxel Device-Extender pairing is in progress.

Table 4 USG LITE 60AX LED Descriptions (continued)

COLOR		STATUS	DESCRIPTION
	Green	Steady On	• The Zyxel Device is connected to NCC, and WiFi clients are connected to the Zyxel Device. • The Zyxel Device-Extender pairing has succeeded. • The power is on.
	Blue	Slow Blinking (1 second interval)	The Zyxel Device is connected to NCC, but no WiFi clients are connected to the Zyxel Device.
	Red	Fast Blinking (50 milliseconds interval)	The Zyxel Device is undergoing firmware upgrade.
		Slow Blinking (Blink for 3 times, off for 3 seconds)	The uplink of the Zyxel Device is disconnected.

CHAPTER 3
Dashboard

3.1 Overview

This chapter describes how to access the Zyxel Device Local GUI Web Configurator and provides an overview of its screens.

The Local GUI Web Configurator is an HTML-based management interface that allows you to manage and set up basic settings for your Zyxel Device.

Use a browser that supports HTML5, such Microsoft Edge, Mozilla Firefox, or Google Chrome. The recommended screen resolution is 1024 by 768 pixels.

In order to use the Local GUI Web Configurator you need to allow web browser pop-up windows from your device.

Note: Use the Local GUI Web Configurator for troubleshooting when your Zyxel Device cannot connect to Nebula.

3.2 Accessing the Local GUI Web Configurator

These are the defaults to log into the Web Configurator for the first time.

Note: The Password on the Zyxel Device label is both the Web Configurator initial default and the Zyxel Device WiFi network initial default.

Table 5 Local GUI Initial Default Login Credentials

CREDENTIAL	INITIAL DEFAULT
LAN IP Address	https://192.168.168.1
User Name	admin
Web and WiFi Password	See Password on the Zyxel Device label.

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 and enter "https://192.168.168.1" in the web browser's address bar.

4 The following screen appears if your Zyxel Device is not registered with Nebula Control Center (NCC).

- If you want to configure the WAN settings and troubleshoot using the Web Configurator, click Login.
- If you want to register your Zyxel Device with NCC, scan the QR code to open or download the Nebula Mobile app, and then follow the wizard.

Figure 8 Register with Nebula

5 Select the language you prefer (upper right). Click Login to log in to the Local GUI Web Configurator.

Figure 9 Login (Non-Nebula Cloud-managed mode)

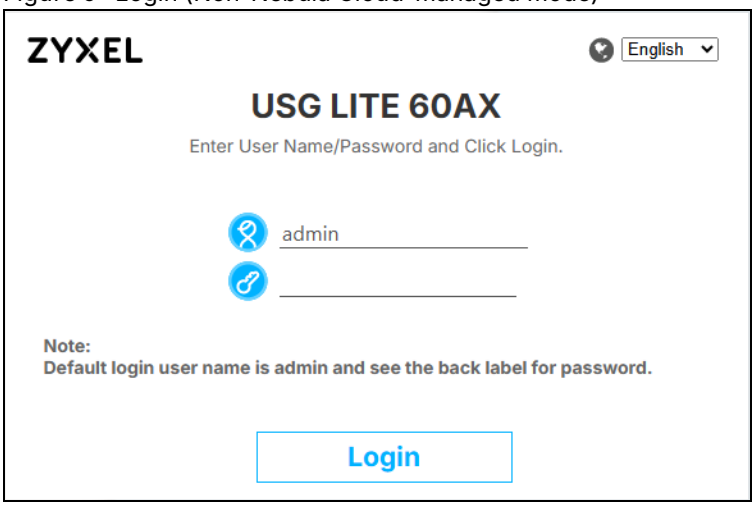
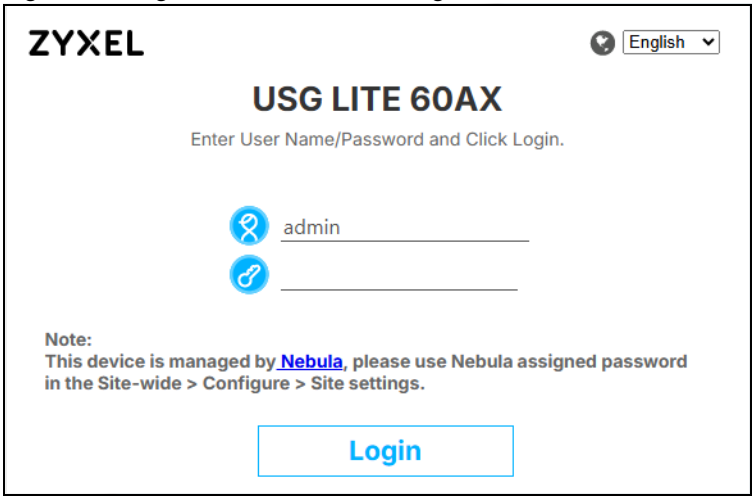


Figure 10 Login (Nebula Cloud-managed mode)



6 On the displayed login screen, enter the default user name admin and the password.

- If your Zyxel Device is managed by NCC, use the local credentials password created in NCC to log in to the cloud mode – Local GUI. To see the local credentials password, go to Site-wide > Configure > Site settings > Device configuration: Local credentials: Password in the NCC portal.
- If your Zyxel Device is not managed by NCC, use the Password on the Zyxel Device label.

7 Then click Login.

8 The Zyxel Device DASHBOARD screen displays allowing you to monitor your Zyxel Device. It shows if the Zyxel Device is online and connected to NCC, and basic system information.

Figure 11 Local GUI Web Configurator Initial Screen (Non-Nebula Cloud-managed mode)

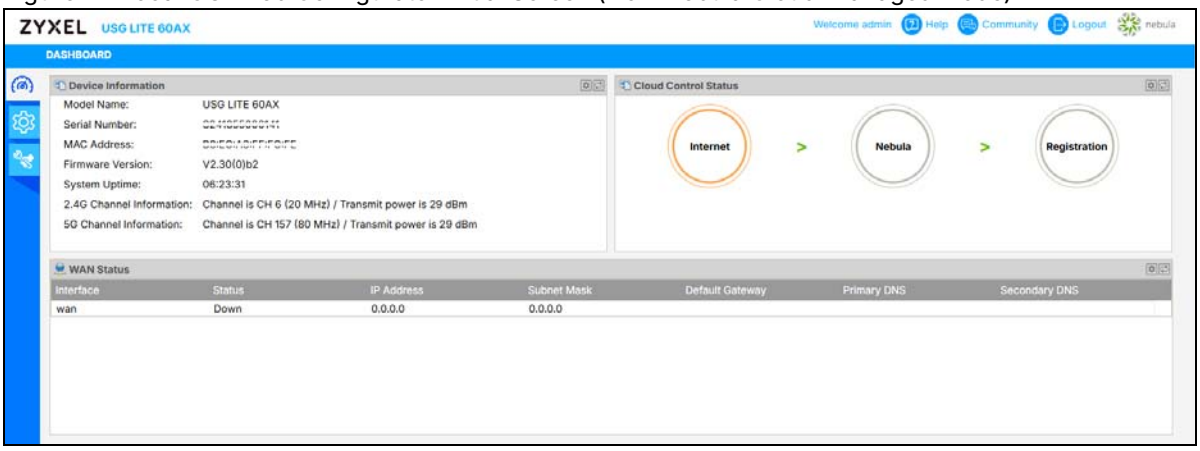
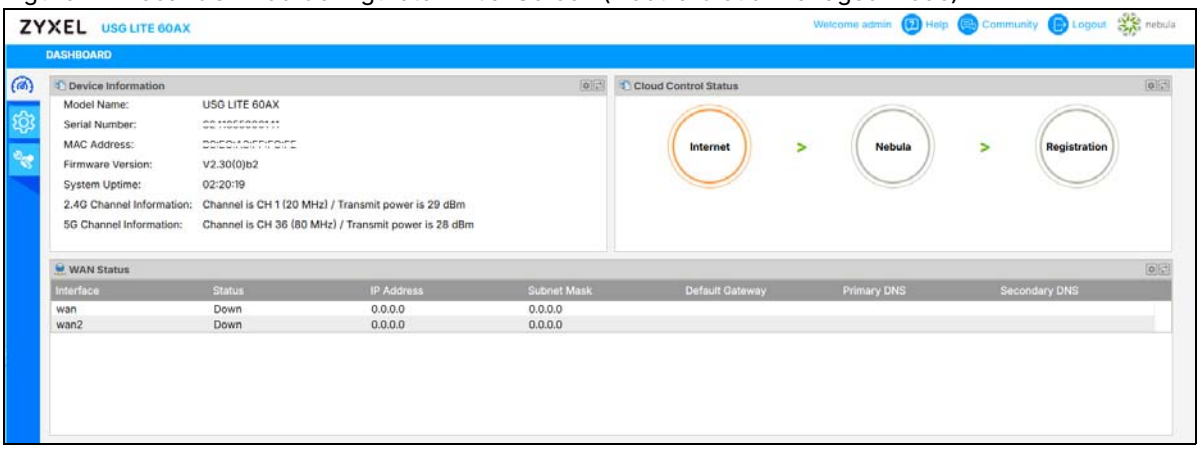


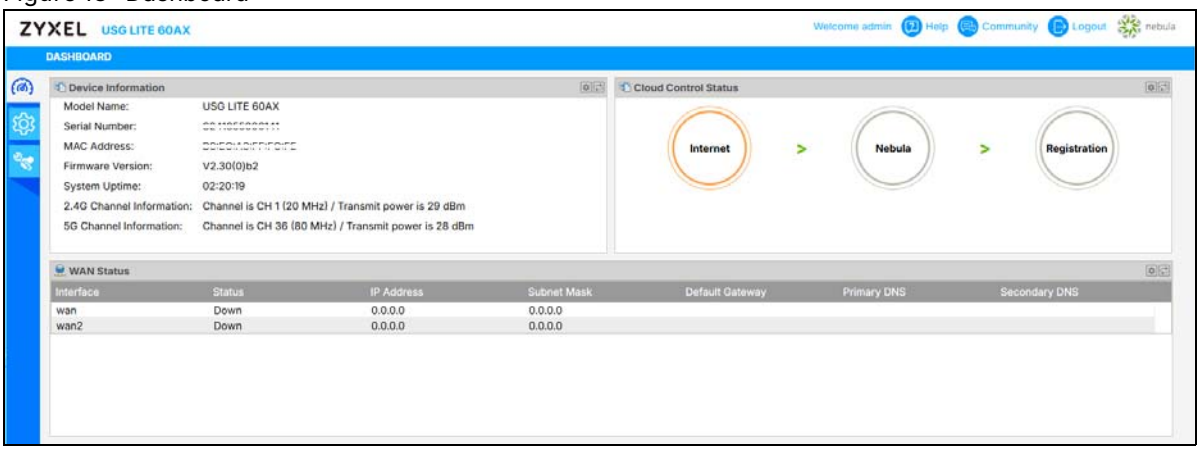
Figure 12 Local GUI Web Configurator Initial Screen (Nebula Cloud-managed mode)



3.3 Dashboard

This screen displays general Zyxel Device information, the NCC connection status, and the WAN status.

Figure 13 Dashboard



The following table describes the labels in this screen.

Table 6 Dashboard

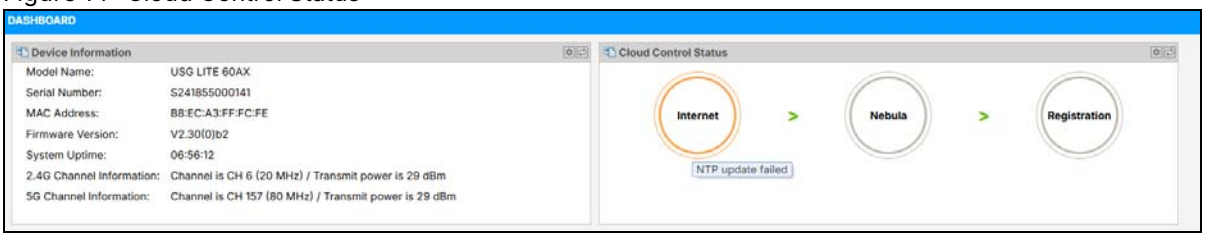
LABEL	DESCRIPTION
Device Information	
Model Name	This is the Zyxel Device system name. It is used for identification.
Serial Number	This is the serial number of the Zyxel Device.
MAC Address	This is the WiFi adapter MAC (Media Access Control) address of the WiFi interface.
Firmware Version	This is the current version of the firmware inside the Zyxel Device.
System Uptime	This displays how long the Zyxel Device has been running since it last started up. The Zyxel Device starts up when you plug it in, when you restart it, or when you reset it.
2.4G Channel Information	This field displays the channel number the Zyxel Device is using and its output power in the 2.4 GHz spectrum. This shows Not activated if WiFi is disabled.
5G Channel Information	This field displays the channel number the Zyxel Device is using and its output power in the 5 GHz spectrum. This shows Not activated if WiFi is disabled.
Cloud Control Status	This field displays: • The Zyxel Device Internet connection status. • The connection status between the Zyxel Device and NCC. • The Zyxel Device registration status on NCC. Mouse over the circles to display detailed information. To transfer your Zyxel Device management to NCC, first make sure your Zyxel Device is connected to the Internet. Then go to NCC and register your Zyxel Device. 1. Internet Green – The Zyxel Device is connected to the Internet through the WAN (default) or WAN2 interface. Orange – The Zyxel Device is not connected to the Internet. 2. Nebula Green – The Zyxel Device is connected to NCC. Gray – The Zyxel Device is not connected to NCC. 3. Registration Green – The Zyxel Device is registered on NCC. Gray – The Zyxel Device is not registered on NCC.

Table 6 Dashboard (continued)

LABEL	DESCRIPTION
WAN Status	
Interface	This displays WAN as the interface that will connect with your primary ISP for Internet access. This display WAN2 as the secondary interface that will connect with your backup ISP for Internet access. Note: When the WAN2 interface is configured as LAN, this row will automatically be hidden.
Status	This field displays the speed and duplex of the interface when it is connected to the Internet. Alternatively, this displays Disconnected.
IP Address	This field displays the IPv4 address for this interface. If this field shows '–', the interface does not have an IPv4 address yet or is configured as 'Unassigned'.
Subnet Mask	This field displays the subnet mask of this interface in dot decimal notation. The subnet mask indicates what part of the IP address is the same for all computers in the network.
Default Gateway	This field displays the IPv4 address of the Zyxel Device through which this interface sends traffic.
Primary DNS	This field displays the IPv4 address of the first (primary) DNS server for the DHCP clients to use.
Secondary DNS	This field displays the IPv4 address of the second (backup) DNS server for the DHCP clients to use.

If the Zyxel Device cannot connect to the Internet or to NCC, move the mouse over the status circle to check the error message.

Figure 14 Cloud Control Status



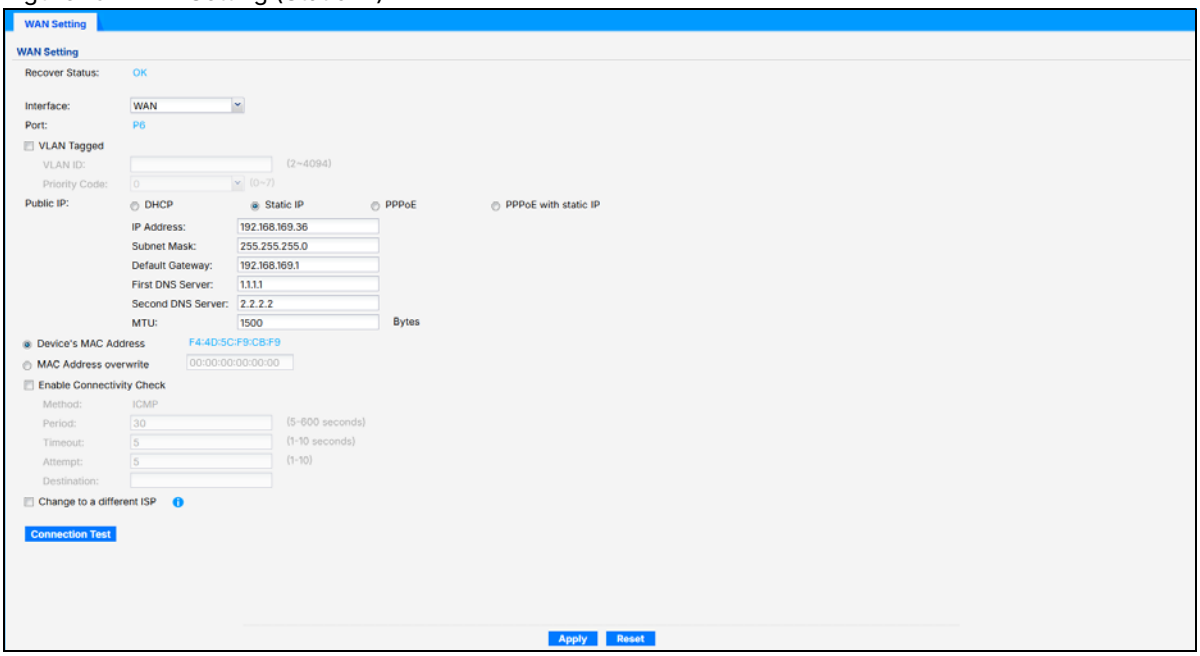
CHAPTER 4 Configuration

4.1 WAN Setting

The WAN Setting screen allows you to configure basic settings for your WAN port.

Note: Use this screen to fix your Zyxel Device's connection problem with NCC.

Figure 15 WAN Setting (Static IP)



The following table describes the labels shown on the WAN Setting screen.

Table 7 WAN Setting

LABEL	DESCRIPTION
Recover Status	The Zyxel Device will restore the last valid WAN settings if it fails to connect to Nebula after you change the WAN settings by displaying the following: • Checking Internet connectivity. Please wait! • Recovering WAN settings. • WAN settings recovered successfully, and Connectivity Check has been disabled after rollback. This field displays OK if the Zyxel Device has restored the last valid WAN settings.
Interface	Select WAN to configure the settings for the primary WAN interface. Alternatively, select WAN2 to configure the settings for the secondary (backup) WAN interface. Note: When the WAN2 interface is configured as LAN, then WAN2 will automatically be hidden. Note: Make sure to click Apply to save the configurations before switching to another interface; otherwise, the configurations will be lost.
Port	This shows the corresponding P6 port of the Zyxel Device when WAN is selected in Interface. Alternatively, this shows the corresponding P2 port of the Zyxel Device when WAN2 is selected in Interface.
VLAN Tagged	Select the checkbox to assign a VLAN ID to the WAN interface.
VLAN ID	This field is available when the previous field VLAN Tagged is selected. Enter a number as the WAN interface VLAN ID (2 to 4094). A WAN interface VLAN ID is the tag that the Zyxel Device applies to traffic on the WAN interface when your ISP requires the connection to use a specific VLAN. This ensures that the Zyxel Device can send the WAN traffic to the correct VLAN as required by your Internet service provider.
Priority Code	This field is available when the previous field VLAN Tagged is selected. This is a 3-bit field within a 802.1Q VLAN tag that is used to prioritize associated outgoing VLAN traffic. '0' is the lowest priority level (default) and '7' is the highest. See Table 10 on page 25. The setting configured here overwrites existing priority settings.
Public IP	Select DHCP if you want the WAN interface to automatically get an IP address and other network settings from a DHCP server. Select Static IP if you want to manually configure an IP address and other network settings for the WAN interface. Select PPPoE if you want the WAN interface to authenticate with an Internet Service Provider, and then automatically get an IP address from the ISP's DHCP server. You can use this type of interface to connect to a DSL modem. Select PPPoE with static IP if you want to assign a static IP address to the WAN interface, and your WAN interface is getting the Internet connection from a PPPoE server.
IP Address	This field shows the IP address assigned by a DHCP server to the WAN interface. When you select Static IP or PPPoE with static IP, enter the static IP address of this interface. Note: 0.0.0.0 will display when you select DHCP or PPPoE.

Table 7 WAN Setting (continued)

LABEL	DESCRIPTION
DHCP Option 60	DHCP Option 60 is used by the Zyxel Device for identification to the DHCP server using the VCI (Vendor Class Identifier) on the DHCP server. The Zyxel Device adds it in the initial DHCP discovery message that a DHCP client broadcasts in search of an IP address. The DHCP server can assign different IP addresses or options to clients with the specific VCI or reject the request from clients without the specific VCI. Enter a string using up to 63 of these characters [a to z A to Z 0 to 9 !\"#$%&\'()*+,-./:;<=>?@\[\\\]^_`{}] (but cannot start or end with a space) to identify this Zyxel Device to the DHCP server. For example, Zyxel-TW.
DHCP Option 61	Enter the Identity Association Identifier (IAID) that identifies the device. Enter a string using up to 63 of these characters [a to z A to Z 0 to 9 !\"#$%&\'()*+,-./:;<=>?@\[\\\]^_`{}] (but cannot start or end with a space). For example, the WAN connection index number.
Subnet Mask	When you select Static IP, enter the subnet mask for this WAN interface's IP address.
Default Gateway	When you select Static IP, enter the IP address of the Zyxel Device through which this WAN connection will send traffic.
First DNS Server	When you select Static IP or PPPoE with static IP, enter a DNS server's IPv4 address. The Domain Name System (DNS) maps a domain name to an IP address and so forth. The Zyxel Device uses the first and second DNS servers, in that order to resolve domain names for VPN, DDNS and the time server. Leave the field blank if you do not want to configure DNS servers.
Second DNS Server	When you select Static IP, enter the IPv4 address of another DNS server. This field is optional.
Username	When you select PPPoE or PPPoE with static IP, enter the user name given to you by your ISP. You can use alphanumeric and -_@$./ characters. It can be up to 31 characters long.
Password / Retype Password	When you select PPPoE or PPPoE with static IP, enter the password associated with the user name above. Use up to 64 ASCII characters except the [] and ?.
MTU	Enter the MTU (Maximum Transfer Unit) size for traffic through the Internet connection.
Device's MAC Address	This field displays the factory-assigned default MAC address. By default, the Zyxel Device uses the factory-assigned MAC address to identify itself.
MAC Address overwrite	Select this option to have the interface use a different MAC address. Enter a MAC address in the format 'xx:xx:xx:xx:xx:xx' or 'xx-xx-xx-xx-xx-xx' (48-bit (6 bytes)). Once it is successfully configured, the address will be copied to the configuration file. It will not change unless you change the setting or upload a different configuration file.
Enable Connectivity Check	Select this to turn on the connection check. The interface can regularly check the connection to the gateway you specified to make sure it is still available.
Method	This field is available when the previous field Enable Connectivity Check is selected. This field displays ICMP (Internet Control Message Protocol). The Zyxel Device regularly ping the gateway you specify to make sure it is still available.
Period	This field is available and mandatory when the previous field Enable Connectivity Check is selected. Enter the number of seconds between connection check attempts (5 to 600 seconds, default is 30).
Timeout	This field is available and mandatory when the previous field Enable Connectivity Check is selected. Enter the number of seconds to wait for a response before the attempt is a failure (1 to 10 seconds, default is 5).

Table 7 WAN Setting (continued)

LABEL	DESCRIPTION
Attempt	This field is available and mandatory when the previous field Enable Connectivity Check is selected. Enter the number of consecutive failures before the Zyxel Device stops routing through the gateway (1 to 10, default is 5).
Destination	This field is available and mandatory when the previous field Enable Connectivity Check is selected. Enter the gateway using an IPv4 address to receive test packets. For example, you can check if your ISP's gateway is reachable. For example, type '192.168.1.2'.
Change to a different ISP	If the Zyxel Device disconnects from the NCC (Nebula Control Center) after applying a WAN configuration change, it will revert to the last valid local WAN setting. Select this if you want to temporarily disable reverting to the last valid local WAN setting. Note: This field will be automatically disabled after rebooting the Zyxel Device so, you will need to enable this again if the Zyxel Device reboots.
Connection Test	Click this if you want to test if the Zyxel Device can access the Internet successfully. This field displays OK if the Connection Test is successful. Otherwise, it shows FAIL.
Apply	Click Apply to save your changes back to the Zyxel Device.
Reset	Click Reset to return the screen to its last-saved settings.

802.1P Marking

Use 802.1P to prioritize outgoing traffic from a VLAN interface. The Priority Code is a 3-bit field within a 802.1Q VLAN tag that's used to prioritize associated outgoing VLAN traffic. '0' is the lowest priority level and '7' is the highest.

Table 8 Single-tagged 802.1Q Frame Format

			DA	SA	TPID	Priority	VID	Len/Etype	Data	FCS	IEEE 802.1Q customer tagged frame

Table 9 802.1Q Frame

DA	Destination Address	Priority	802.1p Priority
SA	Source Address	Len/Etype	Length and type of Ethernet frame
TPID	Tag Protocol IDentifier	Data	Frame data
VID	VLAN ID	FCS	Frame Check Sequence

The following table is a guide to types of traffic for the priority code.

Table 10 Priority Code and Types of Traffic

PRIORITY	TRAFFIC TYPES
0 (lowest)	Background
1	Best Effort
2	Excellent Effort
3	Critical Applications
4	Video, less than 100 ms latency and jitter
5	Voice, less than 10 ms latency and jitter

Table 10 Priority Code and Types of Traffic (continued)

PRIORITY	TRAFFIC TYPES
6	Internetwork Control
7 (highest)	Network Control

CHAPTER 5 Maintenance

5.1 What You Can Do in this Chapter

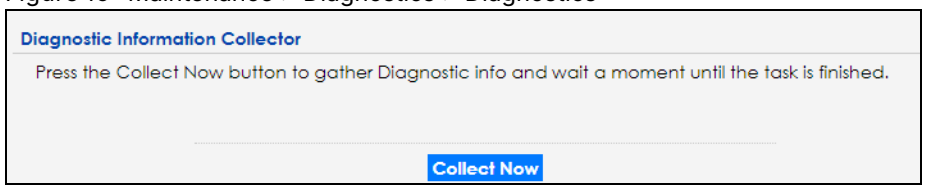
- The Diagnostics > Diagnostics screen (Section 5.2 on page 27) generates a file containing the Zyxel Device's configuration and diagnostic information if you need to provide it to customer support during troubleshooting.
- The Diagnostics > Networks Tools screen (Section 5.3 on page 28) to ping an IP address or trace the route the packets take to a host.
- The Log > View Log screen (Section 5.4 on page 29) displays the Zyxel Device's current log messages when it is disconnected from the NCC.

5.2 Diagnostics

This screen provides an easy way for you to generate a file containing the Zyxel Device's configuration and diagnostic information. You may need to generate this file and send it to customer support during troubleshooting. All categories of settings and shell script files stored on the Zyxel Device will be included in the diagnostic file.

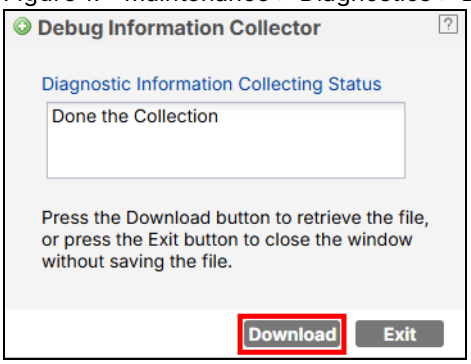
Click Maintenance > Diagnostics > Diagnostics to open this screen. Click Collect Now to have the Zyxel Device create a new diagnostic file.

Figure 16 Maintenance > Diagnostics > Diagnostics



The Debug Information Collector screen appears. Click Download to save the diagnostic data to your computer. A dialog box pops up asking where you want to save the file. Click Save or Save File to download it to the default downloads folder on your computer. If a Save As screen displays after you click Save or Save File, choose a location to save the file on your computer from the Save in drop-down list box and type a descriptive name for it in the File name list box. Click Save to save the diagnostic file to your computer.

Figure 17 Maintenance > Diagnostics > Debug Information Collector



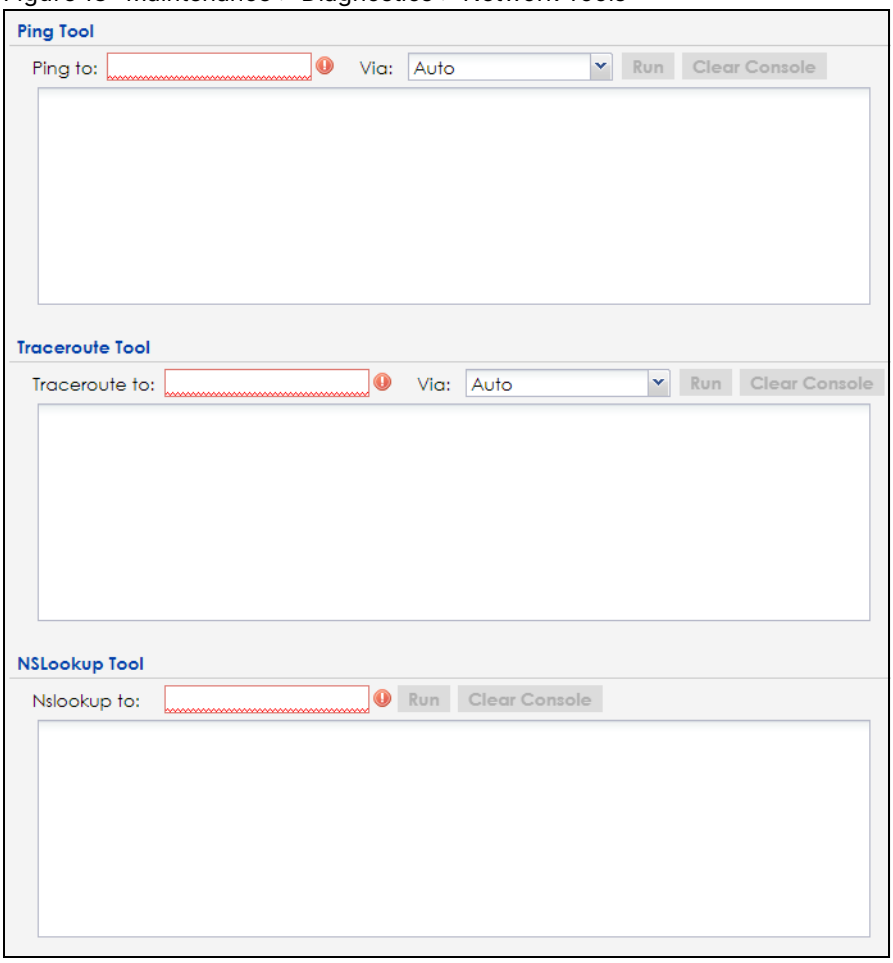
Unzip the downloaded file and use a text editor (for example, Notepad++) to view the diagnostic information.

5.3 Network Tools

Use this screen to perform various network tests.

Click Maintenance > Diagnostics > Network Tools to open this screen.

Figure 18 Maintenance > Diagnostics > Network Tools



The following table describes the labels in this screen.

Table 11 Maintenance > Diagnostics > Network Tools

LABEL	DESCRIPTION
Ping to	Enter the host name or IP address of a computer that you want to perform ping in order to test an external network connection.
Via	Use the drop-down list to change the interface (Auto, wan, wan2, or lan) through which the Zyxel Device sends queries for ping.
Traceroute to	Enter the host name or IP address of a computer that you want to perform the traceroute function to an external server. This determines the path a packet takes to the specified computer.
Nslookup to	Enter a host name and click Run to resolve the IP address for the specified domain name.
Run	Click this button to start the test.
Clear Console	Click this button to clear data in the console.

5.4 View Log

Log messages are stored in two separate logs, one for regular log messages and one for debugging messages. In the regular log, you can look at all the log messages by selecting All Logs, or you can select

a specific category of log messages (for example, user). You can also look at the debugging log by selecting Debug Log. All debugging messages have the same priority.

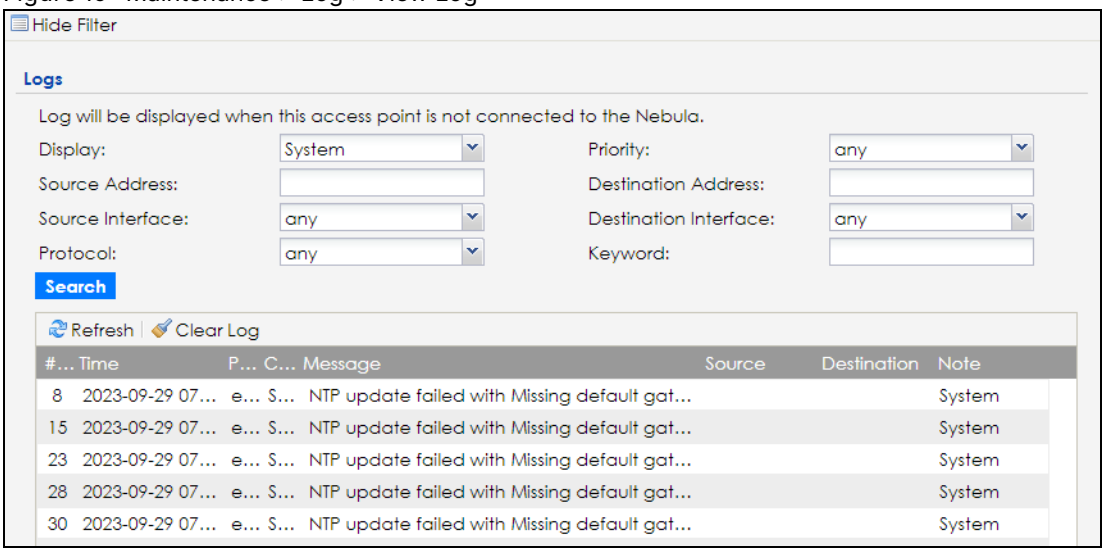
Click Maintenance > Log > View Log to open this screen.

Note: When a log reaches the maximum number of log messages, new log messages automatically overwrite existing log messages, starting with the oldest existing log message first.

Events that generate an alert (as well as a log message) display in red. Regular logs display in black. Click a column's heading cell to sort the table entries by that column's criteria. Click the heading cell again to reverse the sort order.

The Web Configurator saves the filter settings once you click Search. If you leave the View Log screen and return to it later, the last filter settings will still apply.

Figure 19 Maintenance > Log > View Log



The following table describes the labels in this screen.

Table 12 Maintenance > Log > View Log

LABEL	DESCRIPTION
Show Filter / Hide Filter	Click this button to show or hide the filter settings. The Priority, Source Address, Destination Address, Source Interface, Destination Interface, Protocol, Keyword, and Search fields are only available if the filter settings are shown.
Display	Select the category of log message(s) you want to view. You can also view All Logs at one time, or you can view the Debug Log.
Priority	This displays when you show the filter. Select the priority of log messages to display. The log displays the log messages with this priority or higher. Choices are: any, emerg, alert, crit, error, warn, notice, and info, from highest priority to lowest priority. This field is read-only if the Category is Debug Log.
Source Address	This displays when you show the filter. Type the source IP address of the incoming packet that generated the log message. Do not include the port in this filter.
Destination Address	This displays when you show the filter. Type the IP address of the destination of the incoming packet when the log message was generated. Do not include the port in this filter.
Source Interface	This displays when you show the filter. Select the source interface of the packet that generated the log message.

Table 12 Maintenance > Log > View Log (continued)

LABEL	DESCRIPTION
Destination Interface	This displays when you show the filter. Select the destination interface of the packet that generated the log message.
Protocol	This displays when you show the filter. Select a service protocol whose log messages you would like to see.
Keyword	This displays when you show the filter. Type a keyword to look for in the Message, Source, Destination and Note fields. If a match is found in any field, the log message is displayed. You can use up to 63 alphanumeric characters and the underscore, as well as punctuation marks ()' ,:;?! +-*/= #$% @ ; the period, double quotes, and brackets are not allowed.
Search	This displays when you show the filter. Click this button to update the log using the current filter settings.
Refresh	Click this to update the list of logs.
Clear Log	Click this button to clear the whole log, regardless of what is currently displayed on the screen.
#	This field is a sequential value, and it is not associated with a specific log message.
Time	This field displays the time the log message was recorded.
Priority	This field displays the priority of the log message. It has the same range of values as the Priority field above.
Category	This field displays the log that generated the log message. It is the same value used in the Display and (other) Category fields.
Message	This field displays the reason the log message was generated. The text "[count=*x*]", where *x* is a number, appears at the end of the Message field if log consolidation is turned on and multiple entries were aggregated to generate into this one.
Source	This field displays the source IP address and the port number in the event that generated the log message.
Source Interface	This field displays the source interface of the packet that generated the log message.
Destination	This field displays the destination IP address and the port number of the event that generated the log message.
Destination Interface	This field displays the destination interface of the packet that generated the log message.
Protocol	This field displays the service protocol in the event that generated the log message.
Note	This field displays any additional information about the log message.

Part II
Troubleshooting and Appendices

CHAPTER 6
Troubleshooting

6.1 Overview

This chapter offers some suggestions to solve problems you might encounter. The potential problems are divided into the following categories.

- NCC Access
- Power, Hardware Connections, and LEDs
- Zyxel Device Access and Login
- Internet Access
- Resetting the Zyxel Device to Its Factory Defaults
- WiFi Connections

6.2 NCC Access

I cannot access the NCC portal.

- Check that you are using the correct URL:
  - Zyxel Device: https://nebula.zyxel.com/
- Make sure your computer's Ethernet card is installed and functioning properly.
- Check that you have Internet access. In your computer, click Start, (All) Programs, Accessories and then Command Prompt. In the Command Prompt window, enter 'ping' followed by a website such as 'zyxel.com'. If you get a reply, try to ping 'nebula.zyxel.com'.
- Make sure you are using the correct web browser that supports HTML5. View the browser in full screen mode to display the NCC portal properly. The supported web browsers are:
  - Google Chrome
  - Microsoft Edge
  - Mozilla Firefox
  - Safari

I cannot log into the NCC portal.

Open your web browser and go to *https://nebula.zyxel.com*. Sign in with the correct email and password. Click Sign Up if you do not have a Zyxel Account and create an account.

I cannot access the Zyxel Device that I have registered in NCC or the Zyxel Device appears offline in NCC.

- Check if the TCP/UDP port is blocked by your network's firewall rule or ISP. Click Help > Support tools > Firewall information in NCC to view information required for firewall rules to allow management traffic between NCC and Zyxel Devices on your sites.
- Check the Zyxel Device's hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.
- If the LEDs still do not turn on, you may have a hardware problem. In this case, you should contact your local customer support.
- Make sure the Zyxel Device is connected to the Internet.
- Check if the WAN IP address is configured on the Zyxel Device.
- Check if the Zyxel Device can access the NCC server's domain through SSH/Console and enter 'nslookup d.nebula.zyxel.com'. If the Zyxel Device shows 'unknown host', check your DNS server setting or use '8.8.8.8' as the DNS server on the Zyxel Device.
- The Zyxel Device will apply the site-wide password after getting online on NCC. Check the login credential by going to Site-wide > Configure > Site settings > Device configuration: Local credentials in NCC.
- Make sure that your Zyxel Device can connect to NCC by checking your network's firewall/security settings. The following ports must be allowed:
  - TCP: 22, 443, 4335 and 6667
  - UDP: 123

Note: Go to Help > Support tools > Firewall information in NCC to find the latest port information.

- Make sure that you have registered your Zyxel Device with NCC.
- Make sure that you have created an organization and site and add the Zyxel Device to the site.
- Make sure that your Zyxel Device can synchronize with NTP (Network Time Protocol) through the following port:
  - UDP: 123
- Make sure that your Zyxel Device can resolve the Nebula Cloud Management (NETCONF) domain name d.nebula.zyxel.com.

6.3 Power, Hardware Connections, and LEDs

The Zyxel Device does not turn on. None of the LEDs turn on.

- Make sure you are using the power adapter or cord included with the Zyxel Device.

- Make sure the power adapter or cord is connected to the Zyxel Device and plugged in to an appropriate power source. Make sure the power source is turned on.
- Disconnect and re-connect the power adapter or cord to the Zyxel Device.
- If the problem continues, contact the vendor.

One of the LEDs does not behave as expected.

- Make sure you understand the normal behavior of the LED.
- Check the hardware connections. See the Quick Start Guide.
- Inspect your cables for damage. Contact the vendor to replace any damaged cables.
- Disconnect and re-connect the power adapter or cord to the Zyxel Device.
- If the problem continues, contact the vendor.

6.4 Zyxel Device Access and Login

I do not know the IP address of my Zyxel Device.

- The default IP address of the Zyxel Device is http://192.168.168.1.
- If you changed the IP address and have forgotten it, you might get the IP address of the Zyxel Device by looking up the IP address of the default gateway for your computer. To do this in most Windows computers, click Start > Run, enter cmd, and then enter ipconfig. The IP address of the Default Gateway might be the IP address of the Zyxel Device (it depends on the network), so enter this IP address in your web browser.
- If your Zyxel Device is a DHCP client, you can find your IP address from the DHCP server. This information is only available from the DHCP server which allocates IP addresses on your network. Find this information directly from the DHCP server or contact your system administrator for more information.
- Reset your Zyxel Device to change all settings back to their default. This means your current settings are lost. See Section 6.6 on page 37 in the Troubleshooting for information on resetting your Zyxel Device.

I cannot see or access the Login screen of the Local GUI Web Configurator.

- Make sure you are using the correct IP address.
- The default IP address of the Zyxel Device is https://192.168.168.1.
- If you changed the IP address and have forgotten it, see the troubleshooting suggestions for I do not know the IP address of my Zyxel Device.
- Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.

- Make sure your computer is in the same subnet as the Zyxel Device. (If you know that there are routers between your computer and the Zyxel Device, skip this step.)
- Reset the Zyxel Device to its factory defaults, and try to access the Zyxel Device with the default IP address. See Section 2.2 on page 12.
- If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions.

Advanced Suggestions

- Try to access the Zyxel Device using another service, such as Telnet. If you can access the Zyxel Device, check the remote management settings and firewall rules to find out why the Zyxel Device does not respond to HTTP.
- If your computer is connected to the WAN port or is connected wirelessly, use a computer that is connected to a LAN/ETHERNET port.

I can see the Login screen, but I cannot log into the Zyxel Device.

- This can happen when you fail to log out properly from your last session. Try logging in again after 5 minutes.
- Disconnect and re-connect the power adapter or cord to the Zyxel Device.
- If this does not work, you have to reset the Zyxel Device to its factory defaults. See Section 6.6 on page 37.

6.5 Internet Access

I cannot access the Internet.

- Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.
- Make sure the WAN port is connected to a broadband modem or router with Internet access. Your computer and the Zyxel Device should be in the same subnet.
- Make sure you entered your ISP account information correctly in the WAN screen. These fields are case-sensitive, so make sure [Caps Lock] is not on.
- If you are trying to access the Internet wirelessly, make sure the WiFi settings in the WiFi client are the same as the settings in the AP.
- Disconnect all the cables from your Zyxel Device, and follow the directions in the Quick Start Guide again.
- If the problem continues, contact your ISP.

I cannot access the Internet anymore. I had access to the Internet (with the Zyxel Device), but my Internet connection is not available anymore.

- Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.
- Reboot the Zyxel Device by disconnecting and re-connecting the power adapter or cord.
- If the problem continues, contact your ISP.

The Internet connection is slow or intermittent.

- There might be a lot of traffic on the network. Look at the LEDs. If the Zyxel Device is sending or receiving a lot of information, try closing some programs that use the Internet, especially peer-to-peer applications.
- Check the signal strength. If the signal strength is low, try moving the Zyxel Device closer to the AP if possible, and look around to see if there are any devices that might be interfering with the WiFi network (for example, microwaves, other WiFi networks, and so on).
- Reboot the Zyxel Device by disconnecting and re-connecting the power adapter or cord.
- If the problem continues, contact the network administrator or vendor.

6.6 Resetting the Zyxel Device to Its Factory Defaults

If you reset the Zyxel Device, you lose all of the changes you have made. The Zyxel Device reloads its default settings (for example, default login IP address, WiFi SSID and password). You have to make all of your changes again.

You will lose all of your changes when you push the RESET button.

To reset the Zyxel Device:

- Make sure the power LED is on.
- Press the RESET button for longer than 3 seconds to set the Zyxel Device back to its factory-default configurations.

  If the Zyxel Device restarts automatically, wait for the Zyxel Device to finish restarting, and log in to the Local GUI Web Configurator.

  If the Zyxel Device does not restart automatically, disconnect and reconnect the Zyxel Device's power. Then, follow the directions above again.

6.7 WiFi Connections

I cannot access the Zyxel Device or ping any computer from the WiFi network.

- Make sure WiFi is enabled on the Zyxel Device.

- Make sure the WiFi adapter on your computer is working properly.
- Make sure the WiFi adapter on your computer is IEEE 802.11 compatible and supports the same WiFi standard as the Zyxel Device.
- Make sure your computer (with a WiFi adapter installed) is within the transmission range of the Zyxel Device.
- Check that both the Zyxel Device and the WiFi adapter on your computer are using the same WiFi and WiFi security settings.
- Make sure traffic between WiFi and the LAN is not blocked by the firewall on the Zyxel Device.
- Make sure you allow the Zyxel Device to be remotely accessed through the WLAN interface. Check your remote management settings.

The WiFi connection is slow or intermittent.

The following factors may cause interference:

- Obstacles: walls, ceilings, furniture, and so on.
- Building Materials: metal doors, aluminum studs.
- Electrical devices: microwaves, monitors, electric motors, cordless phones, and other WiFi devices.

To optimize the speed and quality of your WiFi connection, you can:

- Move your WiFi client closer to the Zyxel Device if the signal strength is low.
- Reduce WiFi interference that may be caused by other WiFi networks or surrounding wireless electronics such as cordless phones.
- Place the Zyxel Device where there are minimum obstacles (such as walls and ceilings) between the Zyxel Device and the WiFi client. Avoid placing the Zyxel Device inside any type of box that might block WiFi signals.
- Reduce the number of WiFi clients connecting to the same Zyxel Device simultaneously, or add additional Zyxel Devices if necessary.
- Try closing some programs that use the Internet, especially peer-to-peer applications. If the WiFi client is sending or receiving a lot of information, it may have too many programs open that use the Internet.
- Position the antennas for best reception. If the Zyxel Device is placed on a table or floor, point the antennas upwards. If the Zyxel Device is placed at a high position, point the antennas downwards. Try pointing the antennas in different directions and check which provides the strongest signal to the WiFi clients.

APPENDIX A
Customer Support

In the event of problems that cannot be solved by using this manual, you should contact your vendor. If you cannot contact your vendor, then contact a Zyxel office for the region in which you bought the device.

For Zyxel Communication offices, see *https://service-provider.zyxel.com/global/en/contact-us* for the latest information.

For Zyxel Network offices, see *https://www.zyxel.com/index.shtml* for the latest information.

Please have the following information ready when you contact an office.

Required Information

- Product model and serial number.
- Warranty Information.
- Date that you received your device.
- Brief description of the problem and the steps you took to solve it.

Corporate Headquarters (Worldwide)

Taiwan

- Zyxel Communications (Taiwan) Co., Ltd.
- *https://www.zyxel.com*

Asia

China

- Zyxel Communications Corporation–China Office
- *https://www.zyxel.com/cn/sc*

India

- Zyxel Communications Corporation–India Office
- *https://www.zyxel.com/in/en-in*

Kazakhstan

- Zyxel Kazakhstan

- *https://www.zyxel.com/ru/ru*

Korea

- Zyxel Korea Co., Ltd.
- *http://www.zyxel.kr/*

Malaysia

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Philippines

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Singapore

- Zyxel Communications Corp.
- *https://www.zyxel.com/global/en*

Taiwan

- Zyxel Communications (Taiwan) Co., Ltd.
- *https://www.zyxel.com/tw/zh*

Thailand

- Zyxel Thailand Co., Ltd.
- *https://www.zyxel.com/th/th*

Vietnam

- Zyxel Communications Corporation–Vietnam Office
- *https://www.zyxel.com/vn/vi*

Europe

Belarus

- Zyxel Communications Corp.
- *https://www.zyxel.com/ru/ru*

Belgium (Netherlands)

- Zyxel Benelux
- *https://www.zyxel.com/nl/nl*
- *https://www.zyxel.com/fr/fr*

Bulgaria

- Zyxel Bulgaria
- *https://www.zyxel.com/bg/bg*

Czech Republic

- Zyxel Communications Czech s.r.o.
- *https://www.zyxel.com/cz/cs*

Denmark

- Zyxel Communications A/S
- *https://www.zyxel.com/dk/da*

Finland

- Zyxel Communications
- *https://www.zyxel.com/fi/fi*

France

- Zyxel France
- *https://www.zyxel.com/fr/fr*

Germany

- Zyxel Deutschland GmbH.
- *https://www.zyxel.com/de/de*

Hungary

- Zyxel Hungary & SEE
- *https://www.zyxel.com/hu/hu*

Italy

- Zyxel Communications Italy S.r.l.
- *https://www.zyxel.com/it/it*

Norway

- Zyxel Communications A/S
- *https://www.zyxel.com/no/no*

Poland

- Zyxel Communications Poland
- *https://www.zyxel.com/pl/pl*

Romania

- Zyxel Romania

- *https://www.zyxel.com/ro/ro*

Russian Federation

- Zyxel Communications Corp.
- *https://www.zyxel.com/ru/ru*

Slovakia

- Zyxel Slovakia
- *https://www.zyxel.com/sk/sk*

Spain

- Zyxel Iberia
- *https://www.zyxel.com/es/es*

Sweden

- Zyxel Communications A/S
- *https://www.zyxel.com/se/sv*

Switzerland

- Studerus AG
- *https://www.zyxel.com/ch/de-ch*
- *https://www.zyxel.com/fr/fr*

Turkey

- Zyxel Turkey A.S.
- *https://www.zyxel.com/tr/tr*

UK

- Zyxel Communications UK Ltd.
- *https://www.zyxel.com/uk/en-gb*

Ukraine

- Zyxel Ukraine
- *https://www.zyxel.com/ua/uk-ua*

South America

Argentina

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Brazil

- Zyxel Communications Brasil Ltda.
- *https://www.zyxel.com/br/pt*

Colombia

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Ecuador

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

South America

- Zyxel Communications Corp.
- *https://www.zyxel.com/co/es-co*

Middle East

Israel

- Zyxel Communications Corp.
- *https://il.zyxel.com*

North America

USA

- Zyxel Communications, Inc. – North America Headquarters
- *https://www.zyxel.com/us/en-us*

APPENDIX B
Legal Information

Copyright

Disclaimer

Zyxel does not assume any liability arising out of the application or use of any products, or software described herein. Neither does it convey any license under its patent rights nor the patent rights of others. Zyxel further reserves the right to make changes in any products described herein without notice. This publication is subject to change without notice.

Regulatory Notice and Statement

United States of America

The following information applies if you use the product within USA area.

Federal Communications Commission (FCC) EMC Statement

- The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

  (1) This device may not cause harmful interference, and

  (2) This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
- This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
- If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna
  - Increase the separation between the equipment and receiver
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
  - Consult the dealer or an experienced radio/TV technician for assistance

FCC Radiation Exposure Statement

The following information applies to products with wireless functions.

- This device complies with FCC Radio Frequency (RF) radiation exposure limits set forth for an uncontrolled environment.
- This transmitter must be at least 20 cm from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.
- Operation of this device is restricted to indoor use only, except for relevant user's manual mention that this device can be installed into the external environment. (For indoor devices only)
- Country Code selection feature to be disabled for products marketed to the US/CANADA.

Brazil

The following applies if you use the product within Brazil.

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

Europe and the United Kingdom

The following information applies if you use the product within the European Union and United Kingdom.

Declaration of Conformity with Regard to EU Directive 2014/53/EU (Radio Equipment Directive, RED) and UK regulation 2017 SI 2017/1206

- Compliance information for wireless products relevant to the EU, United Kingdom and other Countries following the EU Directive 2014/53/EU (RED) and UK regulation 2017 SI 2017-1206. And this product may be used in all EU countries (and other countries following the EU Directive 2014/53/EU) and the United Kingdom without any limitation except for the countries mentioned below table:
- In the majority of the EU, United Kingdom, and other European countries, the 5 GHz bands have been made available for the use of wireless local area networks (LANs). Later in this document you will find an overview of countries in which additional restrictions or requirements or both are applicable. The requirements for any country may evolve. Zyxel recommends that you check with the local authorities for the latest status of their national regulations for the 5 GHz wireless LANs.
- If this device operates in the 5,150 to 5,350 MHz band, it is for indoor use only.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radio equipment and your body.
- The maximum RF operating power for each band is as follows:

FREQUENCY	MAXIMUM POWER
2,400 MHz to 2,483.5 MHz	< 100 mW
5,150 MHz to 5,350 MHz	< 200 mW
5,470 MHz to 5,725 MHz	< 1000 mW

Belgium (English) België (Flemish) Belgique (French)	National Restrictions • The Belgian Institute for Postal Services and Telecommunications (BIPT) must be notified of any outdoor wireless link having a range exceeding 300 meters. Please check *http://www.bipt.be* for more details. • Draadloze verbindingen voor buitengebruik en met een reikwijdte van meer dan 300 meter dienen aangemeld te worden bij het Belgisch Instituut voor postdiensten en telecommunicatie (BIPT). Zie *http://www.bipt.be* voor meer gegevens. • Les liaisons sans fil pour une utilisation en extérieur d'une distance supérieure à 300 mètres doivent être notifiées à l'Institut Belge des services Postaux et des Télécommunications (IBPT). Visitez *http://www.ibpt.be* pour de plus amples détails.
Čeština (Czech)	Zyxel tímto prohlašuje, že tento zařízení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
Dansk (Danish)	Undertegnede Zyxel erklærer herved, at følgende udstyr udstyr overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.
Deutsch (German)	Hiermit erklärt Zyxel, dass sich das Gerät Ausstattung in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti keel (Estonian)	Käesolevaga kinnitab Zyxel seadme seadmed vastavust direktiivi 2014/53/EL põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Ελληνικά (Greek)	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Zyxel ΔΗΛΩΝΕΙ ΟΤΙ εξοπλισμός ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΕ.
English	Hereby, Zyxel declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Español (Spanish)	Por medio de la presente Zyxel declara que el equipo cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/UE.
Français (French)	Par la présente Zyxel déclare que l'appareil équipements est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/UE.
Hrvatski (Croatian)	Zyxel ovime izjavljuje da je radijska oprema tipa u skladu s Direktivom 2014/53/UE.

Íslenska (Icelandic)	Hér með lýsir, Zyxel því yfir að þessi búnaður er í samræmi við grunnkröfur og önnur viðeigandi ákvæði tilskipunar 2014/53/UE.
Italiano (Italian)	Con la presente Zyxel dichiara che questo attrezzatura è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/UE. National Restrictions • This product meets the National Radio Interface and the requirements specified in the National Frequency Allocation Table for Italy. Unless this wireless LAN product is operating within the boundaries of the owner's property, its use requires a “general authorization.” Please check *https://www.mise.gov.it/it/* for more details. • Questo prodotto è conforme alla specifiche di Interfaccia Radio Nazionali e rispetta il Piano Nazionale di ripartizione delle frequenze in Italia. Se non viene installato all 'interno del proprio fondo, l'utilizzo di prodotti Wireless LAN richiede una “Autorizzazione Generale”. Consultare *https://www.mise.gov.it/it/* per maggiori dettagli.
Latviešu valoda (Latvian)	Ar šo Zyxel deklarē, ka iekārtas atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių kalba (Lithuanian)	Šiuo Zyxel deklaruoja, kad šis įranga atitinka esminius reikalavimus ir kitas 2014/53/ES Direktyvos nuostatas.
Magyar (Hungarian)	Alulírott, Zyxel nyilatkozom, hogy a berendezés megfelel a vonatkozó alapvetõ követelményeknek és az 2014/53/EU irányelv egyéb elõírásainak.
Malti (Maltese)	Hawnhekk, Zyxel, jiddikjara li dan tagħmir jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/UE.
Nederlands (Dutch)	Hierbij verklaart Zyxel dat het toestel uitrusting in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Polski (Polish)	Niniejszym Zyxel oświadcza, że sprzęt jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/UE.
Português (Portuguese)	Zyxel declara que este equipamento está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/UE.
Română (Romanian)	Prin prezenta, Zyxel declară că acest echipament este în conformitate cu cerinţele esenţiale şi alte prevederi relevante ale Directivei 2014/53/UE.
Slovenčina (Slovak)	Zyxel týmto vyhlasuje, že zariadenia spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EÚ.
Slovenščina (Slovene)	Zyxel izjavlja, da je ta oprema v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Suomi (Finnish)	Zyxel vakuuttaa täten että laitteet tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska (Swedish)	Härmed intygar Zyxel att denna utrustning står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.
Norsk (Norwegian)	Erklærer herved Zyxel at dette utstyret er I samsvar med de grunnleggende kravene og andre relevante bestemmelser I direktiv 2014/53/EU.
Български (Bulgarian)	С настоящото Zyxel декларира, че това оборудване е в съответствие със съществените изисквания и другите приложими разпоредбите на Директива 2014/53/ЕС.

Notes:

- Not all European states that implement EU Directive 2014/53/EU are European Union (EU) members.
- The regulatory limits for maximum output power are specified in EIRP. The EIRP level (in dBm) of a device can be calculated by adding the gain of the antenna used (specified in dBi) to the output power available at the connector (specified in dBm).

List of National Codes

COUNTRY	ISO 3166 2 LETTER CODE	COUNTRY	ISO 3166 2 LETTER CODE
Austria	AT	Liechtenstein	LI
Belgium	BE	Lithuania	LT
Bulgaria	BG	Luxembourg	LU
Croatia	HR	Malta	MT
Cyprus	CY	Netherlands	NL
Czech Republic	CZ	Norway	NO
Denmark	DK	Poland	PL
Estonia	EE	Portugal	PT
Finland	FI	Romania	RO
France	FR	Serbia	RS
Germany	DE	Slovakia	SK
Greece	GR	Slovenia	SI
Hungary	HU	Spain	ES
Iceland	IS	Switzerland	CH
Ireland	IE	Sweden	SE
Italy	IT	Turkey	TR
Latvia	LV	United Kingdom	GB

Safety Warnings

- Do not put the device in a place that is humid, dusty or has extreme temperatures as these conditions may harm your device.
- Please refer to the device back label, datasheet, box specifications or catalog information for the power rating of the device and operating temperature.
- There is a remote risk of electric shock from lightning: (1) Do not use the device outside, and make sure all the connections are indoors. (For indoor devices only) (2) Do not install or service this device during a thunderstorm.
- Do not expose your device to dampness, dust or corrosive liquids.
- Do not store things on the device.
- Do not obstruct the device ventilation slots as insufficient airflow may harm your device. For example, do not place the device in an enclosed space such as a box or on a very soft surface such as a bed or sofa.
- Connect ONLY suitable accessories to the device.
- Do not open the device. Opening or removing the device covers can expose you to dangerous high voltage points or other risks.
- Only qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connected cables carefully so that no one will step on them or stumble over them.
- Disconnect all cables from this device before servicing or disassembling.

- Do not remove the plug and connect it to a power outlet by itself; always attach the plug to the power adaptor first before connecting it to a power outlet.
- Do not allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Please use the provided or designated connection cables/power cables/ adaptors. Connect the power adaptor or cord to the right supply voltage (for example, 120V AC in North America or 230V AC in Europe). If the power adaptor or cord is damaged, it might cause electrocution. Remove the damaged power adaptor or cord from the device and the power source. Do not try to repair the power adaptor or cord by yourself. Contact your local vendor to order a new one.
- CAUTION: There is a risk of explosion if you replace the device battery with an incorrect one. Dispose of used batteries according to the instructions. Dispose them at the applicable collection point for the recycling of electrical and electronic devices. For detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the store where you purchased the product.
- The following warning statements apply, where the disconnect device is not incorporated in the device or where the plug on the power supply cord is intended to serve as the disconnect device,

  – For a permanently connected device, a readily accessible method to disconnect the device shall be incorporated externally to the device;

  – For a pluggable device, the socket-outlet shall be installed near the device and shall be easily accessible.
- Do not leave a battery in an extremely high temperature environment or surroundings since it can result in an explosion or the leakage of flammable liquid or gas. (For devices with a battery)
- Do not subject a battery to extremely low air pressure since it may result in an explosion or the leakage of flammable liquid or gas. (For devices with a battery)
- Fuse Warning! Replace a fuse only with a fuse of the same type and rating. (For devices with a fuse)
- To avoid possible eye injury, do not look into an operating fiber-optic module’s connector. (For devices with fiber)
- Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019. (For devices with fiber)
- Conforme à 21 CFR 1040.10 et 1040.11 sauf pour la conformité à la norme CEI 60825-1 Ed. 3., comme décrit dans la notice laser Numéro 56 du 8 mai 2019. (For devices with fiber)
- CLASS 1 LASER PRODUCT & "IEC 60825-1:2014" (For devices with fiber)
- APPAREIL À LASER DE CLASS 1 (For devices with fiber)
- CLASS 1 CONSUMER LASER PRODUCT & “EN 50689:2021” (For devices with fiber)

Environment Statement

Disposal and Recycling Information

The symbol below means that according to local regulations your product and/or its battery shall be disposed of separately from domestic waste. If this product is end of life, take it to a recycling station designated by local authorities. At the time of disposal, the separate collection of your product and/or its battery will help save natural resources and ensure that the environment is sustainable development.

Die folgende Symbol bedeutet, dass Ihr Produkt und/oder seine Batterie gemäß den örtlichen Bestimmungen getrennt vom Hausmüll entsorgt werden muss. Wenden Sie sich an eine Recyclingstation, wenn dieses Produkt das Ende seiner Lebensdauer erreicht hat. Zum Zeitpunkt der Entsorgung wird die getrennte Sammlung von Produkt und/oder seiner Batterie dazu beitragen, natürliche Ressourcen zu sparen und die Umwelt und die menschliche Gesundheit zu schützen.

El símbolo de abajo indica que según las regulaciones locales, su producto y/o su batería deberán depositarse como basura separada de la doméstica. Cuando este producto alcance el final de su vida útil, llévelo a un punto limpio. Cuando llegue el momento de desechar el producto, la recogida por separado éste y/o su batería ayudará a salvar los recursos naturales y a proteger la salud humana y medioambiental.

Le symbole ci-dessous signifie que selon les réglementations locales votre produit et/ou sa batterie doivent être éliminés séparément des ordures ménagères. Lorsque ce produit atteint sa fin de vie, amenez-le à un centre de recyclage. Au moment de la mise au rebut, la collecte séparée de votre produit et/ou de sa batterie aidera à économiser les ressources naturelles et protéger l'environnement et la santé humaine.

Il simbolo sotto significa che secondo i regolamenti locali il vostro prodotto e/o batteria deve essere smaltito separatamente dai rifiuti domestici. Quando questo prodotto raggiunge la fine della vita di servizio portarlo a una stazione di riciclaggio. Al momento dello smaltimento, la raccolta separata del vostro prodotto e/o della sua batteria aiuta a risparmiare risorse naturali e a proteggere l'ambiente e la salute umana.

Symbolen innebär att enligt lokal lagstiftning ska produkten och/eller dess batteri kastas separat från hushållsavfallet. När den här produkten når slutet av sin livslängd ska du ta den till en återvinningsstation. Vid tiden för kasseringen bidrar du till en bättre miljö och mänsklig hälsa genom att göra dig av med den på ett återvinningsställe.

台灣

以下訊息僅適用於產品具有無線功能且銷售至台灣地區

- 取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- 低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 使用無線產品時，應避免影響附近雷達系統之操作。

安全警告 – 為了您的安全，請先閱讀以下警告及指示 :

- 請勿將此產品接近水、火焰或放置在高溫的環境。
- 避免設備接觸 :
  – 任何液體 – 切勿讓設備接觸水、雨水、高濕度、污水腐蝕性的液體或其他水份。
  – 灰塵及污物 – 切勿接觸灰塵、污物、沙土、食物或其他不合適的材料。

- 雷雨天氣時，不要安裝或維修此設備。有遭受電擊的風險。
- 切勿重摔或撞擊設備，並勿使用不正確的電源變壓器。
- 若接上不正確的電源變壓器會有爆炸的風險。
- 請勿隨意更換產品內的電池。
- 如果更換不正確之電池型式，會有爆炸的風險，請依製造商說明書處理使用過之電池。
- 請將廢電池丟棄在適當的電器或電子設備回收處。
- 請勿將設備解體。
- 請勿阻礙設備的散熱孔，空氣對流不足將會造成設備損害。
- 請使用隨貨提供或指定的連接線 / 電源線 / 電源變壓器，將其連接到合適的供應電壓 (如：台灣供應電壓 110 伏特)。
- 假若電源變壓器或電源變壓器的纜線損壞，請從插座拔除，若您還繼續插電使用，會有觸電死亡的風險。
- 請勿試圖修理電源變壓器或電源變壓器的纜線，若有毀損，請直接聯絡您購買的店家，購買一個新的電源變壓器。
- 請勿將此設備安裝於室外，此設備僅適合放置於室內。(僅限室內產品)
- 請勿隨一般垃圾丟棄。
- 請參閱產品背貼上的設備額定功率。
- 請參考產品型錄或是彩盒上的作業溫度。
- 產品沒有斷電裝置或者採用電源線的插頭視為斷電裝置的一部分，以下警語將適用：
  – 對永久連接之設備，在設備外部須安裝可觸及之斷電裝置；
  – 對插接式之設備，插座必須接近安裝之地點而且是易於觸及的。

About the Symbols

Various symbols are used in this product to ensure correct usage, to prevent danger to the user and others, and to prevent property damage. The meaning of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.

Explanation of the Symbols

SYMBOL	EXPLANATION
	Alternating current (AC): AC is an electric current in which the flow of electric charge periodically reverses direction.
	Direct current (DC): DC is the unidirectional flow or movement of electric charge carriers.
	Earth; ground: A wiring terminal intended for connection of a Protective Earthing Conductor.
	Class II equipment: The method of protection against electric shock in the case of class II equipment is either double insulation or reinforced insulation.

Viewing Certifications

Go to *http://www.zyxel.com* to view this product's documentation and certifications.

Zyxel Limited Warranty

Zyxel warrants to the original end user (purchaser) that this product is free from any defects in material or workmanship for a specific period (the Warranty Period) from the date of purchase. The Warranty Period varies by region. Check with your vendor and/or the authorized Zyxel local distributor for details about the Warranty Period of this product. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, Zyxel will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal or higher value, and will be solely at the discretion of Zyxel. This warranty shall not apply if the product has been modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

Note

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. Zyxel shall in no event be held liable for indirect or consequential damages of any kind to the purchaser.

To obtain the services of this warranty, contact your vendor. You may also refer to the warranty policy for the region in which you bought the device at *https://www.zyxel.com/global/en/support/warranty-information*.

Open Source Licenses

This product may contain in part some free software distributed under GPL license terms and/or GPL-like licenses.

To request the source code covered under these licenses, please go to: *https://www.zyxel.com/form/gpl_oss_software_notice.shtml*

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