



EE6510-10

Tri-Band Wireless BE18000 10G Ethernet Gateway

The Zyxel EE6510-10 Tri-Band Wireless BE18000 10G Ethernet Gateway leverages wireless 802.11be technology for optimized bandwidth utilization and increased network capacity. With ultra-fast connectivity, users experience improved performance and low latency. Equipped with dual 10G internet ports, the EE6510-10 provides flexibility and seamless wireless experiences, all within a compact footprint.

Benefits

The latest Wi-Fi 7 (11be) technology for wider multi-directional connectivity

The EE6510-10 boasts Wi-Fi 7 support for blazing tri-band speeds. Advanced features like OFDMA, MU-MIMO, and beamforming ensure lag-free streaming. Multi-Link Operation (MLO) enhances reliability and speed by aggregating bands. Leveraging 6 GHz channels and 4096-QAM, it maximizes throughput by 20% compared to Wi-Fi 6. Multi-RU Puncturing (MRU) optimizes data transmission with intelligent spectrum allocation.

Remote management for lower OPEX

Built-in TR-369/TR-069/TR-181 protocols greatly reduce your service expenses while enhancing customer satisfaction with fewer truck rolls and better OPEX.



Wi-Fi 7 (11be) tri-band 3x3 + 4x4 + 4x4 for superior performance and coverage



MLO (Multi-Link Operation) optimizes reliability and maximizes data speed



Compliant with EasyMesh Standards



Multiple SSIDs for various service deployment scenarios



Remote management via TR-369/TR-069/TR-181



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



With two 10G Ethernet ports, the wired speeds and multi-gigabit backhaul speeds

Zyxel OPAL firmware achieves superior flexibility and shortens time to market

Compliant with the Zyxel CPE OPAL firmware trunk, and applying to the EE6510-10, existence wealthy OPAL technology and field-proven feature collection for guaranteed the same user experience after migrating to new devices.

Dedicated 10GbE WAN and LAN port for Multi-Gig internet access

The EE6510-10 boasts blazing speeds with its one 10GbE WAN port, one 10GbE LAN port, and three 1GbE LAN ports, ensuring high-performance connectivity for your network. Additionally, its multi-gigabit backhaul speeds further enhance its speed and reliability.

Specifications

System specifications

Wireless standards

- IEEE 802.11 b/g/n/ax/be 2.4 GHz
- IEEE 802.11 a/n/ac/ax/be 5 GHz
- IEEE 802.11 ax/be 6 GHz

Wireless transfer rates

- Transmit:
 - 802.11be (2.4 GHz): up to 1032 Mbps
 - 802.11be (5 GHz): up to 5764 Mbps
 - 802.11be (6 GHz): up to 11528 Mbps

Wireless features

- Auto channel selection
- WMM
- WPA2-PSK
- WPA3-SAE
- Wireless output power management
- Multiple SSID up to 4 for each band
- Wi-Fi Protected Setup (WPS)
- Intra-BSS traffic block
- MAC address filtering
- WPS 2.0

Firewall

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

Routing

- IPv4/IPv6
- NAT
- Port forwarding
- WAN connection type: DHCP, PPPoE
- DHCP option 60/121/125
- DHCP server on LAN
- IGMP v2/v3
- IGMP proxy
- Dynamic DNS
- QoS support

VLAN

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

Management

- Web GUI (HTTPS)
- TR-369/TR-069/TR-181
- Firmware upgrade through GUI/TR-069
- 2-tier level access and administration
- CAF II TR143 speed test support

Hardware specifications

WAN

- One 1/2.5/10 GbE RJ-45 port

LAN

- One 1/2.5/10 GbE RJ-45 port
- Three 1GbE RJ-45 ports

Wireless

- 2.4 GHz: 3x3 internal antenna
- 5 GHz: 4x4 internal antenna
- 6 GHz: 4x4 internal antenna

USB

- One USB 3.0 host

LED indicators

- Power
- Internet
- Wi-Fi
- WPS

Button

- WPS
- Reset

Power consumption

- 12 V DC/3 A
- 36 Watt max

Physical specifications

- Item dimensions (WxDxH): 180.5 x 74.0 x 231.5 mm (7.11" x 2.91" x 9.11")
- Item weight: 1003 g (2.21 lb.)
- Packing dimensions (WxDxH): 267 x 236 x 95 mm (10.51" x 9.29" x 3.74")
- Packing weight: 1550 g (3.42 lb.)

Environmental specifications

Operating environment

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

Storage environment

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

Certification

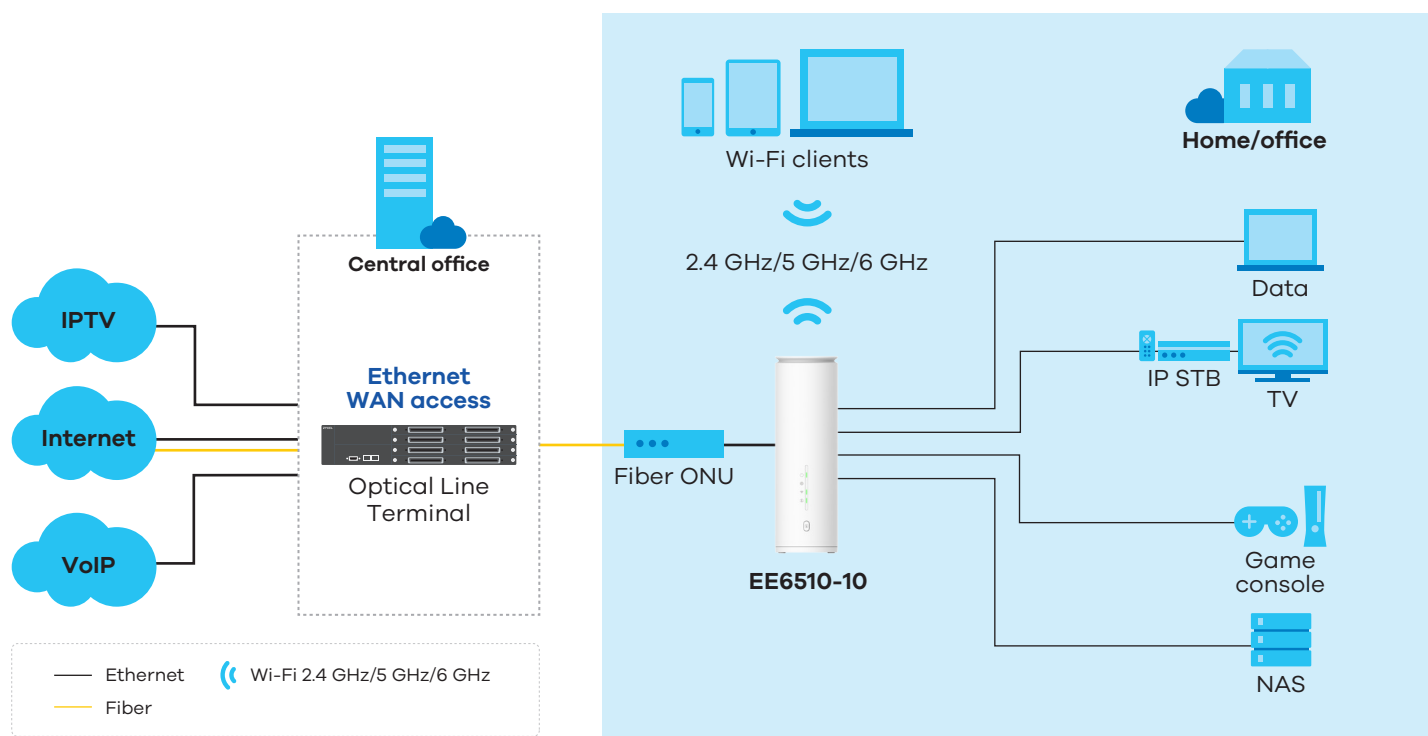
- FCC
- IC

Package contents

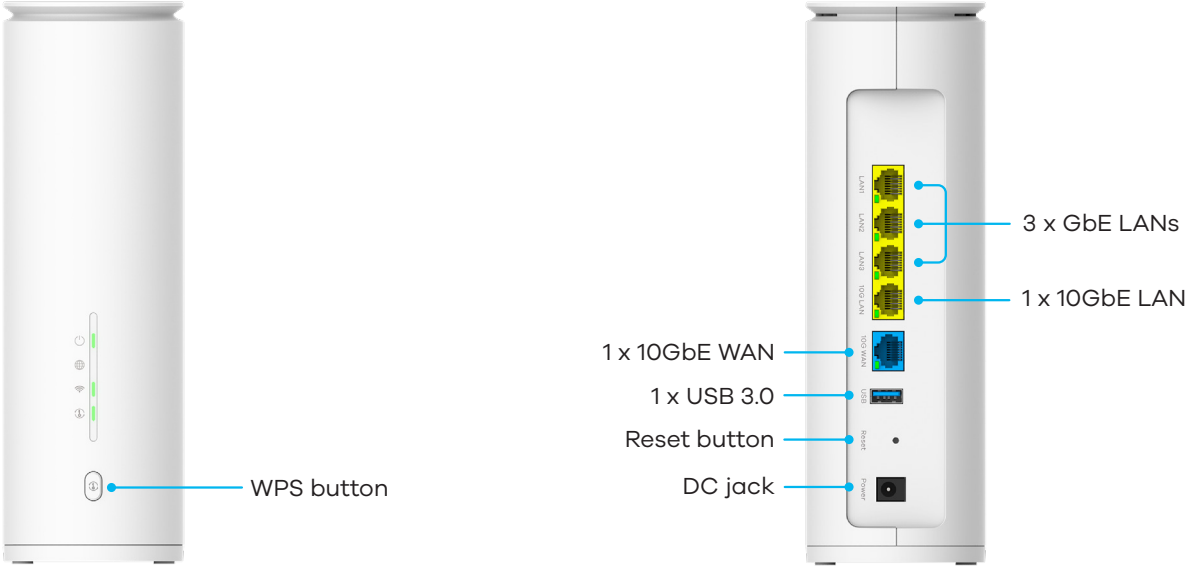
- Ethernet gateway
- Power adapter
- Ethernet cable
- Quick Start Guide

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

Application diagram



Hardware interface



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

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31/12/24