ZYXEL
COMMUNICATIONS

EE6601-00

Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+

The Zyxel EE6601-00 Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+ leverages the latest wireless 802.11be (Wi-Fi 7) technology to optimize bandwidth utilization, effectively boosting network capacity with ultra-fast connectivity. This translates to an improved user experience with exceptionally low latency. Additionally, using the 10G internet port for Ethernet and fiber offers your subscribers a flexible and seamless wireless experience.

Benefits

Unleash peak performance with certified Wi-Fi 7 (802.11be)

Supporting the latest Wi-Fi 7 (802.11be) standard and rated as BE19000*, the EE6601-00 delivers tri-band Wi-Fi with exceptional performance. With Multi-Link Operation (MLO) technology, the EE6601-00 not only optimizes reliability and maximizes data speeds but also significantly reduces latency. By intelligently utilizing multiple frequency bands simultaneously, MLO provides a smoother, low-latency experience—ideal for real-time applications such as gaming and video streaming. Additionally, the Zero-Wait DFS feature allows the EE6601-00 to swiftly switch channels, avoiding radar interference and ensuring seamless and superior Wi-Fi performance.

MPro Mesh® kills the dead zones

Featuring EasyMesh fully compliant Zyxel MPro Mesh® Solutions**, the EE6601-00 enhances your subscribers' experience by providing self-adapting, easy-to-manage whole-home Wi-Fi coverage, while reducing your service OPEX.

- Wi-Fi 7 (11be) tri-band 4x4 + 4x4 + 4x4 for superior performance and coverage
- Zero-wait DFS for instant channel switching without downtime
- Zyxel MPro Mesh® Solutions (Compliant with EasyMesh Standards)
- Remote management via TR-369/TR-069/TR-181
- SFP+ cage enables 10G active fiber (P2P) and XGS-PON (P2M) deployments
- MLO (Multi-Link Operation) optimizes reliability and maximizes data speed
- Zyxel-developed OPAL for superior flexibility and faster time to market
- Circular economy product design

Wi Fi 7 CERTIFIED

Commitment to sustainability

The EE6601-00 is crafted from 100% recycled plastics*** and the easy-to-remove case for simplified repair and replacement, extending antenna lifespan and reducing manufacturing needs. With 100%**** recycled paper packaging and VOC-free vegetable oil ink printing, we minimize waste and harmful substances, avoiding single-use plastics and halogen materials.

Power consumption monitoring

By integrating the power monitoring chip, the EE6601-00 ensures optimal energy efficiency, enhancing Wi-Fi connection performance. This feature facilitates effortless power consumption tracking for service providers, offering the ability to activate/deactivate power-saving mode and access current and historical device power consumption records.

Dedicated Multi-Gig internet access and flexible WAN options

With one 10GbE WAN port, the EE6601-00 extends premium 10G service to subscribers' homes. In addition to the standard three 1GbE LAN ports, the EE6601-00 built-in a SFP+ cage, offering flexible XGS-PON/GPON (P2M) or Gigabit active fiber (P2P) configuration to meet bandwidth-intensive needs and seamlessly deployed in the existing copper or fiber network infrastructure.

TR-369/TR-069 remote management for lower OPEX

Compliant with TR-369/TR-069 standards, the EE6601-00 significantly simplifies deployment complexity and lowers operating and maintenance costs. The additional support to the latest TR-181 issue-2 data model also enhances service providers' visibility on subscriber LAN networks to offer improved customer assistance.

Superior flexibility and faster time-to-market with Zyxel OPAL firmware

The EE6601-00 is available with Zyxel OPAL – our mature, modular software platform. The software incorporates a set of field-proven applications and allows you to easily manage your customer's premium services or seamlessly migrate and upgrade them to new technology – all with the advantage of reduced development time for you and great service for your customers.

Effortless installation network setup and management with Zyxel One app

The EE6601-00 comes with a brand new companion app – Zyxel One*****. The intuitive user interface of Zyxel One provides your subscribers with an effortless installation journey, which minimizes service calls while enhancing user satisfaction. With Zyxel One app, your subscribers can easily manage routine tasks like Mpro Mesh and power-saving mode for their home or office networks directly from their handheld devices.

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 1376 Mbps
  - 802.11be (5 GHz): up to 5764 Mbps
  - 802.11be (6 GHz): up to 11530 Mbps

Wireless features
- Auto channel selection
- Wi-Fi Multimedia (WMM)
- Wireless output power management
- Multiple SSIDs up to 4
- Wi-Fi Protected Setup (WPS)
- Intra-BSS traffic block
- MAC address filtering
- WPS
- Zero-wait DFS (ZWDFS)

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

VoIP
- Codec: G.711 a/u, G.722, G.726
- DTMF tone: detection and generation

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

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

Management
- Web GUI (HTTP/HTTPS)
- BBF TR-069/TR-369 via TR-098/TR-181 i2 data model
- Firmware upgrade through web GUI/TR-369/TR-069 protocol
- 2-tier level access and administration
- MPro Mesh® management

MPro Mesh® management
- Auto-configuration
- Band steering
- Multi-AP roaming
- Backhaul priority

Phone features
- Internal call
- T.30/T.38/G.711 fx mode, call waiting, call forwarding (no condition, busy, no answer)
- Call transferring (blind, consult OnHold, attendant)
- Call hold/call retrieve
- Three-way conference
- Second call/adding an outgoing call
- Switch between 2 active calls

Hardware specifications

VoIP
- Two FXS ports RJ-11 (6P2C)

Wireless
- 2.4 GHz: 4x4 internal antennas
- 5 GHz: 4x4 internal antennas
- 6 GHz: 4x4 internal antennas

USB
- One USB 3.0 host

WAN
- One 1/2.5/5/10 GbE RJ-45 port
- One SFP+ cage

LAN
- One 1/2.5/5/10 GbE RJ-45 port
- Three 1GbE RJ-45 ports

LEDs indicators
- Front panel
  - Power
  - Status
  - Internet
  - Wi-Fi
- Back panel
  - 10G LAN (LAN 1)
  - LAN 2-4

Button
- WPS
- Wi-Fi on/off
- Reset button
- Power on/off switch
- Power jack

Power consumption
- 12 V DC/3.5 A
- 42 Watt max

Physical specifications
- Item dimensions (LxWxH): 190 x 80 x 234.5 mm (7.48″ x 3.15″ x 9.23″)
- Item weight: 961.4 g (2.12 lb.)
- Packing dimensions (LxWxH): 272 x 120 x 240 mm (10.71″ x 4.72″ x 9.45″)
- Packing weight: 1530 g (3.37 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: -40°C to 70°C (-40°F to 158°F)
- Humidity: 10% to 95% (Non-condensing)

Certification
- CE
- UKCA
- Wi-Fi Alliance (WFA) certification

Package contents
- Device
- Power adapter
- Ethernet cable
- Quick Start Guide
- Safety warning card

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

** Combining EE6601-00 with the WE4400-00 Wireless Extender is advised for the ideal mesh network performance.

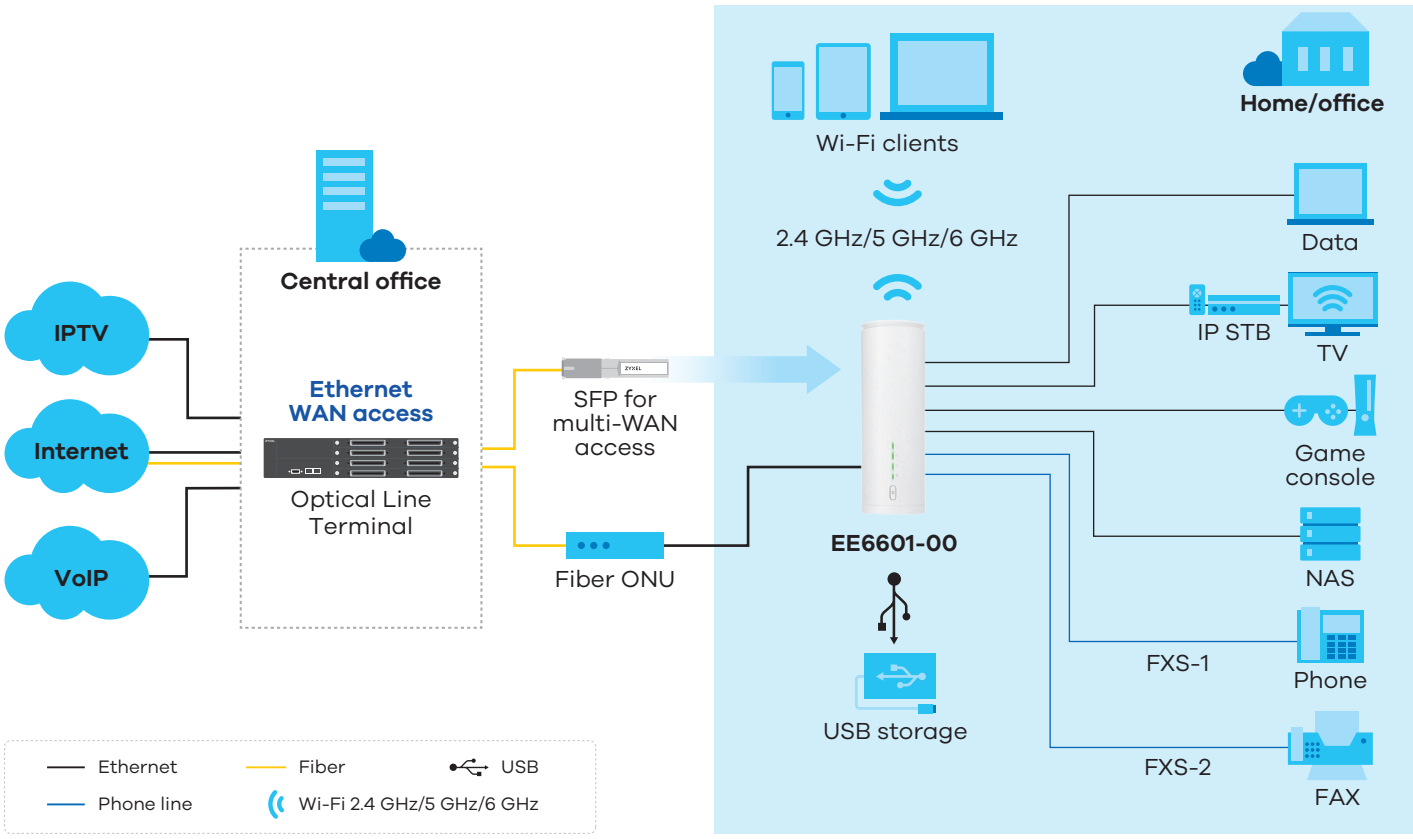
*** 5% additives and solvents are necessary to be added to the recycled polymers to achieve the desired technical characteristics of the material.

**** The EE6601's 100% recycled paper packaging refers to the product's brown box.

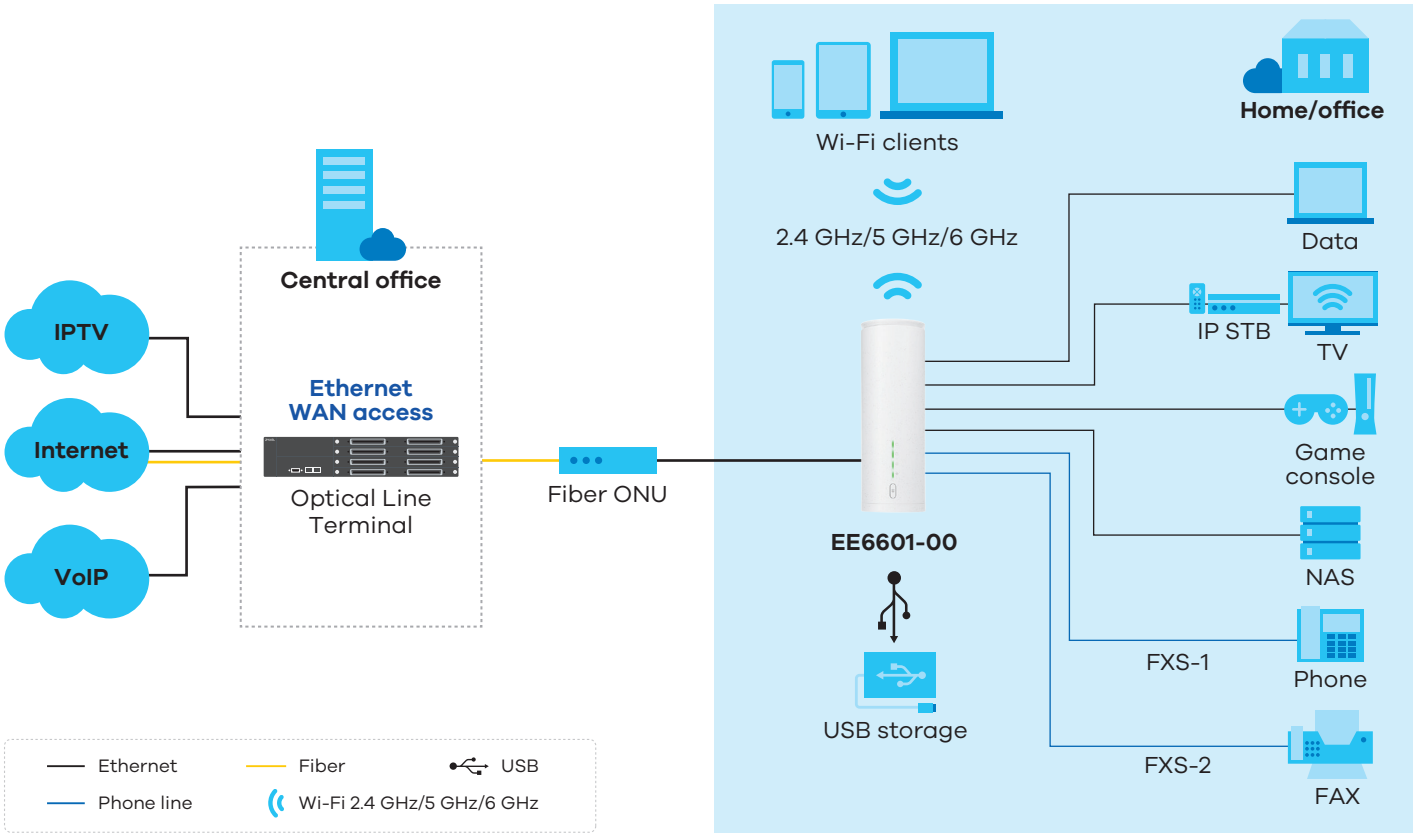
***** The app is expected to be available for download in Q4, 2024.

Application diagram

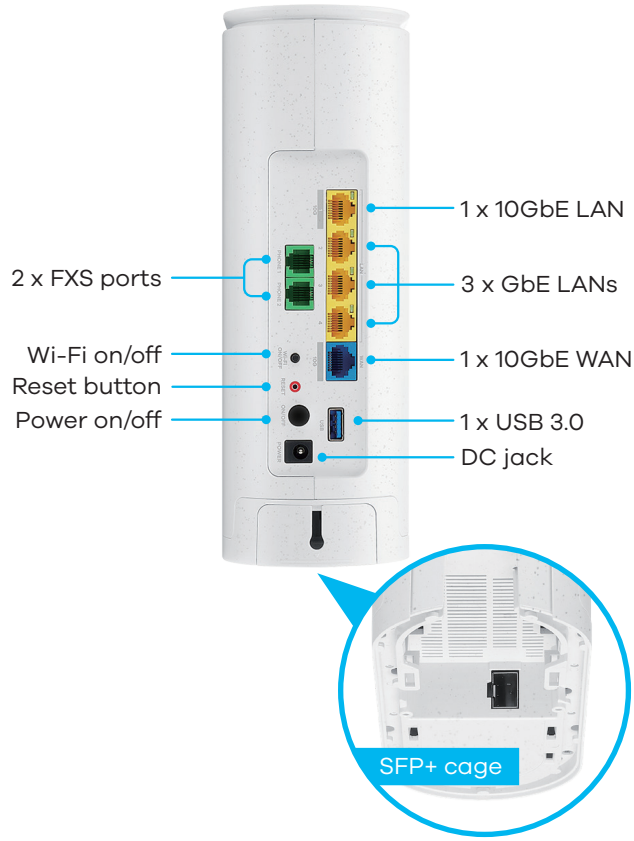
Active/passive fiber application



Ethernet application



Hardware interface



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

Datasheet EE6601-00

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