



Wi-Fi 7

# BE6500 Dual-Band Wi-Fi 7 Router

Exploring the new Era of Home Wi-Fi



Archer BE6500

**Lightning-Fast Speeds**  
6.5 Gbps Dual-Band Wi-Fi 7<sup>†</sup>

**Wi-Fi 7 Multi-Link Operation**  
Boosted Throughput, Unmatched Reliability<sup>◇</sup>

**2.5G Multi-Gig Connectivity**  
2× 2.5 Gbps Ports Boost Wired Connections<sup>§</sup>

**Multiple Installation Options**  
Wall Mount or Vertically On Desktop

# Highlights

## Wi-Fi 7 — Wi-Fi Like Never Before

### Wi-Fi 7

Multi-Link Operation



#### 6.5 Gbps Dual-Band Wi-Fi 7†

6.5 Gbps Wi-Fi 7 speeds enables you to enjoy full access to fluent 4K/8K streaming, immersive AR/VR gaming, and blazing-fast downloads.†



#### Lightning-Fast Speeds to Power Your Devices

Multi-Link Operation (MLO) enables Archer BE6500 to transmit data with Wi-Fi 7 clients across the 5 GHz band and the 2.4 GHz band simultaneously, offering higher speed, lower latency, and more reliability.



#### Higher Capacity for More Devices†

Communicates with multiple devices via 6 streams and dual-band simultaneously. Combined with the powerful CPU, Wi-Fi 7 provides congestion-free signals to your laptop, TV, thermostat, and baby monitor.

## Archer BE6500 — Exploring the new Era of Home Wi-Fi

- Wi-Fi/LED
- Reset
- WPS
- 3× Gigabit LAN Ports
- 2.5 Gbps LAN Port
- 2.5 Gbps WAN Port
- On/Off
- Power



#### 2.5 Gbps Wired Connectivity

Experience lightning-speed connectivity with one 2.5Gbps WAN port, one 2.5Gbps LAN port, and three 1Gbps LAN ports, to meet a wide range of wired connection needs.

#### Far-Reaching Wi-Fi Coverage

4× high-performance internal antennas, proprietary Wi-Fi optimization, and Beamforming technology deliver broader coverage, more capacity, stronger and more reliable connections, and less interference.

# Highlights

## Enhanced Security

Keep your home network safe by preventing potential threats and security issues. Manage online time and block inappropriate content to keep your family safe online with Parental Controls.



Network Protection



Parental Controls



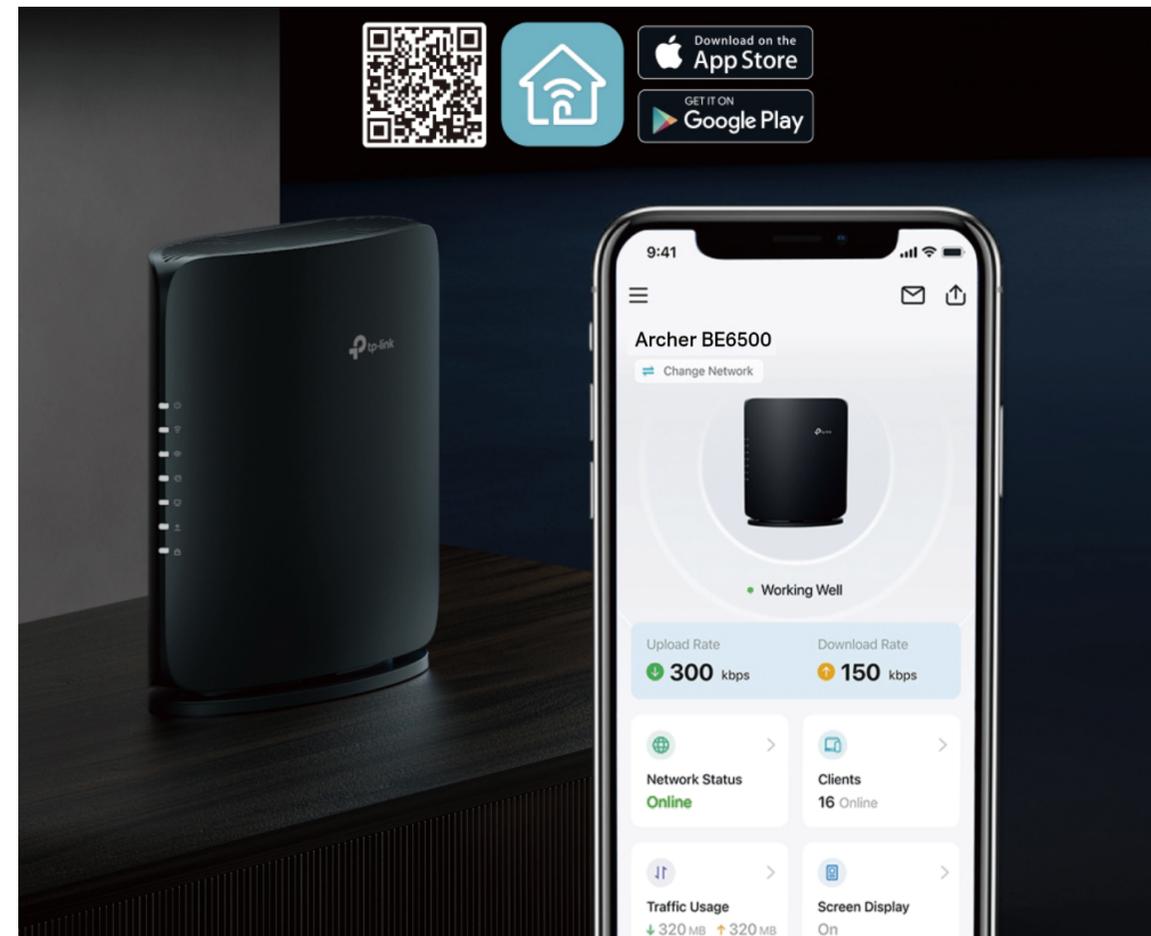
Quality of Service (QoS)



Comprehensive Reports

## Easy Network Management

The TP-Link Tether app provides a simple and intuitive way to set up, manage, and monitor your network at home or on the go.



# Highlights

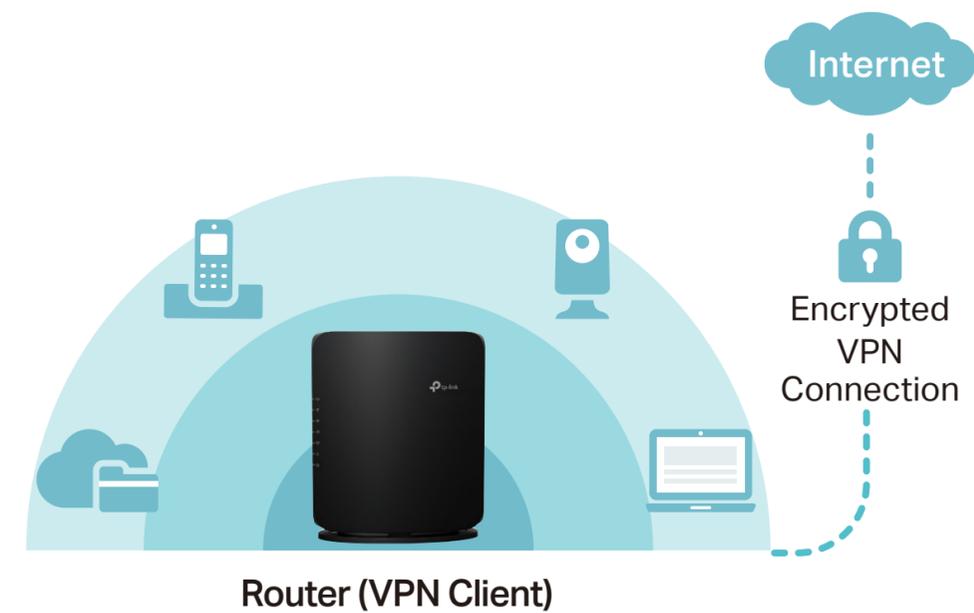
## Flexible Whole Home Wi-Fi

Internal high-performance antennas and Beamforming technology deliver broad Wi-Fi coverage. Need more coverage? Easily form seamless whole-home mesh Wi-Fi with EasyMesh.\*\*\*



## VPN Client Support

Allows specified devices in your home network to access remote VPN servers without needing to install VPN software on every device.

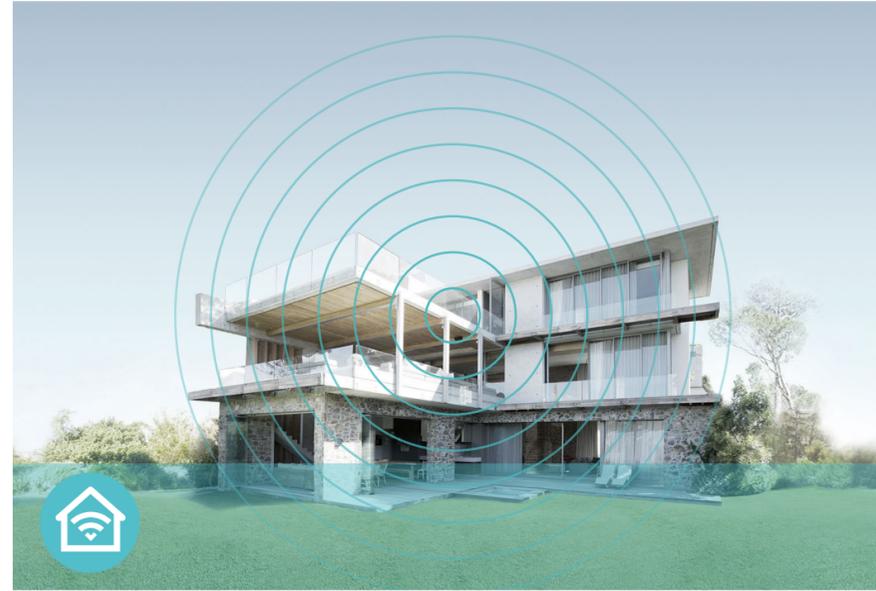


# Features



## Ultra-Fast Speed

- **BE6500 Wi-Fi** – Up to 6,452 Mbps dual-band Wi-Fi 7 enables gaming, streaming and high-speed downloading on multiple devices—all at the same time†
- **2x 2.5G Ports** – One 2.5 Gbps Internet port and one 2.5 Gbps LAN port break through the 1G bottleneck, driving your devices to peak performance.
- **Wi-Fi 7** – Wi-Fi 7 (802.11be) features advanced technology 4K QAM, drastically increasing the speed and efficiency of your entire network.◇
- **Smart Connect** – Intelligently assigns each device to the best Wi-Fi band for optimal performance.



## Broad Wi-Fi Range

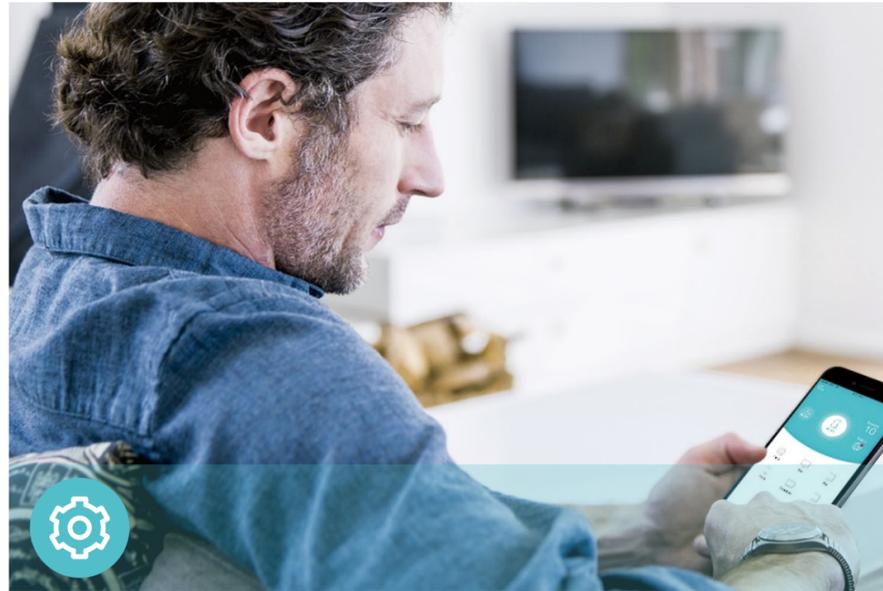
- **Ultimate Range Wi-Fi** – Proprietary WiFi optimization and 4x high-performance internal antennas boost WiFi signals throughout your home.
- **Beamforming Technology** – Concentrates Wi-Fi signals towards individual devices to ensure stronger connections.
- **Seamless EasyMesh network** – Transfer between seamless whole-home Wi-Fi without any drops or lag and manage your whole network using a centralized panel.



## Reliable Connections

- **6,452 Mbps Dual-Band WiFi 7** – Enables your devices to run at full speed. Enjoy fluent 4K/8K streaming, immersive AR/VR gaming, and blazing-fast downloads.†

# Features



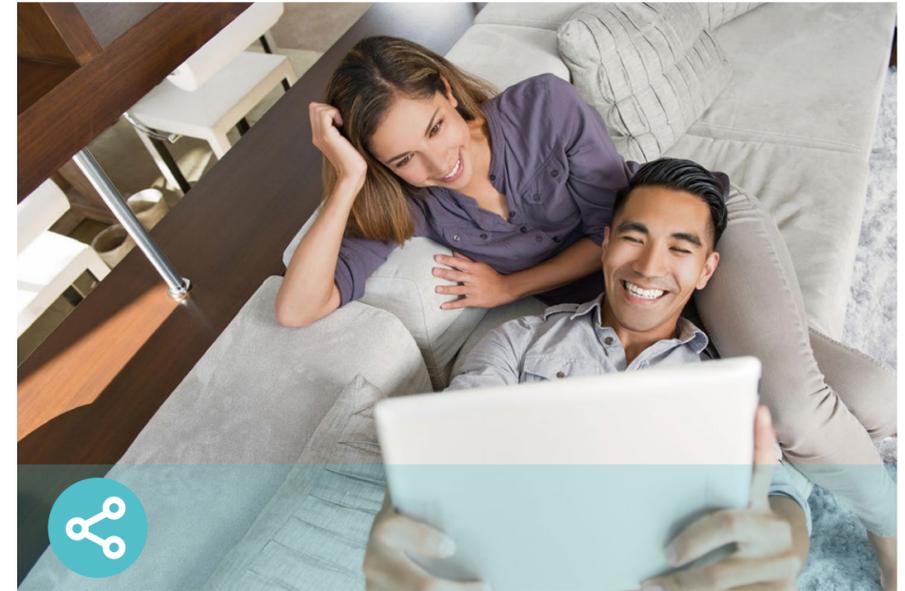
## Ease of Use

- Hassle-free Management with Tether App – Network management is made easy with the TP-Link Tether app, available on any Android and iOS device.
- Intuitive Web UI – Ensures quick and simple installation without hassle.
- WPS (Wi-Fi Protected Setup) – Help you to quickly and securely connect your devices to the router's network with a tap.
- Backwards Compatible – Take your Wi-Fi to the next level while being backwards compatible with existing 802.11 a/b/g/n/ac/ax Wi-Fi standards.
- Works with Google Assistant – Utilize Google Assistant to control everything via voice commands to enjoy truly intelligent life.



## Robust Security

- HomeShield – TP-Link's premium security services keep your home network safe with cutting-edge features for network and IoT protection.\*\*
- Parental Controls – Manage online time and block inappropriate content to control your family's digital habits.
- Guest Network – Provides separate access for guests to secure the home network.
- Advanced WPA3 Encryptions – The latest WiFi security protocol, WPA3, brings new capabilities to improve cybersecurity in personal networks.\*
- Access Control – Establishes an allow list or a deny list to allow or restrict certain devices to access the internet.



## Value-Added Features

- VPN Clients and Server Supported – With VPN client support, BE6500 allows specified devices in your home network to access remote VPN servers without needing to install VPN software on every device.
- Built-in Media Server – Allows you to play music, watch videos and view photos from any device on your network.
- More Values – Advanced functions like IPTV, IPv6 compatibility, and Access Point mode bring more values.

# Specifications

## Wireless

- Standards: IEEE 802.11be/ax/ac/n/a 5 GHz, IEEE 802.11be/ax/n/g/b 2.4 GHz
- WiFi Speeds: 5764 Mbps (5 GHz) + 688 Mbps (2.4 GHz)<sup>†</sup>
- WiFi Range: 4× High-Performance Internal Antennas
- WiFi 7 Features: Multi-Link Operation (MLO), 4K-QAM, and Multi-RUs<sup>◇</sup>
- Working Modes: Router Mode, Access Point Mode

## Hardware

- Ethernet Ports: 1× 2.5Gbps WAN port + 1× 2.5Gbps LAN port + 3× Gigabit LAN ports<sup>§</sup>
- Buttons: Power On/Off Button, Reset Button, WPS Button, Wi-Fi/LED Button

## Security

- WiFi Encryption: WPA, WPA2, WPA3, WPA/WPA2-Enterprise (802.1x)
- Network Security: SPI Firewall, Access Control, IP & MAC Binding, Application Layer Gateway, HomeShield Security
- Guest Network:  
5GHz Guest Network, 2.4 GHz Guest Network
- VPN Server: OpenVPN, PPTP, L2TP, Wireguard VPN Server
- VPN Client: OpenVPN, PPTP, L2TP, Wireguard VPN Client

## Software

- Protocols: IPv4, IPv6
- Service Kits: HomeShield
- EasyMesh: Supported
- Parental Controls: HomeShield Parental Controls
- WAN Types: Dynamic IP, PPPoE, Transix, Xpass, v6 Connect, v6plus, OCN Virtual Connect, IPv6 Option, Other DS-Lite, Static IP, PPTP, L2TP
- Quality of Service: QoS by Device
- Cloud Service: Auto Firmware Upgrade, TP-Link ID, DDNS
- NAT Forwarding: Port Forwarding, Port Triggering, DMZ, UPnP
- DDNS: TP-Link, NO-IP, DynDNS

# Specifications

## Physical

- Dimensions: 7.9 x 6.9 x 2.3 in (200 x 176 x 59 mm)
- Package Contents:
  - Wi-Fi 7 Router Archer BE6500
  - Mounting Bracket
  - Power Adapter
  - Quick Installation Guide

## Other

- System Requirements:
  - Microsoft Edge, Firefox, Chrome, Safari, or other JavaScript-enabled browser
    - \*You are recommended to use the latest version.
  - Cable or DSL Modem (if needed)
  - Subscription with an internet service provider (for internet access)
- Certifications: JPA, JRF, VCCI, RoHS
- Environment:
  - Operating Temperature: 0°C~40°C (32°F ~104°F)
  - Operating Humidity: 10%~90% non-condensing

## Test Data

- WiFi Transmission Power:
  - JP: 2.4GHz≤22dBm, 5G ≤22dBm
- WiFi Reception Sensitivity:
  - 2.4 GHz:
    - 11ax HE20 MCS0: -97dBm, 11ax HE20 MCS11: -66dBm
    - 11ax HE40 MCS0: -95dBm, 11ax HE40 MCS11: -63dBm
    - 11be EHT20 MCS13:-59dBm,11be EHT40 MCS13:-58dBm
  - 5 GHz:
    - 11ax HE20 MCS0:-95dBm, 11ax HE20 MCS11:-65dBm
    - 11ax HE40 MCS0:-94dBm, 11ax HE40 MCS11:-64dBm
    - 11ax HE80 MCS0:-90dBm, 11ax HE80 MCS11:-60dBm
    - 11ax HE160 MCS0:-87dBm, 11ax HE160 MCS11:-57dBm
    - 11be EHT20 MCS13:-58dBm,11be EHT40 MCS13:-57dBm
    - 11be EHT80 MCS13:-54dBm,11be EHT160 MCS13:-51dBm

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<sup>†</sup>Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput, wireless coverage, and connected devices are not guaranteed and will vary as a result of internet service provider factors, network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

<sup>‡</sup>Lower Latency refers to the latency improvement of Wi-Fi 7 routers compared to Wi-Fi 6/6E routers, based on laboratory test data. The test conditions had the same 5 GHz or 2.4 GHz single-frequency wireless interference and tested the maximum latencies of Wi-Fi 7 clients (with MLO turned on) connecting to the 5 GHz and 2.4 GHz bands of Archer BE6500 (with MLO turned on) simultaneously and to the 5 GHz or 2.4 GHz bands of a Wi-Fi 6/6E router (without the MLO function).

<sup>§</sup>Higher capacity and lower latency refers to the capacity and latency improvement of Wi-Fi 7 routers compared to Wi-Fi 6/6E routers, based on laboratory test data.

<sup>§</sup>10 Gbps and 2.5 Gbps internet speeds require compatible service plans and equipment. Actual network speed may be limited by the rate of the product's Ethernet WAN or LAN port, the rate supported by the network cable, internet service provider factors, and other environmental conditions.

<sup>\*</sup>Use of WPA3 requires clients to also support the corresponding feature.

<sup>◇</sup>Use of Wi-Fi 7 (802.11be), Wi-Fi 6 (802.11ax), and features including Multi-Link Operation (MLO), 4K-QAM, Multi-RUs, OFDMA, and MU-MIMO requires clients to also support the corresponding features.

<sup>\*</sup>Wi-Fi generations represent the wireless standard IEEE 802.11 a/b/g/n/ac/ax/be. All devices need to support 802.11 Wi-Fi protocols. Users may require an extra modem device that is compatible with their internet service provider to gain internet access.

<sup>\*\*</sup>HomeShield includes both basic and advanced features. Advanced features require a paid subscription. For details, visit [tp-link.com/homeshield](https://tp-link.com/homeshield)

<sup>\*\*\*</sup>TP-Link EasyMesh-compatible products can network with other devices that use EasyMesh. Failed connections may be due to firmware conflicts of different vendors. The EasyMesh-compatible function is still being developed on some models and will be supported in subsequent software updates.

This router may not support all the mandatory features as ratified in the IEEE 802.11be specification.

Further software upgrades for feature availability may be required.

Pictures are for reference only. If there are any inconsistencies between the product image and the actual product, the actual product shall prevail.