tp-link

Wi-Fi 7

BE11000 Tri-Band Wi-Fi 7 Gaming Router

Redefining Wi-Fi Routers

Archer GE650

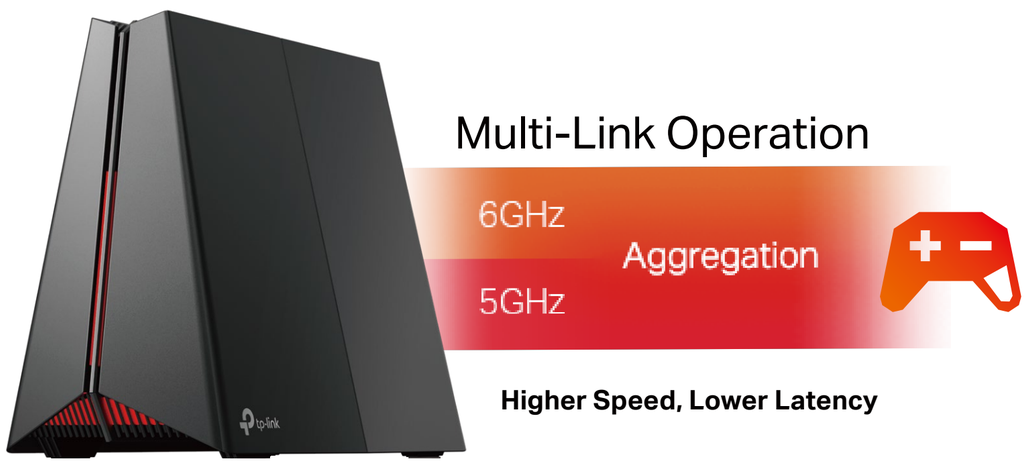
5G Multi-Gigabit Ports
for Blazing-Fast Connectivity[§]

Unprecedented Speeds
up to 11Gbps[†※]

Exclusive Game Acceleration
for Minimal Latency

Highlights

Wi-Fi 7 — Wi-Fi Like Never Before



Blazing-Fast Gaming Wi-Fi up to 11 Gbps

Delivering 5765 Mbps on 6 GHz band, 4324 Mbps on 5 GHz band, and 688 Mbps on 2.4 GHz band, Archer GE650 is always ready for the fiercest battles. Keep your game on track with the dedicated 5GHz gaming band, freeing you from competing with your family's Netflix 4K streaming. †※

4× Faster Speeds with Multi Link Operation

Multi-Link Operation (MLO) enables Archer GE650 to transmit data with Wi-Fi 7 clients across the 6 GHz and 5 GHz bands simultaneously, delivering 4× faster Wi-Fi speeds than Wi-Fi 6/6E routers, to ensure your gaming stays immersive and keep your network as fast as your reaction speed. ‡△

Lightning Attack to Demolish Latency

Never worry about latency again with a 4× reduction compared to Wi-Fi 6/6E routers. Take advantage of incredibly low latency to demolish your opponents. ☆

Command an Army of Devices

The powerful quad-core processor with 2 GB RAM handles massive throughput to numerous devices, eliminating buffering and maximizing entertainment. Get your crew together for the smoothest LAN party you've ever experienced.

Highlights

Exclusive Game Acceleration for Minimal Latency

Prioritize Game Applications with QoS

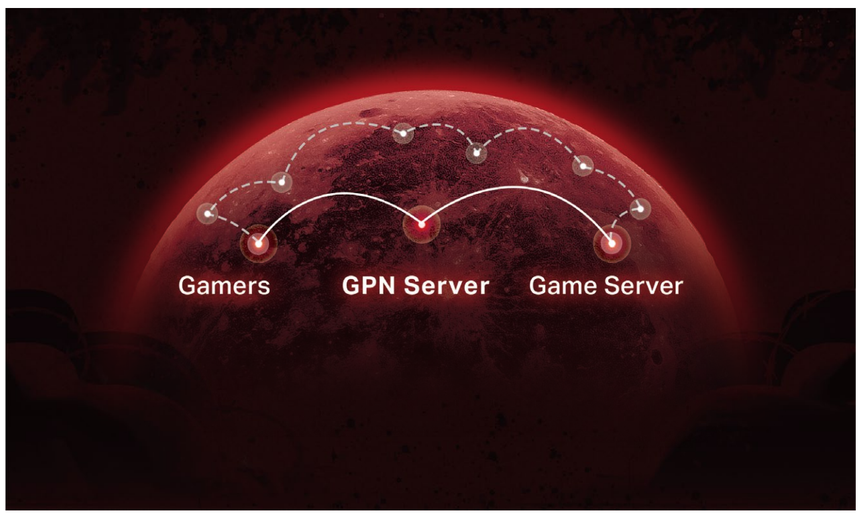
Automatically detects and optimizes gaming streams to accelerate your game applications to run at high speeds, even on a crowded network.

Prioritize Game Devices with the Gaming Port

Automatically prioritizes your game device traffic, letting you focus on play, not battling for bandwidth.

Highlights

Exclusive Game Acceleration for Minimal Latency



Game Server Acceleration by GPN

Slash your game ping and packet loss with GPN (Gamers Private Network). A shorter path from gamers to game servers driven by real-time measurements and AI is your secret weapon for winning.

Mobile Game Acceleration

Minimize lag and latency for mobile gaming during network congestion to give yourself the edge whether you're playing solo or on a team.

Highlights

Flexible Network Port Configurations

Archer GE650 ensures max flexibility and boosted throughput, which provides massive bandwidth to wired gaming devices and ultra-fast internet connections in any gaming scenario. [§]

Obliterate Dead Zones

Enjoy uninterrupted gaming in every corner of your home with 4× optimally positioned antennas, proprietary Wi-Fi optimization, and Beamforming technology. Turn every corner into your personal gaming arena.

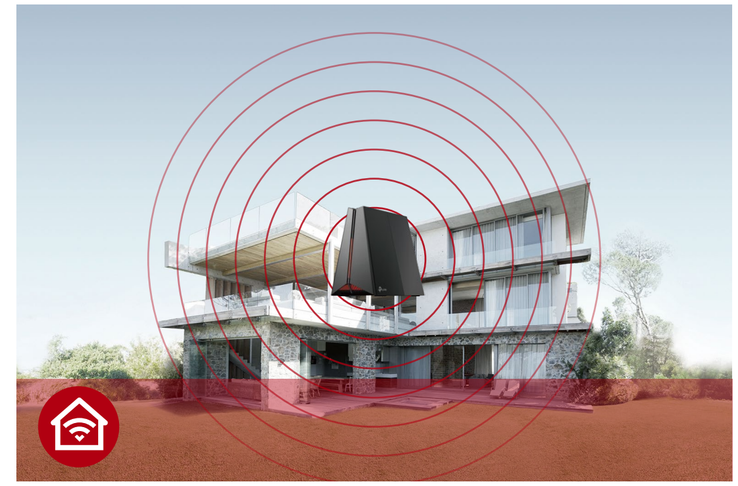
Features

Ultra-Fast Speed

- Warp-Speed BE11000 Wi-Fi – Up to 11 Gbps tri-band Wi-Fi 7 enables gaming, streaming and high-speed downloading on multiple devices—all at the same time.†
- 5G Multi-Gigabit Ports – 1× 5 Gbps Internet port + 1× 5 Gbps LAN port + 3× 2.5 Gbps LAN Ports +1× USB 3.0 port ensure max flexibility and boosted throughput.
- Greenfield 6 GHz Band – Provides robust high-speed connections with a brand-new expansive and congestion-free band.
- Wi-Fi 7 – Wi-Fi 7 (802.11be) features advanced technologies, including Multi-Link Operation (MLO), 320MHz bandwidth, 4K QAM, and Multi-RUs drastically increasing the speed and efficiency of your entire network.‡Δ
- Smart Connect – Intelligently assigns each device to the best Wi-Fi band for optimal performance.

High Capacity and Reliable Connections

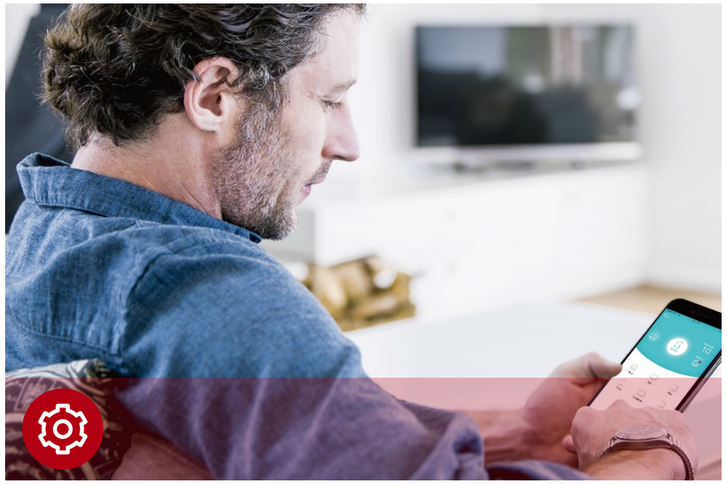
- Maximized Capacity – Communicates with multiple devices via 6 streams and tri-band simultaneously. Combined with OFDMA and MU-MIMO, 6 streams won't affect your online gaming.‡
- 11 Gbps Tri-Band WiFi 7 – Enables your devices to run at full speed. Enjoy fluent 4K/8K streaming, immersive AR/VR gaming, and lightning-fast downloads.†‡
- Airtime Fairness – Balances bandwidth of connected devices to improve overall throughput and efficiency.



Broad Wi-Fi Range

- Maximized Coverage – Proprietary WiFi optimization and 4× optimally positioned antennas along with Beamforming deliver more capacity, stronger and more reliable connections, and less interference.
- 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. **

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 802.11a/b/g/n/ac/ax Wi-Fi standards.
- Works with Amazon Alexa and Google Assistant – Utilize Amazon Alexa and Google Assistant to control everything via voice commands to enjoy truly intelligent life.

Download on the App Store

GET IT ON Google Play

Scan the QR code to download TP-Link Tether.

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 a whitelist or blacklist to allow or restrict certain devices to access the internet.

Value-Added Features

- VPN Clients and Server Supported – With VPN client support, Archer GE650 allows specified devices in your home network to access remote VPN servers without needing to install VPN software on every device.
- USB Ports – Connect external storage devices to rapidly share files, photos, and videos.
- 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 6 GHz, IEEE 802.11be/ax/ac/n/a 5 GHz, IEEE 802.11be/ax/n/g/b 2.4 GHz
- **WiFi Speeds:** 6 GHz: 5765 Mbps (802.11be), 5 GHz: 4324 Mbps (802.11be), 2.4 GHz: 688 Mbps (802.11be)†
- **WiFi Range:** 4× High-Performance Antennas with Optimized Layout
- **WiFi 7 Features:** Multi-Link Operation (MLO), 320 MHz Bandwidth, 4K-QAM, and Multi-RUs‡△
- **Working Modes:** Router Mode, Access Point Mode

Hardware

- **Ethernet Ports:** 1× 5 Gbps Internet Port, 1× 5 Gbps LAN Port , 3× 2.5 Gbps LAN Ports
- **USB Support:** 1× USB 3.0 Port
- **Buttons:** Power On/Off Button, Reset Button, WPS / Wi-Fi Button, LED Button
- **Antennas:** 4× High-Performance Antennas with Optimized Layout

Physical

- **Dimensions:** 9.3 × 5.1 × 7.6 in (237*129.5*193 mm)
- **Package Contents:**

  Wi-Fi 7 Gaming Router Archer GE650

  Power Adapter

  RJ45 Ethernet Cable

  Quick Installation Guide

  Reset Tool

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:**

  6 GHz Guest Network, 5GHz Guest Network, 2.4 GHz Guest Network
- **VPN Server:** OpenVPN, PPTP, L2TP VPN Server, Wireguard VPN
- **VPN Client:** OpenVPN, PPTP, L2TP VPN Client, Wireguard VPN

Software

- **Protocols:** IPv4, IPv6
- **Service Kits:** HomeShield
- **EasyMesh:** Supported
- **Parental Controls:** HomeShield Parental Controls
- **WAN Types:** Dynamic IP, Static IP, PPPoE, 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
- **Gaming Features:** Game Statistics, Game Panel (Network Status, Router Performance, RGB settings, Accelerated Games and Gears)
- **Gaming Acceleration:** Game Application Boost, Accelerate Game Devices with Gaming Port, Game Server Acceleration by Gamers Private Network

Specifications

Test Data

- WiFi Transmission Power:

  FCC: ≤ 30 dBm (2.4 GHz), ≤ 30 dBm (5 GHz), ≤30 dBm EIRP (6GHz)

  CE: ≤ 20 dBm (2.4 GHz), ≤ 30 dBm (5 GHz), ≤23 dBm EIRP (6GHz)
- WiFi Reception Sensitivity:

  2.4 GHz:

  11ax HE20 MCS0:-96dBm, 11ax HE20 MCS11:-68dBm

  11ax HE40 MCS0:-93dBm, 11ax HE40 MCS11:-65dBm

  11be EHT20 MCS0: -96dBm, 11be MCS11: -67dBm

  11be EHT40 MCS0: -93dBm, 11be MCS11 -64dBm

  5 GHz:

  11ax HE20 MCS0:-95dBm, 11ax HE20 MCS11:-66dBm

  11ax HE40 MCS0:-93dBm, 11ax HE40 MCS11:-64dBm

  11ax HE80 MCS0:-89dBm, 11ax HE80 MCS11:-61dBm

  11ax HE160 MCS0:-85dBm, 11ax HE160 MCS11:-58dBm

  11be EHT20 MCS13:-59dBm,11be EHT40 MCS13:-57dBm

  11be EHT80 MCS13:-55dBm,11be EHT160 MCS13:-52dBm

  11be EHT240 MCS13:-48dBm

  6 GHz:

  11ax HE20 MCS0:-95dBm, 11ax HE20 MCS11:-65dBm

  11ax HE40 MCS0:-93dBm, 11ax HE40 MCS11:-63dBm

  11ax HE80 MCS0:-90dBm, 11ax HE80 MCS11:-60dBm

  11ax HE160 MCS0:-87dBm, 11ax HE160 MCS11:-58dBm

  11be EHT20 MCS13:-60dBm,11be EHT40 MCS13:-58dBm

  11be EHT80 MCS13:-54dBm,11be EHT160 MCS13:-52dBm

  11be EHT320 MCS13:-48dBm

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: FCC, CE, RoHS
- Environment:

  Operating Temperature: 0℃~40℃ (32℉ ~104℉)

  Operating Humidity: 10%~90% non-condensing

[1]Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput, wireless coverage, and number of 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.

[1]Use of Wi-Fi 7 (802.11be), Wi-Fi 6 (802.11ax), and features including Multi-Link Operation (MLO), 320 MHz Bandwidth, 4K-QAM, Multi-RUs, OFDMA, and MU-MIMO requires clients to also support the corresponding features. The 320 MHz bandwidth is only available on the 6 GHz band. Simultaneously, the 320 MHz bandwidth on the 6 GHz band and 160 MHz bandwidth on the 5 GHz band may be unavailable in some regions/countries due to regulatory restrictions. Double channel width and speed refer to 320 MHz compared to 160 MHz for Wi-Fi 6 routers.

4× faster Wi-Fi speed refers to the theoretical speeds of Wi-Fi 7 clients when connected to Archer GE650 compared with a Wi-Fi 6 or Wi-Fi 6E router. Wi-Fi 7 clients need to support Multi-Link Operation (MLO) and the 6 GHz band to reach up to 11 Gbps when connected to the 5 GHz and 6 GHz bands of Archer GE650 simultaneously. Wi-Fi 6 and Wi-Fi 6E routers (2T2R) may only provide 2402 Mbps on the 5 GHz or 6 GHz bands separately.

[2]4× 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 6 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 6 GHz bands of Archer GE650 (with MLO turned on) simultaneously and to the 5 GHz or 6 GHz bands of a Wi-Fi 6/6E router (without the MLO function).

*HomeShield includes both basic and advanced features. Advanced features require a paid subscription. For details, visit tp-link.com/homeshield

**Use of WPA3 requires clients to also support the corresponding feature.

**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.

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.

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.

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