

deco™

Wi-Fi 7

# BE16000

## Quad-Band Whole Home Multi-Gig Mesh Wi-Fi 7 System

Quad-Band Wi-Fi Up to  
16 Gbps with 8 Streams†

Whole Home Coverage  
up to 9,600 sq.ft.†

Connects Over  
200 Devices†



Compatible with  
**amazon alexa**



Deco BE16000



# Highlights

## Wi-Fi 7 — Wi-Fi Like Never Before



### 4× Faster Speeds to Power Your Devices<sup>\*</sup>

Multi-Link Operation (MLO) enables Deco BE16000 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 mesh.<sup>^</sup>



### Ultra Smooth Wi-Fi with 4× Lower Latency<sup>\*\*</sup>

4× lower latency than Wi-Fi 6/6E mesh enables emerging applications like VR/AR, video conferencing, and online gaming to always run at top performance.



### Unprecedented 16 Gbps 8-Stream Quad-Band Wi-Fi<sup>†</sup>

Achieve up to 16 Gbps with Wi-Fi 7 technology: 4K-QAM, 6 GHz band with 320 MHz channels, and 8-Stream quad-band. Enjoy full access to 8K streaming and multi-gig downloading.



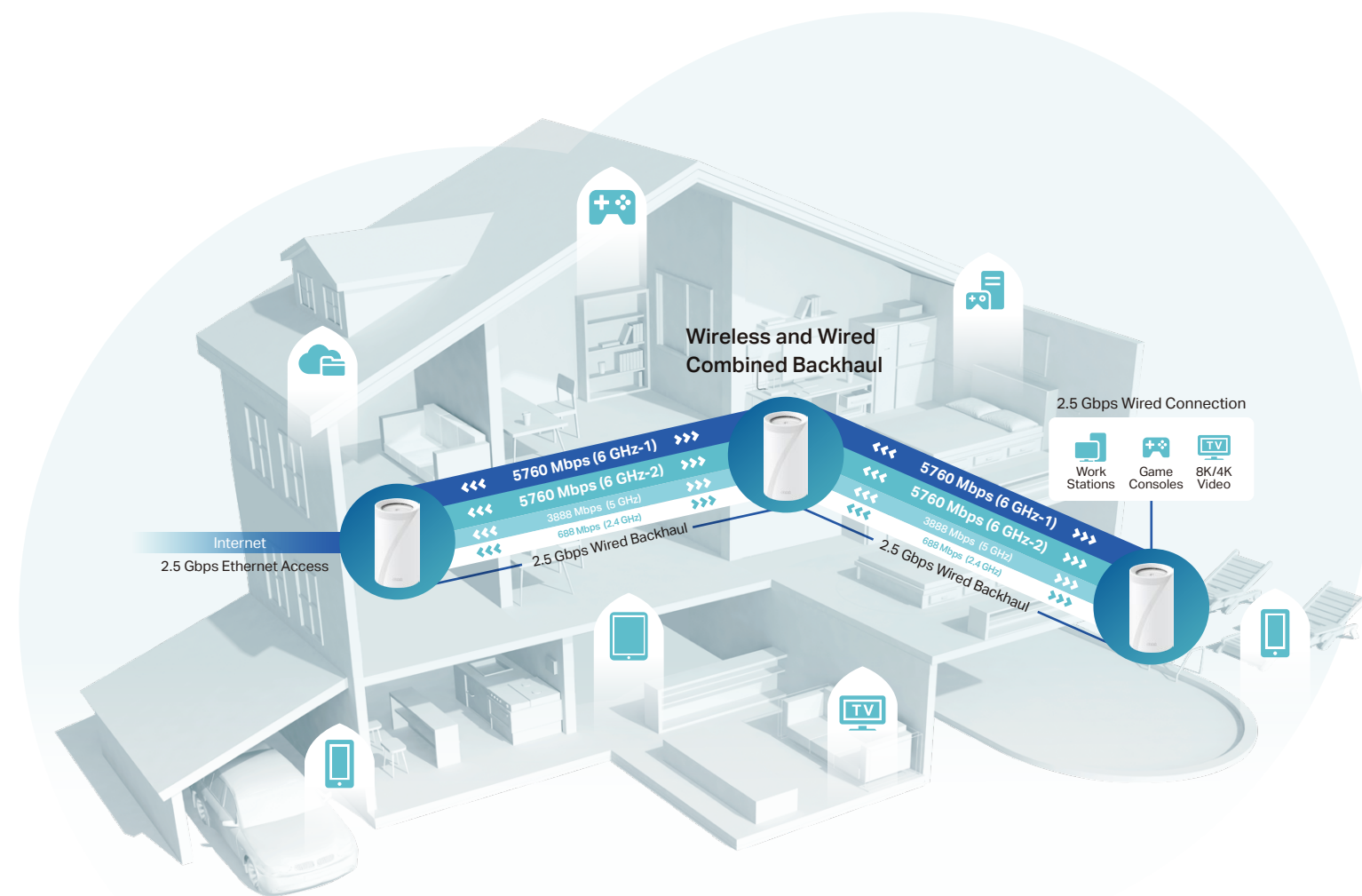
### Designed for More Capacity - Connects over 200 Devices<sup>†</sup>

Equipped with an array of advanced technologies, Deco BE16000 enhances your network's capacity without slowing down your speed. With Multi-RU, MU-MIMO, and OFDMA, all your connected devices can run at top speed simultaneously.

# Highlights

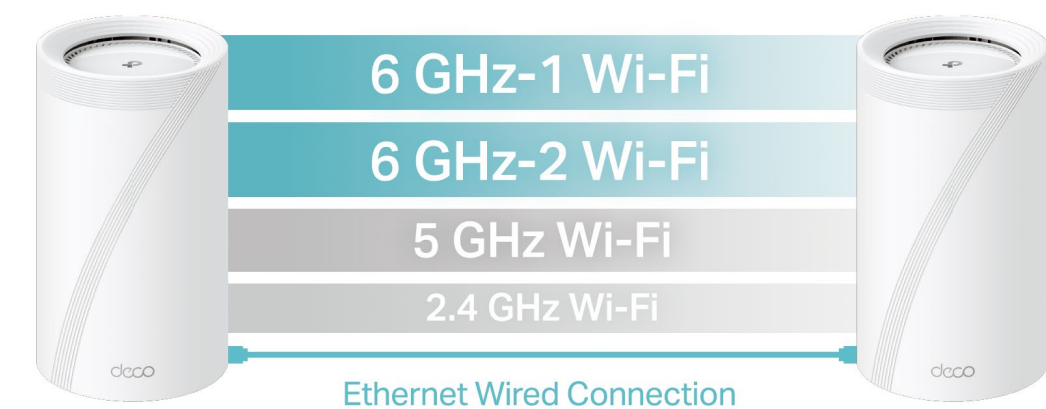
## True Whole Home Multi-Gigabit Mesh Wi-Fi

With 4× 2.5 Gbps WAN/LAN autosensing ports, Deco BE16000 matches 2.5 Gbps ISP network speeds. The other ports can serve as wired backhaul between Deco units or be used as LAN connections.<sup>§</sup> Get the ultimate 2.5 Gbps experience whether wired or wireless to enjoy cloud gaming and 8K videos.<sup>†</sup>



## Wireless and Wired Combined Backhaul

Deco BE16000 can connect a wireless and wired backhaul with each unit simultaneously. With MLO, it greatly improves overall throughput and reduces latency, delivering broader coverage with more stable and reliable connections.



Greatly Reduced Lag for Smooth Wi-Fi

Stable and Reliable Broader Coverage

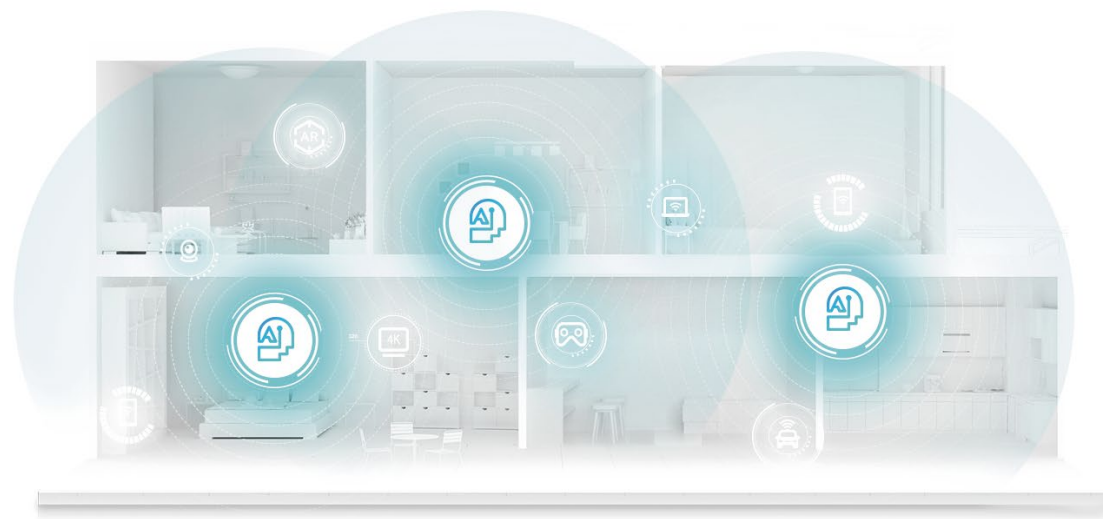
More Device Connections for Higher Capacity


Multi-Link Operation (MLO)<sup>▲</sup>

# Highlights


## Seamless AI-Driven Mesh

Deco Mesh forms a unified network with a single network name. With built-in AI-Roaming technology, it creates the ideal Wi-Fi solution with its advanced algorithms and self-learning. Walk through your home and enjoy seamless streaming at the fastest possible speeds.†



 Seamless Roaming with One Wi-Fi Name

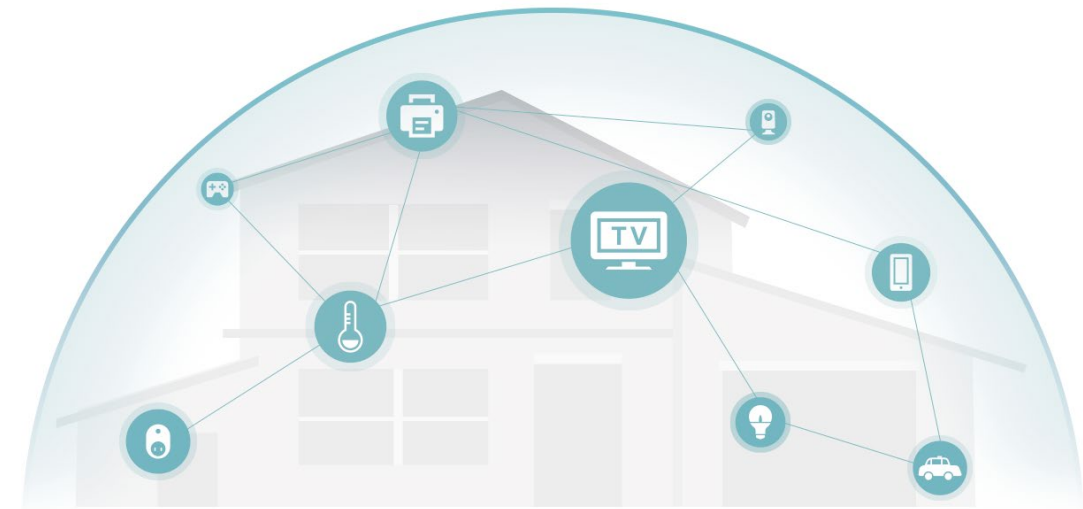
 Sophisticated Algorithms

 Self-Learning Capability

 Customized Wi-Fi

## Enhanced Security – HomeShield

Manage online time and block inappropriate content to keep your family safe online with Parental Controls. Network Protection further keeps your home network safe by preventing potential threats and security issues.\*



 Network Protection

 Parental Controls

 Private IoT Network

 Quality of Service (QoS)

# Features



## Robust Parental Controls

Manage content and control when each device can access the internet

- **Profiles** – Create a profile for each family member, and manage them individually
- **Content Filter** – Four levels are available for filtering content, each catering to a specific age group
- **Time Controls** – Set daily time limits for the total time spent online and block a person's internet access between certain times
- **Pause the Internet** – Pause a family member's internet and resume it whenever you like



## Easy Setup by Deco App

Easily set up Decos and find the ideal spot to place each unit

- **Auto Connection Test** – Test the internet connection of your Decos and helps to identify a suitable location for them
- **Remote Management** – Manage your Deco network from a smartphone or tablet via the app, no matter where you find yourself
- **Online Upgrade** – Keep informed of the latest firmware updates



## Built-In Antivirus

Protect all connected devices in your home from viruses and malware

- **Malicious Content Filter** – Block malicious websites that are listed in real-time updated database to ensure you can surf the net in safety
- **Intrusion Prevention System** – Protect your network and applications against external attacks and eliminates vulnerabilities
- **IoT Devices Protection** – Detect cyber threats to keep your privacy and IoT devices well protected



## Quality of Service

Prioritize devices and applications for faster performance when needed

**For Devices** – Give high priority to the devices that need the fastest internet connection



## Security

Safeguard your home network with a firewall and wireless encryption

- **Encryption for Secure Network** – WPA/WPA2/WPA3 encryptions provide active protection against security threats
- **Firewall** – Protect your network devices from malicious attacks
- **Blacklist** – Add specific devices to blacklist to protect your network from unauthorized users



## Work with All Deco Models

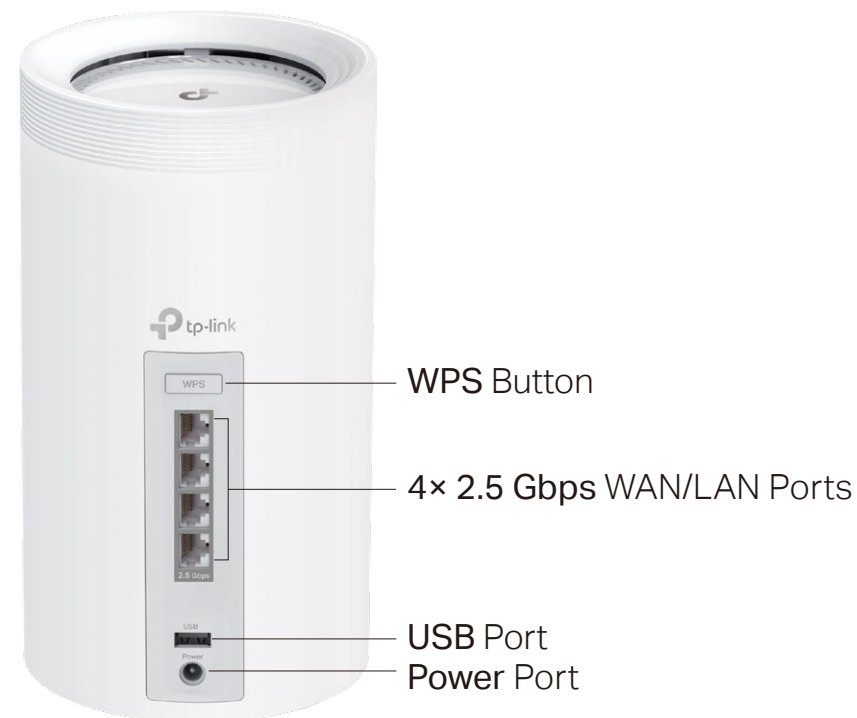
Form a Mesh network with your desired Deco models

All Deco models can work together. Just expand Mesh Wi-Fi coverage anytime by adding more Decos

# Specifications

## Hardware

- Ethernet Port: 4× 2.5 Gbps ports per unit (WAN/LAN auto-sensing)
- Button: 1 RESET button at the bottom, 1 WPS button on the back
- Port: 1× USB Port
- Power Consumption (without power adapter): 31 W max
- Dimensions (W × D × H): 5.04 × 5.04 × 9.29 in (128 × 128 × 236 mm)
- Power Adapter Input: 100-240V~50/60Hz 1A
- Power Adapter Output: 12V  $\equiv$  3.3A



## Wireless

- Wireless Standards: IEEE 802.11b/g/n/ax/be 2.4 GHz, IEEE 802.11a/n/ac/ax/be 5GHz, IEEE 802.11ax/be 6 GHz
- Mesh protocol: 802.11k/v/r
- Frequency: 2.4 GHz, 5 GHz, 6 GHz
- Signal Rate: 5760 Mbps (6 GHz-1) + 5760 Mbps (6 GHz-2) + 3888 Mbps (5 GHz) + 688 (2.4 GHz), 8 Streams<sup>†</sup>
- Transmit Power: FCC: <30 dBm(2.4 GHz), <30 dBm(5 GHz), <30 dBm(6 GHz)
- Wireless Security: WPA/WPA2-PSK/WPA3<sup>‡</sup> encryptions

## Software

- Working Mode: Router, Access Point
- WAN Type: Dynamic IP/Static IP/PPPoE/L2TP/PPTP
- DHCP: Server
- Protocols: Supports IPv4 and IPv6
- Guest Network: 2.4 GHz Guest Network×1, 5 GHz Guest Network×1, 6 GHz Guest Network ×1
- IoT Network: IoT Network×1
- MLO Network: MLO Network×1
- Features: TP-Link HomeShield\*, Multi-Link Operation (MLO)<sup>Δ</sup>, 320 MHz Bandwidth<sup>Δ</sup>, 4K-QAM<sup>Δ</sup>, Multi-RU<sup>Δ</sup>, MU-MIMO<sup>Δ</sup>, OFDMA<sup>Δ</sup>, BSS Color<sup>Δ</sup>
- Management: Local Management; Remote Management; Multi-Managers

## Others

- Certification: FCC, RoHS
- Environment: Operating Temperature: 0°C~40°C (32°F~104°F)  
Storage Temperature: -40°C~60°C (-40 °F~140 °F)  
Operating Humidity: 10%~90% RH  
Storage Humidity: 5%~90% RH
- Package Contents for Deco BE16000(3-pack):  
3 Deco BE16000 units  
1 RJ45 Ethernet cable  
3 Power adapters  
1 Quick Installation Guide

This 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.

Specifications are subject to change without notice. Google, Google Home, and Google Play are trademarks of Google LLC. Other brands and product names are trademarks or registered trademarks of their respective holders.

<sup>†</sup>Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Connection to over 200 devices is based on laboratory test data, which analyzed the connections of different devices on the 6 GHz, 5 GHz, and 2.4 GHz bands simultaneously. These devices simulated a typical home scenario by running simultaneous applications in the same room that included 4K video, 1080p video, 720p video, file downloading, web browsing, IP cameras, and other IoT devices. 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>Clients need to support 802.11k/v/r and may require additional setup. Performance may vary depending on the client device.

<sup>Δ</sup>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, MU-MIMO and BSS Color requires clients to also support the corresponding features. The 320 MHz bandwidth is only available on the 6 GHz band. Simultaneously, the 160 MHz and 240 MHz bandwidths or the 320 MHz bandwidth might not be available on the 5 GHz band or the 6 GHz band, respectively, 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 mesh.

<sup>Δ</sup>4× faster Wi-Fi speed refers to the theoretical speeds of Wi-Fi 7 clients when connected to Deco BE16000 compared with a Wi-Fi 6 or Wi-Fi 6E mesh. Wi-Fi 7 clients need to support Multi-Link Operation (MLO) and the 6 GHz band to reach up to 9.6 Gbps when connected to the 6 GHz and 5 GHz bands of Deco BE16000 simultaneously. Wi-Fi 6 and Wi-Fi 6E mesh may only provide 2402 Mbps on the 5 GHz or 6 GHz bands separately.

<sup>Δ</sup>4× Lower Latency refers to the latency improvement of Wi-Fi 7 mesh compared to Wi-Fi 6/6E mesh, 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 Deco BE16000 (with MLO turned on) simultaneously and to the 5 GHz or 6 GHz bands of a Wi-Fi 6/6E mesh (without the MLO function).

<sup>Δ</sup>2.5 Gbps internet speeds require compatible service plans and equipment. All WAN/LAN ports will operate as either WAN or LAN ports. Only one port can serve as a WAN port at a time.

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

<sup>\*</sup>HomeShield includes the Free Basic Plan. Fees apply for the Pro Plan. Visit [tp-link.com/homeshield](https://tp-link.com/homeshield) for more information.

<sup>Δ</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.

<sup>‡</sup>Users may require an extra modem device that is compatible with their internet service provider to gain internet access.

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

Further software upgrades for feature availability may be required.

©2023 TP-Link

[www.tp-link.com](https://www.tp-link.com)

TP-Link BE16000 Whole Home Mesh Wi-Fi 7 System Deco BE16000