# ASUS RT-BE50 WiFi 7 AiMesh Extendable Router

EXTENDABLE
ROUTER
AiMesh



- **Ultrafast WiFi 7-** WiFi 7 (802.11be) dual-band extendable router boosts speeds up to 3600 Mbps, with 4096-QAM increasing a single frequency band's transmission speed by 1.2 times

- **Unleashing Multi-link operation (MLO) for Ultra-Smooth Connectivity-** Link to multiple bands at the same time to ensure stable internet connections and efficient data transfers.

- **Hassle-free AiMesh Extendable Network-** AiMesh extendable routers enable whole home seamless roaming with rich, advanced features.

- **Comprehensive VPN features –** Including advanced site-to-site VPN and the Instant Guard mobile app for secure connection over public WiFi

- **Establish up to three SSIDs** for parental controls and IoT devices with Smart Home Master Network

- **Flexible 2.5G Ethernet WAN port** for robust wired backhaul and internet speed

## ASUS RT-BE50
# Worry-Free Smart Home WiFi

Elevate your smart home with blazing-fast dual-band Wi-Fi 7 speeds of up to 3600 Mbps and boosted coverage with AI-boosted Smart AiMesh technology. With next-gen ASUS advanced network technologies such as IoT Network, the RT-BE50 safeguard your network end-to-end, 24/7.

IEEE 802.11BE

# Faster, Smarter Home WiFi 7

The ASUS RT-BE50 boasts cutting-edge WiFi 7 technology. Enjoy next-generation speeds and connected experiences for home entertainment and cloud computing, including 8K streaming, HDR gaming, content creation, and AI network.

**Learn more about WiFi 7 >**

Dual-band
### 3600 Mbps

### Dual-band MLO
Lag-free Connection

### 4K-QAM
Up to 20% Faster
Data Transfer*

### Advanced
### 160 MHz Channels
Faster, lower latency &
more devices

*Compared to WiFi 6/6E 1024-QAM

## Blazing-Fast WiFi Speeds

The RT-BE50 unleashes blazing-fast dual-band WiFi 7 speeds up to 3600 Mbps, ensuring seamless streaming, gaming, and compatibility with your legacy IoT devices.

| 5 GHz | 2882 Mbps |
|---|---|
| 2.4 GHz | 688 Mbps |

## Comprehensive MLO Support

Multi-Link Operation (MLO) enables buffering-free connection by intelligently combining and switching between the 2.4 GHz and 5 GHz bands. ASUS RT-BE50 is built for the future of all WiFi 7 devices, regardless of the MLO mode they use*.
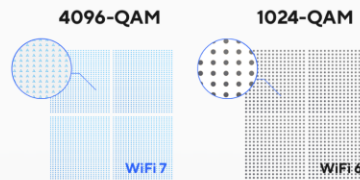
| Simultaneous MLO | 5 GHz / 2.4 GHz | Aggregation |
|---|---|---|
| Alternating MLO | 5 GHz / 2.4 GHz | Seamless switching |

*Supported MLO modes and bands may vary by device. Please refer to device specifications for details.

## Advanced 160 MHz Channels

The RT-BE50 supports ultrawide 160 MHz channels, delivering ultrafast data transfer rates, reduced latency, and enhanced performance for a smoother network experience.

*Compared to WiFi 6E 160 MHz channels

160 MHz

80 MHz

## Efficient 4K-QAM Transmission

Compared to 1024-QAM with WiFi 6/6E, 4096-QAM allows each signal to more densely incorporate larger amounts of data, delivering up to 20% more efficient data transmission*.

*Compared to WiFi 6/6E

4096-QAM          1024-QAM

WiFi 7              WiFi 6
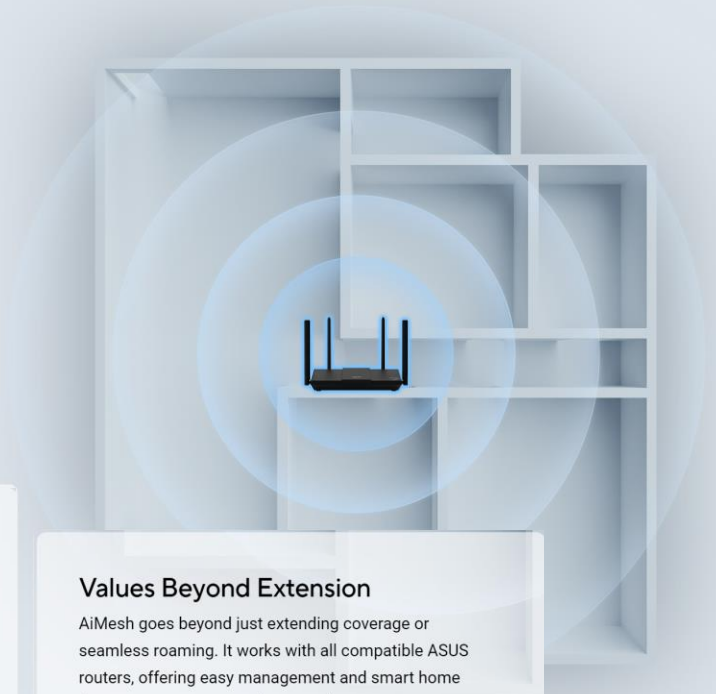
MESH WIFI

# WiFi 7 Powering AiMesh

RT-BE50 utilizes the power of WiFi 7 MLO into next-gen AiMesh technology, delivering wider coverage, a more stable and secure network and a feature-rich network experience – all under one network name for your entire smart home.

**Learn more about extendable routers >**

**EXTENDABLE ROUTER**
AiMesh

Coverage up to
**2,000 sq. ft.**

## Extend Your Network Easily

RT-BE50 extends your home network easily with any AiMesh-compatible ASUS router, regardless of WiFi generation. By repurposing your older routers as mesh nodes, you can enhance your network coverage while reducing electronic waste.

## Values Beyond Extension

AiMesh goes beyond just extending coverage or seamless roaming. It works with all compatible ASUS routers, offering easy management and smart home features across your entire network.

## Connectivity

Enjoy versatile and ultrafast multi-gigabit smart home networking with the RT-BE50.

### High-speed 2.5G Port

The RT-BE50 includes one 2.5G WAN port for high-speed entertainment, home offices, and ultrafast ethernet backhaul.
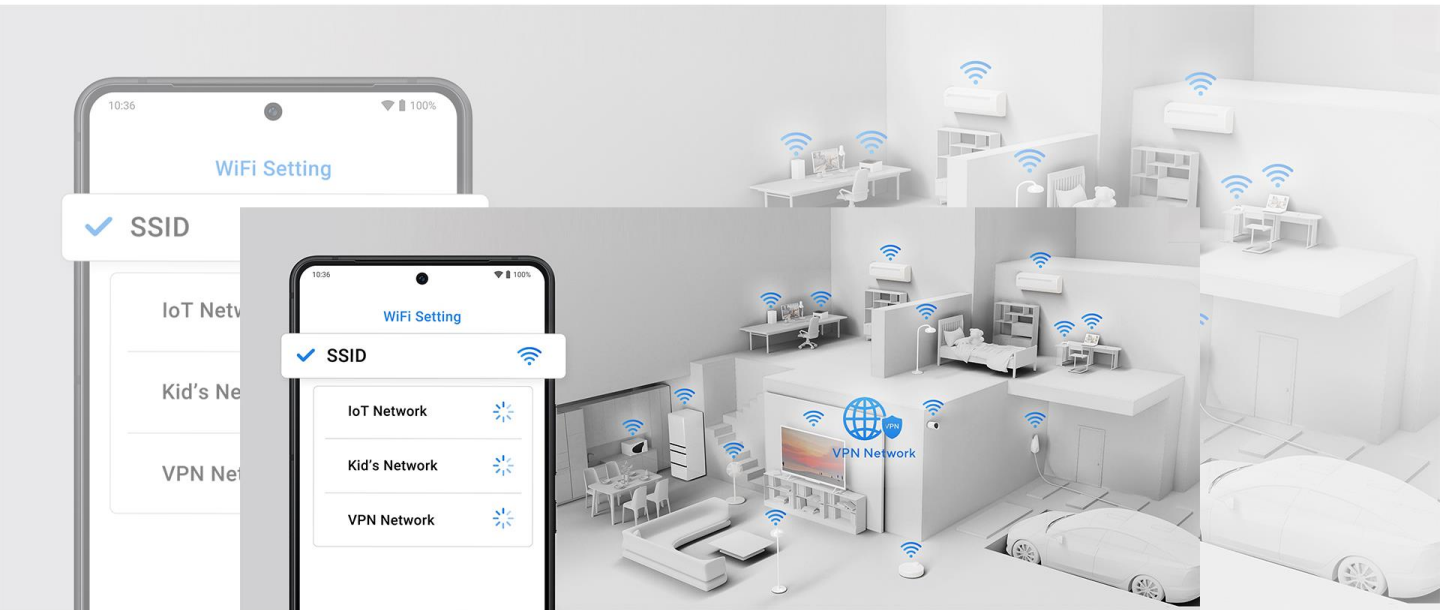
**2.5 Gbps**

NETWORK SEGMENTATION

# Feature-packed Smart Home Master SSIDs

ASUS Smart Home Master subnetwork management streamlines the process of creating or connecting to dedicated SSIDs with advanced features like parental controls and VPNs

Learn more about Smart Home Master Master Network >

## IoT Network

Set up and manage all your IoT devices under one secure SSID to provide enhanced security with commercial-grade protection.

## Kid's Network

Create a dedicated SSID just for the kids to easily manage their screen time without needing to configure each device individually.

## VPN Network

Connect to your preferred VPN service with a single click through a dedicated subnetwork.
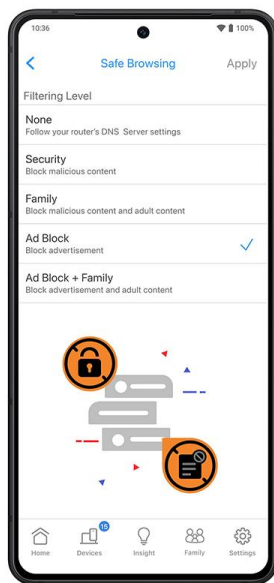
**Specifications**

## Stay Protected Anywhere, Anytime

Enjoy secure browsing, data privacy, remote access – extensive ASUS VPN capabilities handle it all. The RT-BE50 supports versatile VPN protocols, including the cutting-edge WireGguard® for lightning-fast speeds and optimal performance.
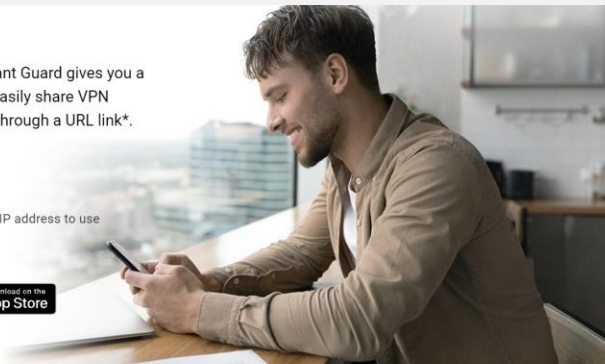
**Learn more about ASUS VPNs >**

WireGuard®
(via Ethernet)         Up to 300Mbps

OpenVPN
(via Ethernet)      Up to 150Mbps

### Instant Guard

When away from home, ASUS Instant Guard gives you a one-tap secure VPN, and you can easily share VPN protection with family and friends through a URL link*.

**How to set it up?**

*The router must have a public IPv4 WAN IP address to use ASUS Instant Guard.

GET IT ON Google Play          Download on the App Store

### Multiple VPN Connection

Connect to multiple encrypted VPN tunnels simultaneously while maintaining performance for other devices on your network.

ASUS ROUTER APP

# Three-Step Easy Setup, Powerful Controls

The intuitive interface of the ASUS Router mobile app makes managing your network simple on your smartphone. Simply follow the on-screen directions, and you will be up and running in no time!

**Learn more about the ASUS Router App >**

GET IT ON Google Play

Download on the App Store

System Setup

RT-BE50

Get Started

Advanced Settings

# Specifications

| | |
|---|---|
| Network Standard | IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac, IEEE 802.11ax, 802.11be, IPv4, IPv6 |
| Product Segment | BE3600 ultimate BE performance: 688+2882 Mbps |
| Coverage | Small homes |
| Data Rate | 802.11be (2.4GHz) : up to 688 Mbps<br>802.11be (5GHz) : up to 2882 Mbps |
| Antenna | External antenna x 4 |
| Transmit/Receive | 2.4 GHz 2x2<br>5 GHz 2x2 |
| Processor | 1.1 GHz quad-core processor |
| Memory | 256 MB Flash<br>128 GB RAM |
| Wi-Fi Technology | MLO (Multi-link Operation)<br>OFDMA (Orthogonal Frequency Division Multiple Access)<br>Beamforming: standard-based and universal<br>4096-QAM high data rate<br>20/40/80/160 MHz bandwidth |
| Operating Frequency | 2.4 GHz, 5 GHz |
| Encryption | WPA3-Personal, WPA2-Personal, WPA-Personal, WPA-Enterprise , WPA2- Enterprise , WPS support |
| Firewall & Access Control | Firewall: SPI intrusion detection, DoS protection<br>Access control: Parental control, Network service filter, URL filter, Port filter |
| Management | UPnP, IGMP v1/v2/v3, DNS Proxy, DHCP, NTP Client, DDNS, PPPoE Port Trigger, Port Forwarding, DMZ, System Event Log |
| WAN Connection Type | Internet connection type : PPPoE, PPTP, L2TP, Automatic IP, Static IP |
| Utilities | Router setup wizard; Firmware restoration; Device discovery; printer setup utility |
| Ports | RJ45 for 2.5 Gigabits BaseT for WANx 1, RJ45 for Gigabits BaseT for LAN x 3 |

# Specifications

| | |
|---|---|
| VPN Support | PPTP Pass-Through, L2TP Pass-Through, IPSec Pass-Through |
| | RTSP Pass-Through, H.323 Pass-Through, SIP Pass-Through, |
| | PPPoE Relay |
| | IPSec server |
| | PPTP server |
| | OpenVPN server |
| | PPTP client |
| | L2TP client |
| | OpenVPN client |
| Button | WPS Button, Reset Button |
| LED Indicator | Power x 1 |
| Power Supply | AC Input : 100V~240V(50~60Hz)<br>DC Output : 12 V with max. 1.5 A current |
| Operation mode | Wireless router mode<br>Access point mode<br>Media bridge mode<br>Repeater mode<br>AiMesh node mode |
| Product Dimensions | 261*156*50 mm / 10.28*6.14*1.97 inch |
| Product Weight | 450 g / 0.99 lb |

# Specifications

| Features | |
|---|---|
| | **Router app** |
| | **MU-MIMO** |
| | **Traffic Analyzer** |
| | **Traditional QoS** |
| | **Parental Control** |
| | **Guest Network** : Up to 3 SSIDs |
| | **NAT Pass-Through**: PPTP Pass-Through, L2TP Pass-Through, IPSec Pass-Through, RTSP Pass-Through, H.323 Pass-Through, PPPoE relay |
| | **IPTV support** |
| | **Roaming Assist** |
| | **OFDMA** |
| | **Beamforming** |