

AX3000 Dual-Band Wi-Fi 6 Router

Model: MR81WX



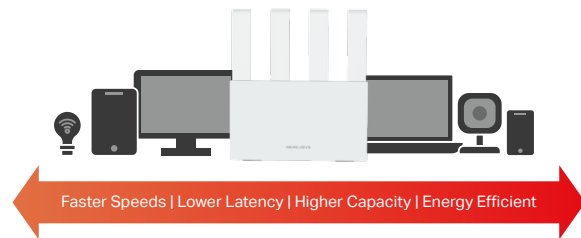
// Highlights

- Ultra-Fast Wi-Fi 6 Speeds up to 3 Gbps[†]
- Connect 4× More Devices[§]
- Beamforming with High-Gain Antennas for a Wider Coverage
- VPN Server and Client Supported
- Latest WPA3 Wireless Encryption[^]



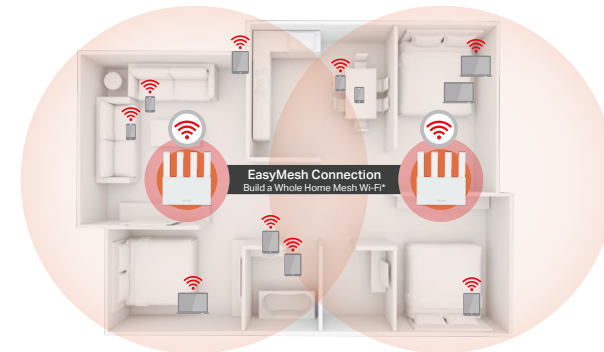
// Crank Up Your Wi-Fi to 6

The latest Wi-Fi 6 standard applies advanced technology designed to deliver more simultaneous connections, extend Wi-Fi range, and maintain reliably fast data transmissions, satisfying demands for high-performance wireless experiences.



// EasyMesh-Compatible

MR81WX is compatible with EasyMesh for a smooth whole home mesh Wi-Fi network, preventing drops and lag when switching signals. Enjoy uninterrupted streaming while roaming your house.*

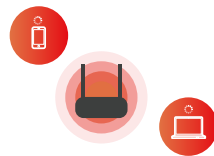


// Expansive Wi-Fi Range

Four powerful high-gain antennas armed with advanced wireless technology provide strong signals throughout your home. Beamforming detects your connected devices and concentrates wireless signal strength towards them, making your connections more stable.



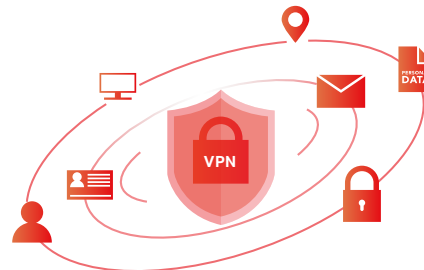
MR81WX with Beamforming



Regular Router without Beamforming

// Secure VPN Access

Easily set up VPN client or server modes directly on the router. Ideal for secure remote access, private browsing, and major protocols compatibility, including WireGuard, OpenVPN, L2TP/IPSec, and PPTP.



// Smart Connect

Smart Connect combines the 2.4 GHz and 5 GHz bands into a single Wi-Fi SSID and helps your devices intelligently choose the best available band that has the stronger signal and faster speed, keeping your devices always running optimally.



// Specifications

Hardware

Ports

1× Gigabit WAN Port + 4× Gigabit LAN Ports

Buttons

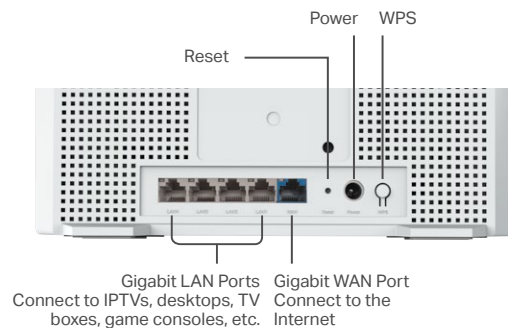
Reset Button, WPS Button

Dimensions

226.3 × 55.26 × 132.97mm
(89.1 × 21.8 × 52.4 inches)

Antennas

4× 5 dBi Fixed Omni-Directional Antennas



Wireless

Wireless Speed

2402 Mbps (5 GHz) + 574 Mbps (2.4 GHz)[†]

Wireless Standards

802.11ax/ac/a/b/g/n

Wireless Features

OFDMA, MU-MIMO, 160 MHz Channel, 1024-QAM[‡]

Advanced Features

IPTV, IPv6, Access Point Mode, DHCP Server, and Smart Connect

Transmission Power

EIRP≤20dBm (2.4 GHz), EIRP≤23dBm (band1/band2), EIRP≤30dBm (band3)

Reception Sensitivity:

2.4G:

11g 6Mbps: -96.5dBm

11g 54Mbps: -79dBm

11ax HE20 MCS0: -96dBm

11ax HE20 MCS11: -66.5dBm

11ax HE40 MCS0: -93.5dBm

11ax HE40 MCS11: -63.5dBm

5G:

11a 6Mbps: -95dBm

11a 54Mbps: -76.5dBm

11ac VHT20 MCS8: -73.5dBm

11ac VHT40 MCS9: -68.5dBm

11ac VHT80 MCS9: -65dBm

11ax HE20 MCS11: -65dBm

11ax HE40 MCS11: -62dBm

11ax HE80 MCS11: -59dBm

11ax HE160 MCS11: -56dBm

Wireless Function

Enable/Disable Wireless Radio, WMM

Security Features

- WPA-PSK/WPA2-PSK/WPA3-SAE[▲]
- Guest Network Access
- Firewall Protection
- VPN Support: OpenVPN/PPTP/L2TP/WireGuard VPN Server and Clients

// Specifications

Software

WAN Type

Dynamic IP/Static IP/PPPoE/L2TP/PPTP

DHCP

Address Reservation, Server, DHCP Client List

NAT Forwarding

Port Forwarding, Port Triggering, UPnP, DMZ

Management

Access Control

Local Management

Remote Management

Firewall Security

SPI Firewall, IP and MAC Address Binding

Guest Network

2.4 GHz Guest Network, 5 GHz Guest Network

Protocols

IPv4, IPv6

Cloud Service

Auto Firmware Upgrade, Mercusys ID, DDNS

DDNS

Mercusys, NO-IP, DynDNS

Quality of Service

QoS by Device

EasyMesh Supported

Parental Controls Supported

Others

Package Contents

- AX3000 Wi-Fi 6 Router MR81WX
- Power Adapter
- Quick Installation Guide
- RJ45 Ethernet Cable

Environment

- Operating Temperature: 0°C~40°C (32°F~104°F)
- Operating Humidity: 10%~90% Non-Condensing
- Storage Humidity: 5%~90% Non-Condensing

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†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 network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

‡Use of 802.11ax (Wi-Fi 6), and features including OFDMA, MU-MIMO, 1024-QAM, BSS Color, and Target Wake Time requires clients to also support the corresponding features. Actual power reduction by Target Wake Time may vary as a result of network conditions, client limitations, and environmental factors. This router may not support all the mandatory features as ratified in Draft 3.0 of IEEE 802.11AX specifications. Further software upgrades for feature availability may be required.

§The 802.11ax white paper defines standardized modifications to both the IEEE 802.11 physical layers (PHY) and the IEEE 802.11 Medium Access Control (MAC) layer as enabling at least one mode of operation capable of supporting improvement of at least four times the average throughput per station (measured at the MAC data service access point) in a dense deployment scenario.

△Use of WPA3 requires clients to also support WPA3.

*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 product is compatible with standardized EasyMesh technology but has not obtained the Wi-Fi EasyMesh™ certification.