MERCUSYS®

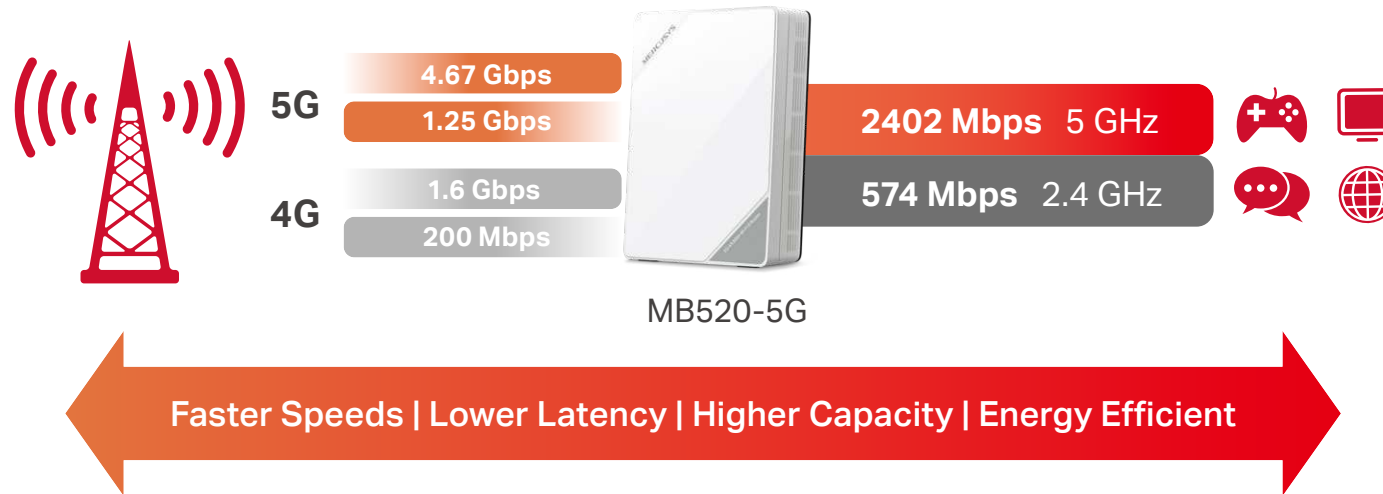# 5G AX3000 Wireless Dual Band Router
Model: MB520-5G

5G

// Highlights

- 2402 Mbps + 574 Mbps Dual Band Wi-Fi†

- 2.5 Gbps Multi-Gig Wired Connection*

- Connect up to 256 Devices

- Easy App Control

Download on the **App Store**

GET IT ON **Google Play**

VoLTE
RJ11 PHONE PORT

2.5G
MULTI-GIGABIT PORT

EasyMesh Compatible

Superior 5G Speed and Wi-Fi 6 for Reliable Wi-Fi‡

Working as a 5G router, MB520-5G leverages 5G technology to deliver download speeds of up to 4.67 Gbps and 1.25 Gbps upload.§ It can also share a dual band Wi-Fi network with a max speed of 2402 Mbps on 5 GHz and 574 Mbps on 2.4 GHz for Ultra HD movies, immersive gaming, and more.†

5G
4.67 Gbps
1.25 Gbps

4G
1.6 Gbps
200 Mbps

2402 Mbps 5 GHz
574 Mbps 2.4 GHz

MB520-5G

Faster Speeds | Lower Latency | Higher Capacity | Energy Efficient

Features

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

Connect up to 256 Devices

5G/4G External Antenna Ports

Easy App Control

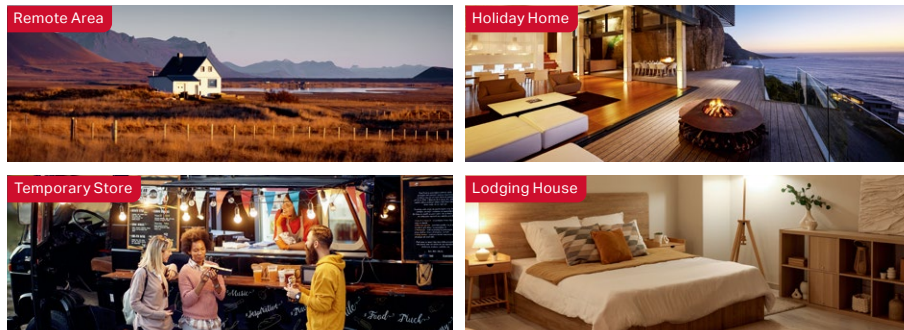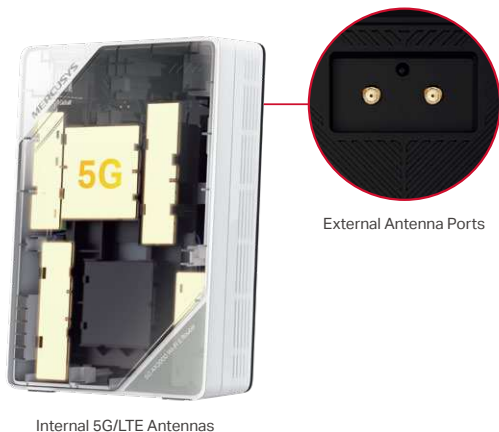SIM Card Plug and Play△

5G Download Speed up to 4.67 Gbps§

Unmatched Convenience and Versatility

Ideal for homes without fiber, this device offers fast, stable Wi-Fi with no rewiring required—just insert a SIM card and power on. Perfect for both home and remote work setups.

Remote Area

Holiday Home

Temporary Store

Lodging House

Share Wi-Fi with Your Friends

A remarkable number of wireless devices are compatible with MB520-5G without issue. Connect up to 256 devices simultaneously, including tablets, laptops, and mobile phones.

256 Devices

VR

Connect up to 256 Devices

Designed for Maximum Network Coverage

Advanced internal 5G/LTE antennas deliver fast, stable connections for all your devices, while external ports support additional antennas for extended range.

5G

External Antenna Ports

Internal 5G/LTE Antennas

Versatile Ports for Every Need

• Fast 2.5G WAN/LAN Connection
With fully functional WAN/LAN ports, MB520-5G doubles as a router, supporting cable for uninterrupted connectivity.

• Professional Voice Technology
MB520-5G features a phone port for landline use, enabling simultaneous calling and internet access via VoLTE.

Multi-Gigabit Port
2.5 Gbps

Telephone VoLTE

// Specifications

Hardware

- **Wireless:** 2402 Mbps (5 GHz) + 574 Mbps (2.4 GHz), compatible with IEEE 802.11ax/ac/a/b/g/n‡
- **5G:** Download Speed 4.67 Gbps + Upload Speed 1.25 Gbps§
- **LTE Cat19:** Download Speed 1.6 Gbps + Upload Speed 200 Mbps§
- **Ports:** 1× Nano SIM Card Slot + 1× 2.5 Gbps WAN/LAN Port + 1× 1 Gbps LAN Port + 1× RJ11 Phone Port + 2× SMA Antenna Ports
- **Buttons:** 1×WPS Button + 1×Reset Button
- **Dimensions:** 190 × 130 × 69.7 mm (7.5 × 5.1 × 2.7 in)
- **External Power Supply:**
  12V/2A

5G/4G External Antenna Ports

WPS
Reset
RJ11 Phone Port
2.5 Gbps WAN/LAN Port
1 Gbps LAN Port
Power   LED

Nano SIM Card Slot

Wireless

- **Network Type (EU):**
  Compatible with most of mobile operators and supports 5G/4G/3G:
  5G: N1/N3/N5/N7/N8/N20/N28/N38/N40/N41/N77/N78 (2100/1800/850/2600/900/800/700/2600/2300/2500/3700/3500 MHz)
  FDD-LTE: B1/B3/B5/B7/B8/B20/B28(2100/1800/850/2600/900/800/700 MHz)
  TDD-LTE: B38/B40/B41/B42/B43 (2600/2300/2500/3500/3700 MHz)
  DC-HSDPA/HSPA+/HSPA/UMTS: B1/B5/B8 (2100/850/900 MHz)
- **Frequency:** 2.4 GHz, 5 GHz
- **EIRP (CE):**
  2.4 GHz < 20 dBm
  5 GHz band1, 2 < 23 dBm
  5 GHz band3 < 30 dBm
- **Reception Sensitivity:**
  5 GHz:
  11ax HE20: -64 dBm
  11ax HE40: -61 dBm
  11ax HE80: -59 dBm
  11ax HE160: -56 dBm
  11ac VHT20: -70 dBm
  11ac VHT40: -67 dBm
  11ac VHT80: -64 dBm
  2.4 GHz:
  11ax HE20: -66 dBm
  11ax HE40: -62 dBm
  11ac VHT20: -71 dBm
  11ac VHT40: -67 dB
- **Wireless Function:** Enable/Disable Wireless Radio, Wireless Schedule, WMM, Wireless Statistics
- **Wireless Security:** WPA-PSK/WPA2-PSK/WPA3-SAE△

▐ Specifications

Software

- **Operating Modes:**
  5G/4G/3G Router, Wireless Router
- **WAN Type:**
  Dynamic IP/Static IP/PPPoE/PPTP(Dual Access)/L2TP(Dual Access)
- **DHCP:**
  Server, DHCP Client List, Address Reservation
- **Port Forwarding:**
  ALG, Virtual Server, Port Triggering, UPnP, DMZ
- **Dynamic DNS:**
  DynDns, NO-IP
- **Security:**
  IPv4 SPI Firewall, IPv6 Firewall, IP and MAC Address Binding
- **Protocols:**
  IPv4, IPv6
- **Management:**
  Local Management, Remote Management
- **Administration:**
  Upgrade Firmware, Factory Default, System Log, Diagnostic Tools
- **Guest Network:**
  2.4 GHz Guest Network, 5 GHz Guest Network

Others

- **Certification:**
  CE, RoHS
- **Requirements:**
  Internet Explorer 11+, Firefox 12.0+, Chrome 20.0+, Safari 4.0+, or other JavaScript-enabled browser
  Nano SIM Card
- **Environment:**
  Operating Temperature: 0℃~40℃ (32°F ~104°F)
- **Package Contents**
  5G AX3000 Wireless Dual Band Router (MB520-5G)
  Power Adapter
  RJ45 Ethernet Cable
  RJ11 Phone Cable
  Quick Installation Guide