



Gigabit Dual-Band Wi-Fi 6 Router RG-MA2820(T) Product Datasheet V1.0



Ruijie Networks Co., Ltd.

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Contents

1 Product Appearance.....	1
2 Product Overview	2
3 Product Features	5
4 Technical Parameters.....	7
5 Ordering Information	9



1 Product Appearance

RG-MA2820(T) has a white body with cambered surfaces that feature a matte texture. The simple and elegant design applies to all kinds of household styles and does not occupy much space. With a smart antenna embedded in the small cube body, it is pleasing in appearance and ensures a strong signal. Ventilation holes are placed at the bottom of the product to prevent dust accumulation. Every detail shows its unique quality and Ruijie's craftsmanship in building refined products.



Ruijie RG-MA2820(T) product picture, front-view (left), rear-view (right)

2 Product Overview

RG-MA2820(T) complies with the 802.11ax standard and supports 2.4 GHz dual-stream and 5 GHz dual-stream. It features 1800 Mbit/s wireless throughput capability, which meets the high-performance access needs of smart homes. To implement data forwarding, security, and access control for wireless users, RG-MA2820(T) fully considers factors like wireless network security, RF management, mobile access, and QoS guarantee.

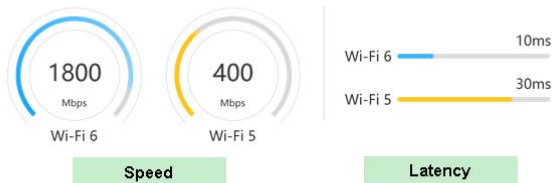
This product uses a Broadcom chip to provide a better network experience. With Ruijie's anti-interference pre-ax technology, it manages signal interference in the home's wireless environment and can intelligently schedule terminals with different signals and rates to ensure that each terminal provides an excellent experience.



High Speed, Low Latency, and Multiple Connections

4 times bandwidth improvement, up to 128 connections

The Broadcom BCM6755 chip, a mature and stable Wi-Fi 6 chip that is widely used around the world, provides Gigabit wireless access performance. 11,400 DMIPS computing capability and multi-terminal access scheduling algorithm optimization provide a high-speed and low-latency wireless experience for each terminal even in homes with multiple terminals.



Smart Antenna, Ensuring Strong Signal Strength

Play games anytime, anywhere, without lag

With Ruijie's latest X-sense antenna matrix, the RG-MA2820(T) prevents coverage dead zones. X-sense can customize an optimal antenna path for you at any corner, bringing you an excellent wireless experience anytime, anywhere.



3 Product Features

- Auto pop-up window on first boot-up: By default, upon connection with a wireless network, the network access settings page displays. User-friendly instructions can help you complete network access setting within 3 minutes.
- Dual bands: The product supports both 2.4 GHz and 5 GHz connections and can automatically select a frequency band based on the terminal type.
- Multi-SSID configuration: The product can send multiple SSID signals, which can be independently configured.
- Wi-Fi switch: Each SSID signal can be individually enabled and disabled.
- Unauthorized network access prevention: The product can hide Wi-Fi signals to prevent other unauthorized persons from accessing the network.
- Mesh function: Mesh Wi-Fi connections provide network coverage in large houses. The mesh function can be configured using WPS buttons or by logging in to the eWeb. Its strong roaming function ensures an excellent Internet experience in every part of the home.
- Parental control: Time-based terminal and website keyword screening help ensure that children can surf the Internet safely.

- LED indicator control: The LED indicators on the product can be manually turned off to prevent them from disturbing your evening.
- Other features: It supports NAT, IPv6 network access, DHCP server and client, and DNS proxy.

4 Technical Parameters

Product Model	RG-MA2820(T)
Transmission Protocol	It supports simultaneous operation of 802.11b/g/n/ax and 802.11a/n/ac/ax.
Operating Band	802.11B/g/n/ax: 2.4–2.4835 GHz 802.11A/n/ac/ax: 5.150–5.250 GHz, 5.725–5.850 GHz (Note: The operating band configuration varies depending on the country.)
Spatial Streams	Two 2.4 GHz streams and two 5 GHz streams
Transmission Rate	The 2.4 GHz band provides a maximum access speed of 574 Mbit/s, and the 5 GHz band provides a maximum access speed of 1.2 Gbit/s. The product provides an access speed of 1.77 Gbit/s.
Modulation	DSSS: DBPSK@1 Mbit/s, DQPSK@2 Mbit/s, and CCK@5.5/11 Mbit/s OFDM: BPSK@6/9 Mbit/s, QPSK@12/18 Mbit/s, 16-QAM@24 Mbit/s, 64-QAM@48/54 Mbit/s MIMO-OFDM: QPSK, 16QAM, 64QAM, 256QAM, and 1024QAM
Maximum TX Power	< 24 dBm (integrated power) The actual TX power may vary in different countries and regions according to the regulations of each country or region.
Chip	Broadcom BCM6755
CPU Clock Rate	Quad core, 1.5 GHz
DMIPS	11400
RAM	256 MB
Flash	128 MB
Dimensions (H x W x D)	114 mm x 110 mm x 110 mm
Weight	≤ 0.47 kg (net weight)
Installation Method	Desk-mounted
Service Ports	1 x GE WAN port + 3 x GE LAN ports
Power Supply	12 V DC, 1 A
IP Rating	IP41
Environment	Operating temperature: –5°C to +45°C Storage temperature: –40°C to +70°C Operating humidity: 5% to 95% (non-condensing) Storage humidity: 5% to 95% (non-condensing)
Maximum Power Consumption	< 12 W
Safety Standard	GB4943, EN60950-1, IEC60950-1
EMC Standard	GB9254, GB17618, EN301 489-1, EN301 489-17
Radio Standard	Radio transmission equipment model approval, EN300 328, EN301 893

Software Parameters	RG-MA2820(T)
Operating Mode	Router, bridge, and wireless trunk
External Network Settings	External network information display
	Network access setting (IPv4)
	Network access setting (IPv6)
Basic Wireless Settings	Wireless functional switch
	Multi-SSID requirements
	Wireless network hiding
	Wireless name
	Wireless encryption
Terminal Management/Access Control	IP address, MAC address, and other information of wireless and wired devices
	Wireless network blacklist and whitelist settings
Internal Network Settings	LAN settings
	DHCP server settings
	Advanced settings (IPv4/IPv6 multicast and UPnP)
Wireless Advanced Settings	Wireless access control
	WPS function
	5 GHz preferred
	Wireless roaming
	Wireless trunk
Other Functions	Firewall
	Network time
	Configuration backup and restoration
	Change login password
	Firmware update
	Restart and factory settings restoration
	Device information
	Domain name function
	Mode switching
	Indicator position and button requirements
Multicast Services	IPTV
	IPv4/IPv6 multicast services
Security Requirements	Account requirements
	LAN access security

5 Ordering Information

Product Ordering Information		
Model	Description	Remarks
RG-MA2820(T)	Gigabit Dual-Band Wi-Fi 6 Router, 4-core CPU, 256 MB memory, independent signal amplifier, and smart built-in antenna	Mandatory