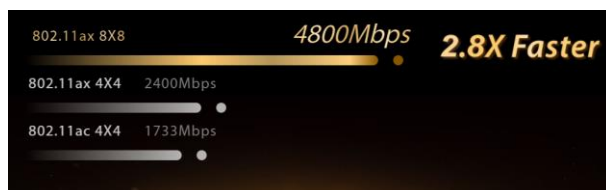# RT-AX89X 12-stream AX6000 Dual Band Wi-Fi 6 (802.11ax) Router

- **Next-Gen Wi-Fi 6 Standard** - 802.11ax Wi-Fi standard for better efficiency and throughput.
- **Ultrafast Wi-Fi Speed** - 12-stream 6000Mbps Wi-Fi speed to handle even the busiest network.
- **Wider Usage and More Convenience** - 8 antennas + 8 LAN ports to support more clients at the same time.
- **Dual 10G WAN/LAN ports** - Enjoy up to 10X-faster data-transfer speeds for bandwidth-demanding tasks with 10GBase-T and 10G SFP+ networking technology port.
- **Commercial-grade Security** - AiProtection Pro, powered by Trend Micro™, blocks internet security threats for all your connected smart devices.
- **Better Partner with Mesh System** - Compatible with ASUS AiMesh Wi-Fi system for seamless whole-home coverage.

Warp-speed Wi-Fi

RT-AX89X is a 8x8 dual-band Wi-Fi router that provides 1024-QAM for dramatically faster wireless connections. With a total networking speed of about 6000Mbps — 1148Mbps on the 2.4GHz band and 4804Mbps on the 5GHz band — RT-AX89X is up to 2.8X faster than 802.11ac 4x4 dual-band routers.

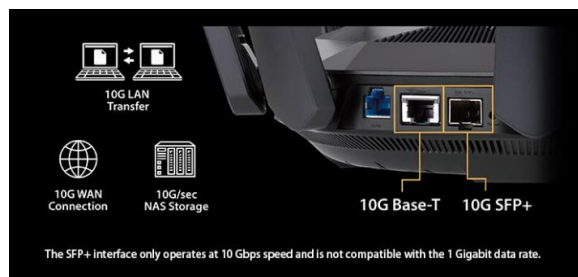| 802.11ax 8X8 | 4800Mbps | **2.8X Faster** |
| 802.11ax 4X4 | 2400Mbps | |
| 802.11ac 4X4 | 1733Mbps | |

*The data refer to 5GHz/bandwidth 80MHz

More LAN Ports for More Convenience

Eight Gigabit LAN ports make RT-AX89X the ideal solution if you have multiple wired devices, such as NAS systems, PCs and switches. And, if you ever want to host a LAN party at home, RT-AX89X makes it possible.

Ultra-fast Wired Speed

The RT-AX89X comes with two 10G LAN/WAN ports, one Base-T and SFP+ port, which means both fiber and copper 10G connections are supported. Capture ISP advertised speeds or use your own 10G LAN network between PCs and NAS.

10G LAN Transfer

10G WAN Connection

10G/sec NAS Storage

10G Base-T   10G SFP+

The SFP+ interface only operates at 10 Gbps speed and is not compatible with the 1 Gigabit data rate.
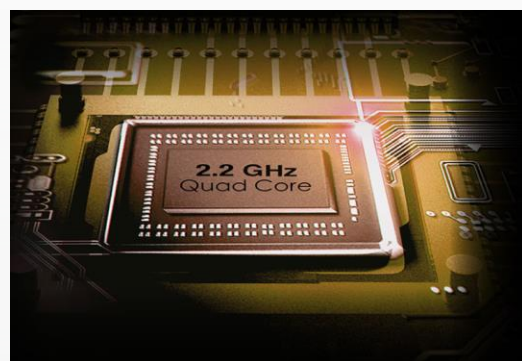
Wireless that's as Stable as Wired Ethernet

When you are far away from your router, enjoying the stability of a wired network connection is usually impractical or impossible. With special designed antennas, RT-AX89X provides wide coverage and a stable signal, letting you enjoy a reliable and smooth connection for gaming or work anywhere in your home.

Extreme 2.2GHz quad-core Power

RT-AX89X features a top-of-the-line 2.2 GHz quad-core CPU that is more powerful than many desktop processors. With its incredible performance, RT-AX89X maximizes throughput for the best networking performance, accelerates USB data transfers and more.
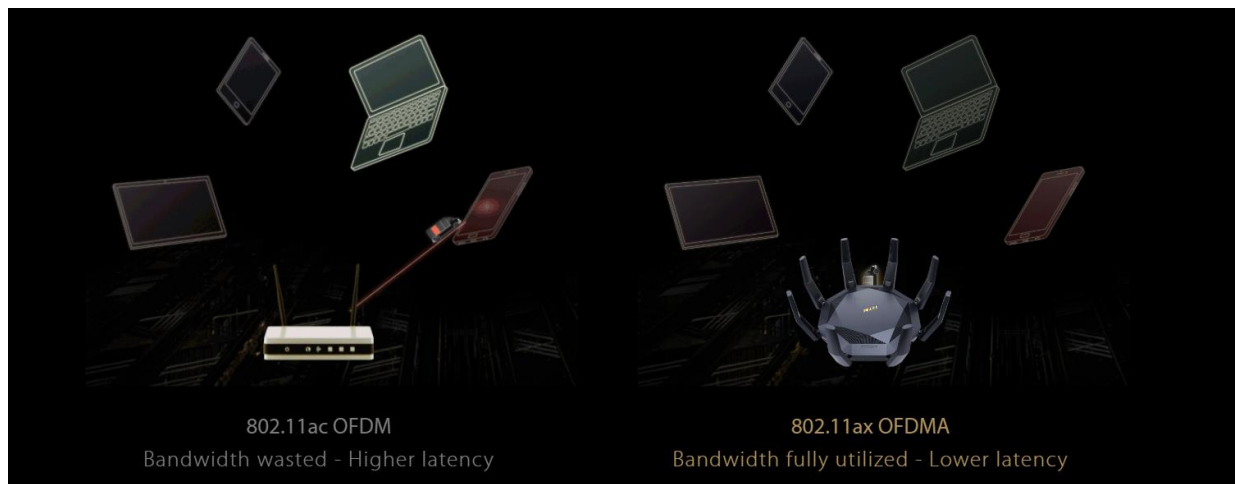

Powerful Whole-home Wi-Fi System

In most cases, your RT-AX89X can deliver smooth, reliable Wi-Fi to every part of your home. But Wi-Fi coverage can be affected by many factors — room layout, construction materials, and even furnishings. ASUS AiMesh is an innovative new router feature that fixes these problems: it creates a whole-home Wi-Fi network using multiple ASUS routers. AiMesh is powerful, flexible and you can use a mix of ASUS router models — protecting your investment! AiMesh gives you time-saving central control, and seamless roaming capability. AiMesh is Wi-Fi you can rely on — for all your devices, all the time!
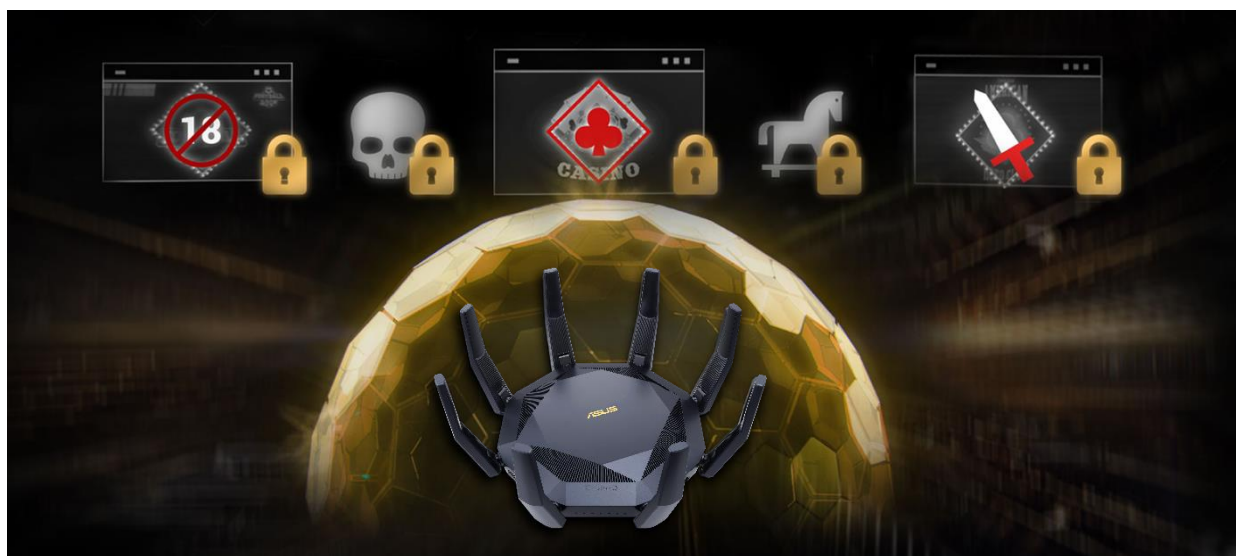
Built for Multi-device Households

With a revolutionary combination of OFDMA and MU-MIMO technology, 802.11ax technology provides up to 4X greater network capacity and efficiency in traffic-dense environments. Previous-generation 802.11ac Wi-Fi can only handle one device at a time on each network channel, which is an inefficient use of available bandwidth. OFDMA support in the 802.11ax Wi-Fi standard divides each channel into small sub-channels, allowing signals from multiple devices* to be bundled together and transmitted simultaneously, reducing latency for a smoother, more responsive Wi-Fi experience.

802.11ac OFDM
Bandwidth wasted - Higher latency

802.11ax OFDMA
Bandwidth fully utilized - Lower latency

Commercial-grade Security for your Home Network

RT-AX89X has lifetime free AiProtection Pro, powered by Trend Micro™ with automatic, regularly updated security signatures to protect your devices and personal data from internet threats. This strong security offers advanced parental controls, including the ability to block specific websites and mobile app types.

Specifications

Network Standard	IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac, IEEE 802.11ax
Product Segment	AX6000 ultimate AX performance
Coverage	Very large homes
Data Rate	802.11a/g : 6,9,12,18,24,36,48,54 Mbps 802.11b : 1, 2, 5.5, 11 Mbps 802.11n : up to 600 Mbps 802.11ac (2.4GHz) : up to 1000 Mbps 802.11ac (5GHz) : up to 4333 Mbps 802.11ax (2.4GHz) : up to 1300 Mbps 802.11ax (5GHz) : up to 4804 Mbps
Antenna	External antenna x 8
Transmit/Receive	2.4 GHz 4x4; 5GHz 8x8
Memory	256MB Flash, 1G RAM
Operating Frequency	2.4GHz, 5 GHz
Encryption	WPA2-PSK, WPA-PSK, WPA-Enterprise , WPA2-Enterprise , WPS support
Management	UPnP, IGMP v1/v2/v3, DNS Proxy, DHCP, NTP Client, DDNS, Port Trigger, Port Forwarding, DMZ, System Event Log
VPN Support	IPSec Pass-Through; PPTP Pass-Through;L2TP Pass-Through;OpenVPN server PPTP client;L2TP client; OpenVPN client; PPTP server
WAN Connection Type	Internet connection type : Automatic IP, Static IP, PPPoE(MPPE supported), PPTP, L2TP
Ports	RJ45 for Gigabits BaseT for WAN x 1, RJ45 for Gigabits BaseT for LAN x 8; USB 3.1Gen1 x2 ; SPF+ for WAN/LAN x1 ; 10G BaseT for WAN/LAN x 1
Features	Router app ; MU-MIMO; Traffic Analyzer; Adaptive QoS; AiProtection Pro; Parental Control; Guest Network; VPN server ;VPN client; Enhanced media server AiCloud ;3G/4G data sharing; Printer Server; Download Master; AiDisk file server; IPTV support ; Roaming Assist; OFDMA;
Button	Reset , WPS, Power, Wi-Fi
OS Support	Windows® 10 Windows® 8.1 Windows® 8 Windows® 7 Mac OS X 10.1 to 10.12

Specifications

Dimensions	343.64 x 343.64 x 80.02 mm (WxDxH)
LED Indicator	Power x 1
	LAN x 1,WAN x 1
	2.4GHz x1, 5GHz x1
	SPF+ x1, 10GE x1
Router Special Features	Parental Control, AiCloud, Printer server, Download Master, AiDisK
Operation mode	Wireless router mode
	Access point mode
	Media bridge mode
	Repeater mode