

# Microsoft begins testing Wi-Fi 7 on Windows 11

Microsoft is now starting to test Wi-Fi 7 support in Windows 11 Insider Preview Build 26063. This release is currently limited to the Canary Channel, but the rollout to Dev Channel users could take place within a few weeks next.

In fact, the development roadmap of modern Wi-Fi standards is a bit confusing. We've spent the last decade embracing Wi-Fi 5, and now hardware manufacturers and ISPs are now pushing the transition to Wi-Fi 6, Wi-Fi 6E. But while the Wi-Fi 6 standard is still only in the initial stages of application and has not really become popular, the technology world is preparing to deploy Wi-Fi 7 support as a standard. Effective marketing elements for your products.

Wi-Fi 7 is a new technical standard for Wi-Fi devices currently in development. Wi-Fi 7 is based on the draft 802.11be standard, which was announced in May 2021. Therefore, this technology is sometimes also called Wi-Fi 802.11be.

The most outstanding feature of Wi-Fi 7 is the speed and stability it brings. In theory, Wi-Fi 7 can support up to 46.1 gigabits per second (Gbps) of bandwidth per access point, which is three times faster than Wi-Fi's maximum speed of 9.6 Gbps. -Fi 6 (also known as 802.11ax), and double the bandwidth (320MHz channels vs. 160MHz channels for Wi-Fi 6).

Below is a performance comparison between Wi-Fi 7, Wi-Fi 6/6E and Wi-Fi 5:

	Wi-Fi 5 ( 802.11ac)	Wi-Fi 6 ( 802.11ax)	Wi-Fi 6E ( 802.11ax)	Wi-Fi 7 ( 802.11be)
Frequency	5GHz	Dual-band (2.4 GHz, 5 GHz)	Tri-band (2.4, 5, 6 GHz)	
Bandwidth (Channels)	20, 40 , 80, 80+80, 160MHz			20, 40 , 80, 80+80, 160, 320MHz
Access (Multiplexing)	OFDM	OFDMA		
Modulation	256QAM	1024QAM	4096 (4K) QAM	
Antenna	DL MU-MIMO (4 x 4)	DL + UL MU-MIMO (8 x 8)		
Security	WPA2	WPA3	WPA4 (TBD)	
Key Innovations	40MHz mandatory	TWT, BSS coloring, Beamforming	Multi Link Operation (MLO),	

According to statistics, the average home internet speed in the US is only about 224Mbps. So few homes can take full advantage of the performance of Wi-Fi 6 or 6E. Meanwhile, some high-end laptops and smartphones

now have Wi-Fi 7 connectivity, providing a theoretical maximum throughput of more than 40Gbps. Of course real-world performance will vary, and most Wi-Fi 7 routers only advertise 19Gbps ??wireless speeds. But it's clear that Wi-Fi 7 is now too much for the average user by 2024.

As mentioned, on the market there are now starting to have many hardware devices that support Wi-Fi 7, and many of them are laptop models running Windows 11. Microsoft has a responsibility to support businesses. and individuals have a need to connect to Wi-Fi 7, so it makes sense to test Wi-Fi 7 in Windows 11 right now.

As a reminder, you can only test Wi-Fi 7 connectivity in Windows 11 Insider Preview Build 26063. This build is currently exclusive to the Canary Channel, as Microsoft is using the Dev Channel to prepare the servicing process for Windows 11 24H2 feature update. Mainstream Windows 11 users will get Wi-Fi 7 support later this year.

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