

# 4: Wi-Fi 6E AND 7 ROUTERS

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# EXECUTIVE SUMMARY

You can probably add a Wi-Fi 6E router or a Wi-Fi 7 router or Mesh pair to speed up your Internet connection for your computers, cell phones, and cameras.

# TOPICS

- Progression of Wi-Fi standards

# Wi-Fi GENERATIONS

- Each generation of Wi-Fi technology makes massive increases in speed per  
<https://en.wikipedia.org/wiki/Wi-Fi> :

## Wi-Fi Generations

Generation	IEEE Standard	Maximum Linkrate (Mbit/s)	Adopted	Radio Frequency (GHz)
<b>Wi-Fi 7</b>	<b>802.11be</b>	721 to 46120	(2024 or 2025)	2.4/5/6
<b>Wi-Fi 6E</b>	<b>802.11ax</b>	600 to 9608	2020	2.4/5/6
<b>Wi-Fi 6</b>	<b>802.11ax</b>	600 to 9608	2019	2.4/5
<b>Wi-Fi 5</b>	<b>802.11ac</b>	433 to 6933	2014	5
<b>Wi-Fi 4</b>	<b>802.11n</b>	72 to 600	2008	2.4/5
<i>(Wi-Fi 3*)</i>	<b>802.11g</b>	6 to 54	2003	2.4
<i>(Wi-Fi 2*)</i>	<b>802.11a</b>	6 to 54	1999	5
<i>(Wi-Fi 1*)</i>	<b>802.11b</b>	1 to 11	1999	2.4
<i>(Wi-Fi 0*)</i>	<b>802.11</b>	1 to 2	1997	2.4

# AVAILABILITY OF 6 GHz RF BAND ROUTERS

- 2021-June: First "Wi-Fi 6E" routers from Asus, Linksys, Netgear, etc.
- 2023-July: First "Wi-Fi 7" routers from TP-Link: 3 models
- 2023-August ??: First "Wi-Fi 7" router from Netgear: Model BE19000
- 2024/2025: Finalized 802.11be (= "Wi-Fi 7") standard by IEEE

# MESH CAPABLE ROUTERS

- Not all router models are mesh-capable
- When buying a router, check the manufacturer's specifications to determine if a specific router model can join a specific mesh system.



## MESH CAPABLE ROUTERS (continued)

- If you obtain a router that is not mesh-capable, you can still extend its range by using Ethernet or wired-equivalent technology to connect from a LAN jack of the mesh-challenged router to a second existing or new Wi-Fi router. If you do so, we recommend using a router of a different manufacturer from your original mesh-challenged router.

# TP-LINK'S "BE19000" Wi-Fi 7 ROUTER

- July 2023: First Wi-Fi router available at retail:

[https://www.amazon.com/TP-Link-Archer-BE800-High-Performance-HomeShield/dp/B0C4VZW7M7/ref=sr\\_1\\_3?crid=3OZLJQANJOIBF&keywords=%22Wi-Fi+7%22+routers&qid=1690943842&prefix=wi-fi+7+routers%2Caps%2C121&sr=8-3](https://www.amazon.com/TP-Link-Archer-BE800-High-Performance-HomeShield/dp/B0C4VZW7M7/ref=sr_1_3?crid=3OZLJQANJOIBF&keywords=%22Wi-Fi+7%22+routers&qid=1690943842&prefix=wi-fi+7+routers%2Caps%2C121&sr=8-3)

# TP-LINK'S "BE22000" Wi-Fi 7 MESH UNITS

- July 2023: First Wi-Fi mesh devices available at retail:
- <https://www.amazon.com/TP-Link-Deco-BE85-AI-Roaming-HomeShield/dp/B0C4W1L4B3/>

# TP-LINK'S "BE22000" Wi-Fi 7 MESH UNITS

- July 2023: The TP-Link was available for a couple of days and then it went "out of stock":
- <https://www.amazon.com/TP-Link-Archer-BE900-Multi-Link-Performance/dp/B0BRD3P4XV?&tag=bnarcherbe900-20>

# NETGEAR'S "BE19000" Wi-Fi 7 ROUTER

- August 2023: Netgear's BE19000 router was originally announced for the end of June 2023 but it is now planned for August 14, 2023:  
<https://www.netgear.com/home/wifi/routers/rs700/>