

● UK WI-FI GUIDE · JUNE 2026

BUYING DECISION

Monday, 8 June 2026

# Wi-Fi 6 vs 6E vs 7: do you need to *upgrade?*

Three Wi-Fi generations are on sale in 2026, and the marketing is dazzling. Here is what each one really does, and the honest answer to whether your home needs the newest.

**3**

**GENERATIONS ON SALE**

*Wi-Fi 6, 6E and 7*

**46**

**GBPS WI-FI 7 TOP**

*In theory, not in your home*

**285**

**MBPS AVERAGE UK LINE**

*The real bottleneck, Ofcom*

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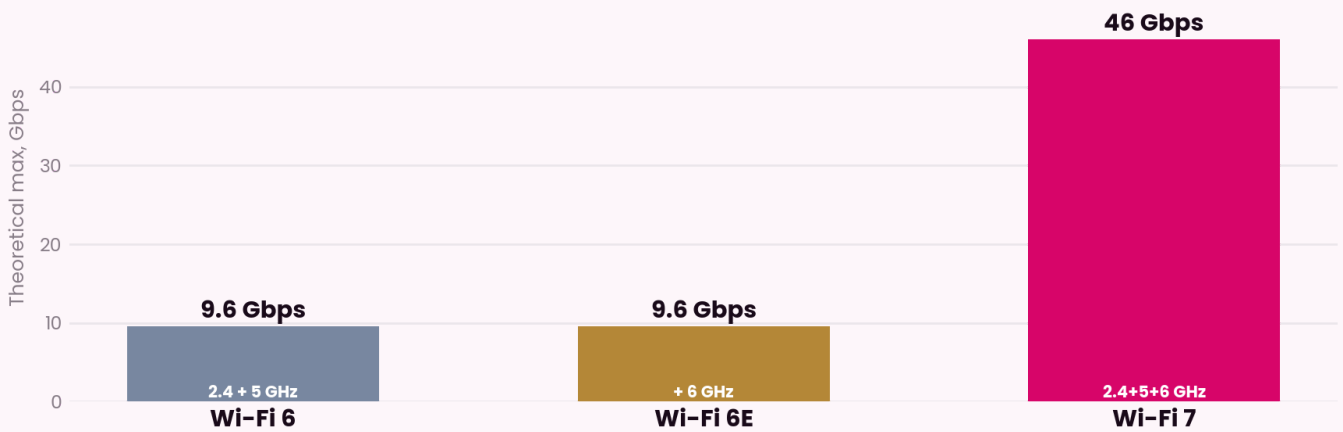
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SECTION 01 · THE LINE-UP

# Three generations, explained

**IN SHORT**

The three share a family tree. **Wi-Fi 6 and 6E are the same standard**, with 6E simply adding the clean new 6GHz band. **Wi-Fi 7 is the genuine leap**, with much higher peak speeds and, more usefully, lower latency. All three are backwards compatible with your older gear.



Theoretical top speeds and the bands each generation uses. These are laboratory maxima across all bands at once, far above anything a real home reaches.

## What each one is

GENERATION	BANDS	THE HEADLINE
Wi-Fi 6	2.4 and 5GHz	Efficient in busy homes; arrived 2019
Wi-Fi 6E	Adds 6GHz	Same speed, but clean new spectrum
Wi-Fi 7	2.4, 5 and 6GHz	Top speeds and low latency; arrived 2024

Wi-Fi 6 was certified in 2019, Wi-Fi 6E in 2021 and Wi-Fi 7 in 2024. The jump that matters most for everyday use is not raw speed but how each handles a house full of devices, which is the next page.

## SECTION 02 · WHAT CHANGED

# What actually changed

Beyond the headline speeds, the real improvements are about coping with congestion and cutting delay. These are the features doing the work.

- ✓ **The 6GHz band (6E and 7).** A wide, clean stretch of new spectrum with little legacy traffic, so less interference. The trade-off is shorter range, since higher frequencies fade faster through walls.
- ✓ **Multi-Link Operation (Wi-Fi 7).** The headline feature: a device can use more than one band at the same time, which lifts speed and, more importantly, lowers latency for things like video calls and cloud gaming.
- ✓ **Wider channels and denser signals (Wi-Fi 7).** Channels double in width to 320MHz and pack more data into each transmission, raising the ceiling for capable devices.
- ✓ **Smarter sharing (all three).** Techniques carried over and improved from Wi-Fi 6 let a router serve many devices at once rather than one after another, which is why a modern standard helps most in a busy home.

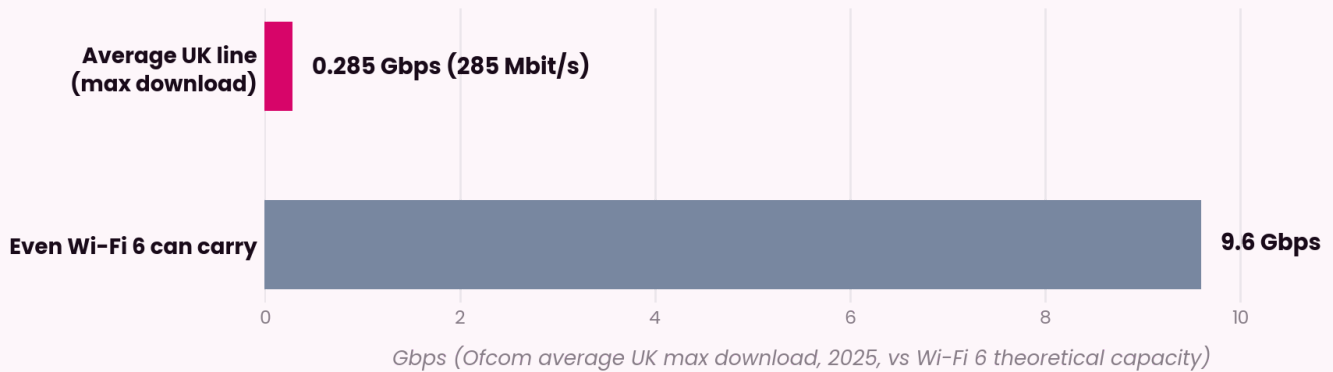
## A NOTE ON 6GHZ IN THE UK

The lower 6GHz band has been open for indoor Wi-Fi in the UK since 2020, and that is what 6E and Wi-Fi 7 use here today. Ofcom is still consulting on opening more of the upper 6GHz band, so the spectrum picture is set to widen further over the next few years.

## SECTION 03 · THE HONEST ANSWER

# Your line matters more

Here is the part the box does not tell you. For most UK homes, your broadband line speed matters far more than your Wi-Fi standard, because even Wi-Fi 6 can carry many times what a typical line delivers.



The average UK line speed against even Wi-Fi 6's theoretical capacity. A newer Wi-Fi standard cannot make a 285 Mbit/s line any faster. Source: Ofcom 2025.

## When the newest Wi-Fi genuinely helps

- ✓ **Gigabit and faster full fibre.** If you have a 1Gbps or multi-gig line, older Wi-Fi can be the bottleneck, and Wi-Fi 7 lets a device actually use that speed.
- ✓ **A very busy home.** EE's research puts the typical UK home at more than 25 connected devices, and a newer standard juggles them far better.
- ✓ **Low-latency uses.** Virtual reality and cloud gaming feel the benefit of Wi-Fi 7's lower delay.

When it does **not** help: a sub-gigabit line, a home with only a handful of devices, or ordinary browsing, streaming and calls. In those cases the speed you would feel comes from a faster broadband package, not a faster router.

## SECTION 04 · THE 2026 DECISION

# Should you upgrade in 2026?

Both ends have to match: you only get a Wi-Fi standard if your router **and** your device support it. Most flagship phones from the last two years now do Wi-Fi 7, including the iPhone 16, 16 Plus and 16 Pro models and the core Samsung Galaxy S25 phones, though cheaper variants and many everyday devices are still on Wi-Fi 6 or 6E.

## What the big providers ship in 2026

PROVIDER ROUTER	WI-FI STANDARD
EE Smart Hub 7 (newest)	<b>Wi-Fi 7</b> on full fibre plans
Virgin Media Hub 5 and 5x	Wi-Fi 6
Sky Max Hub / Gigafast+ Hub	Wi-Fi 6, or Wi-Fi 7 on multi-gig
BT Smart Hub 2	Wi-Fi 5

EE became the first major UK provider to make Wi-Fi 7 standard across its full fibre plans, in December 2025. Buying your own, Wi-Fi 6 routers start around £50, Wi-Fi 6E around £130, and Wi-Fi 7 from roughly £100 up to £400 or more, with prices changing often.

### THE SIMPLE RULE FOR 2026

If you are buying a router anyway, Wi-Fi 7 is the sensible forward choice for little extra. But do not replace a working Wi-Fi 6 router just for the badge unless you have a gigabit line or a very busy home. The upgrade most people would actually feel is a faster broadband line.

The upgrade you will really notice is often a faster line. See what full fibre reaches **your postcode**.

[Compare now →](#)

## SECTION · REFERENCES

# References and sources



Written by **Dr Alex J. Martin-Smith** (CMgr, MBA, LL.M, DBA), Lead Editor. Reviewed by **Adrian James**.  
Published 8 June 2026, next review within 90 days. Every figure is sourced below and logged in our public corrections process.

Every figure in this guide is backed by a publicly verifiable source, listed in APA 7th edition format. Wi-Fi standards and dates are confirmed against the Wi-Fi Alliance; speeds quoted are theoretical maxima and are labelled as such.

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**REMEMBER**

Wi-Fi 7 is impressive, but it cannot outrun your broadband line. Match the standard to your line and your devices, and if you want a real speed lift, check whether faster full fibre reaches you at [broadbandswitch.uk/compare](https://broadbandswitch.uk/compare).

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