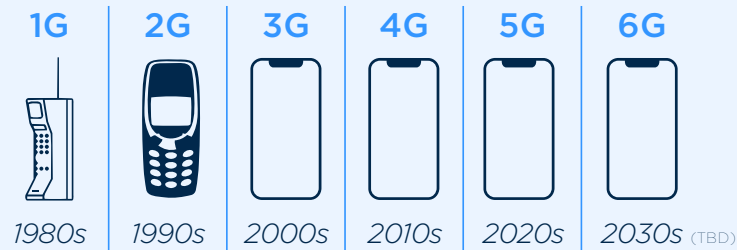


# 6G ≠ 6 GHz

Same number. *Completely different things.*

## 6G: 6<sup>th</sup> Generation Wireless Technology

- The “G” in 6G stands for “Generation”— it’s the shorthand name for the 6th generation of cellular technology, like 3G, 4G, and 5G before it.



- Currently, 5G is the technology being used for communication on your cell phone when not connected to Wi-Fi.
- Cellular phones — whether 3G, 4G, or 5G — connect to the internet using different spectrum bands, like 1.8 GHz and 3.7 GHz.

## 6GHz: Spectrum Band Used for Wi-Fi

- 6 Gigahertz (GHz) is a spectrum band that is used to carry Wi-Fi signals.
- In addition to carrying most traditional internet traffic, Wi-Fi also carries ~90% of cell phones’ data traffic. The average number of Wi-Fi devices is expected to double by 2030 to 44 per home.
- That means the 6 GHz spectrum band powering the Wi-Fi connecting your computer can also be the spectrum band connecting your 5G cell phone — not to mention thousands of other kinds of smart devices.



What is a Spectrum band?

Spectrum bands are the invisible airwaves that wireless signals travel over. Those airwaves are divided into different bands based on frequency, like a radio dial is divided into different stations.

- 90.1 FM vs. 101.1 FM — different spots on a radio dial.
- 1.8 GHz vs. 6 GHz — different spots on the airwaves.