

Insight Highlights

5G spectrum: state of play, Q1 2024

DATE

June 2024

GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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GSMA Intelligence

GSMA Intelligence is the definitive source of global mobile operator data, analysis and forecasts, and publisher of authoritative industry reports and research. Our data covers every operator group, network and MVNO in every country worldwide – from Afghanistan to Zimbabwe. It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily.

GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself.

Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

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5G spectrum: state of play (to Q1 2024)

5G spectrum assignments

97

Number of countries where 5G spectrum has been assigned

306

Number of individual operators that have received spectrum for 5G use

5G network launches

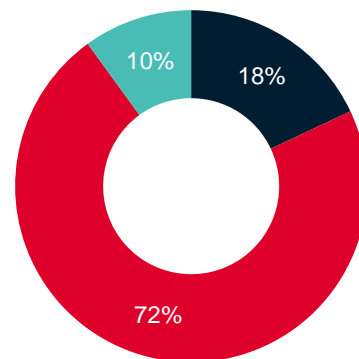
114

Number of countries where commercial 5G networks have been launched

295

Number of individual operators that have launched commercial 5G networks

5G network launches by spectrum frequency



■ <1 GHz ■ 1-7 GHz ■ >24 GHz

Frequency information available for 75% of launches

mmWave spectrum assignments

24

Number of countries where mmWave spectrum for 5G has been assigned

34

Number of individual operators that have launched 5G services in the mmWave band (from 16 countries)*

* Based on where frequency data was available.

Source: GSMA Intelligence

5G spectrum assignments and 5G network launches by spectrum frequency

5G spectrum assignments (to Q1 2024)

Status	No. of markets (as of 31 March 2024)	Last quarter (Q1 2024)
Assigned	97	2
Of which assigned and more planned	12	1
Planned*	9	4

Frequency range	No. of operators (as of 31 March 2024)**	Last quarter (Q1 2024)
Low band (<1 GHz)	139***	1
Mid-band (1–7 GHz)	270***	3
High band (>24 GHz)	79***	4

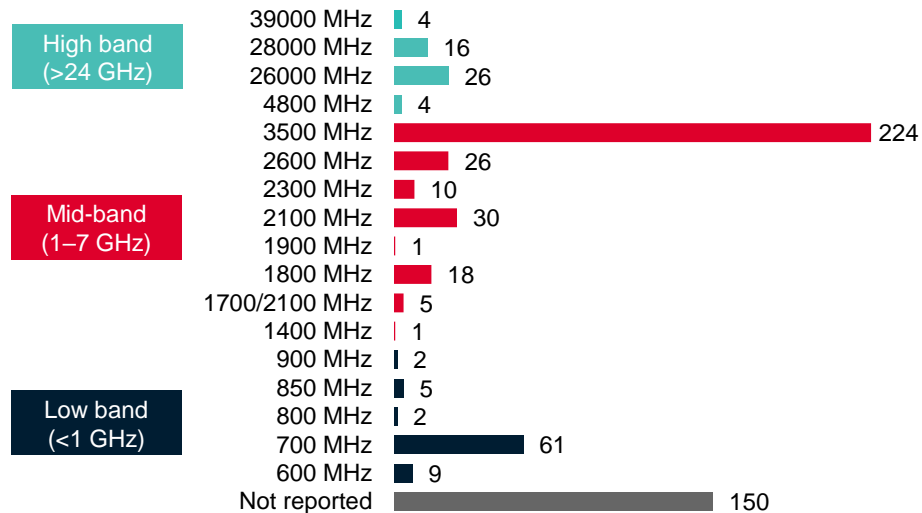
* Planned assignments refer to confirmed assignments and are counted to the end of December 2024.

** A range of operators have received spectrum for 5G in multiple bands. 5G spectrum refers to 'new' prime frequency bands either assigned specifically for 5G or assigned as technology-neutral.

*** Excluding the regional operators/winners in any geography.

Source: GSMA Intelligence

5G network launches by spectrum frequency (to Q1 2024)



Note: Figures refer to launches, not individual operators. A range of operators have launched their 5G networks on more than one frequency. If an operator has launched both mobile and fixed wireless 5G networks, then it is counted twice. 3.5 GHz band = 3.3–3.8 GHz range. 2600 MHz band = 2500–2600 MHz range.

Source: GSMA Intelligence

5G spectrum assignments to the end of 2024



Assignments
completed

Assignments completed
and more planned

Assignments
planned

Data correct to 31 March 2024
Source: GSMA Intelligence

**GSMA
Intelligence**

Access GSMA Intelligence content on spectrum

GSMA Intelligence spectrum data

- Ongoing tracking of operators' spectrum assignments, licence duration and obligations
- Granular data covering 200 countries and 1,120 operators worldwide, from 1980 to today, updated regularly
- Basis for understanding future spectrum availability and plans
- Supports device pricing strategies (when combined with our device database)
- Helps identify market trends and opportunities driven by 5G

Spectrum Navigator

- User-friendly and comprehensive spectrum dashboard
- Custom search for spectrum assigned by frequency band
- Granular split by region, country and operator
- Dedicated section on current and future auction plans, including disruptions to auctions in times of Covid-19
- Data tables that allow a quick understanding of key market questions on licence duration and obligations

Reports on spectrum

- [Spectrum Navigator, Q1 2024](#)
- [The advent of 5G has accelerated the trend of 2G/3G sunsets](#)
- [Spectrum: five trends to watch in 2024](#)
- [The Impact of Spectrum Set-Asides on Private and Public Mobile Networks](#)
- [Technology Neutrality and Legacy Network Sunsets](#)
- [A more rational approach emerges for the pricing of mid-band spectrum](#)

How to gain access

- **Insights.** The Spectrum Navigator tool (and associated reports) is available as an addition to your GSMA Intelligence subscription. If you don't have a subscription, or if you cannot access some of the spectrum content, please contact our account managers to learn more.
- **Demo.** Schedule a demo with our industry experts to find out more. Please contact us for more information.

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