

5G Spectrum: Which Bands When?

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Abstracts

5G has yet to be standardised. However, some 5G networks are already seeking new frequencies to provide very high data rates everywhere, in all spectrum ranges.

A set of frequencies were allocated to IMT use at WRC-15. The first bands in Europe will be the 700 MHz band and the 3.4-3.8 GHz bands. Millimetre frequencies are currently the object of compatibility studies at academic and industrial levels.

Competition is heating up between regions on which bands to select. Globally, 5G will aggregate more spectrum in the three types of bands i.e. sub-1 GHz, sub-6 GHz and above 6 GHz.

It will mostly result in a trade-off between technical feasibility and consumer/use case needs based on propagation characteristics.

This report presents the regulatory status associated to 5G spectrum and presents the future bands for 5G use. It also analyses the bands likely to be used by 5G networks below 6 GHz and in millimetre bands.

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