

# Australian radiofrequency spectrum allocations chart

The spectrum is a continuous range of electromagnetic radiation extending from the longest radio waves through infra-red, light, ultra-violet and X-rays to gamma-rays.

The radiofrequency spectrum is that part of the total spectrum which is used for transmitting radio waves. The radiofrequency spectrum is a natural resource that is used but not consumed. It is used by being occupied and the efficiency of its use depends on coordination among users in order to minimise interference to each other.

This chart illustrates how the radio-frequency spectrum is allocated among services in Australia. It is derived from the

Australian Radiofrequency Spectrum Plan (January 2009), which in turn is based on the International Telecommunication Union (ITU) Radio Regulations.

The radiofrequency spectrum is divided into several broad frequency bands for reference. The ITU nomenclature for these bands is as follows:

- VLF Very Low Frequency ..... 3-30 kHz
- LF Low Frequency ..... 30-300 kHz
- MF Medium Frequency ..... 300-3000 kHz
- HF High Frequency ..... 3-30 MHz
- VHF Very High Frequency ..... 30-300 MHz
- UHF Ultra-High Frequency ..... 300-3000 MHz

- SHF Super-High Frequency ..... 3-30 GHz
- EHF Extremely-High Frequency ..... 30-300 GHz

Each of these bands is divided into sub-bands which are allocated to particular services such as land mobile radio, broadcasting, aeronautical, maritime or space services—shown in the chart by different colours.

The chart is designed for quick reference. For details of frequency allocations, reference should be made to the Australian Radiofrequency Spectrum Plan (January 2009), since fine details and footnotes cannot be shown on this chart.



**Australian Government**  
**Australian Communications and Media Authority**  
 © Australian Communications and Media Authority 2009

