

# The Electromagnetic Spectrum

Below is a description of standard Radio Frequency "Bands", as well as the applications that use them.

Band	Frequency					
Extremely Low Frequency (ELF)	0		to	3	KHz	
Very Low Frequency (VLF)	3	KHz	to	30	KHz	
<i>Radio Navigation &amp; maritime/aeronautical mobile</i>	9	KHz	to	540	KHz	
Low Frequency (LF)	30	KHz	to	300	KHz	
Medium Frequency (MF)	300	KHz	to	3000	KHz	
<i>AM Radio Broadcast</i>	540	KHz	to	1630	KHz	
<i>Travelers Information Service</i>	1610	KHz				
High Frequency (HF)	3	MHz	to	30	MHz	
<i>Shortwave Broadcast Radio</i>	5.95	MHz	to	26.1	MHz	
Very High Frequency (VHF)	30	MHz	to	300	MHz	
<i>Low Band: TV Band 1 - Channels 2-6</i>	54	MHz	to	88	MHz	
<i>Mid Band: FM Radio Broadcast</i>	88	MHz	to	174	MHz	
<i>High Band: TV Band 2 - Channels 7-13</i>	174	MHz	to	216	MHz	
<i>Super Band (mobile/fixed radio &amp; TV)</i>	216	MHz	to	600	MHz	
Ultra-High Frequency (UHF)	300	MHz	to	3000	MHz	
<i>Channels 14-70</i>	470	MHz	to	806	MHz	
<i>L-band:</i>	500	MHz	to	1500	MHz	
<i>Canada DARS</i>	1452	MHz	to	1492	MHz	
<i>Personal Communications Services (PCS)</i>	1850	MHz	to	1990	MHz	
<i>Unlicensed PCS Devices</i>	1910	MHz	to	1930	MHz	

<i>S-band for DARS</i>	2310 MHz to 2360 MHz
<i>microwave TV</i>	2500 MHz to 2700 MHz
Superhigh Frequencies (SHF)	3 GHz to 30.0 GHz
<i>C-band &amp; big-dish 6-10'</i>	3600 MHz to 7025 MHz
<i>X-band:</i>	7.25 GHz to 8.4 GHz
<i>Ku-band &amp; small-dish 1-4'</i>	10.7 GHz to 14.5 GHz
<i>Ka-band</i>	17.3 GHz to 31.0 GHz
Extremely High Frequencies (EHF) (Millimeter Wave Signals)	30.0 GHz to 300 GHz
<i>Additional Fixed Satellite</i>	38.6 GHz to 275 GHz
Infrared Radiation	300 GHz to 810 THz
Visible Light	810 THz to 1620 THz
Ultraviolet Radiation	1.62 PHz to 30 PHz
X-Rays	30 PHz to 30 EHz
Gamma Rays	30 EHz to 3000 EHz

This chart derived from [ADEC](#) and [FCC](#) charts

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