

COMMUNICATIONS DATA SHEET 502

FREQUENCY CLASSIFICATION

RADIO FREQUENCIES AND WAVELENGTHS

| Frequency Range | Frequency Nomenclature | Wavelength Range | Wavelength Nomenclature |
|-------------------|--------------------------|------------------|-------------------------|
| Below 30 kHz | Very-low frequency VLF | above 10 km | Myriametric waves |
| 30-300 kHz | Low frequency LF | 10-1 km | Kilometric waves |
| 300 kHz-3 MHz | Medium frequency MF | 1 km-100 m | Hectometric waves |
| 3-30 MHz | High frequency HF | 100-10 m | Decametric waves |
| 30-300 MHz | Very-high frequency VHF | 10-1 m | Metric waves |
| 300 MHz - 3 GHz + | Ultra-high frequency UHF | 1m-10 cm | Decimetric waves |
| 3-30 GHz | Super-high frequency SHF | 10-1 cm | Centimetric waves |
| 30-300 GHz | Extra-high frequency EHF | 1 cm - 1 mm | Millimetric waves |

Frequencies above 1,000 MHz are expressed in gigaHertz (GHz).

1 GHz = 1000 MHz

Frequencies of 1 GHz and above are sometimes known as "microwaves".

COMMUNICATIONS DATA SHEET 502

BROADCASTING BANDS

| Frequency Range | Band Nomenclature | Application |
|-------------------|-------------------------------|----------------------------------|
| 150-285 kHz | 2000-1053 m. long-wave band | A.M. sound broadcasting |
| 525 kHz-1.605 MHz | 571-187 m. medium-wave band | A.M. sound broadcasting |
| 3.95-4.00 MHz | 75 m. band) | A.M. sound broadcasting |
| 5.95-6.2 MHz | 49 m. band) | |
| 7.10-7.30 MHz | 41 m. band) | |
| 9.50-9.775 MHz | 31 m. band) | |
| 11.70-11.975 MHz | 25 m. band) short wave bands | |
| 15.10-15.45 MHz | 19 m. band) | |
| 17.70-17.90 MHz | 17 m. band) | |
| 21.45-21.75 MHz | 13 m. band) | |
| 25.60-26.10 MHz | 11 m. band) | |
| 41-68 MHz | Band I | |
| 88-100 MHz | Band II | F.M. sound broadcasting |
| 174-216 MHz | Band III | TV broadcasting (channels 6-13) |
| 470-582 MHz | Band IV | TV broadcasting (channels 21-34) |
| 614-854 MHz | Band V | TV broadcasting (channels 39-68) |