This is glossary contains general definitions of typical amateur radio terms. Not all of the definition listed may apply to your specific model of radio. Consult the manufacture for further clarification of model-specific terms.
Antenna ground system
Term used for a RF reference potential for some types of antennas. Most unbalanced or asymmetrical antennas need a good RF ground.

Antenna impedance
The impedance of an antenna at its resonance. Although an antenna’s impedance fluctuates with the frequency of operation, an antenna should be 50 Ω for most transceivers.

Antenna matching
When the antenna’s impedance at resonance is at optimum performance for your transmitter output circuit.

Antenna tuner
Device used to match an antenna to the output impedance of a transmitter.

APC (Automatic Power Control)
Current limiting of power amplifier to prevent damage to finals in high SWR conditions.

APRS (Automatic Position Reporting System)
In conjunction with a GPS and TNC provide position reporting.

ARES (Amateur Radio Emergency Service)
ARES is a public-service organization of the ARRL.

ARRL (The American Radio Relay League)
The National Association for Amateur Radio in the US.
ASCII (American National Standard Code for Information Interchange)
A seven-unit digital code for the transmission of teleprinter data.

ATT (ATTenuator)
A network designed to reduce the amplitude of a signal.

ATV (Amateur Television)
FSTV, SSTV

Auto patch
Used in repeater operation for telephone interconnect.

Average power
Power measured on standard power meter.

Backscatter
Form of ionosphere propagation via the E and F layers allowing stations to hear other stations within the skip zones.

Balun
A simple transformer used to change an unbalanced input to a balanced output.

Band
A range of frequencies.

Bandwidth
Frequency needed for particular type of emission.

Bank
Memory bank

BCI (BroadCast Interference)

BFO (Beat Frequency Oscillator)

BNC (Bayonet Neill-Concelman)
A type of antenna connector

BPF (BandPass Filter)

Busy lockout
Inhibits transmit on a frequency in use
C

Call sign
Sequence of letter and numbers used to identify amateur radio operators and issued by the FCC.

CAP (Civil Air Patrol)
Volunteer affiliate of the United States Air Force.

Carrier
An unmodulated transmitted signal.

Carrier frequency offset (=Carrier Shift)
Distance between mark and space of the carrier for RTTY or similar communications.

CBR (Cross Band Repeater)
A repeater which receive incoming signal and re-transmit it in different bands—e.g. receives 144 MHz bands and re-transmits 430(440) MHz bands.

CCW (Counter Clockwise)

CH (Channel)
Sequence of memory positions where frequency and related information is stored.

CI-V
Icom computer Control Interface allows multiple radio control simultaneously.

Conversion
Number of IF circuits in the receiver.

CPU (Central Processing Unit)

CQ
Radio communications term used to call others.

CTCSS (Continuous Tone Coded Squelch System)
Adds a continuous sub-audible low frequency tone to the transmitted carrier. Receivers set for the same low frequency tone can decode signal.

CW
1) Carrier Wave
2) Clockwise

CW filter
Used to narrow IF passband to improve reception in crowded band conditions.
Data communications
Transfer of data between two or more locations.

dBd
Unit of RF power as compared to a dipole antenna.

dBi
Unit of RF power as compared to an isotropic antenna.

dBm
Decibels measure, 1 mW with a load impedance of 600 Ω (0 dBm=1 mW).

DC (Direct Current)
A connection point directly to chassis or battery ground to prevent build-up of hazardous DC voltages.

Deviation
A measurement for a FM signals for the maximum carrier frequency changes either side of the carrier frequency.

Distress call
Signals a life-threatening situation. Most commonly referred to as an SOS or MAYDAY call.

Distress frequency
A frequency or channel specific for use in distress calling. Radiotelephone distress frequencies are 2.182 MHz and 156.8 MHz. Survival craft use 243 MHz. Maritime distress frequencies are the same, while general aviation frequencies are 121.5 MHz.

Downlink (↔ Uplink)
Frequency that repeater or satellite transmits on to a user.

DSP (Digital Signal Processor)
Used to improve the signal to noise ratio for clearer and more legible communications. Relatively new to the ham radio.

DTCS (Digital Tone Coded Squelch)
A Selective call system

DTMF (Dual Tone Multi-Frequency (=touch-tone))
Used for transmit/receive numeric information such as phone number, PIN, remote radio control commands etc.

Dualwatch
Receiving two signals simultaneously.

Dummy load
A non radiating 50 Ω load connected to the transmitter to replace the antenna for testing purposes.

Duplex
An operation mode in which the transmit and receive frequencies are different.

Duplexer
A device which divides transmit and receive signals.

Duty cycle
The ratios of transmit to receive time.

Dx'pedition
Trip to foreign land to “be DX.”
### E

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EBS</strong></td>
<td>(Emergency Broadcast System) A system where at first an attention tone is transmitted over all station and the second tone followed with specific instructions regarding the receivable frequency in the national emergency.</td>
</tr>
<tr>
<td><strong>EEPROM</strong></td>
<td>(Electrically Erasable and Programmable Read Only Memory)</td>
</tr>
<tr>
<td><strong>EME</strong></td>
<td>(Earth-Moon-Earth) Moon bounce communication.</td>
</tr>
<tr>
<td><strong>EMI</strong></td>
<td>(Electro-Magnetic Interference) Often called RFI (Radio-Frequency Interference).</td>
</tr>
<tr>
<td><strong>Emission</strong></td>
<td>Transmission of a signal</td>
</tr>
<tr>
<td><strong>Encryption</strong></td>
<td>Transmitting cryptic form so that only certain people understand what has been sent.</td>
</tr>
</tbody>
</table>

### F

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fading</strong></td>
<td>Signal reduction due to atmospherics.</td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>A circuit designed to pass only the desired frequency(s).</td>
</tr>
<tr>
<td><strong>FM</strong></td>
<td>1) Frequency Modulation 2) FM broadcast</td>
</tr>
<tr>
<td><strong>FSK</strong></td>
<td>(Frequency Shift Keying)</td>
</tr>
<tr>
<td><strong>FSTV</strong></td>
<td>(Fast Scan TV) Graphics (and audio) communication using TV broadcast signals, requires a wide bandwidth.</td>
</tr>
<tr>
<td><strong>Full duplex</strong></td>
<td>An operation mode, which transmits and receives on different frequencies at the same time, as a telephone communication.</td>
</tr>
<tr>
<td>G</td>
<td>H</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>Ground Plane</strong></td>
<td><strong>Harmonic</strong></td>
</tr>
<tr>
<td>A type of Omni-directional antenna</td>
<td>Multiple of a fundamental frequency.</td>
</tr>
<tr>
<td><strong>Ground Wave</strong></td>
<td><strong>HF (High Frequency)</strong></td>
</tr>
<tr>
<td>Electrical wave directly travelling from transmitter.</td>
<td>3–30 MHz range signals. (Normally, 1.9 MHz band also included.)</td>
</tr>
<tr>
<td><strong>Grounding</strong></td>
<td><strong>HPF (High Pass Filter)</strong></td>
</tr>
<tr>
<td>Electrical connection to the earth.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Hz (Hertz)</strong></td>
</tr>
<tr>
<td>I</td>
<td>L</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>IC (Integrated Circuit)</td>
<td>LF (Low Frequency)</td>
</tr>
<tr>
<td>IF (Intermediate Frequency)</td>
<td>30–300 kHz range signals.</td>
</tr>
<tr>
<td>Internally converted frequency for amplification and other signal processing.</td>
<td>Li-Ion (Lithium Ion)</td>
</tr>
<tr>
<td>IF shift</td>
<td>Rechargeable battery which has better capacity than Ni-Cd, Ni-MH, etc., no memory effect after repeated non-full charge/discharge cycles.</td>
</tr>
<tr>
<td>A function that electronically shifts IF frequency from a center frequency.</td>
<td>LPF (Low Pass Filter)</td>
</tr>
<tr>
<td>IMD (Inter-Modulation Distortion)</td>
<td>LSB (Lower Side Band)</td>
</tr>
<tr>
<td>Distortion within RF circuits made with upper and lower adjacent channel signals.</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>MARS (Military Affiliate Radio Service)</strong></td>
<td><strong>NB (Noise Blanker)</strong></td>
</tr>
<tr>
<td><strong>Memory bank</strong></td>
<td>A function reducing pulse-type noises.</td>
</tr>
<tr>
<td>A set of memory channels organized into a group.</td>
<td><strong>NBFM (Narrow Band FM)</strong></td>
</tr>
<tr>
<td><strong>Memory effect</strong></td>
<td><strong>Ni-Cd (Nickel-Cadmium)</strong></td>
</tr>
<tr>
<td>Rechargeable batteries such as Ni-Cd and Ni-MH types may</td>
<td><strong>Ni-MH (Nickel-Metal Hydride)</strong></td>
</tr>
<tr>
<td>be temporarily getting less capacity as a result of repeated</td>
<td><strong>Notch filter</strong></td>
</tr>
<tr>
<td>non-full charge/discharge cycles. It is called so since</td>
<td>Sharp and narrow rejection filter for elimination of interfering</td>
</tr>
<tr>
<td>rechargeable batteries lose capacity as if “memorize” wrong</td>
<td>signals</td>
</tr>
<tr>
<td>full capacity level at less than full charge. Li-Ion batteries</td>
<td><strong>NR (Noise Reduction)</strong></td>
</tr>
<tr>
<td>are free from this effect.</td>
<td>DSP feature reduces unwanted signal noise</td>
</tr>
<tr>
<td><strong>MF (Medium Frequency)</strong></td>
<td></td>
</tr>
<tr>
<td>300 kHz–3 MHz range signals</td>
<td></td>
</tr>
<tr>
<td><strong>MIC (Microphone)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td></td>
</tr>
<tr>
<td>Method of adding information to a radio frequency carrier</td>
<td></td>
</tr>
<tr>
<td><strong>O</strong></td>
<td><strong>P</strong></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
</tbody>
</table>
| **Offset frequency**  
Frequency difference between transmits and receives. | **PA** (Power Amplifier) |
| **OSC** (OSCillator) | **Parawatch** (=Dualwatch) |
| **PBT** (PassBand Tuning)  
A function electronically reduce interference by narrowing IF bandwidth | **PEP** (Peak Envelope Power)  
RF power at maximum amplitude. |
| **PLL** (Phase Locked Loop)  
Circuit to synthesize the different frequencies a radio will operate on. | **Pocket beep**  
Beeping function when specific signal is received. |
| **Priority watch**  
Reception mode, which by a selected frequency is always periodically, checked when VFO is set to different frequency | **PTT** (Push To Talk) |
<p>| <strong>PWR</strong> (PoWeR) | <strong>P</strong> |</p>
<table>
<thead>
<tr>
<th><strong>R</strong></th>
<th><strong>S</strong></th>
</tr>
</thead>
</table>
| Reflected power  
Non-radiated power dissipated as heat when the transmitter is mismatched to the antenna or load.  
Repeater  
Radio systems, which receive incoming signal and re-transmit it for extended communication area. Normally put on geographically high locations for VHF/UHF hand portables.  
RF (Radio Frequency)  
RF ground  
Connection of amateur equipment to earth ground to eliminate hazards from RF exposure and reduce RFI.  
RFI (Radio Frequency Interference)  
RIT (Receiver Incremental Tuning)  
Fine-tuning receive frequency without changing displayed or memory frequency.  
RTTY (Radio TeleTyPe)  
RX (Receive)  
S/N (Signal to Noise ratio)  
SAR (Search And Rescue)  
Scan  
Continually sweeping frequencies looking for signals.  
Scan Edge  
End and start frequencies for a scanning range.  
Scratch Pad Memory  
Temporary frequency memories for quick access.  
Semi Duplex  
An operation mode in which transmits and receives is accomplished on different frequencies alternatively.  
Sensitivity  
Indicates how weak a signal the receiver will pick up.  
Set mode  
An operation mode used for radio. To set less frequently used control features.  
Simplex  
An operation mode where transmit and receive frequency is same.  
Skywarn  
Trained volunteer storm spotters for the National Weather Service.  
SMA (Sub-Miniature a connector)  
Type of antenna connector, used in VHF/UHF portable.  
SP (SPeaker) |
**Split**
A mode in which the transmit and receive frequency is different.

**SQL (SQeLch)**
A function muting audio output for set conditions.

**SSB (Single Side Band)**

**SSTV (Slow Scan TV)**
Graphics communication using narrow bandwidth.

**SWL (Short Wave Listener)**

**SWR (Standing Wave Ratio)**
Measurement of forward vs. reflected power output during transmit.

---

**TCXO** (Temperature Compensated Crystal Oscillator)
Heated crystal oscillator for better frequency stability.

**TNC**
1) Terminal Node Controller
   Modern for data communication.
2) A type of antenna connector

**TOT** (Time Out Timer)
Time limiting function for continued repeater or other operations.

**TS (Tuning Step)**
Incremental steps

**TSQL (Tone SQeLch)**
Squelch function using subaudible tones, selective call.

**TVI (TeleVision Interference)**

**TX (Transmit)**
<table>
<thead>
<tr>
<th><strong>U</strong></th>
<th><strong>V</strong></th>
</tr>
</thead>
</table>
| **UHF** (Ultra High Frequency)  
300 MHz–3 GHz range signals. | **VFO** (Variable Frequency Oscillator)  
An operation mode in which operator can change frequency freely. |
| **Uplink** (↔Downlink)  
Frequency that user transmits to the repeater or satellite. | **VHF** (Very High Frequency)  
30–300 MHz range signals. |
| **USB** (Upper Side Band) | **VOX** (Voice Operated transmission)  
A function automatically put the transmitter in transmit when talk into a microphone. |
| **UTC** (Universal Time Coordinated)  
An astronomical time based on the Greenwich meridian (zero degrees longitude). | **VSC**  
1) Voice Scan Control  
2) Voice Squelch Control |
Weather Alert
NOAA broadcast station transmitting alert signals.

WFM (Wideband FM)
Count on us!