

AMATEUR SATELLITE BANDPLAN

a. General AMSAT downlink bandplan

As with other amateur band allocations, a bandplan exists for the orderly use of the space sections of the amateur bands. The AMSAT bandplan shown below is based on percentages of the downlink passband and has been generally adopted. It applies to both inverting and non-inverting transponders.

This set-up is used in most satellites, except for some transponders on microwave bands. These microwave transponders do not have a strictly defined bandplan to allow for maximum flexibility and usage and to accommodate more experiments. By not using a strict bandplan, the transponder is often more evenly loaded which contributes to less QRM.

| <-----DOWNLINK PASSBAND-----> | | | | | | |
|-------------------------------|------------|---------------|---------------------------|---------------|-------------------|-------|
| GUARD ¹⁾ | TELEGRAPHY | RTTY | MIXED MODES ³⁾ | SSTV | SSB ⁴⁾ | GUARD |
| 5% | 30% | ²⁾ | 30% | ²⁾ | 30% | 5% |
| <----- 100% -----> | | | | | | |

Notes.

1. Guard area to avoid interference with beacons. These frequencies are available for emergency and bulletin stations.
2. RTTY and SSTV are placed at the edge of the telegraphy and the SSB passbands, conforming to their usage at HF where RTTY is present within the telegraphy space and SSTV is transmitted in the SSB sub-band.
3. Mixed modes area, recommended for use by crystal-controlled stations, DX-pedition stations, or anyone wishing to work both telegraphy and SSB stations.
4. In the downlink SSB must be USB. With inverting transponders this means that LSB is to be used in the uplink.

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