

Ham 102 - Band plan 10-6m

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The normal process of ham radio starts with VHF/UHF (2m/70cm) communications. We have used simplex, duplex repeater, and AllStarLink digital communications. Over 300 articles discuss these topics.

6-meters (50–54 MHz) is still VHF, but the wavelength is a little less line-of-sight dependent. The ‘magic-band’ is the transition region, at times it is local or long distance with joy or heartbreak. Since it is VHF, the entire band is open to all license classes. FT8 digital is common.

10-meters (28–29.7 MHz) is the bottom of HF wavelengths. Techs can operate 28.3–28.5 with 200 Watts on single-side-band (SSB) and 28.0-28.3 with CW. This is adjacent to the unlicensed Citizens Band (CB). Much of that type hardware is usable.

Both allocations have a band plan, which shows where to find traffic with which mode.

Commercial and ham-brew antennas are common. For sky-wave (DX), polarization is less important, so horizontal works. Unlike VHF practices, different antennas must be tuned and matched to prevent transmitter damage. Verticals under the roof line are less subject to lightning.

The diagram illustrates the minimum safety hardware needed between the antenna, ground, and radio. Keep antenna below lightning rod cone of protection. A lightning protector is needed at the top of coax and another before entering the building. Ferrite beads near the radiator reduce noise. Three ground rods with bonding to utility ground are necessary. I use the same protection for under roof to mitigate noise and other transients.

The **ICOM 7300** HF+6 is highly recommended. The compact, software defined, touch-screen, water-fall, premium audio, is the most sold HF-transceiver in the history of ham radio for many reasons. At retail, it is a bargain. Twice a year it discounts. It is very nice. No, it is excellent. It is straight forward to learn and easy to use.

Alinco DR-06T is a decent, 6-meter single band mobile with 50W, about \$250.

Alinco DR-03T is the 10-meter sibling.

Few VHF/UHF radios include 6-meters.

Walcott Radio sells 10-meter C/B variants.

Yaesu makes 6-meter HTs. I had a VX-7, which was quite capable, but tedious to use because of Yaesu’s penchant for too many menus. I have FT-70D which has same issues.

TYT 9800 is a quad-band radio at a low price point of \$240. It is workable, but has few 5-star ratings on ham sites, most are 0-3.

Life is good. Enjoy!

6-m	
50.0-50.1	CW, beacons
50.060-50.080	beacon subband
50.1-50.3	SSB, CW
50.10-50.125	DX window
50.125	SSB calling
50.3-50.6	All modes
50.6-50.8	Nonvoice communications
50.62	Digital (packet) calling
50.8-51.0	Radio remote ctrl (20-kHz ch)
51.0-51.1	Pacific DX window
51.12-51.48	Repeater inputs (19 ch)
51.12-51.18	Digital repeater inputs
51.62-51.98	Repeater outputs (19 ch)
51.62-51.68	Digital repeater outputs
52.0-52.48	Repeater inputs (23 ch)
52.02, 52.04	FM simplex
52.2	Test Pair (input)
52.5-52.98	Repeater output (23 ch)
52.525	Primary FM simplex
52.54	Secondary FM simplex
52.7	TEST PAIR (output)
53.0-53.48	Repeater inputs (19 ch)
53.0	Remote base FM simplex
53.02	Simplex
53.1, '2, '3, '4	Radio remote control
53.5-53.98	Repeater outputs (19 ch)
53.5, '6, '7, '8	Radio remote control
53.52, 53.9	Simplex

10-m	
28.000-28.070	CW
28.070-28.150	RTTY
28.150-28.190	CW
28.200-28.300	Beacons
28.300-28.500	Phone, SSB, Tech privileges
28.500-29.300	Phone
28.680	SSTV
29.000-29.200	AM
29.300-29.510	Satellite Downlinks
29.520-29.590	Repeater Inputs
29.600	FM Simplex
29.610-29.700	Repeater Outputs

