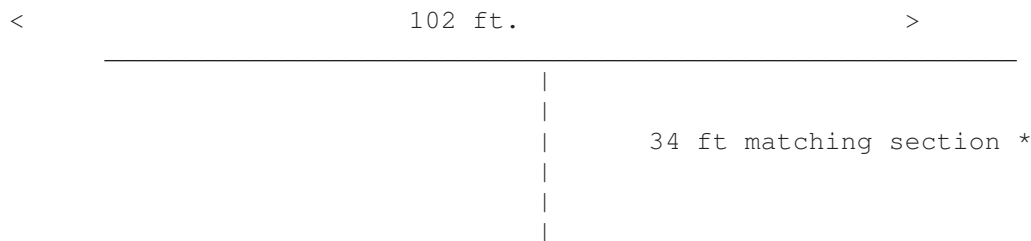


Homebrew G5RV All Bander

By IW5EDI

The G5RV is an easy-to-build 80-10 dipole requiring no traps. All bands are covered, including 30, 17, and 12. The G5RV has high SWR, by design, on most bands and a tuner is required. Unlike most dipoles, the "basic" design is not a 1/2 wave, but instead a 3/2 wave dipole on 20 meters. A half size unit can be built, halving top and feeder, for 40 and up. For more info and detailed theory about this versatile antenna see G5RV article in the ARRL Antenna Compendium. The article is by G5RV himself, the only HAM we know honored by being named after an antenna, according to Jim of RADIO WORKS.



* Adjusted for velocity factor of feeder, if necessary.

* HINTS, ETC. *

This is my first antenna project. I built mine with insulated 12 ga. wire I had laying around. Initially I had "homemade" open wire feeder for the matching section. The antenna worked fine on 20 and up, but turned my tuner into a "self lighting" meter unit on 40 and 80 (smelled kinda funny too). Originally I blamed my budget tuner, but after replacing the open wire (because of storm damage), it now works fine on 80, 40, 20, 15, and 10. I don't have WARC capabilities and can't report performance on those bands.

The replacement matching section is 300 ohm twin lead with the length adjusted for it's velocity factor (34 ft * .82). The top is kinda touchy when it comes to trimming. My antenna is hard to get at so i shortened up 1 ft first try and moved the resonant section from well below the band (SWR was 1.6 at lower band edge on 20m) to above 14.2 (SWR 1.3). Light trimming is suggested. Due to the normal high SWR, others have suggested not using a coax feeder with wimpy dielectric, particularly if running substantial power.

So how's it work?

I LIKE it.

One antenna that works well on all bands. I've received good reports, voice and cw, on all bands running a barefoot Yaesu FT 101B. Surprising number of contacts from QTHs that would seem to be unfavorable because of my antenna orientation. My next G5RV is going to be a half size unit wit a different orientation and extending the 300 ohm line all the way back to the tuner. (G5RV

recommends the open type feeder, by the way). If you build (or have built) a G5RV and have anything to add about this versatile antenna let us know.

Happy HAMing ... Jim KC6CFF (from packet radio bbs)