

# End-fed 6-meter Zepp

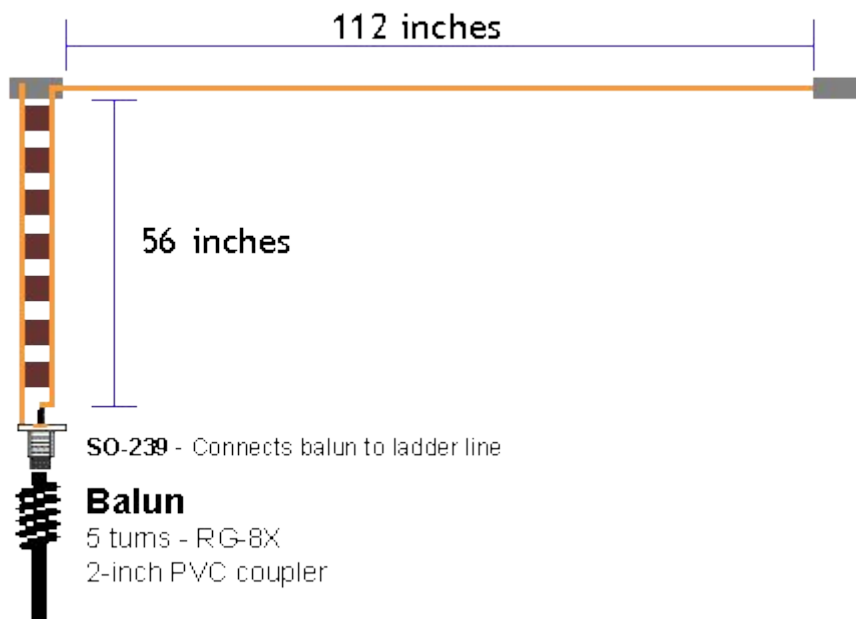
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A half-wave antenna can be end-fed or center-fed. An end-fed half-wave antenna may offer mechanical and construction advantages over a center-fed antenna. The radiation pattern for an end-fed half-wave antenna is no different than a center-fed half-wave antenna.

Feed-point impedance for an end-fed half-wave antenna is very high and requires a matching system when matching to 50-ohm coax. A center-fed half-wave antenna easily matches 50-ohm coax since the feed-point impedance is generally 50-75 ohms.

The matching system consists of a quarter-wave length of 450-ohm open-wire ladder line and a choke balun for 50-ohm coax. The quarter-wave length transforms a high impedance at the antenna to a low-impedance at the feed point.

Constructing the balun is accomplished by wrapping 5 close-wound turns of 50-ohm coax (approximately 56 inches of coax) on a piece of 2" PVC pipe to create a 1:1 balun. The PVC pipe form is actually a 2"x4" pipe coupler and is very inexpensive. An SO-239 coax connector is used to connect the ladder line to the balun.



I was disappointed with the performance of this antenna. The SWR was high, even when using an antenna tuner. After checking all connections, coax, and construction, plus experimenting with the horizontal length of 112 inches, little change was noted with the SWR.

Two 9:1 baluns for end-fed Zepp antennas offered by [Emergency Amateur Radio Club](#) and [BalunDesigns](#) provided better matching and bandwidth than my homebrew construction. Both work very well for 6-meters and HF end-fed antennas.