

EZNEC Tutorial – Part III

NPARC Presentation
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Purpose

- Review of First Two Tutorial Sessions
 - Catch up for any new participants
 - Answer questions from previous sessions
- Some more ‘practical’ examples
 - Review with a 40 meter Doublet
 - A Horizontal loop antenna
 - The G5RV Horizontal Doublet

From the ARRL Antenna Book

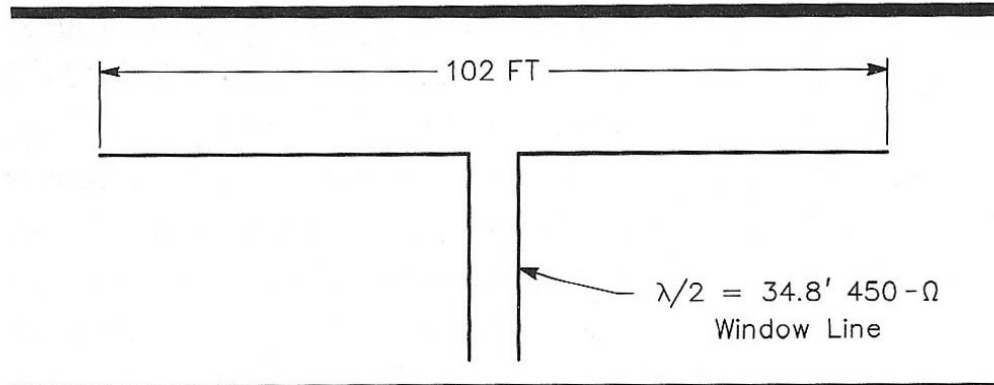


Fig 8—The G5RV multiband antenna covers 3.5 through 30 MHz. Although many amateurs claim it may be fed directly with 50- Ω coax on several amateur bands, Louis Varney, its originator, recommends the use of a matching network on bands other than 14 MHz.

34.8 ft. = half wave on 40 meters

For a half wave line $Z_i = Z_{\text{load}}$ for any Z_0

For a quarter wave line $Z_i = (Z_0^2) / Z_l$

Review of Part I

- Use of the Control Panel
 - Setting defaults (units, freq., etc.)
 - Types of grounds (free space, real, perfect)
 - Entering Data (wires, elements, segments)
- Use of the Action Buttons
 - Elevation vs. Azimuth Plots
 - Far Field (2D & 3D)
 - SWR vs. Frequency Calculations

For all Antennas

- 1 Set Ground to Free Space or Real
- 2 Calculate Elevation Pattern and pick out the Major Lobe in that pattern.
- 3 Select Azimuth Pattern.
- 4 Set Elevation Angle to Major Lobe.
- 5 Calculate Azimuth Pattern.
- 6 Calculate SWR over Frequency range.

Go to EZNEC

opens "LAST"

If LAST is NOT "BYDipole"

open "BYDipole"