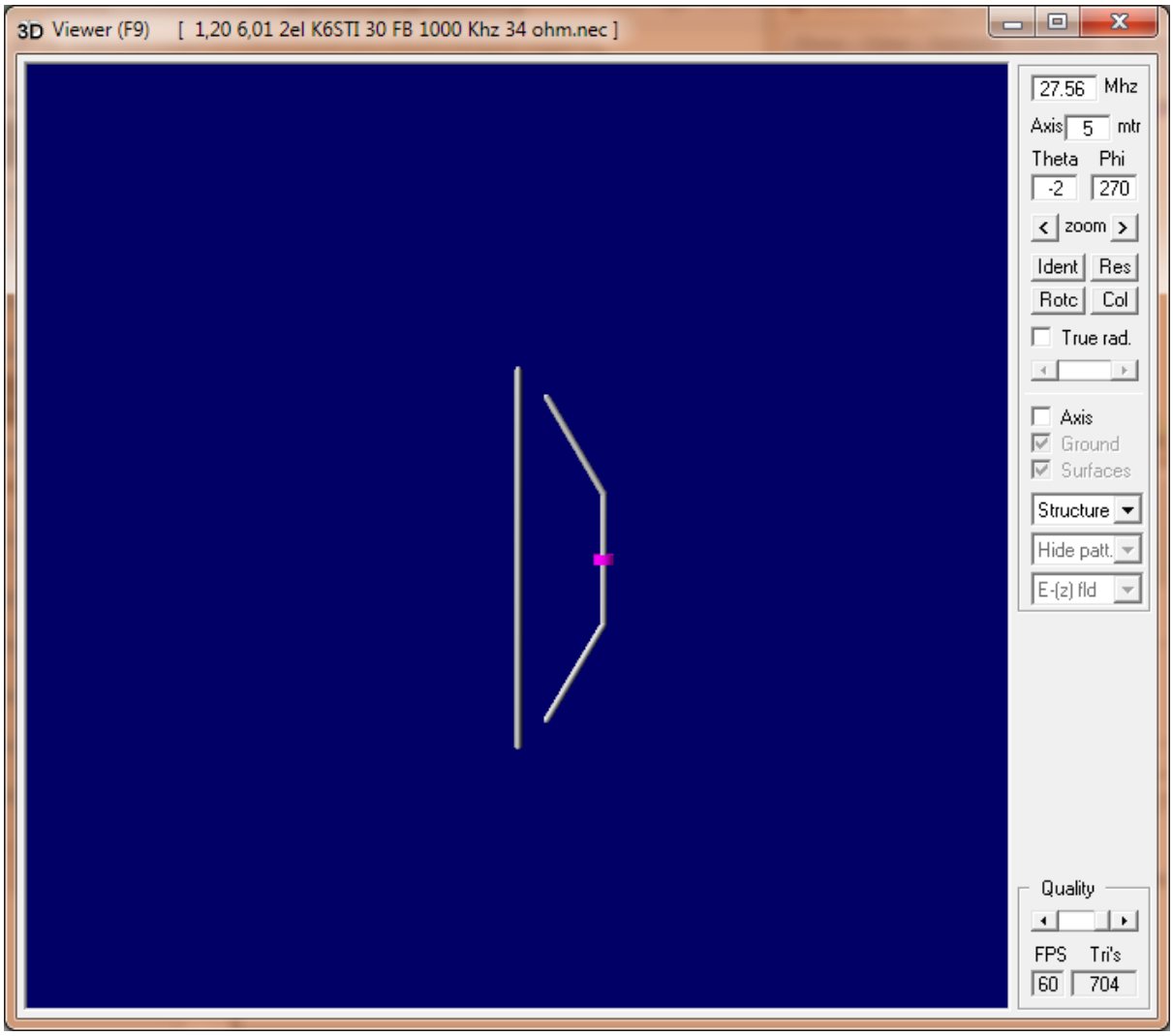
1,20 M 2el V-Yagi

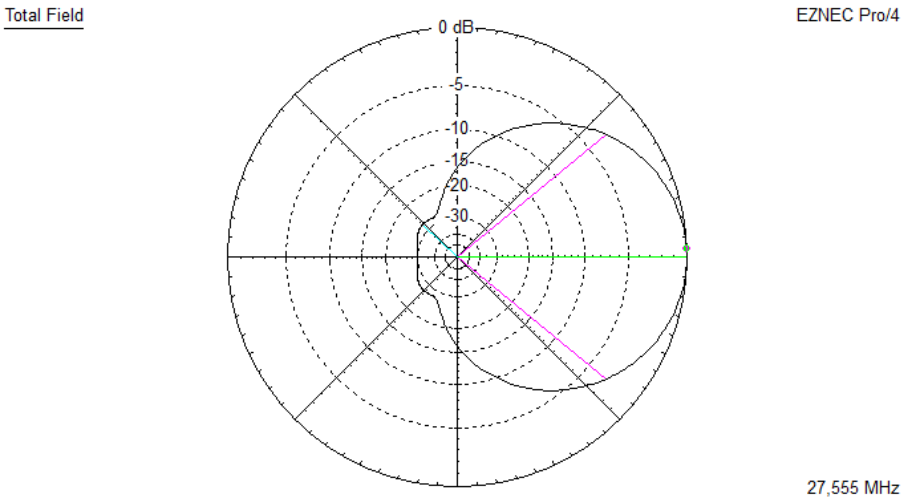


Most 2el yagi's are have either gain or front to back.

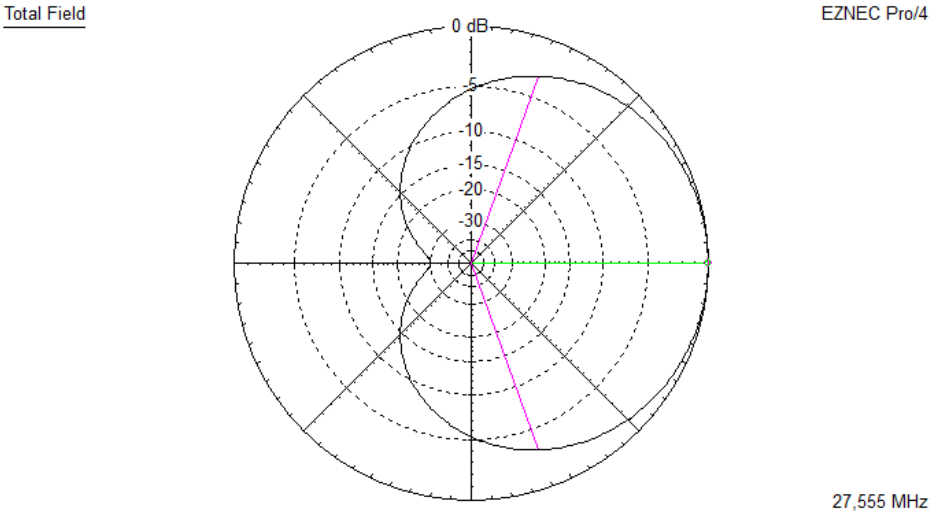
A exception to this rule is the 2el V-Yagi.

Based on a original idea from k6STI.

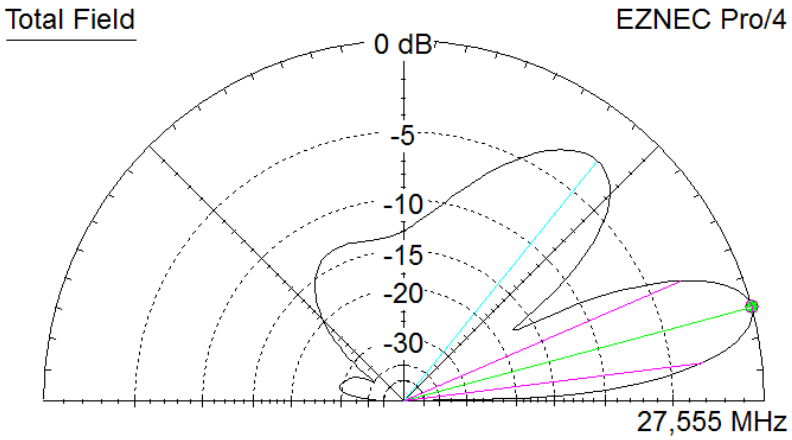
Designed by HPSD 01-10-2013



The free space azimuth plot 6 dBI and a front to back of 30,32 dB.



The free space elevation plot.

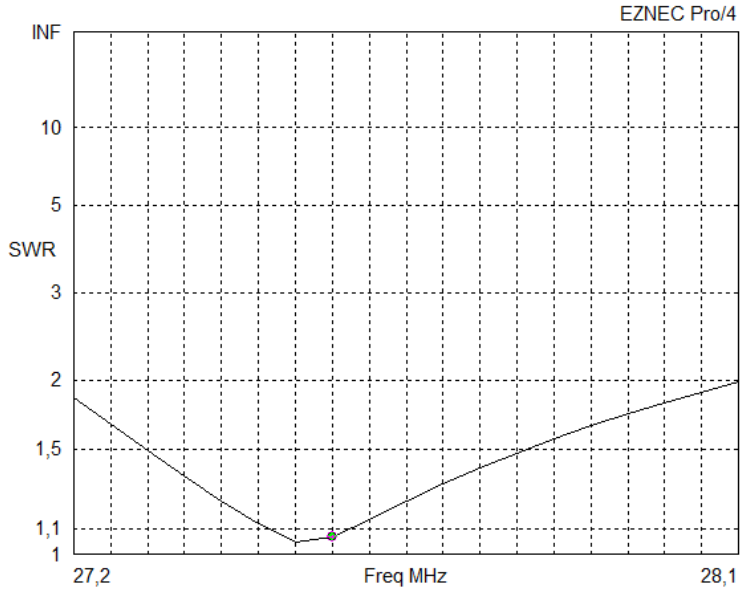


Elevation Plot
Azimuth Angle 0,0 deg.
Outer Ring 11,11 dBi

Slice Max Gain 11,11 dBi @ Elev Angle = 15,0 deg.
Beamwidth 16,0 deg.; -3dB @ 7,3, 23,3 deg.
Sidelobe Gain 8,4 dBi @ Elev Angle = 51,0 deg.
Front/Sidelobe 2,71 dB

Cursor Elev 15,0 deg.
Gain 11,11 dBi
0,0 dBmax

The elevation plot at 10 meters height above average ground.



Freq 27,55 MHz
SWR 1,066
Z 33,1 at 3,65 deg.
= 33,03 + j 2,109 ohms
Refl Coeff 0,03192 at 87,28 deg.
= 0,001514 + j 0,03189
Ret Loss 29,9 dB

Source # 1
Z0 33 ohms

The impedance of this version is 33 Ohms. A gamma-match or equivelant is needed.

SIZES

The antenna is made out of MACO TUBING:

The center part of each element is:

15,875 diameter and 1,8288 meter long

The tips are 12,7mm (1/2 inch) and as long as the element lenght needs to be.

The bend part of the radiator is 1,574 meter long

The reflector has a total length of : 5,3 meters.