

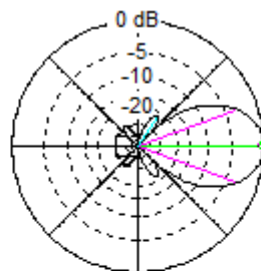
17,76 M 8el F 13,3 dBi



For: Dx portion 11 meter band 56SD113
Antenna Type: Yagi-Uda (F-yagi)
Designed by: HPSD version 1.01 feb 2013

Boom length: 18 Meter
Gain: 13,3 dBi
Front to Back: < 30 dB
Impedance: 50 ohms (split element) direct fed.
SWR below 1:1,5 : > 600Khz

Total Field



EZNEC Pro/4

27,555 MHz

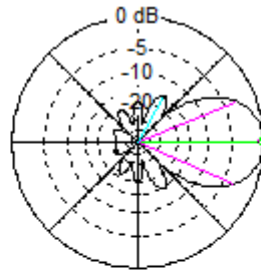
Azimuth Plot
Elevation Angle 0,0 deg.
Outer Ring 13,3 dBi

Cursor Az 0,0 deg.
Gain 13,3 dBi
0,0 dBmax

Slice Max Gain 13,3 dBi @ Az Angle = 0,0 deg.
Front/Back 30,41 dB
Beamwidth 40,4 deg.; -3dB @ 339,8, 20,2 deg.
Sidelobe Gain -8,46 dBi @ Az Angle = 57,0 deg.
Front/Sidelobe 21,76 dB

The Azimuth plot at 27,555 Mhz
13,3 dBi Gain and 30,41 dB front to back.

Total Field



EZNEC Pro/4

27,555 MHz

Elevation Plot

Azimuth Angle 0,0 deg.

Outer Ring 13,3 dBi

Cursor Elev 0,0 deg.

Gain 13,3 dBi

0,0 dBmax

Slice Max Gain 13,3 dBi @ Elev Angle = 0,0 deg.

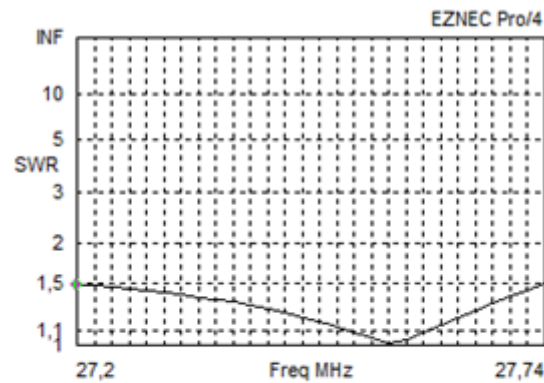
Front/Back 30,41 dB

Beamwidth 45,9 deg.; -3dB @ 337,0, 22,9 deg.

Sidelobe Gain -1,45 dBi @ Elev Angle = 60,0 deg.

Front/Sidelobe 14,75 dB

The free space elevation plot at 27,555 Mhz



Freq 27,2 MHz Source # 1
 SWR 1,49 Z0 50 ohms
 Z 58,52 at -20,59 deg.
 = 54,79 - j20,58 ohms
 Refl Coeff 0,1978 at -65,8 deg.
 = 0,08111 - j0,1805
 Ret Loss 14,1 dB

All elements are made out of 3 meter 22 mm tubing and 18 mm end pieces
DO NOT CHANGE DIAMETER.

The individual elements of the folded dipole are separated 11 CM

Type	Distance	Length
Reflector	0	5,640 M
Folded dipole	0,378 M	2,630 M
Director 1	0,988 M	2,613 M
Director 2	2,836 M	2,513 M
Director 3	6,067 M	2,467 M
Director 4	9,905 M	2,430 M
Director 5	14,130 M	2,390 M
Director 6	17,760 M	2,345 M

Feeding the antenna: The antenna is 50 ohms,
The radiator (and preferably all elements) need to be isolated from the boom.
The radiator can be split in half and be “direct” fed.
With this said...a 1:1 balun or RF choke is advised.