

Reflected W Beam

model of a reflected W beam for 20m & 17m
feeding from the bottom via low impedance line

Following data are used to create the the XYZ coordinates with the file:
reflectedW-single-band-koordinaten.xls

20m

length of half reflector:	569 cm
length of half radiator:	551 cm
length of reflector insulator:	9 cm
length of radiator insulator:	13 cm

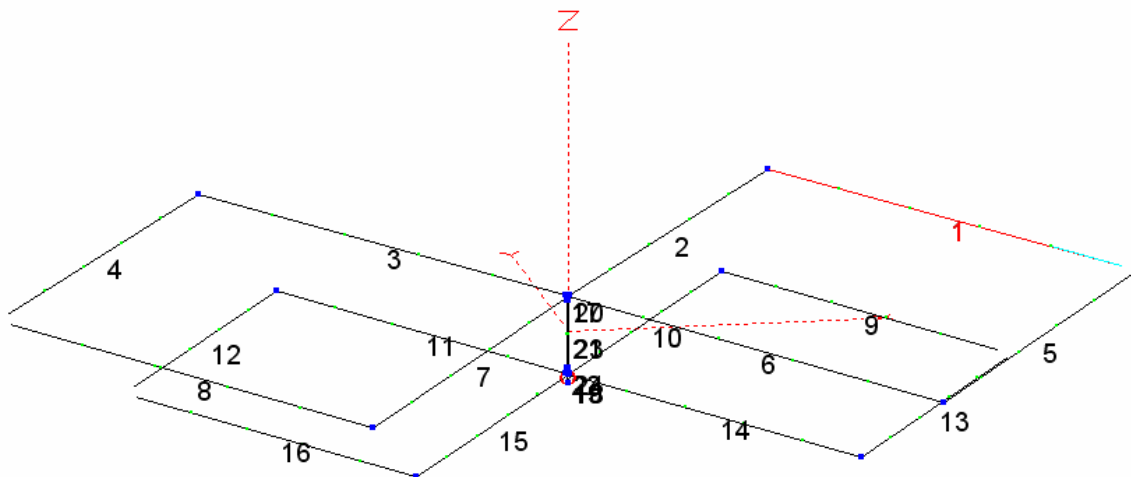
17m

length of half reflector:	441 cm
length of half radiator:	431 cm
length of reflector insulator:	9 cm
length of radiator insulator:	13 cm

Distance between elements: 40 cm

wire: 1,5 mm² noninsulated

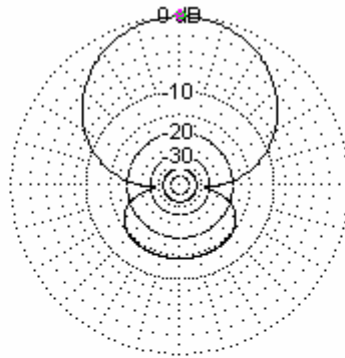
all results in free space, no losses



EZNEC+

^ Total Field

EZNEC+

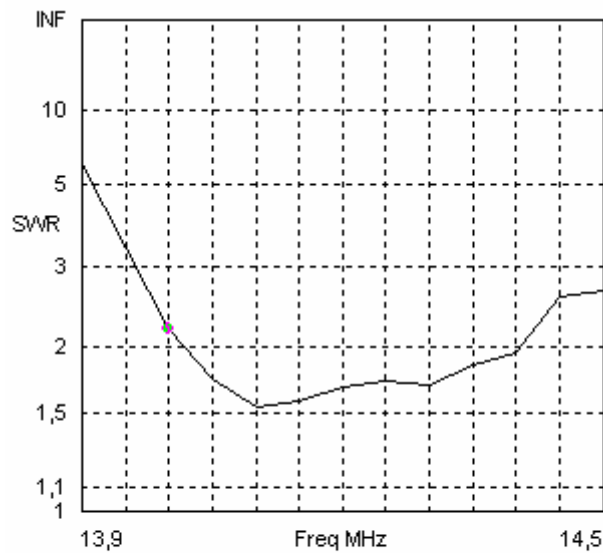


14 MHz

Azimuth Plot
 Elevation Angle 0,0 deg.
 Outer Ring 6,26 dBi

Cursor Az 90,0 deg.
 Gain 6,26 dBi
 0,0 dBmax

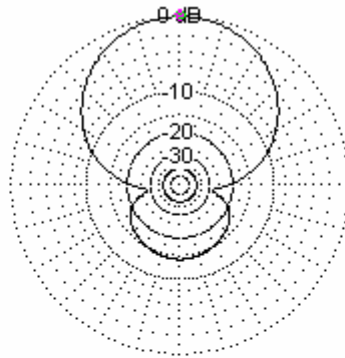
Slice Max Gain 6,26 dBi @ Az Angle = 90,0 deg.
 Front/Back 14,25 dB
 Beamwidth 80,4 deg.; -3dB @ 49,8, 130,2 deg.
 Sidelobe Gain -7,98 dBi @ Az Angle = 270,0 deg.
 Front/Sidelobe 14,25 dB



Freq 14 MHz Source # 1
 SWR 2,18 ZO 50 ohms
 Z 24,05 + j 9,946 ohms
 Refl Coeff 0,3719 at 151,38 deg.

^ Total Field

EZNEC+

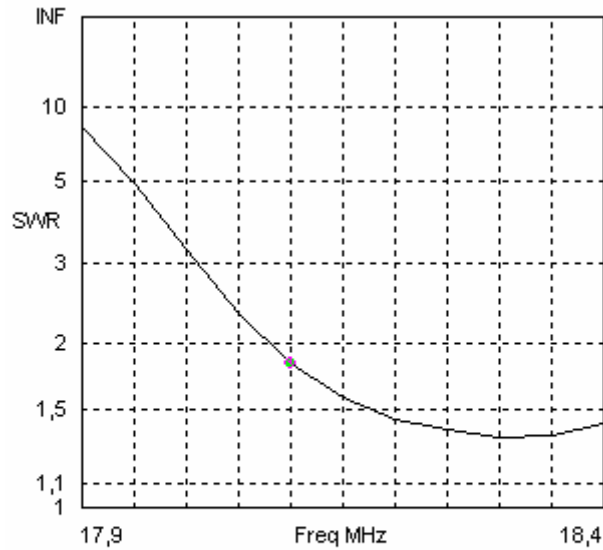


18,068 MHz

Azimuth Plot
 Elevation Angle 0,0 deg.
 Outer Ring 6,02 dBi

Cursor Az 90,0 deg.
 Gain 6,02 dBi
 0,0 dBmax

Slice Max Gain 6,02 dBi @ Az Angle = 90,0 deg.
 Front/Back 14,07 dB
 Beamwidth 80,6 deg.; -3dB @ 49,7, 130,3 deg.
 Sidelobe Gain -8,05 dBi @ Az Angle = 270,0 deg.
 Front/Sidelobe 14,07 dB



Freq 18,1 MHz Source # 1
 SWR 1,84 Z0 50 ohms
 Z 28,45 + j 8,822 ohms
 Refl Coeff 0,2949 at 151,32 deg.