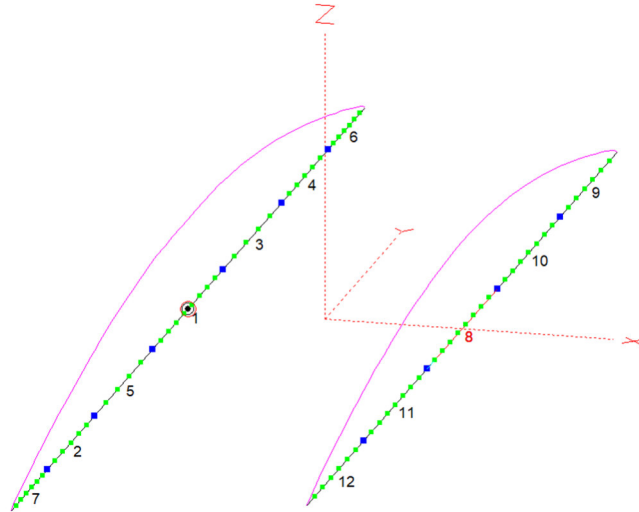
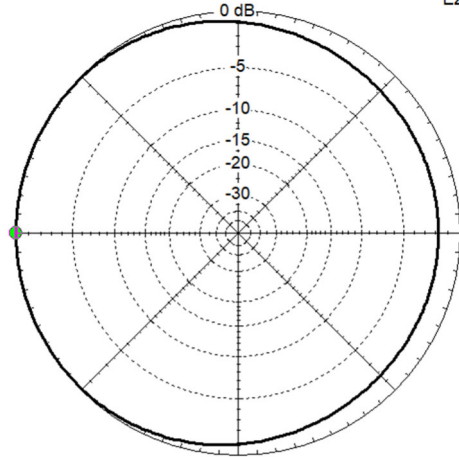


Maria Maluca – 2element 6 band beam (Kit by DC6NY)



No.	End 1				End 2				Diameter	Segs	Insulation			Wire Loss		
	X (m)	Y (m)	Z (m)	Conn	X (m)	Y (m)	Z (m)	Conn			Diel C	Thk (mm)	Loss Tan	R (ohm-m)	Perm	Type
1	0	-0,75	0	W5E1	0	0,75	0	W3E1	25	11	1	0	0	4E-08	1	AI6061T6
2	0	-2	0	W5E2	0	-3	0	W7E1	16	6	1	0	0	4E-08	1	AI6061T6
3	0	0,75	0	W1E2	0	2	0	W4E1	20	5	1	0	0	4E-08	1	AI6061T6
4	0	2	0	W3E2	0	3	0	W6E1	16	6	1	0	0	4E-08	1	AI6061T6
5	0	-0,75	0	W1E1	0	-2	0	W2E1	20	5	1	0	0	4E-08	1	AI6061T6
6	0	3	0	W4E2	0	3,785	0		12	7	1	0	0	4E-08	1	AI6061T6
7	0	-3	0	W2E2	0	-3,785	0		12	7	1	0	0	4E-08	1	AI6061T6
8	1,46	-0,75	0	W11E1	1,46	0,75	0	W10E1	25	11	1	0	0	4E-08	1	AI6061T6
9	1,46	2,09	0	W10E2	1,46	3,32	0		16	7	1	0	0	4E-08	1	AI6061T6
10	1,46	0,75	0	W8E2	1,46	2,09	0	W9E1	20	8	1	0	0	4E-08	1	AI6061T6
11	1,46	-0,75	0	W8E1	1,46	-2,09	0	W12E1	20	8	1	0	0	4E-08	1	AI6061T6
12	1,46	-2,09	0	W11E2	1,46	-3,32	0		16	7	1	0	0	4E-08	1	AI6061T6

Total Field



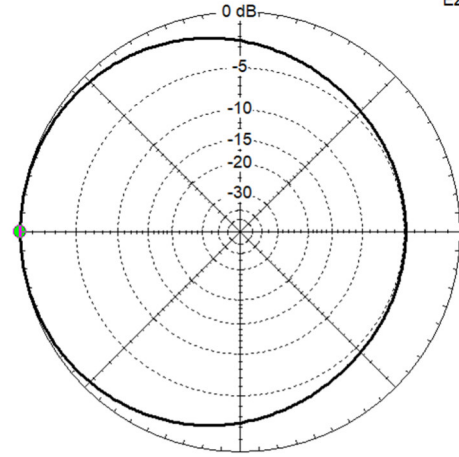
EZNEC Pro/2+

50,2 MHz

Elevation Plot
Azimuth Angle 0,0 deg.
Outer Ring 3,4 dBref
Slice Max Gain 3,4 dBref @ Elev Angle = 180,0 deg.
Front/Back 1,77 dB
Beamwidth ?
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

Cursor Elev 180,0 deg.
Gain 3,4 dBref
0,0 dBmax

Total Field



EZNEC Pro/2+

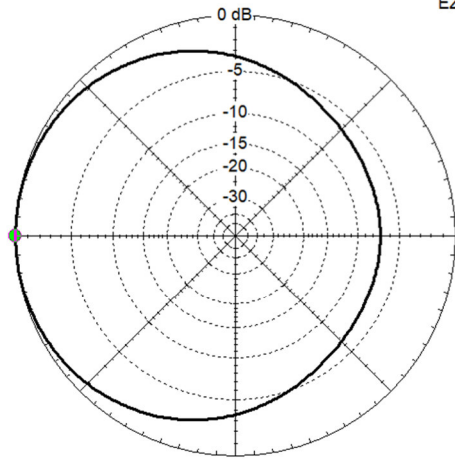
28,2 MHz

Elevation Plot
Azimuth Angle 0,0 deg.
Outer Ring 2,63 dBref
Slice Max Gain 2,63 dBref @ Elev Angle = 180,0 deg.
Front/Back 4,85 dB
Beamwidth 203,6 deg. -3dB @ 78,2, 281,8 deg.
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

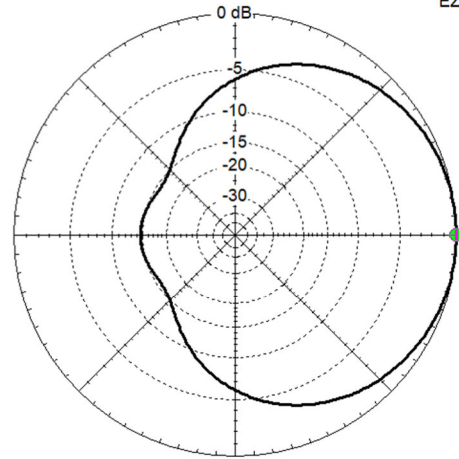
Cursor Elev 180,0 deg.
Gain 2,63 dBref
0,0 dBmax

Maria Maluca – 2element 6 band beam (Kit by DC6NY)

Total Field



EZNEC Pro/2+ Total Field



EZNEC Pro/2+

Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring 3.21 dBref
Slice Max Gain 3.21 dBref @ Elev Angle = 180.0 deg.
Front/Back 7.16 dB
Beamwidth 165.8 deg.; -3dB @ 97.1, 262.9 deg.
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

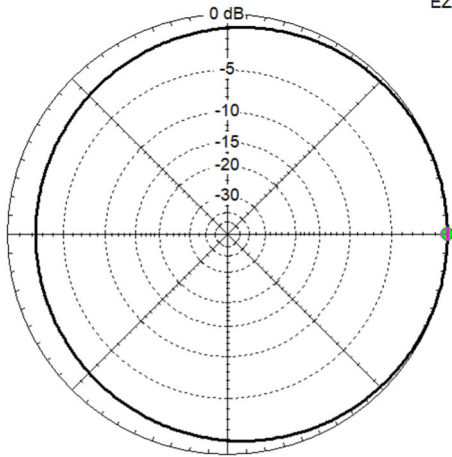
Cursor Elev 180.0 deg.
Gain 3.21 dBref
0.0 dBmax

Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring 4.46 dBref
Slice Max Gain 4.46 dBref @ Elev Angle = 0.0 deg.
Front/Back 14.53 dB
Beamwidth 132.2 deg.; -3dB @ 293.9, 66.1 deg.
Sidelobe Gain -10.07 dBref @ Elev Angle = 180.0 deg.
Front/Sidelobe 14.53 dB

Cursor Elev 0.0 deg.
Gain 4.46 dBref
0.0 dBmax

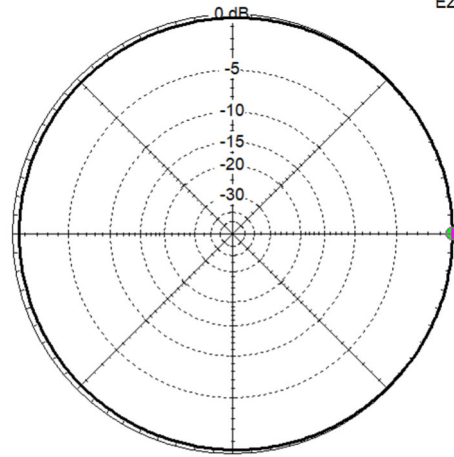
Directivity changes above 15m !!

Total Field



EZNEC Pro/2+

Total Field



EZNEC Pro/2+

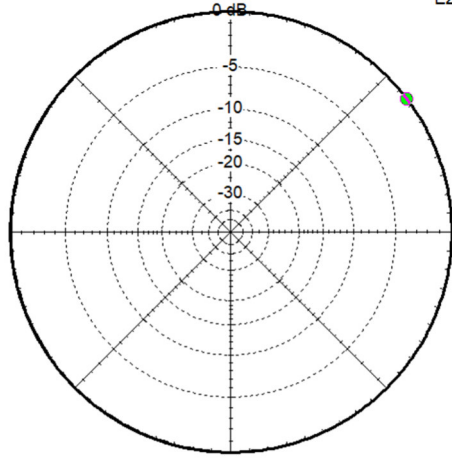
Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring 0.99 dBref
Slice Max Gain 0.99 dBref @ Elev Angle = 0.0 deg.
Front/Back 2.34 dB
Beamwidth ?
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

Cursor Elev 0.0 deg.
Gain 0.99 dBref
0.0 dBmax

Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring 0.06 dBref
Slice Max Gain 0.06 dBref @ Elev Angle = 0.0 deg.
Front/Back 0.51 dB
Beamwidth ?
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

Cursor Elev 0.0 deg.
Gain 0.06 dBref
0.0 dBmax

Total Field



EZNEC Pro/2+

Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring -0.24 dBref
Slice Max Gain -0.24 dBref @ Elev Angle = 0.0 deg.
Front/Back 0.11 dB
Beamwidth ?
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

Cursor Elev 37.0 deg.
Gain -0.26 dBref
-0.02 dBmax

30m is tested with Stockcorner JC-4S

Maria Maluca – 2element 6 band beam (Kit by DC6NY)

Data: in free space

Band		SWR	Gain / dbd	f/b
6m	50,2 MHz	25	3,4	1,7
10m	28,2 MHz	28	2,6	4,8
12m	24,9 MHz	22	3,2	7,1
15m	21,2 MHz	3	4,46	14,5
17m	18,1 MHz	4	0,99	2,3
20m	14,1 MHz	65	0,51	0,5
30m	10,1 MHz	>100	-0,24	0,1

Tapering:

Boom 1500 mm, 40x2mm		
Positions		Element lengths = total
Start of Boom	0	
Reflector	20	3785 x 2 = 7570 mm
Driven Element	1480	3320 x 2 = 6640 mm
End of Boom	1500	

This lenght are given by the kit:

Director	Ø	2 x	Cutting length
mid (1 x)	20 x 1,5 mm	1500	1500 mm
inner1	16 x 1,5 mm	1340 + 160 overlap	1500 mm
outer	12 x 1 mm	1230 + 120 overlap	1350 mm
Driven element	Ø	2 x	Cutting length
mid	24 x 1,5 mm	750 mm	750 mm
inner1	20 x 2 mm	645 + 100 overlap	800 mm
inner2	16 x 1,5 mm	925 + 100 overlap	1025 mm
outer	12 x 1 mm	1430 + 70 overlap	1500 mm

