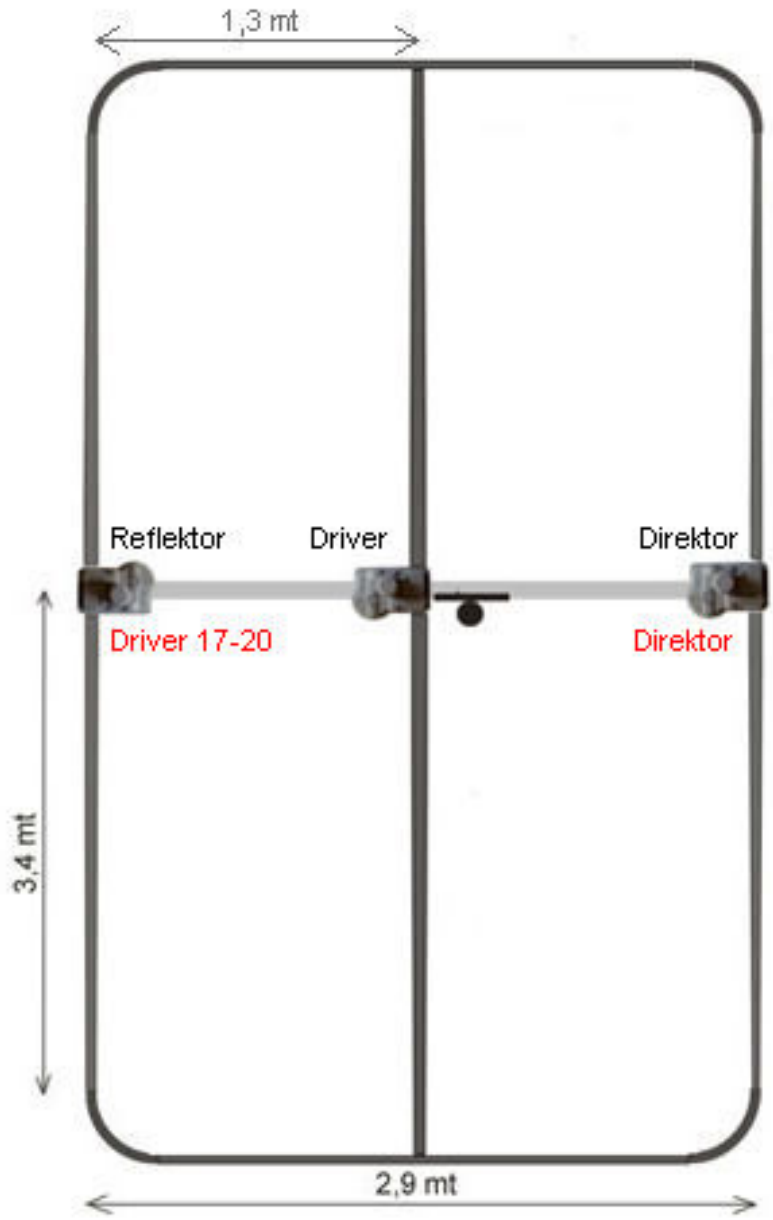
Ultrabeam UB20-MX

3 Element von 6m bis 15m und 2 Element Moxon für 17m und 20m



Ultrabeam UB20-MX

Berechnungsgrundlagen und Berechnung:

Die Abstände der 3 Elemente:

Element	Position
Reflektor	0 mm
Driver	1300 mm
Direktor	2900 mm

Die Längen der Elemente lt. Anzeige der Steuerbox:

Band (m)	Direktor (Länge mm)	Driver (Länge mm)	Reflektor (Länge mm)	Frequenz (MHz)
6	2530	2687	2798	50.100
10	4581	4986	5189	28.500
12	5238	5623	5851	24.950
15	6299	6652	6903	21.250
	Direktor		**Driver**	
17	7085	-----	7504	18.100
20	9631	-----	9808	14.200

Beim Moxon Prinzip auf 17 und 20m wird das mittlere Element komplett eingefahren und die Einspeisung erfolgt beim Reflektor, der Direktor bleibt Direktor.
Auf diesen beiden Bändern ist der lange Teil immer 7000mm, der Rest ist umgebogen.

Die von DM2BLE berechneten Werte:

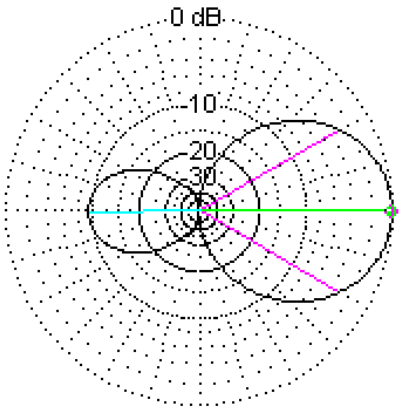
Band (m)	Elemente (Anzahl)	Boomlänge (m)	Gewinn (dBi)	Gewinn (dBd)	Vor/Rück (dB)
6	3	2,9	8,84	6,69	9,50
10	3	2,9	7,30	5,15	11,72
12	3	2,9	7,46	5,31	19,72
15	3	2,9	7,27	5,12	18,14
17	2	2,9	6,00	3,85	5,10
20	2	2,9	5,15	3,00	4,36

Ultrabeam UB20-MX

Diagramme:

6m Azimuthdiagramm

* **Total Field**



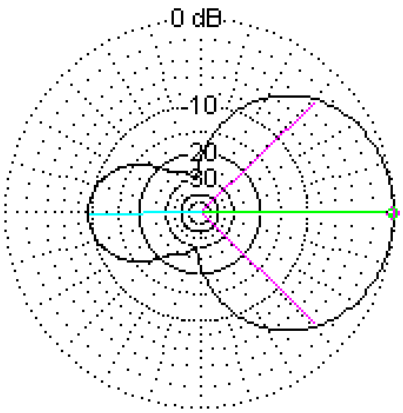
EZNEC+

50,1 MHz

Azimuth Plot		Cursor Az	0,0 deg.
Elevation Angle	0,0 deg.	Gain	8,84 dBi
Outer Ring	8,84 dBi		0,0 dBmax
Slice Max Gain	8,84 dBi @ Az Angle = 0,0 deg.		
Front/Back	9,5 dB		
Beamwidth	60,2 deg.; -3dB @ 329,9, 30,1 deg.		
Sidelobe Gain	-0,66 dBi @ Az Angle = 180,0 deg.		
Front/Sidelobe	9,5 dB		

6m Elevationsdiagramm

* **Total Field**



EZNEC+

50,1 MHz

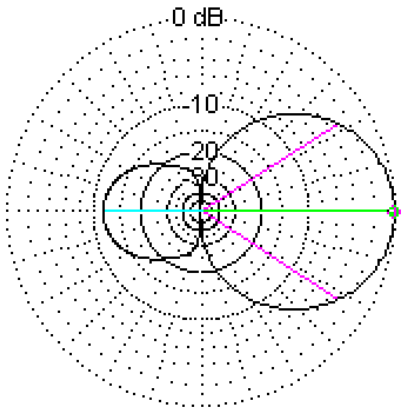
Elevation Plot		Cursor Elev	0,0 deg.
Azimuth Angle	0,0 deg.	Gain	8,84 dBi
Outer Ring	8,84 dBi		0,0 dBmax
Slice Max Gain	8,84 dBi @ Elev Angle = 0,0 deg.		
Front/Back	9,5 dB		
Beamwidth	87,8 deg.; -3dB @ 316,1, 43,9 deg.		
Sidelobe Gain	-0,66 dBi @ Elev Angle = 180,0 deg.		
Front/Sidelobe	9,5 dB		

Ultrabeam UB20-MX

Diagramme:

10m Azimuthdiagramm

* **Total Field**



EZNEC+

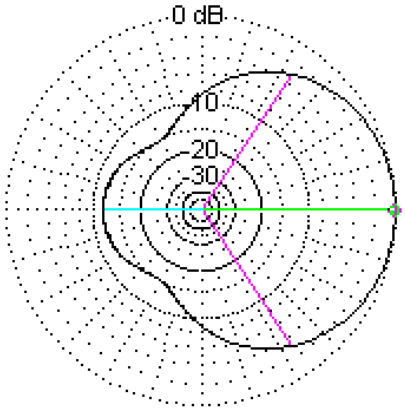
28,5 MHz

Azimuth Plot	
Elevation Angle	0,0 deg.
Outer Ring	7,3 dBi
Slice Max Gain	7,3 dBi @ Az Angle = 0,0 deg.
Front/Back	11,72 dB
Beamwidth	65,4 deg.; -3dB @ 327,3, 32,7 deg.
Sidelobe Gain	-4,43 dBi @ Az Angle = 180,0 deg.
Front/Sidelobe	11,72 dB

Cursor Az	0,0 deg.
Gain	7,3 dBi
	0,0 dBmax

10m Elevationsdiagramm

* **Total Field**



EZNEC+

28,5 MHz

Elevation Plot	
Azimuth Angle	0,0 deg.
Outer Ring	7,3 dBi
Slice Max Gain	7,3 dBi @ Elev Angle = 0,0 deg.
Front/Back	11,72 dB
Beamwidth	112,8 deg.; -3dB @ 303,6, 56,4 deg.
Sidelobe Gain	-4,43 dBi @ Elev Angle = 180,0 deg.
Front/Sidelobe	11,72 dB

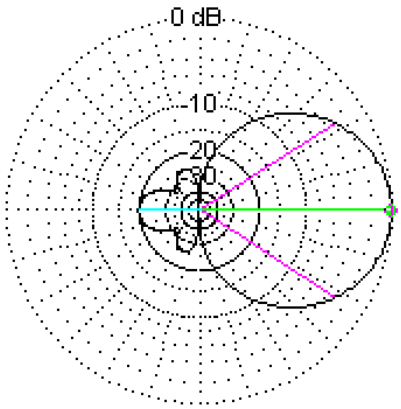
Cursor Elev	0,0 deg.
Gain	7,3 dBi
	0,0 dBmax

Ultrabeam UB20-MX

Diagramme:

12m Azimuthdiagramm

* **Total Field**



EZNEC+

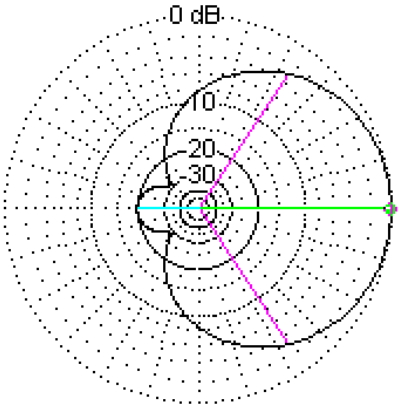
24,95 MHz

Azimuth Plot		Cursor Az	0,0 deg.
Elevation Angle	0,0 deg.	Gain	7,46 dBi
Outer Ring	7,46 dBi		0,0 dBmax

Slice Max Gain	7,46 dBi @ Az Angle = 0,0 deg.
Front/Back	19,72 dB
Beamwidth	65,2 deg.; -3dB @ 327,4, 32,6 deg.
Sidelobe Gain	-12,27 dBi @ Az Angle = 180,0 deg.
Front/Sidelobe	19,72 dB

12m Elevationsdiagramm

* **Total Field**



EZNEC+

24,95 MHz

Elevation Plot		Cursor Elev	0,0 deg.
Azimuth Angle	0,0 deg.	Gain	7,46 dBi
Outer Ring	7,46 dBi		0,0 dBmax

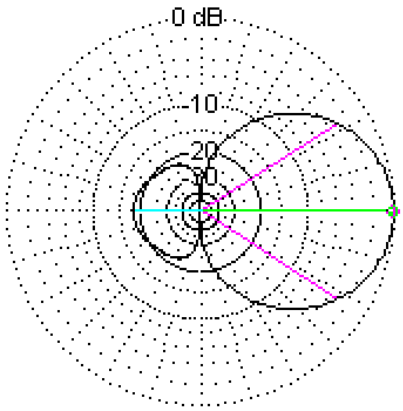
Slice Max Gain	7,46 dBi @ Elev Angle = 0,0 deg.
Front/Back	19,72 dB
Beamwidth	113,2 deg.; -3dB @ 303,4, 56,6 deg.
Sidelobe Gain	-12,27 dBi @ Elev Angle = 180,0 deg.
Front/Sidelobe	19,72 dB

Ultrabeam UB20-MX

Diagramme:

15m Azimuthdiagramm

* **Total Field**



EZNEC+

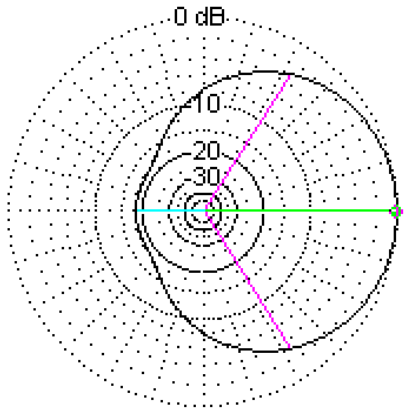
21,25 MHz

Azimuth Plot		Cursor Az	0,0 deg.
Elevation Angle	0,0 deg.	Gain	7,27 dBi
Outer Ring	7,27 dBi		0,0 dBmax

Slice Max Gain	7,27 dBi @ Az Angle = 0,0 deg.
Front/Back	18,14 dB
Beamwidth	65,6 deg.; -3dB @ 327,2, 32,8 deg.
Sidelobe Gain	-10,87 dBi @ Az Angle = 180,0 deg.
Front/Sidelobe	18,14 dB

15m Elevationsdiagramm

* **Total Field**



EZNEC+

21,25 MHz

Elevation Plot		Cursor Elev	0,0 deg.
Azimuth Angle	0,0 deg.	Gain	7,27 dBi
Outer Ring	7,27 dBi		0,0 dBmax

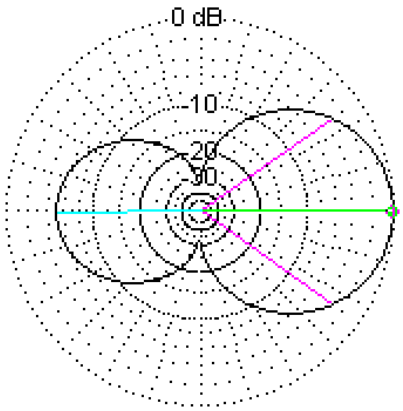
Slice Max Gain	7,27 dBi @ Elev Angle = 0,0 deg.
Front/Back	18,14 dB
Beamwidth	114,8 deg.; -3dB @ 302,6, 57,4 deg.
Sidelobe Gain	-10,87 dBi @ Elev Angle = 180,0 deg.
Front/Sidelobe	18,14 dB

Ultrabeam UB20-MX

Diagramme:

17m Azimuthdiagramm

* **Total Field**



EZNEC+

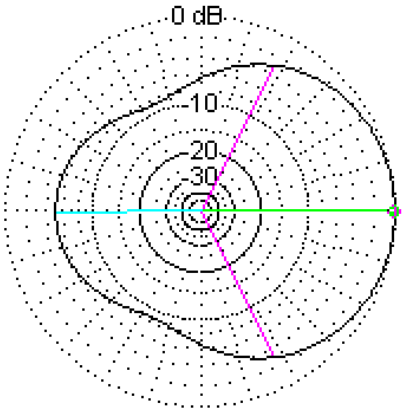
18,1 MHz

Azimuth Plot		Cursor Az	0,0 deg.
Elevation Angle	0,0 deg.	Gain	6,0 dBi
Outer Ring	6,0 dBi		0,0 dBmax

Slice Max Gain	6,0 dBi @ Az Angle = 0,0 deg.
Front/Back	5,1 dB
Beamwidth	69,2 deg.; -3dB @ 325,4, 34,6 deg.
Sidelobe Gain	0,9 dBi @ Az Angle = 180,0 deg.
Front/Sidelobe	5,1 dB

17m Elevationsdiagramm

* **Total Field**



EZNEC+

18,1 MHz

Elevation Plot		Cursor Elev	0,0 deg.
Azimuth Angle	0,0 deg.	Gain	6,0 dBi
Outer Ring	6,0 dBi		0,0 dBmax

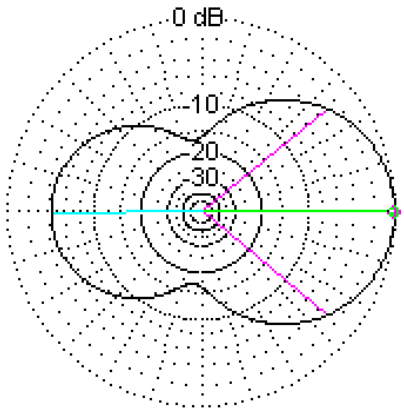
Slice Max Gain	6,0 dBi @ Elev Angle = 0,0 deg.
Front/Back	5,1 dB
Beamwidth	126,4 deg.; -3dB @ 296,8, 63,2 deg.
Sidelobe Gain	0,9 dBi @ Elev Angle = 180,0 deg.
Front/Sidelobe	5,1 dB

Ultrabeam UB20-MX

Diagramme:

20m Azimuthdiagramm

* **Total Field**



EZNEC+

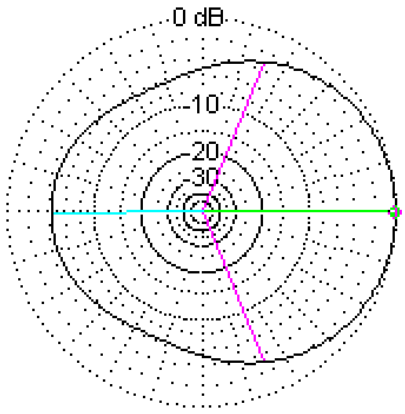
14,2 MHz

Azimuth Plot	
Elevation Angle	0,0 deg.
Outer Ring	5,15 dBi
Slice Max Gain	5,15 dBi @ Az Angle = 0,0 deg.
Front/Back	4,36 dB
Beamwidth	78,4 deg.; -3dB @ 320,8, 39,2 deg.
Sidelobe Gain	0,8 dBi @ Az Angle = 180,0 deg.
Front/Sidelobe	4,36 dB

Cursor Az	0,0 deg.
Gain	5,15 dBi
	0,0 dBmax

20m Elevationsdiagramm

* **Total Field**



EZNEC+

14,2 MHz

Elevation Plot	
Azimuth Angle	0,0 deg.
Outer Ring	5,15 dBi
Slice Max Gain	5,15 dBi @ Elev Angle = 0,0 deg.
Front/Back	4,36 dB
Beamwidth	134,2 deg.; -3dB @ 292,9, 67,1 deg.
Sidelobe Gain	0,8 dBi @ Elev Angle = 180,0 deg.
Front/Sidelobe	4,36 dB

Cursor Elev	0,0 deg.
Gain	5,15 dBi
	0,0 dBmax