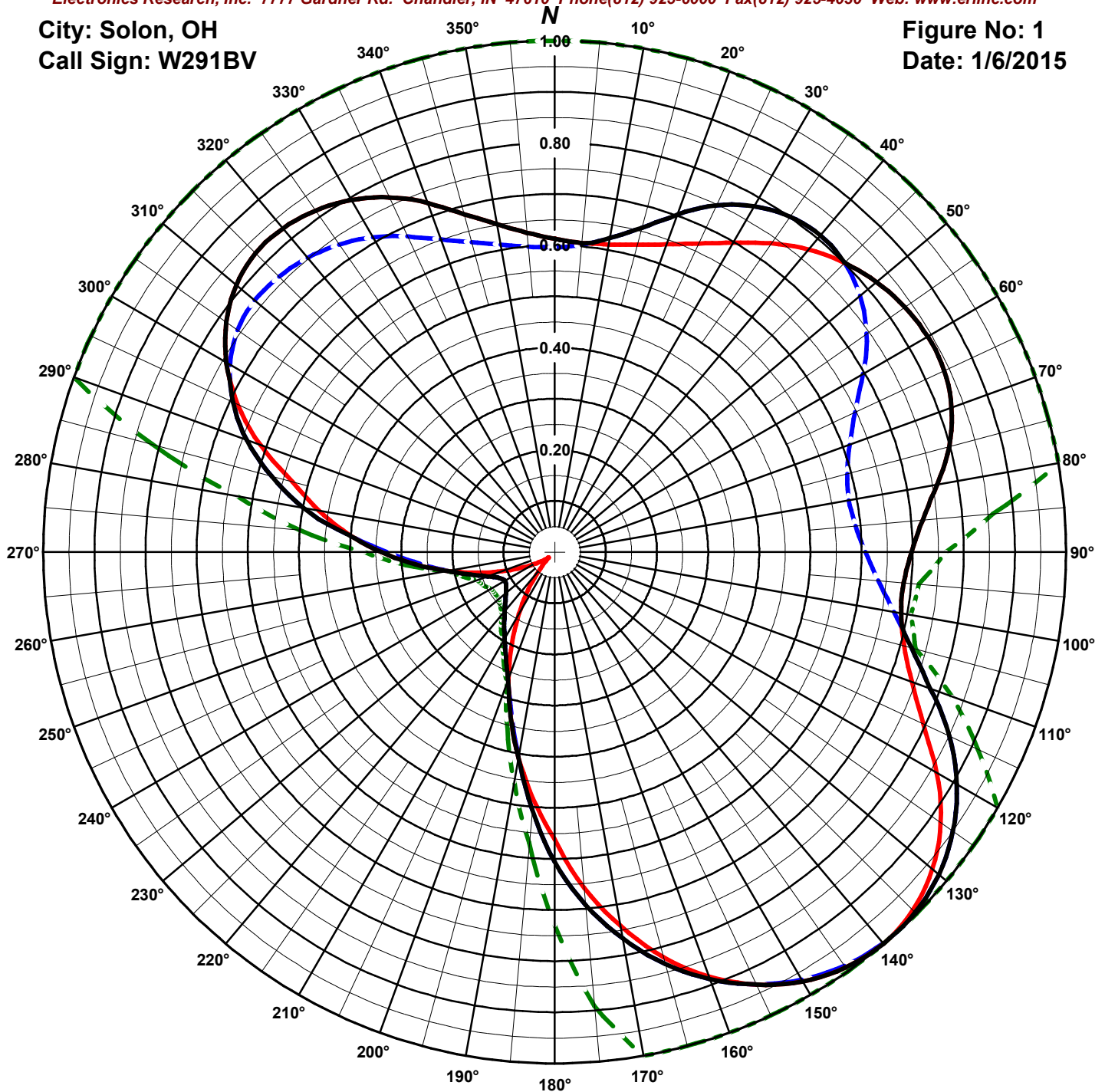


# ERI<sup>®</sup> Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: [www.eriinc.com](http://www.eriinc.com)

City: Solon, OH  
Call Sign: W291BV

Figure No: 1  
Date: 1/6/2015



Antenna Orientation: 50° True

Frequency: 106.1 MHz  
Antenna Type: 100A-2F-DA

Antenna Mounting: Standard  
Tower Type: 8' face tower

## HORIZONTAL

RMS: .67

Maximum: 1 @ 140°

Minimum: .016 @ 228°

## VERTICAL

RMS: .653

Maximum: 1 @ 138°

Minimum: .112 @ 240°

## COMPOSITE

RMS: .684

Maximum: 1 @ 138°

Minimum: .112 @ 240°

## FCC ENVELOPE

RMS: .836

Maximum: 1 @ 0°

Minimum: .142 @ 230°

Patterns of the horizontal and vertical components, with the composite maximum of either the H or V components and the FCC envelope pattern.

# ERI<sup>®</sup> Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure# 1

Date: 1/6/2015

Station: W291BV

Antenna: 100A-2F-DA

Location: Solon, OH

Antenna Orientation: 50° True

Frequency: 106.1 MHz

Number of Bays: 2

Azimuth	Envelope			Polarization	Azimuth	Envelope			Polarization
	Field	kW	dBk			Field	kW	dBk	
0°	0.612	0.075	-11.251	Horizontal	180°	0.606	0.073	-11.344	Vertical
5°	0.607	0.074	-11.330	Horizontal	185°	0.505	0.051	-12.930	Vertical
10°	0.624	0.078	-11.091	Vertical	190°	0.408	0.033	-14.786	Vertical
15°	0.657	0.086	-10.644	Vertical	195°	0.333	0.022	-16.549	Horizontal
20°	0.702	0.099	-10.060	Vertical	200°	0.266	0.014	-18.476	Vertical
25°	0.748	0.112	-9.513	Vertical	205°	0.226	0.010	-19.919	Vertical
30°	0.781	0.122	-9.138	Vertical	210°	0.196	0.008	-21.149	Vertical
35°	0.801	0.128	-8.916	Vertical	215°	0.172	0.006	-22.282	Vertical
40°	0.809	0.131	-8.834	Vertical	220°	0.152	0.005	-23.341	Vertical
45°	0.801	0.128	-8.920	Vertical	225°	0.136	0.004	-24.298	Vertical
50°	0.821	0.135	-8.698	Horizontal	230°	0.124	0.003	-25.105	Vertical
55°	0.836	0.140	-8.551	Horizontal	235°	0.116	0.003	-25.706	Vertical
60°	0.843	0.142	-8.478	Horizontal	240°	0.112	0.003	-25.981	Vertical
65°	0.840	0.141	-8.500	Horizontal	245°	0.119	0.003	-25.442	Vertical
70°	0.826	0.136	-8.654	Horizontal	250°	0.139	0.004	-24.152	Vertical
75°	0.799	0.128	-8.944	Horizontal	255°	0.170	0.006	-22.393	Vertical
80°	0.759	0.115	-9.382	Horizontal	260°	0.212	0.009	-20.465	Vertical
85°	0.722	0.104	-9.815	Horizontal	265°	0.274	0.015	-18.239	Horizontal
90°	0.698	0.097	-10.117	Horizontal	270°	0.339	0.023	-16.379	Horizontal
95°	0.685	0.094	-10.271	Horizontal	275°	0.409	0.033	-14.762	Vertical
100°	0.688	0.095	-10.241	Horizontal	280°	0.499	0.050	-13.029	Vertical
105°	0.722	0.104	-9.817	Vertical	285°	0.572	0.065	-11.841	Vertical
110°	0.782	0.122	-9.130	Vertical	290°	0.641	0.082	-10.858	Vertical
115°	0.852	0.145	-8.386	Vertical	295°	0.694	0.096	-10.160	Vertical
120°	0.908	0.165	-7.828	Vertical	300°	0.741	0.110	-9.594	Horizontal
125°	0.951	0.181	-7.426	Vertical	305°	0.784	0.123	-9.105	Horizontal
130°	0.981	0.192	-7.160	Vertical	310°	0.812	0.132	-8.794	Horizontal
135°	0.997	0.199	-7.018	Vertical	315°	0.827	0.137	-8.643	Horizontal
140°	1.000	0.200	-6.990	Horizontal	320°	0.826	0.137	-8.648	Horizontal
145°	0.992	0.197	-7.062	Horizontal	325°	0.815	0.133	-8.765	Horizontal
150°	0.969	0.188	-7.259	Horizontal	330°	0.795	0.126	-8.984	Horizontal
155°	0.933	0.174	-7.589	Horizontal	335°	0.765	0.117	-9.314	Horizontal
160°	0.889	0.158	-8.016	Vertical	340°	0.726	0.106	-9.766	Horizontal
165°	0.833	0.139	-8.572	Vertical	345°	0.684	0.094	-10.284	Horizontal
170°	0.767	0.118	-9.290	Vertical	350°	0.651	0.085	-10.717	Horizontal
175°	0.692	0.096	-10.185	Vertical	355°	0.627	0.079	-11.043	Horizontal

Horizontal Polarization:

Maximum: 1.758 (2.451 dB)

Horizontal Plane: 1.758 (2.451 dB)

Maximum ERP: 0.200 kW

Vertical Polarization:

Maximum: 1.758 (2.451 dB)

Horizontal Plane: 1.758 (2.451 dB)

Maximum ERP: 0.200 kW

Total Input Power: 0.114 kW

Reference: W291BV1M.FIG

This list shows the the maximum azimuth values of either the horizontal or vertical components.

# ERI<sup>®</sup> Horizontal Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure# 1A

Date: 1/6/2015

Station: W291BV

Antenna: 100A-2F-DA

Location: Solon, OH

Antenna Orientation: 50° True

Frequency: 106.1 MHz

Number of Bays: 2

Azimuth	Horizontal			Vertical			Azimuth	Horizontal			Vertical		
	Field	kW	dBk	Field	kW	dBk		Field	kW	dBk	Field	kW	dBk
0°	0.612	0.075	-11.251	0.596	0.071	-11.489	180°	0.562	0.063	-11.999	0.606	0.073	-11.344
5°	0.607	0.074	-11.330	0.603	0.073	-11.378	185°	0.484	0.047	-13.289	0.505	0.051	-12.930
10°	0.611	0.075	-11.269	0.624	0.078	-11.091	190°	0.407	0.033	-14.799	0.408	0.033	-14.786
15°	0.622	0.077	-11.111	0.657	0.086	-10.644	195°	0.333	0.022	-16.549	0.326	0.021	-16.718
20°	0.641	0.082	-10.859	0.702	0.099	-10.060	200°	0.263	0.014	-18.599	0.266	0.014	-18.476
25°	0.666	0.089	-10.522	0.748	0.112	-9.513	205°	0.198	0.008	-21.059	0.226	0.010	-19.919
30°	0.698	0.098	-10.110	0.781	0.122	-9.138	210°	0.140	0.004	-24.069	0.196	0.008	-21.149
35°	0.737	0.109	-9.640	0.801	0.128	-8.916	215°	0.090	0.002	-27.919	0.172	0.006	-22.282
40°	0.772	0.119	-9.235	0.809	0.131	-8.834	220°	0.049	0.000	-33.139	0.152	0.005	-23.341
45°	0.800	0.128	-8.924	0.801	0.128	-8.920	225°	0.021	0.000	-40.479	0.136	0.004	-24.298
50°	0.821	0.135	-8.698	0.779	0.121	-9.155	230°	0.018	0.000	-41.819	0.124	0.003	-25.105
55°	0.836	0.140	-8.551	0.745	0.111	-9.551	235°	0.031	0.000	-37.059	0.116	0.003	-25.706
60°	0.843	0.142	-8.478	0.696	0.097	-10.132	240°	0.048	0.000	-33.319	0.112	0.003	-25.981
65°	0.840	0.141	-8.500	0.648	0.084	-10.753	245°	0.073	0.001	-29.709	0.119	0.003	-25.442
70°	0.826	0.136	-8.654	0.614	0.075	-11.232	250°	0.109	0.002	-26.229	0.139	0.004	-24.152
75°	0.799	0.128	-8.944	0.592	0.070	-11.540	255°	0.156	0.005	-23.129	0.170	0.006	-22.393
80°	0.759	0.115	-9.382	0.584	0.068	-11.658	260°	0.212	0.009	-20.469	0.212	0.009	-20.465
85°	0.722	0.104	-9.815	0.591	0.070	-11.564	265°	0.274	0.015	-18.239	0.264	0.014	-18.564
90°	0.698	0.097	-10.117	0.608	0.074	-11.318	270°	0.339	0.023	-16.379	0.328	0.022	-16.663
95°	0.685	0.094	-10.271	0.635	0.081	-10.932	275°	0.405	0.033	-14.849	0.409	0.033	-14.762
100°	0.688	0.095	-10.241	0.673	0.091	-10.425	280°	0.468	0.044	-13.589	0.499	0.050	-13.029
105°	0.707	0.100	-9.996	0.722	0.104	-9.817	285°	0.531	0.056	-12.489	0.572	0.065	-11.841
110°	0.743	0.111	-9.566	0.782	0.122	-9.130	290°	0.612	0.075	-11.249	0.641	0.082	-10.858
115°	0.796	0.127	-8.976	0.852	0.145	-8.386	295°	0.684	0.094	-10.291	0.694	0.096	-10.160
120°	0.863	0.149	-8.272	0.908	0.165	-7.828	300°	0.741	0.110	-9.594	0.733	0.107	-9.689
125°	0.922	0.170	-7.699	0.951	0.181	-7.426	305°	0.784	0.123	-9.105	0.757	0.115	-9.411
130°	0.964	0.186	-7.308	0.981	0.192	-7.160	310°	0.812	0.132	-8.794	0.766	0.117	-9.309
135°	0.990	0.196	-7.075	0.997	0.199	-7.018	315°	0.827	0.137	-8.643	0.762	0.116	-9.354
140°	1.000	0.200	-6.990	0.999	0.199	-7.001	320°	0.826	0.137	-8.648	0.751	0.113	-9.474
145°	0.992	0.197	-7.062	0.988	0.195	-7.098	325°	0.815	0.133	-8.765	0.734	0.108	-9.673
150°	0.969	0.188	-7.259	0.966	0.186	-7.293	330°	0.795	0.126	-8.984	0.711	0.101	-9.955
155°	0.933	0.174	-7.589	0.933	0.174	-7.596	335°	0.765	0.117	-9.314	0.681	0.093	-10.331
160°	0.883	0.156	-8.067	0.889	0.158	-8.016	340°	0.726	0.106	-9.766	0.651	0.085	-10.723
165°	0.820	0.134	-8.719	0.833	0.139	-8.572	345°	0.684	0.094	-10.284	0.627	0.079	-11.043
170°	0.742	0.110	-9.584	0.767	0.118	-9.290	350°	0.651	0.085	-10.717	0.610	0.074	-11.281
175°	0.658	0.087	-10.619	0.692	0.096	-10.185	355°	0.627	0.079	-11.043	0.600	0.072	-11.432

Horizontal Polarization:

Maximum: 1.758 (2.451 dB)

Horizontal Plane: 1.758 (2.451 dB)

Maximum ERP: 0.200 kW

Vertical Polarization:

Maximum: 1.758 (2.451 dB)

Horizontal Plane: 1.758 (2.451 dB)

Maximum ERP: 0.200 kW

Total Input Power: 0.114 kW

Reference: W291BV1M.FIG

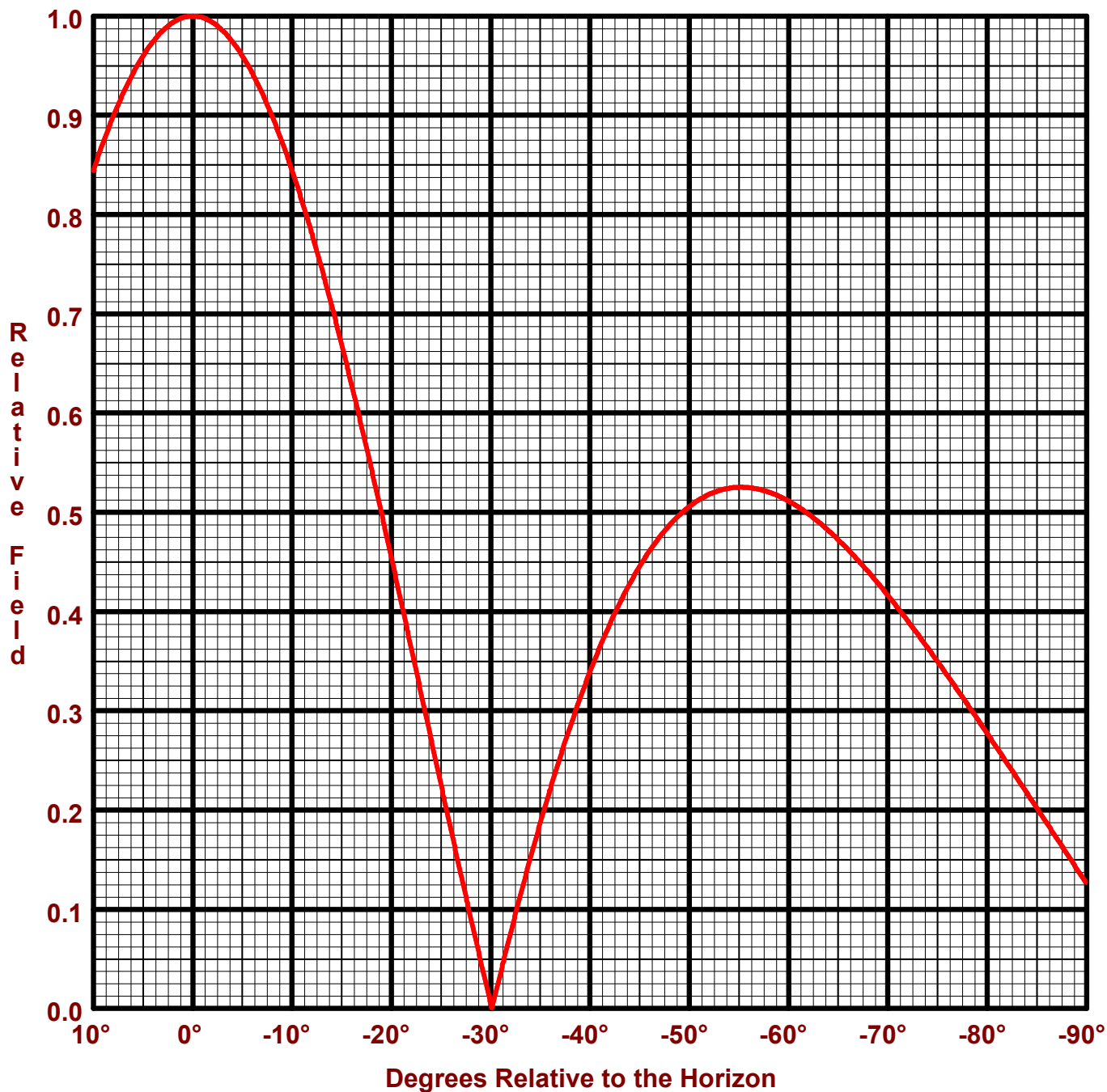
This list shows the azimuth values for the horizontal and vertical components.

# ERI® Vertical Plane Relative Field Pattern

Electronics Research, Inc. 7777 Gardner Rd. Chandler, IN 47610 Phone(812) 925-6000 Fax(812) 925-4030 Web: www.eriinc.com

Figure No: 3  
Call Sign: W291BV  
Location: Solon, OH  
Frequency: 106.1 MHz  
2 bay 100A-2F-DA antenna

Date: 1/6/2015  
H/V Power Ratio: 1  
1 Wave-length Spacing  
0° Beam Tilt  
0% First Null Fill



Horizontal Polarization:  
Maximum: 1.758 (2.451 dB)  
Horizontal Plane: 1.758 (2.451 dB)  
Maximum ERP: 0.200 kW

Vertical Polarization:  
Maximum: 1.758 (2.451 dB)  
Horizontal Plane: 1.758 (2.451 dB)  
Maximum ERP: 0.200 kW