



Electronics Research, Inc.  
7777 Gardner Road  
Chandler, In. 47610

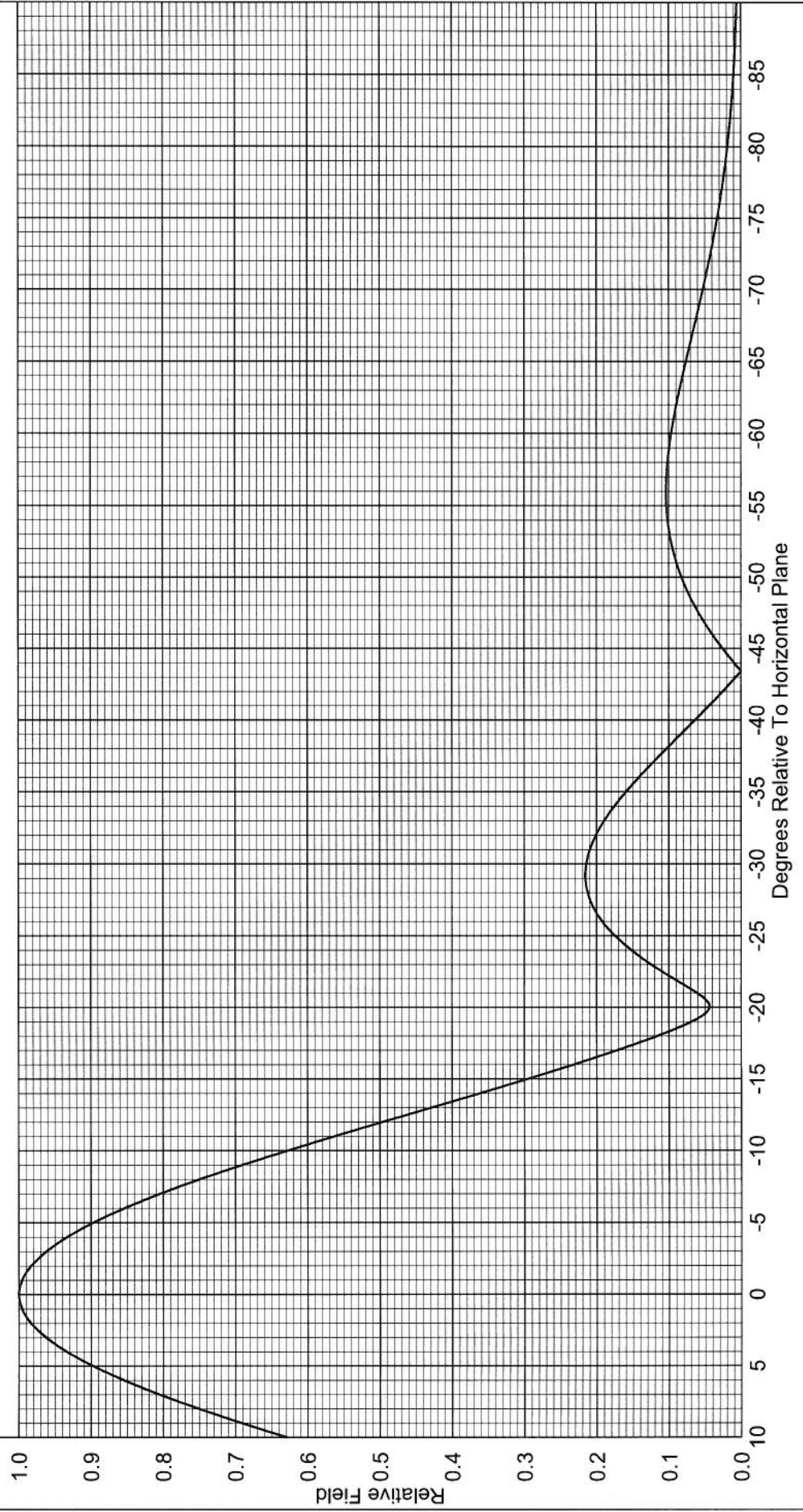
Figure 1

----Theoretical----

Vertical Plane Relative Field  
6 ERI Type SHP, SHPX, LP or LPX Elements  
0.00 Degree(s) Electrical Beam Tilt  
4.3 Percent First Null Fill  
0.0 Percent Second Null Fill

Power Gain is 1.862 In The Horizontal Plane(1.862 In The Max.)

7/3/2013 2:46:04 PM  
99.5 MHz  
Element Spacing:  
57.5906 Inches





## ELEVATION TABULATED DATA

99.5 MHz Elevation Pattern Tabulated Data

Type: SHPX-6AC6-HW-SP  
Polarization: Circular

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
90.00	0.001	-60.00	67.00	0.051	-25.81	44.00	0.041	-27.81	21.00	0.074	-22.59
89.50	0.001	-60.00	66.50	0.054	-25.35	43.50	0.033	-29.65	20.50	0.054	-25.38
89.00	0.001	-60.00	66.00	0.057	-24.92	43.00	0.025	-32.11	20.00	0.033	-29.67
88.50	0.001	-60.00	65.50	0.060	-24.50	42.50	0.016	-35.76	19.50	0.016	-36.15
88.00	0.001	-60.00	65.00	0.062	-24.09	42.00	0.007	-42.58	19.00	0.024	-32.38
87.50	0.001	-60.00	64.50	0.065	-23.70	41.50	0.002	-55.16	18.50	0.048	-26.42
87.00	0.001	-60.00	64.00	0.068	-23.33	41.00	0.011	-39.00	18.00	0.074	-22.56
86.50	0.001	-60.00	63.50	0.071	-22.97	40.50	0.021	-33.57	17.50	0.103	-19.76
86.00	0.001	-60.00	63.00	0.074	-22.63	40.00	0.031	-30.19	17.00	0.132	-17.57
85.50	0.001	-60.00	62.50	0.077	-22.30	39.50	0.041	-27.72	16.50	0.163	-15.76
85.00	0.001	-60.00	62.00	0.080	-21.99	39.00	0.051	-25.77	16.00	0.194	-14.22
84.50	0.001	-60.00	61.50	0.082	-21.69	38.50	0.062	-24.16	15.50	0.227	-12.88
84.00	0.001	-60.00	61.00	0.085	-21.41	38.00	0.072	-22.79	15.00	0.260	-11.70
83.50	0.001	-60.00	60.50	0.088	-21.14	37.50	0.083	-21.61	14.50	0.294	-10.64
83.00	0.001	-58.81	60.00	0.090	-20.89	37.00	0.094	-20.57	14.00	0.328	-9.68
82.50	0.002	-55.91	59.50	0.093	-20.66	36.50	0.104	-19.65	13.50	0.363	-8.81
82.00	0.002	-53.51	59.00	0.095	-20.44	36.00	0.115	-18.82	13.00	0.398	-8.01
81.50	0.003	-51.44	58.50	0.097	-20.24	35.50	0.125	-18.08	12.50	0.433	-7.27
81.00	0.003	-49.61	58.00	0.099	-20.05	35.00	0.135	-17.41	12.00	0.468	-6.59
80.50	0.004	-47.96	57.50	0.101	-19.88	34.50	0.144	-16.81	11.50	0.503	-5.97
80.00	0.005	-46.46	57.00	0.103	-19.73	34.00	0.154	-16.27	11.00	0.538	-5.39
79.50	0.006	-45.07	56.50	0.105	-19.60	33.50	0.163	-15.78	10.50	0.572	-4.85
79.00	0.006	-43.78	56.00	0.106	-19.49	33.00	0.171	-15.34	10.00	0.606	-4.35
78.50	0.007	-42.57	55.50	0.107	-19.39	32.50	0.179	-14.95	9.50	0.640	-3.88
78.00	0.008	-41.44	55.00	0.108	-19.32	32.00	0.186	-14.60	9.00	0.672	-3.45
77.50	0.010	-40.37	54.50	0.109	-19.26	31.50	0.193	-14.30	8.50	0.704	-3.05
77.00	0.011	-39.35	54.00	0.109	-19.23	31.00	0.199	-14.04	8.00	0.734	-2.68
76.50	0.012	-38.38	53.50	0.109	-19.22	30.50	0.204	-13.83	7.50	0.764	-2.34
76.00	0.013	-37.46	53.00	0.109	-19.23	30.00	0.208	-13.65	7.00	0.792	-2.02
75.50	0.015	-36.58	52.50	0.109	-19.27	29.50	0.211	-13.52	6.50	0.819	-1.73
75.00	0.016	-35.74	52.00	0.108	-19.34	29.00	0.213	-13.43	6.00	0.844	-1.47
74.50	0.018	-34.93	51.50	0.107	-19.44	28.50	0.214	-13.38	5.50	0.868	-1.23
74.00	0.020	-34.15	51.00	0.105	-19.56	28.00	0.214	-13.38	5.00	0.890	-1.01
73.50	0.021	-33.41	50.50	0.103	-19.72	27.50	0.213	-13.43	4.50	0.910	-0.81
73.00	0.023	-32.69	50.00	0.101	-19.92	27.00	0.211	-13.53	4.00	0.929	-0.64
72.50	0.025	-32.00	49.50	0.098	-20.15	26.50	0.207	-13.68	3.50	0.945	-0.49
72.00	0.027	-31.33	49.00	0.095	-20.43	26.00	0.202	-13.89	3.00	0.960	-0.36
71.50	0.029	-30.69	48.50	0.092	-20.76	25.50	0.196	-14.17	2.50	0.972	-0.25
71.00	0.031	-30.07	48.00	0.088	-21.14	25.00	0.188	-14.52	2.00	0.982	-0.16
70.50	0.034	-29.47	47.50	0.083	-21.58	24.50	0.179	-14.96	1.50	0.990	-0.09
70.00	0.036	-28.89	47.00	0.079	-22.10	24.00	0.168	-15.49	1.00	0.995	-0.04
69.50	0.038	-28.33	46.50	0.073	-22.70	23.50	0.156	-16.13	0.50	0.999	-0.01
69.00	0.041	-27.79	46.00	0.068	-23.40	23.00	0.143	-16.92	0.00	1.000	0.00
68.50	0.043	-27.27	45.50	0.062	-24.22	22.50	0.128	-17.88	-0.50	0.999	-0.01
68.00	0.046	-26.76	45.00	0.055	-25.19	22.00	0.111	-19.08	-1.00	0.995	-0.04
67.50	0.049	-26.28	44.50	0.048	-26.37	21.50	0.093	-20.60	-1.50	0.990	-0.09



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## ELEVATION TABULATED DATA

Type: SHPX-6AC6-HW-SP

Polarization: Circular

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-2.00	0.982	-0.16	-25.00	0.188	-14.52	-48.00	0.088	-21.14	-71.00	0.031	-30.07
-2.50	0.972	-0.25	-25.50	0.196	-14.17	-48.50	0.092	-20.76	-71.50	0.029	-30.69
-3.00	0.960	-0.36	-26.00	0.202	-13.89	-49.00	0.095	-20.43	-72.00	0.027	-31.33
-3.50	0.945	-0.49	-26.50	0.207	-13.68	-49.50	0.098	-20.15	-72.50	0.025	-32.00
-4.00	0.929	-0.64	-27.00	0.211	-13.53	-50.00	0.101	-19.92	-73.00	0.023	-32.69
-4.50	0.910	-0.81	-27.50	0.213	-13.43	-50.50	0.103	-19.72	-73.50	0.021	-33.41
-5.00	0.890	-1.01	-28.00	0.214	-13.38	-51.00	0.105	-19.56	-74.00	0.020	-34.15
-5.50	0.868	-1.23	-28.50	0.214	-13.38	-51.50	0.107	-19.44	-74.50	0.018	-34.93
-6.00	0.844	-1.47	-29.00	0.213	-13.43	-52.00	0.108	-19.34	-75.00	0.016	-35.74
-6.50	0.819	-1.73	-29.50	0.211	-13.52	-52.50	0.109	-19.27	-75.50	0.015	-36.58
-7.00	0.792	-2.02	-30.00	0.208	-13.65	-53.00	0.109	-19.23	-76.00	0.013	-37.46
-7.50	0.764	-2.34	-30.50	0.204	-13.83	-53.50	0.109	-19.22	-76.50	0.012	-38.38
-8.00	0.734	-2.68	-31.00	0.199	-14.04	-54.00	0.109	-19.23	-77.00	0.011	-39.35
-8.50	0.704	-3.05	-31.50	0.193	-14.30	-54.50	0.109	-19.26	-77.50	0.010	-40.37
-9.00	0.672	-3.45	-32.00	0.186	-14.60	-55.00	0.108	-19.32	-78.00	0.008	-41.44
-9.50	0.640	-3.88	-32.50	0.179	-14.95	-55.50	0.107	-19.39	-78.50	0.007	-42.57
-10.00	0.606	-4.35	-33.00	0.171	-15.34	-56.00	0.106	-19.49	-79.00	0.006	-43.78
-10.50	0.572	-4.85	-33.50	0.163	-15.78	-56.50	0.105	-19.60	-79.50	0.006	-45.07
-11.00	0.538	-5.39	-34.00	0.154	-16.27	-57.00	0.103	-19.73	-80.00	0.005	-46.46
-11.50	0.503	-5.97	-34.50	0.144	-16.81	-57.50	0.101	-19.88	-80.50	0.004	-47.96
-12.00	0.468	-6.59	-35.00	0.135	-17.41	-58.00	0.099	-20.05	-81.00	0.003	-49.61
-12.50	0.433	-7.27	-35.50	0.125	-18.08	-58.50	0.097	-20.24	-81.50	0.003	-51.44
-13.00	0.398	-8.01	-36.00	0.115	-18.82	-59.00	0.095	-20.44	-82.00	0.002	-53.51
-13.50	0.363	-8.81	-36.50	0.104	-19.65	-59.50	0.093	-20.66	-82.50	0.002	-55.91
-14.00	0.328	-9.68	-37.00	0.094	-20.57	-60.00	0.090	-20.89	-83.00	0.001	-58.81
-14.50	0.294	-10.64	-37.50	0.083	-21.61	-60.50	0.088	-21.14	-83.50	0.001	-60.00
-15.00	0.260	-11.70	-38.00	0.072	-22.79	-61.00	0.085	-21.41	-84.00	0.001	-60.00
-15.50	0.227	-12.88	-38.50	0.062	-24.16	-61.50	0.082	-21.69	-84.50	0.001	-60.00
-16.00	0.194	-14.22	-39.00	0.051	-25.77	-62.00	0.080	-21.99	-85.00	0.001	-60.00
-16.50	0.163	-15.76	-39.50	0.041	-27.72	-62.50	0.077	-22.30	-85.50	0.001	-60.00
-17.00	0.132	-17.57	-40.00	0.031	-30.19	-63.00	0.074	-22.63	-86.00	0.001	-60.00
-17.50	0.103	-19.76	-40.50	0.021	-33.57	-63.50	0.071	-22.97	-86.50	0.001	-60.00
-18.00	0.074	-22.56	-41.00	0.011	-39.00	-64.00	0.068	-23.33	-87.00	0.001	-60.00
-18.50	0.048	-26.42	-41.50	0.002	-55.16	-64.50	0.065	-23.70	-87.50	0.001	-60.00
-19.00	0.024	-32.38	-42.00	0.007	-42.58	-65.00	0.062	-24.09	-88.00	0.001	-60.00
-19.50	0.016	-36.15	-42.50	0.016	-35.76	-65.50	0.060	-24.50	-88.50	0.001	-60.00
-20.00	0.033	-29.67	-43.00	0.025	-32.11	-66.00	0.057	-24.92	-89.00	0.001	-60.00
-20.50	0.054	-25.38	-43.50	0.033	-29.65	-66.50	0.054	-25.35	-89.50	0.001	-60.00
-21.00	0.074	-22.59	-44.00	0.041	-27.81	-67.00	0.051	-25.81	-90.00	0.001	-60.00
-21.50	0.093	-20.60	-44.50	0.048	-26.37	-67.50	0.049	-26.28			
-22.00	0.111	-19.08	-45.00	0.055	-25.19	-68.00	0.046	-26.76			
-22.50	0.128	-17.88	-45.50	0.062	-24.22	-68.50	0.043	-27.27			
-23.00	0.143	-16.92	-46.00	0.068	-23.40	-69.00	0.041	-27.79			
-23.50	0.156	-16.13	-46.50	0.073	-22.70	-69.50	0.038	-28.33			
-24.00	0.168	-15.49	-47.00	0.079	-22.10	-70.00	0.036	-28.89			
-24.50	0.179	-14.96	-47.50	0.083	-21.58	-70.50	0.034	-29.47			



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