

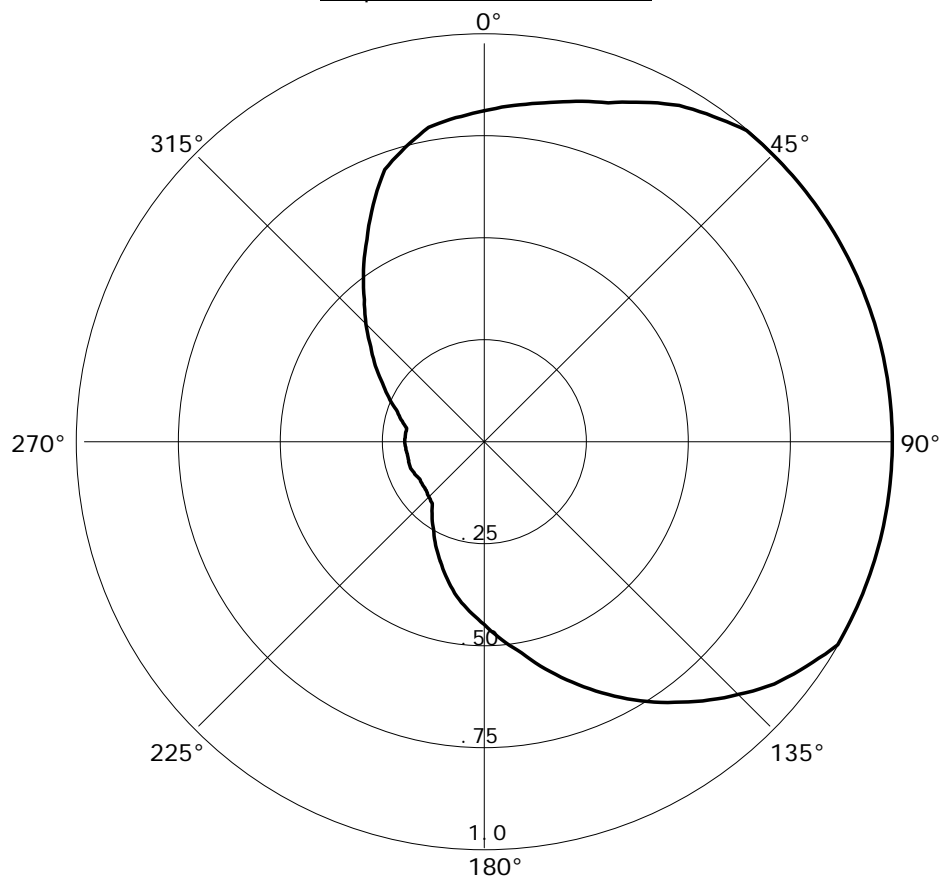
KVOD Null Depth = 14.751 dB

07-15-2015

RMS(V)= .698

Graph is Relative Field

Azi	Field	dBk	kW
000	0.815	06.285	4.251
010	0.847	06.619	4.591
020	0.888	07.030	5.047
030	0.956	07.671	5.849
040	1.000	08.062	6.400
050	1.000	08.062	6.400
060	1.000	08.062	6.400
070	1.000	08.062	6.400
080	1.000	08.062	6.400
090	1.000	08.062	6.400
100	1.000	08.062	6.400
110	1.000	08.062	6.400
120	1.000	08.062	6.400
130	0.928	07.413	5.512
140	0.833	06.475	4.441
150	0.734	05.376	3.448
160	0.630	04.049	2.540
170	0.528	02.514	1.784
180	0.450	01.126	1.296
190	0.387	-00.184	0.959
200	0.314	-02.000	0.631
210	0.249	-04.014	0.397
220	0.198	-06.005	0.251
230	0.186	-06.548	0.221
240	0.183	-06.689	0.214
250	0.192	-06.272	0.236
260	0.191	-06.318	0.233
270	0.195	-06.138	0.243
280	0.193	-06.227	0.238
290	0.229	-04.741	0.336
300	0.288	-02.750	0.531
310	0.363	-00.740	0.843
320	0.457	01.260	1.337
330	0.575	03.255	2.116
340	0.713	05.124	3.254
350	0.786	05.970	3.954



ELECTRONICS RESEARCH, INC.  
7777 GARDNER ROAD  
CHANDLER, IN. 47610

FIGURE 15

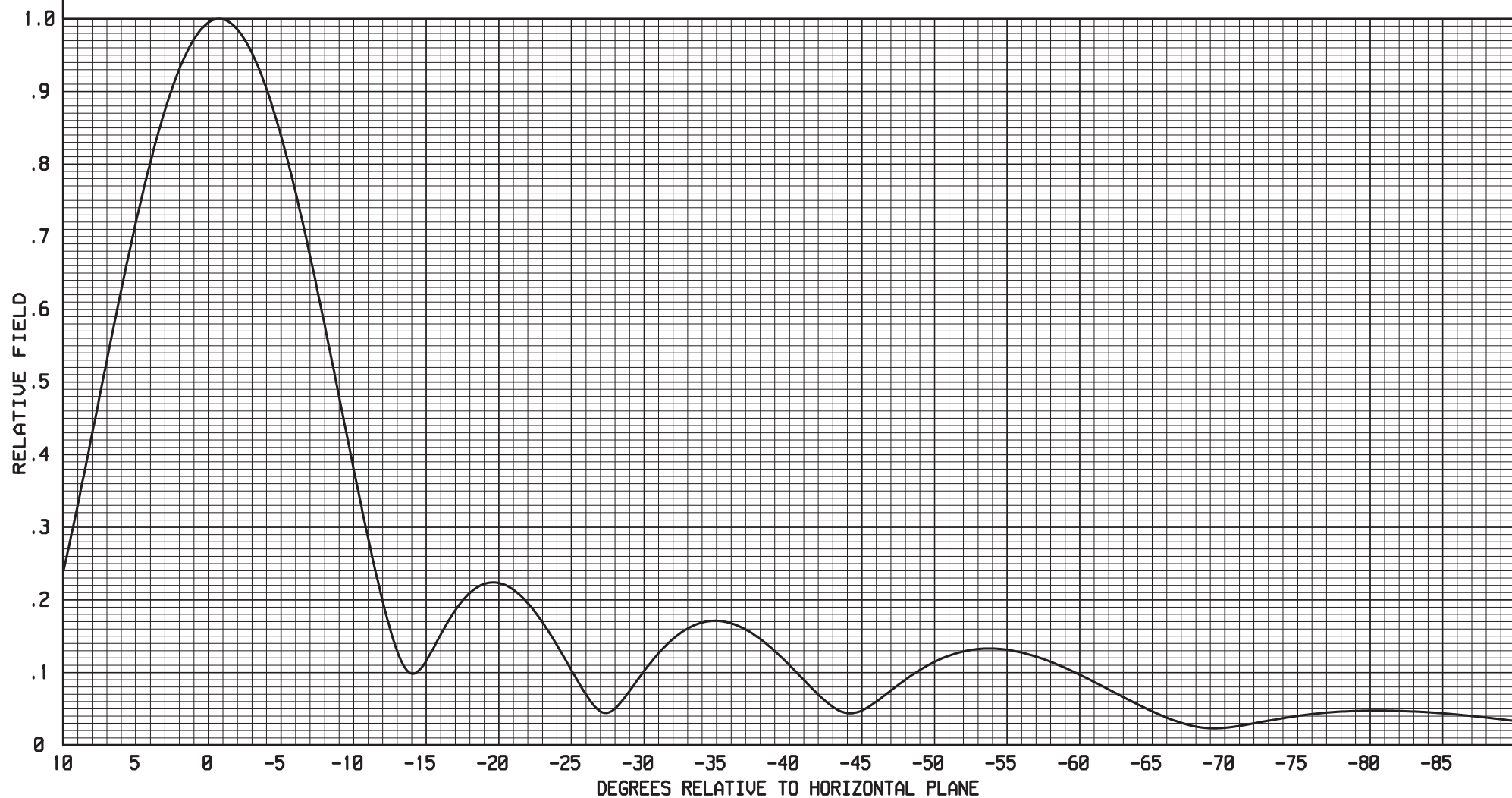
-----THEORETICAL-----  
VERTICAL PLANE RELATIVE FIELD

6 LEVELS OF ERI PANEL ELEMENTS  
-.74 DEGREE(S) BEAM TILT  
10 PERCENT FIRST NULL FILL  
4 PERCENT SECOND NULL FILL

JULY 9, 2014

88.1 MHz.

BAY SPACING:  
98.00 INCHES



ELECTRONICS RESEARCH, INC.

7777 GARDNER ROAD

CHANDLER, IN. 47610

FIGURE 15

JULY 9, 2014

ERI PANEL ELEMENTS ANTENNA

88.1 MHZ. 6 LEVELS SPACED 98 INCHES

THETA DEGREES	FIELD VALUE
------------------	----------------

90	.0411
89.75	.0418
89.5	.0426
89.25	.0434
89	.0441
88.75	.0449
88.5	.0456
88.25	.0463
88	.0471
87.75	.0478
87.5	.0485
87.25	.0492
87	.0499
86.75	.0506
86.5	.0513
86.25	.052
86	.0527
85.75	.0533
85.5	.054
85.25	.0546
85	.0552
84.75	.0558
84.5	.0564
84.25	.057
84	.0576
83.75	.0582
83.5	.0587
83.25	.0593
83	.0598
82.75	.0603
82.5	.0608
82.25	.0613
82	.0617
81.75	.0621
81.5	.0626
81.25	.063
81	.0633
80.75	.0637
80.5	.064
80.25	.0643
80	.0646
79.75	.0649
79.5	.0651
79.25	.0653
79	.0655
78.75	.0656
78.5	.0658
78.25	.0658
78	.0659
77.75	.0659

## MM6DA15.TAB

77.5	.0659
77.25	.0659
77	.0658
76.75	.0657
76.5	.0656
76.25	.0654
76	.0652
75.75	.0649
75.5	.0646
75.25	.0643
75	.0639
74.75	.0635
74.5	.063
74.25	.0625
74	.0619
73.75	.0613
73.5	.0607
73.25	.06
73	.0593
72.75	.0585
72.5	.0577
72.25	.0568
72	.0559
71.75	.0549
71.5	.0539
71.25	.0529
71	.0518
70.75	.0506
70.5	.0494
70.25	.0482
70	.0469
69.75	.0456
69.5	.0443
69.25	.0429
69	.0416
68.75	.0401
68.5	.0387
68.25	.0373
68	.0359
67.75	.0345
67.5	.0331
67.25	.0318
67	.0305
66.75	.0294
66.5	.0283
66.25	.0274
66	.0266
65.75	.0261
65.5	.0258
65.25	.0257
65	.0259
64.75	.0264
64.5	.0272
64.25	.0282
64	.0295
63.75	.0311
63.5	.0328
63.25	.0347
63	.0368
62.75	.0391
62.5	.0414

## MM6DA15.TAB

62.25	.0439
62	.0465
61.75	.0491
61.5	.0519
61.25	.0547
61	.0575
60.75	.0604
60.5	.0633
60.25	.0662
60	.0692
59.75	.0722
59.5	.0751
59.25	.0781
59	.0811
58.75	.084
58.5	.087
58.25	.0899
58	.0928
57.75	.0956
57.5	.0984
57.25	.101
57	.104
56.75	.107
56.5	.109
56.25	.112
56	.114
55.75	.116
55.5	.119
55.25	.121
55	.123
54.75	.125
54.5	.127
54.25	.128
54	.13
53.75	.132
53.5	.133
53.25	.134
53	.135
52.75	.136
52.5	.137
52.25	.138
52	.138
51.75	.138
51.5	.138
51.25	.138
51	.138
50.75	.138
50.5	.137
50.25	.136
50	.136
49.75	.134
49.5	.133
49.25	.132
49	.13
48.75	.128
48.5	.126
48.25	.124
48	.121
47.75	.119
47.5	.116
47.25	.113

47	.11
46.75	.107
46.5	.103
46.25	.0996
46	.0959
45.75	.092
45.5	.0881
45.25	.084
45	.0799
44.75	.0758
44.5	.0716
44.25	.0675
44	.0635
43.75	.0596
43.5	.056
43.25	.0527
43	.0498
42.75	.0475
42.5	.0459
42.25	.045
42	.0451
41.75	.046
41.5	.0479
41.25	.0505
41	.0538
40.75	.0576
40.5	.062
40.25	.0666
40	.0716
39.75	.0767
39.5	.082
39.25	.0873
39	.0928
38.75	.0982
38.5	.104
38.25	.109
38	.114
37.75	.119
37.5	.124
37.25	.129
37	.134
36.75	.139
36.5	.143
36.25	.147
36	.151
35.75	.155
35.5	.158
35.25	.161
35	.164
34.75	.166
34.5	.168
34.25	.17
34	.172
33.75	.173
33.5	.174
33.25	.174
33	.174
32.75	.174
32.5	.173
32.25	.172
32	.17

31.75	.168
31.5	.166
31.25	.163
31	.16
30.75	.157
30.5	.153
30.25	.149
30	.144
29.75	.139
29.5	.134
29.25	.128
29	.122
28.75	.116
28.5	.109
28.25	.102
28	.0955
27.75	.0884
27.5	.0813
27.25	.0742
27	.0673
26.75	.0608
26.5	.0549
26.25	.0499
26	.0464
25.75	.0448
25.5	.0453
25.25	.0479
25	.0525
24.75	.0585
24.5	.0655
24.25	.0733
24	.0816
23.75	.0902
23.5	.0991
23.25	.108
23	.117
22.75	.126
22.5	.134
22.25	.143
22	.151
21.75	.159
21.5	.167
21.25	.175
21	.182
20.75	.188
20.5	.194
20.25	.2
20	.205
19.75	.21
19.5	.214
19.25	.218
19	.221
18.75	.223
18.5	.224
18.25	.225
18	.226
17.75	.225
17.5	.224
17.25	.222
17	.22
16.75	.216

## MM6DA15.TAB

16.5	.212
16.25	.207
16	.202
15.75	.195
15.5	.189
15.25	.181
15	.173
14.75	.164
14.5	.155
14.25	.146
14	.136
13.75	.127
13.5	.118
13.25	.111
13	.104
12.75	.1
12.5	.0989
12.25	.101
12	.107
11.75	.116
11.5	.128
11.25	.143
11	.159
10.75	.177
10.5	.197
10.25	.217
10	.239
9.75	.261
9.5	.284
9.25	.307
9	.331
8.75	.355
8.5	.38
8.25	.404
8	.429
7.75	.454
7.5	.479
7.25	.504
7	.529
6.75	.554
6.5	.579
6.25	.603
6	.627
5.75	.651
5.5	.674
5.25	.697
5	.719
4.75	.741
4.5	.762
4.25	.783
4	.803
3.75	.822
3.5	.84
3.25	.857
3	.874
2.75	.89
2.5	.904
2.25	.918
2	.931
1.75	.943
1.5	.954



## MM6DA15.TAB

1.25	.963
1	.972
.75	.979
.5	.986
.25	.991
0	.995
-.25	.998
-.5	.999
-.75	1
-1	.999
-1.25	.998
-1.5	.995
-1.75	.99
-2	.985
-2.25	.979
-2.5	.971
-2.75	.963
-3	.953
-3.25	.942
-3.5	.93
-3.75	.917
-4	.903
-4.25	.889
-4.5	.873
-4.75	.856
-5	.839
-5.25	.821
-5.5	.802
-5.75	.782
-6	.761
-6.25	.74
-6.5	.718
-6.75	.696
-7	.673
-7.25	.65
-7.5	.627
-7.75	.603
-8	.578
-8.25	.554
-8.5	.529
-8.75	.504
-9	.479
-9.25	.455
-9.5	.43
-9.75	.405
-10	.38
-10.25	.356
-10.5	.332
-10.75	.308
-11	.285
-11.25	.262
-11.5	.24
-11.75	.219
-12	.198
-12.25	.179
-12.5	.16
-12.75	.144
-13	.129
-13.25	.117
-13.5	.108
-13.75	.101

## MM6DA15.TAB

-14	.0986
-14.25	.0992
-14.5	.103
-14.75	.109
-15	.116
-15.25	.125
-15.5	.134
-15.75	.143
-16	.152
-16.25	.161
-16.5	.17
-16.75	.178
-17	.186
-17.25	.193
-17.5	.199
-17.75	.205
-18	.209
-18.25	.214
-18.5	.217
-18.75	.22
-19	.222
-19.25	.223
-19.5	.224
-19.75	.224
-20	.223
-20.25	.222
-20.5	.22
-20.75	.217
-21	.214
-21.25	.21
-21.5	.206
-21.75	.201
-22	.195
-22.25	.189
-22.5	.183
-22.75	.176
-23	.169
-23.25	.162
-23.5	.154
-23.75	.146
-24	.138
-24.25	.129
-24.5	.121
-24.75	.112
-25	.103
-25.25	.0945
-25.5	.086
-25.75	.0777
-26	.0697
-26.25	.0623
-26.5	.0557
-26.75	.0503
-27	.0464
-27.25	.0444
-27.5	.0445
-27.75	.0466
-28	.0505
-28.25	.0555
-28.5	.0614
-28.75	.0679
-29	.0746

## MM6DA15.TAB

-29.25	.0815
-29.5	.0884
-29.75	.0952
-30	.102
-30.25	.108
-30.5	.115
-30.75	.121
-31	.126
-31.25	.132
-31.5	.137
-31.75	.142
-32	.146
-32.25	.15
-32.5	.154
-32.75	.158
-33	.161
-33.25	.163
-33.5	.165
-33.75	.167
-34	.169
-34.25	.17
-34.5	.171
-34.75	.171
-35	.171
-35.25	.171
-35.5	.17
-35.75	.169
-36	.168
-36.25	.166
-36.5	.164
-36.75	.162
-37	.159
-37.25	.156
-37.5	.153
-37.75	.15
-38	.146
-38.25	.142
-38.5	.138
-38.75	.134
-39	.13
-39.25	.125
-39.5	.12
-39.75	.115
-40	.11
-40.25	.105
-40.5	.1
-40.75	.095
-41	.0898
-41.25	.0846
-41.5	.0795
-41.75	.0745
-42	.0696
-42.25	.0649
-42.5	.0605
-42.75	.0564
-43	.0527
-43.25	.0495
-43.5	.047
-43.75	.0451
-44	.0441
-44.25	.0438

## MM6DA15.TAB

-44.5	.0444
-44.75	.0457
-45	.0477
-45.25	.0502
-45.5	.0532
-45.75	.0565
-46	.06
-46.25	.0637
-46.5	.0675
-46.75	.0713
-47	.0752
-47.25	.079
-47.5	.0828
-47.75	.0865
-48	.0901
-48.25	.0937
-48.5	.0971
-48.75	.1
-49	.104
-49.25	.107
-49.5	.109
-49.75	.112
-50	.115
-50.25	.117
-50.5	.119
-50.75	.121
-51	.123
-51.25	.125
-51.5	.126
-51.75	.128
-52	.129
-52.25	.13
-52.5	.131
-52.75	.132
-53	.132
-53.25	.133
-53.5	.133
-53.75	.133
-54	.133
-54.25	.133
-54.5	.132
-54.75	.132
-55	.131
-55.25	.13
-55.5	.13
-55.75	.129
-56	.127
-56.25	.126
-56.5	.125
-56.75	.123
-57	.122
-57.25	.12
-57.5	.118
-57.75	.117
-58	.115
-58.25	.113
-58.5	.111
-58.75	.108
-59	.106
-59.25	.104
-59.5	.102

## MM6DA15.TAB

-59.75	.0993
-60	.0969
-60.25	.0945
-60.5	.092
-60.75	.0895
-61	.0869
-61.25	.0844
-61.5	.0818
-61.75	.0792
-62	.0766
-62.25	.074
-62.5	.0714
-62.75	.0688
-63	.0662
-63.25	.0637
-63.5	.0611
-63.75	.0586
-64	.0561
-64.25	.0536
-64.5	.0512
-64.75	.0488
-65	.0465
-65.25	.0442
-65.5	.042
-65.75	.0399
-66	.0378
-66.25	.0359
-66.5	.034
-66.75	.0323
-67	.0306
-67.25	.0291
-67.5	.0278
-67.75	.0266
-68	.0256
-68.25	.0247
-68.5	.024
-68.75	.0236
-69	.0233
-69.25	.0232
-69.5	.0233
-69.75	.0235
-70	.0239
-70.25	.0244
-70.5	.025
-70.75	.0257
-71	.0265
-71.25	.0273
-71.5	.0281
-71.75	.029
-72	.0299
-72.25	.0309
-72.5	.0318
-72.75	.0327
-73	.0336
-73.25	.0345
-73.5	.0354
-73.75	.0363
-74	.0371
-74.25	.0379
-74.5	.0387
-74.75	.0394

## MM6DA15.TAB

-75	.0402
-75.25	.0408
-75.5	.0415
-75.75	.0421
-76	.0427
-76.25	.0433
-76.5	.0438
-76.75	.0443
-77	.0447
-77.25	.0451
-77.5	.0455
-77.75	.0459
-78	.0462
-78.25	.0465
-78.5	.0467
-78.75	.0469
-79	.0471
-79.25	.0473
-79.5	.0474
-79.75	.0475
-80	.0476
-80.25	.0476
-80.5	.0476
-80.75	.0476
-81	.0476
-81.25	.0475
-81.5	.0474
-81.75	.0473
-82	.0471
-82.25	.047
-82.5	.0468
-82.75	.0466
-83	.0463
-83.25	.0461
-83.5	.0458
-83.75	.0455
-84	.0452
-84.25	.0449
-84.5	.0445
-84.75	.0441
-85	.0438
-85.25	.0434
-85.5	.0429
-85.75	.0425
-86	.0421
-86.25	.0416
-86.5	.0411
-86.75	.0406
-87	.0401
-87.25	.0396
-87.5	.0391
-87.75	.0385
-88	.038
-88.25	.0374
-88.5	.0369
-88.75	.0363
-89	.0357
-89.25	.0351
-89.5	.0345
-89.75	.0339
-90	.0333