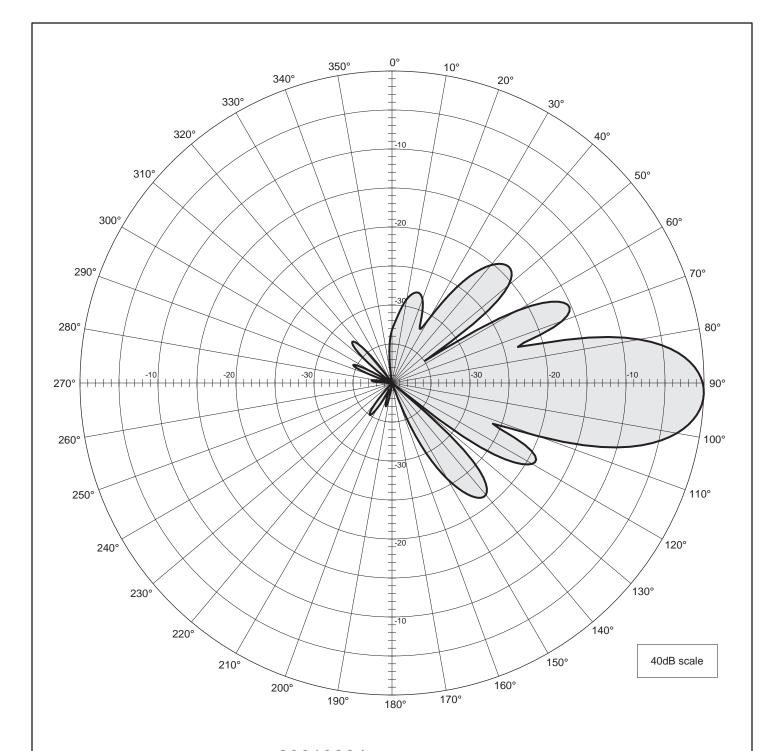


821 MHz
12.19 dBd (14.34 dBi)
-45 polarization
Vertical radiation pattern
2 degree electrical downtilt



**USA** 



80010664
821 MHz
12.19 dBd (14.34 dBi)
-45 polarization
Vertical radiation pattern
2 degree electrical downtilt



**USA** 

## USA

80010664 821 MHz 12.19 dBd (14.34 dBi) -45 polarization

30       0.030       -30.50       -16.16       -18.31       75       0.092       -20.68       -6.34       -8.49         31       0.035       -29.20       -14.86       -17.01       76       0.139       -17.17       -2.83       -4.98         32       0.041       -27.82       -13.48       -15.63       77       0.197       -14.12       0.22       -1.93         33       0.047       -26.48       -12.14       -14.29       78       0.262       -11.63       2.71       0.56         34       0.055       -25.25       -10.91       -13.06       79       0.333       -9.56       4.78       2.63         35       0.062       -24.13       -9.79       -11.94       80       0.406       -7.83       6.51       4.36         36       0.070       -23.13       -8.79       -10.94       81       0.481       -6.35       7.99       5.84         37       0.077       -22.26       -7.92       -10.07       82       0.556       -5.10       9.24       7.09         38       0.084       -21.50       -7.16       -9.31       83       0.630       -4.02       10.32       8.17	Angle Field  0 0.022 1 0.023 2 0.024 3 0.025 4 0.026 5 0.027 6 0.029 7 0.030 8 0.032 9 0.034 10 0.035 11 0.036 12 0.038 13 0.039 14 0.039 15 0.040 16 0.040 17 0.040 18 0.039 19 0.039 20 0.037 21 0.036 22 0.034 23 0.032 24 0.029 25 0.027 26 0.026 27 0.025 28 0.025 29 0.026	-31.27 -16. -31.84 -17. -32.19 -17. -32.13 -17.	-21.01 -20.65 16 -20.31 -19.95 40 -19.55 -19.12 -18.65 -18.65 -3 -18.18 -17.72 -16.90 -16.57 -14 -16.29 -16.57 -14 -16.29 -16.57 -15.90 -15.75 -15.75 -15.75 -15.78 -15.78 -15.78 -16.39	45 46 47 48 49 51 52 53 55 57 58 90 61 62 63 64 66 67 68 71 72 73	Field 0.114 0.113 0.111 0.108 0.102 0.094 0.085 0.073 0.059 0.044 0.028 0.026 0.044 0.064 0.064 0.105 0.1124 0.140 0.154 0.165 0.171 0.173 0.169 0.145 0.124 0.100 0.077 0.069	Rel.dB -18.88 -19.06 -19.35 -19.82 -20.50 -21.45 -22.75 -24.56 -27.15 -30.94 -34.91 -31.86 -27.21 -23.87 -21.42 -19.57 -18.14 -17.05 -16.23 -15.34	dBi -4.54 -4.57 -4.72 -5.01 -5.48 -6.16 -7.11 -8.41 -10.22 -12.81 -16.60 -20.57 -17.52 -12.87 -9.53 -7.08 -5.23 -7.08 -5.23 -1.89 -1.33 -1.00 -0.92 -1.11 -1.60 -2.45 -3.77 -5.67 -7.96 -8.87	dBd -6.69 -6.72 -6.87 -7.16 -7.63 -8.31 -9.26 -10.56 -12.37 -14.96 -18.75 -22.72 -19.67 -15.02 -11.68 -9.23 -7.38 -5.95 -4.86 -4.04 -3.48 -3.15 -3.07 -3.26 -3.75 -4.60 -5.92 -7.82 -10.11 -11.02
24       0.029       -30.63       -16.29       -18.44       69       0.160       -15.94       -1.60       -3.75         25       0.027       -31.27       -16.93       -19.08       70       0.145       -16.79       -2.45       -4.60         26       0.026       -31.84       -17.50       -19.65       71       0.124       -18.11       -3.77       -5.92         27       0.025       -32.13       -17.79       -19.94       73       0.077       -22.30       -7.96       -10.11         29       0.026       -31.54       -17.20       -19.35       74       0.069       -23.21       -8.87       -11.02         30       0.030       -30.50       -16.16       -18.31       75       0.092       -20.68       -6.34       -8.49         31       0.035       -29.20       -14.86       -17.01       76       0.139       -17.17       -2.83       -4.98         32       0.041       -27.82       -13.48       -15.63       77       0.197       -14.12       0.22       -1.93         34       0.055       -25.25       -10.91       -13.06       79       0.333       -9.56       4.78       2.63	22 0.034	-29.45 -15.	11 -17.26	67	0.173	-15.26	-0.92	-3.07
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	24 0.029	-30.63 -16.	29 -18.44	69	0.160	-15.94 -16.79	-1.60	-3.75
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	27 0.025	-32.19 -17.	85 -20.00	72	0.100	-20.01	-5.67	-7.82
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	29 0.026	-31.54 -17.	20 -19.35	74	0.069	-23.21	-8.87	-11.02
34     0.055     -25.25     -10.91     -13.06     79     0.333     -9.56     4.78     2.63       35     0.062     -24.13     -9.79     -11.94     80     0.406     -7.83     6.51     4.36       36     0.070     -23.13     -8.79     -10.94     81     0.481     -6.35     7.99     5.84       37     0.077     -22.26     -7.92     -10.07     82     0.556     -5.10     9.24     7.09       38     0.084     -21.50     -7.16     -9.31     83     0.630     -4.02     10.32     8.17       39     0.091     -20.84     -6.50     -8.65     84     0.700     -3.10     11.24     9.09       40     0.097     -20.28     -5.94     -8.09     85     0.765     -2.33     12.01     9.86       41     0.102     -19.81     -5.47     -7.62     86     0.824     -1.68     12.66     10.51	31 0.035	-29.20 -14.	86 -17.01	76	0.139	-17.17	-2.83	-4.98
36     0.070     -23.13     -8.79     -10.94     81     0.481     -6.35     7.99     5.84       37     0.077     -22.26     -7.92     -10.07     82     0.556     -5.10     9.24     7.09       38     0.084     -21.50     -7.16     -9.31     83     0.630     -4.02     10.32     8.17       39     0.091     -20.84     -6.50     -8.65     84     0.700     -3.10     11.24     9.09       40     0.097     -20.28     -5.94     -8.09     85     0.765     -2.33     12.01     9.86       41     0.102     -19.81     -5.47     -7.62     86     0.824     -1.68     12.66     10.51	34 0.055	-25.25 -10.	91 -13.06	79	0.333	-9.56	4.78	2.63
38     0.084     -21.50     -7.16     -9.31     83     0.630     -4.02     10.32     8.17       39     0.091     -20.84     -6.50     -8.65     84     0.700     -3.10     11.24     9.09       40     0.097     -20.28     -5.94     -8.09     85     0.765     -2.33     12.01     9.86       41     0.102     -19.81     -5.47     -7.62     86     0.824     -1.68     12.66     10.51	36 0.070	-23.13 -8.	79 -10.94	81	0.481	-6.35	7.99	5.84
41 0.102 -19.81 -5.47 -7.62 86 0.824 -1.68 12.66 10.51	38 0.084 39 0.091	-21.50 -7. -20.84 -6.	16 -9.31 50 -8.65	83 84	0.630	-4.02 -3.10	10.32 11.24	8.17 9.09
	41 0.102	-19.81 -5.	47 -7.62	86	0.824	-1.68	12.66	10.51

## USA

80010664 821 MHz 12.19 dBd (14.34 dBi) -45 polarization

-				I			
Angle Field	Rel.dB	dBi	dBd	Angle Field	Rel.dB	dBi	dBd
90 0.981	-0.17	14.17	12.02	135 0.062	-24.16	-9.82	-11.97
91 0.995	-0.04	14.30	12.15	136 0.070	-23.12	-8.78	-10.93
92 1.000	0.00	14.34	12.19	137 0.076	-22.36	-8.02	-10.17
93 0.994	-0.05	14.29	12.14	138 0.081	-21.82	-7.48	-9.63
94 0.979	-0.18	14.16	12.01	139 0.084	-21.47	-7.13	-9.28
95 0.954	-0.41	13.93	11.78	140 0.086	-21.28	-6.94	-9.09
96 0.920	-0.72	13.62	11.47	141 0.087	-21.25	-6.91	-9.06
97 0.878	-1.13	13.21	11.06	142 0.086	-21.34	-7.00	-9.15
98 0.830	-1.62	12.72	10.57	143 0.084	-21.56	-7.22	-9.37
99 0.774	-2.22	12.12 $11.42$	9.97 9.27	144 0.080 145 0.077	-21.89	-7.55	-9.70 -10.13
100 0.714 101 0.650	-2.92 -3.74	10.60	9.27 8.45	146 0.072	-22.32 -22.84	-7.98 -8.50	-10.13 -10.65
102 0.583	-3.74 -4.68	9.66	7.51	147 0.067	-23.45	-8.30 -9.11	-10.05
103 0.515	-5.76	8.58	6.43	148 0.062	-24.15	-9.81	-11.96
104 0.447	-6.99	7.35	5.20	149 0.057	-24.92	-10.58	-12.73
105 0.380	-8.41	5.93	3.78	150 0.052	-25.76	-11.42	-13.57
106 0.315	-10.04	4.30	2.15	151 0.046	-26.68	-12.34	-14.49
107 0.253	-11.94	2.40	0.25	152 0.041	-27.67	-13.33	-15.48
108 0.195	-14.19	0.15	-2.00	153 0.036	-28.76	-14.42	-16.57
109 0.143	-16.87	-2.53	-4.68	154 0.032	-29.93	-15.59	-17.74
110 0.099	-20.11	-5.77	-7.92	155 0.027	-31.22	-16.88	-19.03
111 0.065	-23.75	-9.41	-11.56	156 0.023	-32.63	-18.29	-20.44
112 0.050	-26.06	-11.72	-13.87	157 0.020	-34.18	-19.84	-21.99
113 0.056	-24.98	-10.64	-12.79	158 0.016	-35.88	-21.54	-23.69
114 0.072	-22.85	-8.51	-10.66	159 0.013	-37.69	-23.35	-25.50
115 0.087	-21.18	-6.84	-8.99	160 0.011	-39.49	-25.15	-27.30
116 0.099	-20.06	-5.72	-7.87	161 0.009	-41.02	-26.68	-28.83
117 0.107 118 0.111	-19.39 -19.07	-5.05 -4.73	-7.20 -6.88	162 0.008 163 0.008	-41.91 $-42.04$	-27.57 -27.70	-29.72 -29.85
119 0.112	-19.07	-4.73 -4.70	-6.85	164 0.008	-42.04	-27.70	-29.48
120 0.109	-19.04	-4.92	-7.07	165 0.009	-41.07	-26.82	-29.40 $-28.97$
121 0.103	-19.72	-5.38	-7.53	166 0.009	-40.76	-26.42	-28.57
122 0.096	-20.39	-6.05	-8.20	167 0.009	-40.56	-26.22	-28.37
	-21.31	-6.97	-9.12		-40.59		
124 0.075	-22.50	-8.16	-10.31	169 0.009	-40.86	-26.52	-28.67
125 0.063	-24.02	-9.68	-11.83	170 0.009	-41.35	-27.01	-29.16
126 0.050	-25.99	-11.65	-13.80	171 0.008	-42.05	-27.71	-29.86
127 0.037	-28.65	-14.31	-16.46	172 0.007	-42.93	-28.59	-30.74
128 0.024	-32.52	-18.18	-20.33	173 0.006	-43.94	-29.60	-31.75
129 0.011	-38.87	-24.53	-26.68	174 0.006	-44.99	-30.65	-32.80
130 0.009	-41.37	-27.03	-29.18	175 0.005	-45.92	-31.58	-33.73
131 0.019	-34.37	-20.03	-22.18	176 0.005	-46.56	-32.22	-34.37
132 0.031	-30.18	-15.84	-17.99	177 0.005	-46.79	-32.45	-34.60
133 0.042	-27.47	-13.13	-15.28	178 0.005	-46.63	-32.29	-34.44
134 0.053	-25.56	-11.22	-13.37	179 0.005	-46.21	-31.87	-34.02

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80010664 821 MHz 12.19 dBd (14.34 dBi) -45 polarization

Angle Field  180 0.005  181 0.006  182 0.006  183 0.007  184 0.007  185 0.008  186 0.009  187 0.009  188 0.010  189 0.011  190 0.012  191 0.013  192 0.013  193 0.014  194 0.014  195 0.014  196 0.014  197 0.014  198 0.013  199 0.013  200 0.012  201 0.011  202 0.011  203 0.011  204 0.011  205 0.012  206 0.012  207 0.013  208 0.014  209 0.014  210 0.015  211 0.016  212 0.017  213 0.017  214 0.018  215 0.018  216 0.018  217 0.017  218 0.016  219 0.015  220 0.014	-45.66       -31         -45.04       -30         -44.38       -30         -43.68       -29         -42.94       -28         -42.15       -27         -41.34       -27         -40.53       -26         -39.02       -24         -39.02       -24         -37.83       -23         -37.40       -23         -37.91       -22         -36.94       -22         -37.61       -23         -37.61       -23         -37.61       -23         -38.45       -24         -39.05       -24         -39.01       -24         -39.11       -24         -39.31       -24         -39.31       -24         -39.31       -24         -39.31       -24         -39.31       -24         -39.31       -24         -35.38       -23         -37.38       -23         -37.38       -23         -37.38       -23         -37.38       -23         -37.38       -23         -35.94       -20	BBi dBd  .32 -33.47 .70 -32.85 .04 -32.19 .34 -31.49 .60 -30.75 .81 -29.96 .00 -29.15 .19 -28.34 .40 -27.55 .68 -26.83 .04 -26.19 .49 -25.64 .06 -25.21 .76 -24.91 .76 -24.91 .76 -24.72 .69 -24.84 .93 -25.08 .27 -25.42 .68 -25.83 .11 -26.26 .47 -26.62 .71 -26.86 .77 -26.92 .68 -25.83 .11 -26.26 .47 -26.62 .71 -26.86 .77 -26.92 .68 -25.83 .99 -26.14 .54 -25.69 .04 -25.19 .53 -24.68 .27 -22.82 .77 -22.82 .77 -22.82 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92 .47 -23.62 .77 -22.92	226 00 00 00 00 00 00 00 00 00 00 00 00 00	0.006 0.005 0.005 0.005 0.005 0.005 0.006 0.006 0.007 0.007 0.007 0.007 0.007 0.007 0.007 0.007 0.007 0.008 0.008 0.008 0.008 0.009 0.	Rel.dB -43.89 -45.42 -46.57 -47.06 -46.87 -46.28 -45.57 -44.34 -43.90 -44.34 -43.90 -43.58 -43.16 -43.01 -42.87 -42.73 -42.57 -42.39 -41.98 -41.77 -41.56 -40.98 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.36 -40.31 -40.45 -40.31 -40.46 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31 -40.45 -40.31	dBi -29.55 -31.08 -32.23 -32.72 -32.53 -31.94 -31.23 -30.56 -29.24 -29.00 -28.82 -28.67 -28.53 -28.39 -28.23 -28.67 -28.53 -27.64 -27.43 -27.22 -26.64 -26.34 -26.34 -26.34 -26.34 -26.34 -26.34 -26.34 -26.34 -26.39	dBd -31.70 -33.23 -34.38 -34.87 -34.68 -34.09 -33.38 -32.71 -31.39 -31.15 -31.71 -31.39 -31.15 -30.97 -30.82 -30.68 -30.54 -30.38 -30.20 -30.00 -29.79 -29.58 -29.37 -29.16 -28.97 -28.63 -28.49 -28.37 -28.63 -28.49 -28.37 -28.54 -29.01 -29.74 -30.80 -32.28 -34.25 -36.54 -37.94
217 0.017 218 0.016 219 0.015	-35.81 -21 -36.42 -22 -37.22 -22 -38.21 -23 -39.39 -25 -40.76 -26	.47 -23.62 .08 -24.23	263 0 264 0 265 0 266 0 267 0 268 0	0.005 0.004	-46.44 $-48.73$	-32.10 $-34.39$	-34.25 -36.54

## USA

80010664 821 MHz 12.19 dBd (14.34 dBi) -45 polarization

Angle Field	Rel.dB	dBi	dBd	   Angle	Field	Rel.dB	dBi	dBd
270 0.009	-40.70	-26.36	-28.51	315	0.023	-32.77	-18.43	-20.58
271 0.010	-39.63	-25.29	-27.44	316	0.023	-32.67	-18.33	-20.48
272 0.011	-38.82	-24.48	-26.63	317	0.023	-32.73	-18.39	-20.54
273 0.012	-38.24	-23.90	-26.05	318	0.022	-32.97	-18.63	-20.78
274 0.013	-37.82	-23.48	-25.63	319	0.021	-33.37	-19.03	-21.18
275 0.013	-37.55	-23.21	-25.36	320	0.020	-33.94	-19.60	-21.75
276 0.013	-37.40	-23.06	-25.21	321	0.018	-34.69	-20.35	-22.50
277 0.014	-37.36	-23.02	-25.17	322	0.017	-35.61	-21.27	-23.42
278 0.013	-37.44	-23.10	-25.25	323	0.015	-36.73	-22.39	-24.54
279 0.013	-37.66	-23.32	-25.47	324	0.013	-38.05	-23.71	-25.86
280 0.013 281 0.012	-38.06 -38.68	-23.72 -24.34	-25.87 -26.49	325 326	0.010 0.009	-39.59 -41.32	-25.25 -26.98	-27.40 -29.13
282 0.010	-39.59	-24.34	-20.49 $-27.40$	327	0.009	-41.32 $-43.20$	-20.96	-31.01
283 0.009	-40.84	-26.50	-28.65	328	0.007	-45.08	-30.74	-32.89
284 0.008	-42.47	-28.13	-30.28	329	0.005	-46.72	-32.38	-34.53
285 0.006	-44.25	-29.91	-32.06	330	0.004	-48.00	-33.66	-35.81
286 0.005	-45.23	-30.89	-33.04	331	0.004	-49.09	-34.75	-36.90
287 0.006	-44.25	-29.91	-32.06	332	0.003	-50.48	-36.14	-38.29
288 0.008	-42.06	-27.72	-29.87	333	0.002	-52.86	-38.52	-40.67
289 0.010	-39.88	-25.54	-27.69	334	0.001	-57.69	-43.35	-45.50
290 0.012	-38.08	-23.74	-25.89	335	0.001	-65.57	-51.23	-53.38
291 0.015 292 0.016	-36.69 -35.68	-22.35 -21.34	-24.50 -23.49	336 337	0.002	-55.28 -49.46	-40.94 -35.12	-43.09 -37.27
293 0.018	-35.00	-21.34 $-20.66$	-23.49	338	0.005	-45.40 -45.90	-31.56	-37.27
294 0.019	-34.61	-20.27	-22.42	339	0.003	-43.48	-29.14	-31.29
295 0.019	-34.52	-20.18	-22.33	340	0.008	-41.80	-27.46	-29.61
296 0.018	-34.70	-20.36	-22.51	341	0.009	-40.64	-26.30	-28.45
297 0.017	-35.16	-20.82	-22.97	342	0.010	-39.91	-25.57	-27.72
298 0.016	-35.92	-21.58	-23.73	343	0.011	-39.52	-25.18	-27.33
299 0.014	-37.01	-22.67	-24.82	344	0.011	-39.40	-25.06	-27.21
300 0.012	-38.49	-24.15	-26.30	345	0.011	-39.49	-25.15	-27.30
301 0.009 302 0.007	-40.46 -43.13	-26.12 -28.79	-28.27 -30.94	346 347	0.010	-39.71 -39.95	-25.37 -25.61	-27.52 -27.76
302 0.007	-43.13 -46.69	-26.79 $-32.35$	-30.94 $-34.50$	347	0.010	-39.95 -40.10	-25.61 $-25.76$	-27.76 -27.91
304 0.003	-50.12	-35.78	-37.93	349	0.010	-40.10	-25.73	-27.88
305 0.004	-48.56	-34.22	-36.37	350	0.010	-39.80	-25.46	-27.61
306 0.006	-44.73	-30.39	-32.54	351	0.011	-39.29	-24.95	-27.10
307 0.008	-41.68	-27.34	-29.49	352	0.012	-38.60	-24.26	-26.41
308 0.011	-39.37	-25.03	-27.18	353	0.013	-37.81	-23.47	-25.62
309 0.013	-37.59	-23.25	-25.40	354	0.014	-36.97	-22.63	-24.78
310 0.016	-36.18	-21.84	-23.99	355	0.016	-36.15	-21.81	-23.96
311 0.018	-35.06	-20.72	-22.87	356	0.017	-35.38	-21.04	-23.19
312 0.020 313 0.021	-34.18 -33.52	-19.84 -19.18	-21.99 -21.33	357 358	0.018 0.020	-34.70 -34.11	-20.36 -19.77	-22.51 -21.92
313 0.021	-33.52 -33.05	-19.18	-21.33 $-20.86$	359	0.020	-34.11	-19.77 -19.28	-21.92 -21.43
511 0.022	33.03	10.71	20.00		0.021	55.02	17.20	21.10