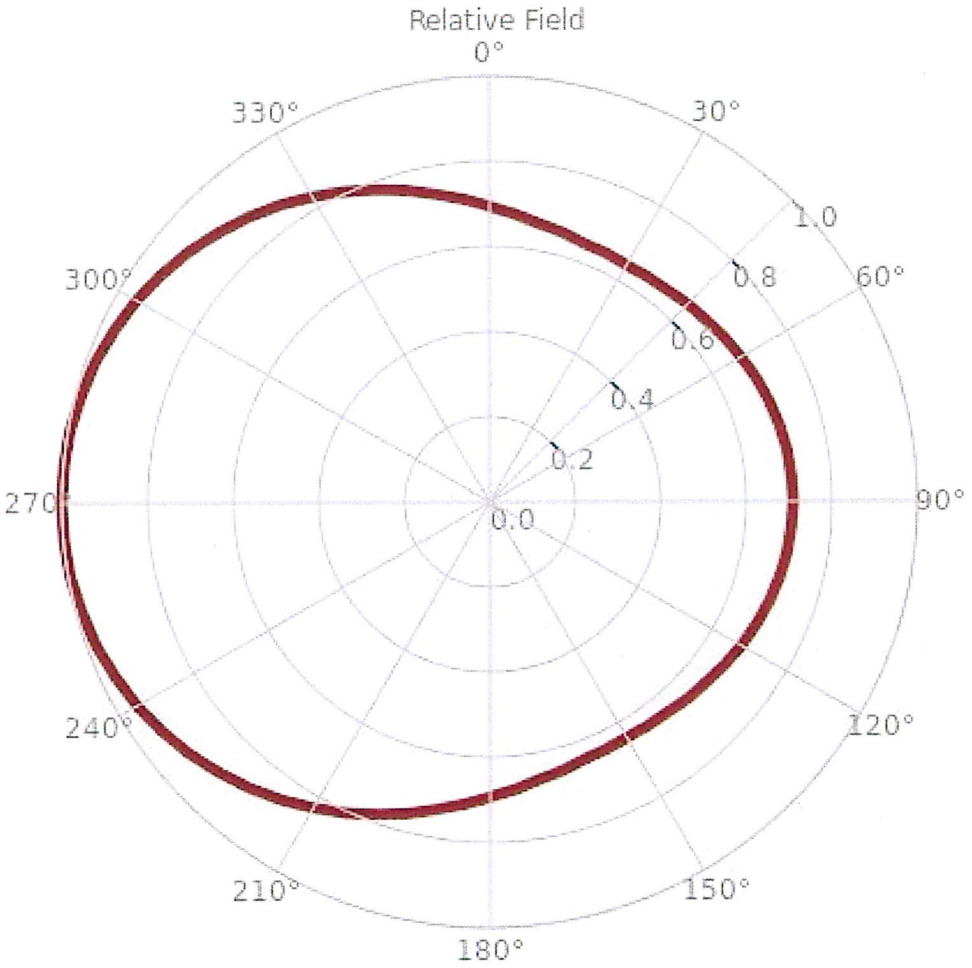
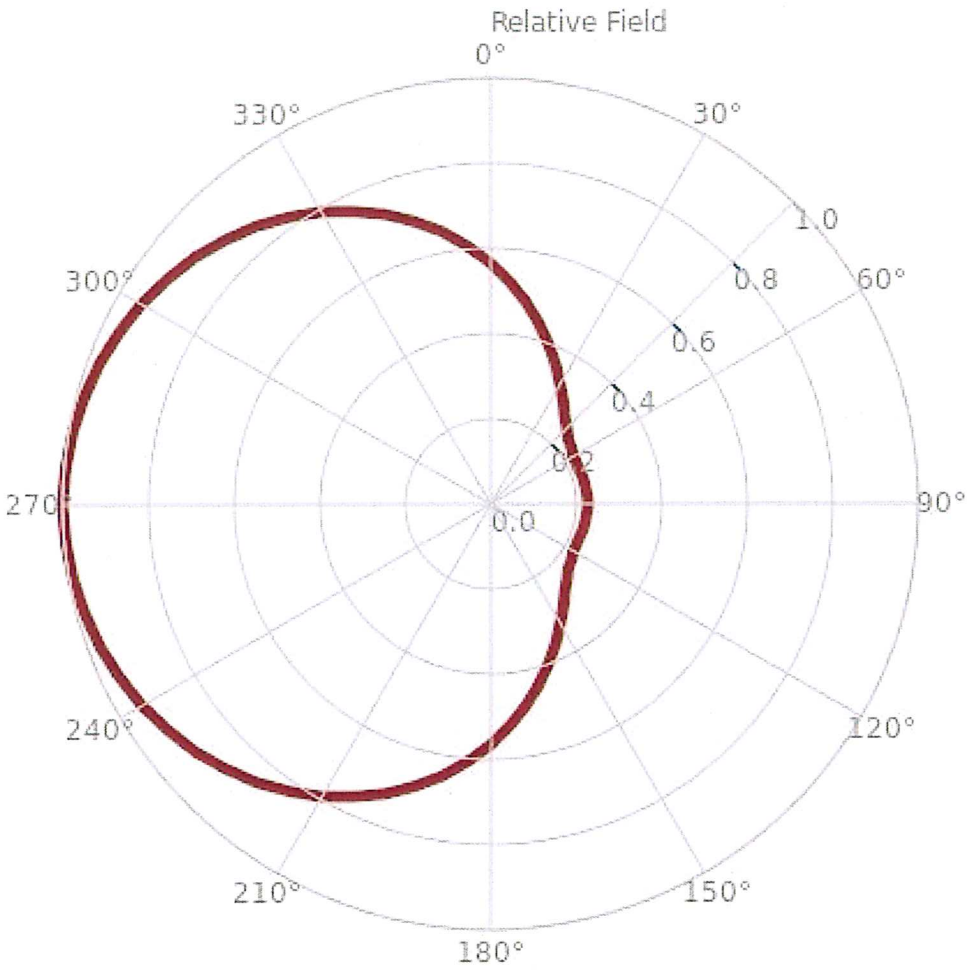
Summary

Antenna Specifications	
Antenna Type	Coaxial Slot
Antenna Model	ATC-BCE212M-V3-32
Electrical Specifications	
Channel(s)	32
Frequency Range (MHz)	578 - 584
Polarization	Elliptical
Horizontal Azimuth Pattern	Omnioid
Directivity	1.65
dB	2.17
Vertical Azimuth Pattern	V3-Medium Cardioid
Directivity	2.35
dB	3.71
Vertical Component	30 %
Azimuth Peak of Beam	270 °
Elevation Pattern	BC12
Directivity	12.00
dB	10.79
Electrical Beam Tilt	0.50 °
Antenna Peak Power Gain	
Horizontal Gain Power	15.23
Horizontal Gain Ratio	11.83 dBd
Vertical Gain Power	4.57
Vertical Gain Ratio	6.60 dBd
Line Type	1-5/8" 50 Ohm Foam Flex Line
Line Length	400 ft
Total Line Loss	2.21 dB
Effective Radiated Power (ERP)	15 kW
ERP Vertical Power	4.50 kW
Transmitter Power Output (TPO)	
TPO Power	1.64 kW
TPO Ratio	2.15 dBk
Input Type	EIA 1-5/8"
Mechanical Specifications	
Mount Type	Side Mount
Length of Antenna	23.28 ft
Center of Radiation	11.64 ft
Radome Diameter	TBD
Color	White
Calculated Weight	Contact Alive Telecom 1 2
Windload (Shear)	Contact Alive Telecom 1 2

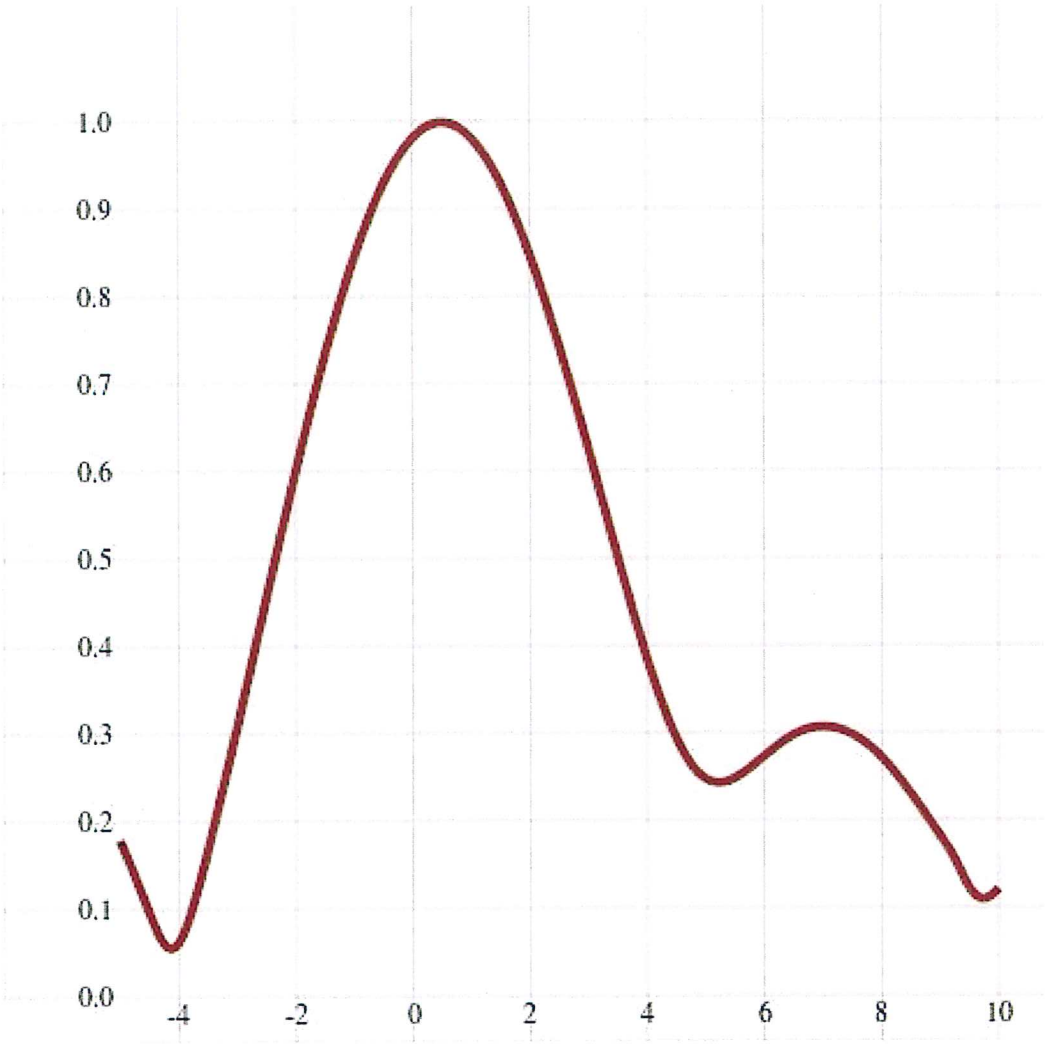
Horizontal Azimuth Pattern



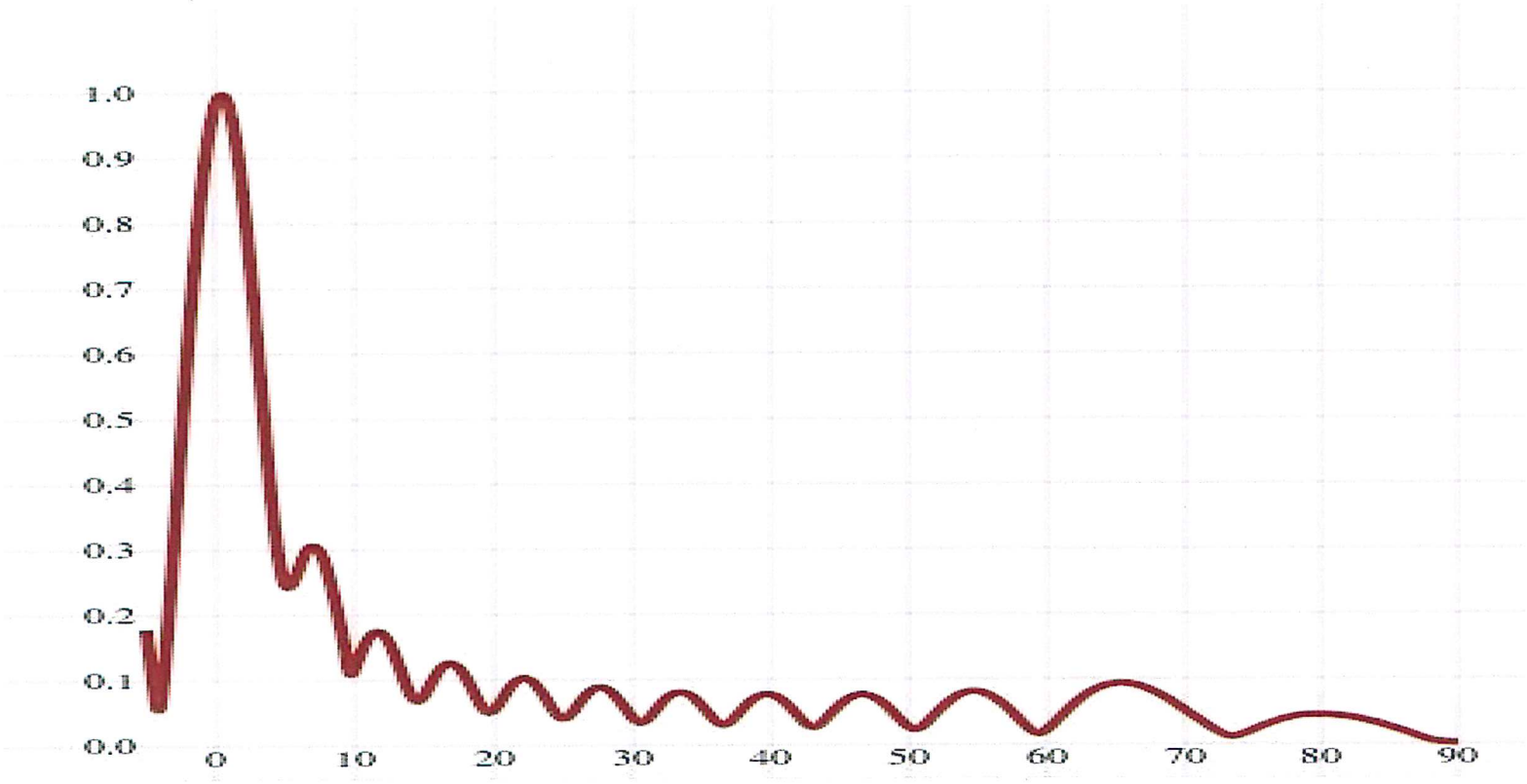
Vertical Azimuth Pattern



Elevation pattern -5 to 10



Elevation pattern -5 to 90



Azimuth Horizontal Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	0.694	-3.17	90°	0.709	-2.99	180°	0.694	-3.17	270°	1.000	0.00
2°	0.688	-3.25	92°	0.708	-3.00	182°	0.702	-3.07	272°	0.999	-0.01
4°	0.682	-3.32	94°	0.707	-3.01	184°	0.710	-2.97	274°	0.998	-0.02
6°	0.675	-3.41	96°	0.706	-3.02	186°	0.718	-2.88	276°	0.997	-0.03
8°	0.669	-3.49	98°	0.706	-3.02	188°	0.726	-2.78	278°	0.996	-0.03
10°	0.663	-3.57	100°	0.705	-3.04	190°	0.734	-2.69	280°	0.995	-0.04
12°	0.660	-3.61	102°	0.703	-3.06	192°	0.743	-2.58	282°	0.992	-0.07
14°	0.656	-3.66	104°	0.701	-3.09	194°	0.753	-2.46	284°	0.988	-0.10
16°	0.653	-3.70	106°	0.698	-3.12	196°	0.762	-2.36	286°	0.985	-0.13
18°	0.649	-3.76	108°	0.696	-3.15	198°	0.771	-2.26	288°	0.982	-0.16
20°	0.645	-3.81	110°	0.694	-3.17	200°	0.781	-2.15	290°	0.979	-0.18
22°	0.644	-3.82	112°	0.691	-3.21	202°	0.790	-2.05	292°	0.974	-0.23
24°	0.643	-3.84	114°	0.688	-3.25	204°	0.800	-1.94	294°	0.969	-0.27
26°	0.643	-3.84	116°	0.685	-3.29	206°	0.810	-1.83	296°	0.963	-0.33
28°	0.642	-3.85	118°	0.682	-3.32	208°	0.820	-1.72	298°	0.958	-0.37
30°	0.641	-3.86	120°	0.678	-3.38	210°	0.829	-1.63	300°	0.953	-0.42
32°	0.642	-3.85	122°	0.675	-3.41	212°	0.839	-1.52	302°	0.946	-0.48
34°	0.643	-3.84	124°	0.672	-3.45	214°	0.848	-1.43	304°	0.939	-0.55
36°	0.645	-3.81	126°	0.668	-3.50	216°	0.858	-1.33	306°	0.932	-0.61
38°	0.646	-3.80	128°	0.665	-3.54	218°	0.867	-1.24	308°	0.925	-0.68
40°	0.647	-3.78	130°	0.661	-3.60	220°	0.876	-1.15	310°	0.918	-0.74
42°	0.650	-3.74	132°	0.659	-3.62	222°	0.885	-1.06	312°	0.910	-0.82
44°	0.653	-3.70	134°	0.656	-3.66	224°	0.893	-0.98	314°	0.901	-0.91
46°	0.656	-3.66	136°	0.653	-3.70	226°	0.901	-0.91	316°	0.893	-0.98
48°	0.659	-3.62	138°	0.650	-3.74	228°	0.910	-0.82	318°	0.885	-1.06
50°	0.661	-3.60	140°	0.647	-3.78	230°	0.918	-0.74	320°	0.876	-1.15
52°	0.665	-3.54	142°	0.646	-3.80	232°	0.925	-0.68	322°	0.867	-1.24
54°	0.668	-3.50	144°	0.645	-3.81	234°	0.932	-0.61	324°	0.858	-1.33
56°	0.672	-3.45	146°	0.643	-3.84	236°	0.939	-0.55	326°	0.848	-1.43
58°	0.675	-3.41	148°	0.642	-3.85	238°	0.946	-0.48	328°	0.839	-1.52
60°	0.679	-3.36	150°	0.641	-3.86	240°	0.953	-0.42	330°	0.829	-1.63
62°	0.682	-3.32	152°	0.642	-3.85	242°	0.958	-0.37	332°	0.820	-1.72
64°	0.685	-3.29	154°	0.643	-3.84	244°	0.963	-0.33	334°	0.810	-1.83
66°	0.688	-3.25	156°	0.644	-3.82	246°	0.969	-0.27	336°	0.800	-1.94
68°	0.691	-3.21	158°	0.644	-3.82	248°	0.974	-0.23	338°	0.790	-2.05
70°	0.694	-3.17	160°	0.645	-3.81	250°	0.979	-0.18	340°	0.781	-2.15
72°	0.696	-3.15	162°	0.649	-3.76	252°	0.982	-0.16	342°	0.771	-2.26
74°	0.698	-3.12	164°	0.653	-3.70	254°	0.985	-0.13	344°	0.762	-2.36
76°	0.701	-3.09	166°	0.656	-3.66	256°	0.988	-0.10	346°	0.753	-2.46
78°	0.703	-3.06	168°	0.660	-3.61	258°	0.992	-0.07	348°	0.743	-2.58
80°	0.705	-3.04	170°	0.663	-3.57	260°	0.995	-0.04	350°	0.734	-2.69
82°	0.706	-3.02	172°	0.669	-3.49	262°	0.996	-0.03	352°	0.726	-2.78
84°	0.706	-3.02	174°	0.675	-3.41	264°	0.997	-0.03	354°	0.718	-2.88
86°	0.707	-3.01	176°	0.682	-3.32	266°	0.998	-0.02	356°	0.710	-2.97
88°	0.708	-3.00	178°	0.688	-3.25	268°	0.999	-0.01	358°	0.702	-3.07

Azimuth Pattern Tabulation, FCC

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	0.694	-3.17	90°	0.709	-2.99	180°	0.694	-3.17	270°	1.000	0.00
10°	0.663	-3.57	100°	0.705	-3.04	190°	0.734	-2.69	280°	0.995	-0.04
20°	0.645	-3.81	110°	0.694	-3.17	200°	0.781	-2.15	290°	0.979	-0.18
30°	0.641	-3.86	120°	0.678	-3.38	210°	0.829	-1.63	300°	0.953	-0.42
40°	0.647	-3.78	130°	0.661	-3.60	220°	0.876	-1.15	310°	0.918	-0.74
50°	0.661	-3.60	140°	0.647	-3.78	230°	0.918	-0.74	320°	0.876	-1.15
60°	0.679	-3.36	150°	0.641	-3.86	240°	0.953	-0.42	330°	0.829	-1.63
70°	0.694	-3.17	160°	0.645	-3.81	250°	0.979	-0.18	340°	0.781	-2.15
80°	0.705	-3.04	170°	0.663	-3.57	260°	0.995	-0.04	350°	0.734	-2.69

Elevation Pattern Tabulation

-5 to 10 in 0.25 increments, 10 to 90 in 0.50 increments

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.179	-14.94	8.75	0.206	-13.72	35.00	0.060	-24.44	62.50	0.071	-22.97
-4.75	0.140	-17.08	9.00	0.181	-14.85	35.50	0.047	-26.56	63.00	0.078	-22.16
-4.50	0.095	-20.45	9.25	0.157	-16.08	36.00	0.035	-29.12	63.50	0.084	-21.51
-4.25	0.053	-25.51	9.50	0.117	-18.64	36.50	0.028	-31.06	64.00	0.088	-21.11
-4.00	0.054	-25.35	9.75	0.104	-19.66	37.00	0.032	-29.90	64.50	0.091	-20.82
-3.75	0.103	-19.74	10.00	0.121	-18.34	37.50	0.043	-27.33	65.00	0.093	-20.63
-3.50	0.167	-15.55	10.50	0.147	-16.65	38.00	0.055	-25.19	65.50	0.093	-20.63
-3.25	0.237	-12.51	11.00	0.167	-15.55	38.50	0.066	-23.61	66.00	0.092	-20.72
-3.00	0.309	-10.20	11.50	0.177	-15.04	39.00	0.073	-22.73	66.50	0.090	-20.92
-2.75	0.383	-8.34	12.00	0.173	-15.24	39.50	0.077	-22.27	67.00	0.086	-21.31
-2.50	0.458	-6.78	12.50	0.158	-16.03	40.00	0.077	-22.27	67.50	0.082	-21.72
-2.25	0.531	-5.50	13.00	0.132	-17.59	40.50	0.073	-22.73	68.00	0.077	-22.27
-2.00	0.602	-4.41	13.50	0.102	-19.83	41.00	0.065	-23.74	68.50	0.071	-22.97
-1.75	0.670	-3.48	14.00	0.075	-22.50	41.50	0.055	-25.19	69.00	0.065	-23.74
-1.50	0.734	-2.69	14.50	0.064	-23.88	42.00	0.043	-27.33	69.50	0.058	-24.73
-1.25	0.792	-2.03	15.00	0.076	-22.38	42.50	0.031	-30.17	70.00	0.050	-26.02
-1.00	0.845	-1.46	15.50	0.097	-20.26	43.00	0.025	-32.04	70.50	0.043	-27.33
-0.75	0.891	-1.00	16.00	0.115	-18.79	43.50	0.028	-31.06	71.00	0.036	-28.87
-0.50	0.930	-0.63	16.50	0.126	-17.99	44.00	0.038	-28.40	71.50	0.029	-30.75
-0.25	0.960	-0.35	17.00	0.127	-17.92	44.50	0.050	-26.02	72.00	0.022	-33.15
0.00	0.982	-0.16	17.50	0.119	-18.49	45.00	0.060	-24.44	72.50	0.016	-35.92
0.25	0.996	-0.03	18.00	0.104	-19.66	45.50	0.069	-23.22	73.00	0.011	-39.17
0.50	1.000	0.00	18.50	0.083	-21.62	46.00	0.074	-22.62	73.50	0.010	-40.00
0.75	0.996	-0.03	19.00	0.061	-24.29	46.50	0.077	-22.27	74.00	0.013	-37.72
1.00	0.982	-0.16	19.50	0.048	-26.38	47.00	0.076	-22.38	74.50	0.017	-35.39
1.25	0.961	-0.35	20.00	0.052	-25.68	47.50	0.072	-22.85	75.00	0.021	-33.56
1.50	0.931	-0.62	20.50	0.069	-23.22	48.00	0.066	-23.61	75.50	0.026	-31.70
1.75	0.893	-0.98	21.00	0.086	-21.31	48.50	0.057	-24.88	76.00	0.030	-30.46
2.00	0.849	-1.42	21.50	0.098	-20.18	49.00	0.046	-26.74	76.50	0.033	-29.63
2.25	0.799	-1.95	22.00	0.104	-19.66	49.50	0.035	-29.12	77.00	0.037	-28.64
2.50	0.744	-2.57	22.50	0.102	-19.83	50.00	0.025	-32.04	77.50	0.039	-28.18
2.75	0.686	-3.27	23.00	0.093	-20.63	50.50	0.021	-33.56	78.00	0.041	-27.74
3.00	0.625	-4.08	23.50	0.079	-22.05	51.00	0.026	-31.70	78.50	0.043	-27.33
3.25	0.562	-5.01	24.00	0.062	-24.15	51.50	0.037	-28.64	79.00	0.044	-27.13
3.50	0.500	-6.02	24.50	0.045	-26.94	52.00	0.048	-26.38	79.50	0.044	-27.13
3.75	0.439	-7.15	25.00	0.038	-28.40	52.50	0.058	-24.73	80.00	0.044	-27.13
4.00	0.383	-8.34	25.50	0.045	-26.94	53.00	0.067	-23.48	80.50	0.044	-27.13
4.25	0.332	-9.58	26.00	0.060	-24.44	53.50	0.074	-22.62	81.00	0.043	-27.33
4.50	0.291	-10.72	26.50	0.074	-22.62	54.00	0.079	-22.05	81.50	0.042	-27.54
4.75	0.261	-11.67	27.00	0.084	-21.51	54.50	0.081	-21.83	82.00	0.041	-27.74
5.00	0.245	-12.22	27.50	0.089	-21.01	55.00	0.081	-21.83	82.50	0.039	-28.18
5.25	0.241	-12.36	28.00	0.088	-21.11	55.50	0.078	-22.16	83.00	0.037	-28.64
5.50	0.247	-12.15	28.50	0.081	-21.83	56.00	0.073	-22.73	83.50	0.034	-29.37
5.75	0.259	-11.73	29.00	0.069	-23.22	56.50	0.066	-23.61	84.00	0.032	-29.90
6.00	0.273	-11.28	29.50	0.055	-25.19	57.00	0.058	-24.73	84.50	0.029	-30.75
6.25	0.287	-10.84	30.00	0.040	-27.96	57.50	0.048	-26.38	85.00	0.025	-32.04
6.50	0.298	-10.52	30.50	0.032	-29.90	58.00	0.037	-28.64	85.50	0.022	-33.15
6.75	0.305	-10.31	31.00	0.036	-28.87	58.50	0.026	-31.70	86.00	0.019	-34.42
7.00	0.307	-10.26	31.50	0.049	-26.20	59.00	0.017	-35.39	86.50	0.015	-36.48
7.25	0.305	-10.31	32.00	0.062	-24.15	59.50	0.014	-37.08	87.00	0.011	-39.17
7.50	0.298	-10.52	32.50	0.073	-22.73	60.00	0.021	-33.56	87.50	0.008	-41.94
7.75	0.287	-10.84	33.00	0.079	-22.05	60.50	0.031	-30.17	88.00	0.004	-47.96
8.00	0.272	-11.31	33.50	0.081	-21.83	61.00	0.042	-27.54	88.50	0.003	-50.46
8.25	0.252	-11.97	34.00	0.078	-22.16	61.50	0.053	-25.51	89.00	0.002	-53.98
8.50	0.230	-12.77	34.50	0.071	-22.97	62.00	0.062	-24.15	89.50	0.001	-60.00
8.75	0.206	-13.72	35.00	0.060	-24.44	62.50	0.071	-22.97	90.00	0.001	-60.00

Azimuth Vertical Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	0.565	-4.96	90°	0.228	-12.84	180°	0.565	-4.96	270°	1.000	0.00
2°	0.554	-5.13	92°	0.228	-12.84	182°	0.575	-4.81	272°	1.000	0.00
4°	0.533	-5.47	94°	0.227	-12.88	184°	0.596	-4.50	274°	0.997	-0.03
6°	0.512	-5.81	96°	0.226	-12.92	186°	0.617	-4.19	276°	0.994	-0.05
8°	0.491	-6.18	98°	0.225	-12.96	188°	0.638	-3.90	278°	0.993	-0.06
10°	0.480	-6.38	100°	0.225	-12.96	190°	0.648	-3.77	280°	0.991	-0.08
12°	0.470	-6.56	102°	0.225	-12.96	192°	0.658	-3.64	282°	0.991	-0.08
14°	0.449	-6.96	104°	0.224	-13.00	194°	0.676	-3.40	284°	0.984	-0.14
16°	0.428	-7.37	106°	0.223	-13.03	196°	0.696	-3.15	286°	0.979	-0.18
18°	0.407	-7.81	108°	0.222	-13.07	198°	0.714	-2.93	288°	0.974	-0.23
20°	0.397	-8.02	110°	0.222	-13.07	200°	0.724	-2.81	290°	0.972	-0.25
22°	0.388	-8.22	112°	0.222	-13.07	202°	0.733	-2.70	292°	0.968	-0.28
24°	0.370	-8.64	114°	0.222	-13.07	204°	0.750	-2.50	294°	0.961	-0.35
26°	0.351	-9.09	116°	0.223	-13.03	206°	0.767	-2.30	296°	0.954	-0.41
28°	0.333	-9.55	118°	0.223	-13.03	208°	0.784	-2.11	298°	0.947	-0.47
30°	0.324	-9.79	120°	0.223	-13.03	210°	0.793	-2.01	300°	0.943	-0.51
32°	0.317	-9.98	122°	0.225	-12.96	212°	0.800	-1.94	302°	0.938	-0.56
34°	0.303	-10.37	124°	0.228	-12.84	214°	0.816	-1.77	304°	0.928	-0.65
36°	0.290	-10.75	126°	0.231	-12.73	216°	0.830	-1.62	306°	0.918	-0.74
38°	0.276	-11.18	128°	0.234	-12.62	218°	0.846	-1.45	308°	0.908	-0.84
40°	0.269	-11.40	130°	0.236	-12.54	220°	0.853	-1.38	310°	0.903	-0.89
42°	0.266	-11.50	132°	0.240	-12.40	222°	0.859	-1.32	312°	0.897	-0.94
44°	0.260	-11.70	134°	0.248	-12.11	224°	0.872	-1.19	314°	0.884	-1.07
46°	0.252	-11.97	136°	0.257	-11.80	226°	0.884	-1.07	316°	0.872	-1.19
48°	0.244	-12.25	138°	0.265	-11.54	228°	0.897	-0.94	318°	0.859	-1.32
50°	0.236	-12.54	140°	0.269	-11.40	230°	0.903	-0.89	320°	0.853	-1.38
52°	0.234	-12.62	142°	0.276	-11.18	232°	0.908	-0.84	322°	0.846	-1.45
54°	0.231	-12.73	144°	0.290	-10.75	234°	0.918	-0.74	324°	0.830	-1.62
56°	0.228	-12.84	146°	0.303	-10.37	236°	0.928	-0.65	326°	0.816	-1.77
58°	0.225	-12.96	148°	0.317	-9.98	238°	0.938	-0.56	328°	0.800	-1.94
60°	0.223	-13.03	150°	0.324	-9.79	240°	0.943	-0.51	330°	0.793	-2.01
62°	0.223	-13.03	152°	0.333	-9.55	242°	0.947	-0.47	332°	0.784	-2.11
64°	0.223	-13.03	154°	0.351	-9.09	244°	0.954	-0.41	334°	0.767	-2.30
66°	0.222	-13.07	156°	0.370	-8.64	246°	0.961	-0.35	336°	0.750	-2.50
68°	0.222	-13.07	158°	0.388	-8.22	248°	0.968	-0.28	338°	0.733	-2.70
70°	0.222	-13.07	160°	0.397	-8.02	250°	0.972	-0.25	340°	0.724	-2.81
72°	0.222	-13.07	162°	0.407	-7.81	252°	0.974	-0.23	342°	0.714	-2.93
74°	0.223	-13.03	164°	0.428	-7.37	254°	0.979	-0.18	344°	0.696	-3.15
76°	0.224	-13.00	166°	0.449	-6.96	256°	0.984	-0.14	346°	0.676	-3.40
78°	0.225	-12.96	168°	0.470	-6.56	258°	0.989	-0.10	348°	0.658	-3.64
80°	0.225	-12.96	170°	0.480	-6.38	260°	0.991	-0.08	350°	0.648	-3.77
82°	0.225	-12.96	172°	0.491	-6.18	262°	0.992	-0.07	352°	0.638	-3.90
84°	0.226	-12.92	174°	0.512	-5.81	264°	0.994	-0.05	354°	0.617	-4.19
86°	0.227	-12.88	176°	0.533	-5.47	266°	0.997	-0.03	356°	0.596	-4.50
88°	0.228	-12.84	178°	0.554	-5.13	268°	0.999	-0.01	358°	0.575	-4.81