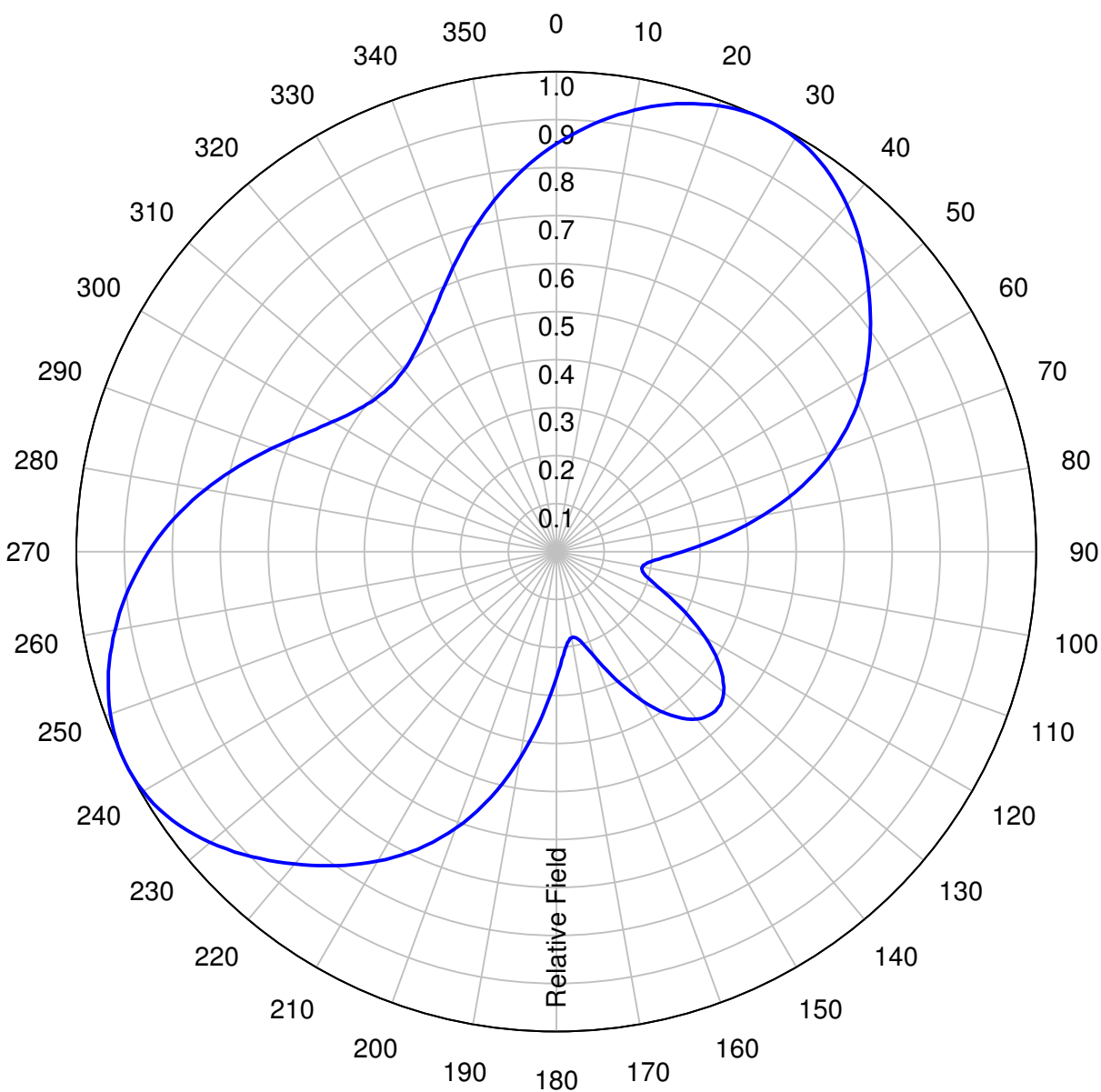


**AZIMUTH PATTERN****Type:****ATW-P2****Channel:****27****Directivity:****Numeric****dBd****2.20****3.42****Peak(s) at:****Location:****Polarization:****Horizontal**

Note: Pattern shape and directivity may vary with channel and routing configuration.



Preliminary, subject to final design and review.

## TABULATED DATA FOR AZIMUTH PATTERN

Type: ATW-P2

Polarization: Horizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.850	-1.41	92	0.237	-12.51	184	0.326	-9.74	276	0.788	-2.07
2	0.868	-1.23	94	0.215	-13.35	186	0.362	-8.83	278	0.766	-2.32
4	0.886	-1.05	96	0.198	-14.07	188	0.399	-7.98	280	0.743	-2.58
6	0.903	-0.89	98	0.187	-14.56	190	0.437	-7.19	282	0.720	-2.85
8	0.919	-0.73	100	0.182	-14.80	192	0.475	-6.47	284	0.697	-3.14
10	0.934	-0.59	102	0.183	-14.75	194	0.512	-5.81	286	0.674	-3.43
12	0.948	-0.46	104	0.188	-14.52	196	0.547	-5.24	288	0.652	-3.72
14	0.960	-0.35	106	0.199	-14.02	198	0.581	-4.72	290	0.630	-4.01
16	0.971	-0.26	108	0.214	-13.39	200	0.613	-4.25	292	0.609	-4.31
18	0.980	-0.18	110	0.233	-12.65	202	0.642	-3.85	294	0.590	-4.58
20	0.989	-0.10	112	0.256	-11.84	204	0.670	-3.48	296	0.571	-4.87
22	0.995	-0.04	114	0.281	-11.03	206	0.696	-3.15	298	0.555	-5.11
24	0.999	-0.01	116	0.307	-10.26	208	0.721	-2.84	300	0.540	-5.35
26	1.000	0.00	118	0.333	-9.55	210	0.744	-2.57	302	0.527	-5.56
28	0.999	-0.01	120	0.358	-8.92	212	0.766	-2.32	304	0.516	-5.75
30	0.995	-0.04	122	0.383	-8.34	214	0.788	-2.07	306	0.507	-5.90
32	0.990	-0.09	124	0.406	-7.83	216	0.808	-1.85	308	0.500	-6.02
34	0.981	-0.17	126	0.425	-7.43	218	0.829	-1.63	310	0.494	-6.13
36	0.970	-0.26	128	0.441	-7.11	220	0.849	-1.42	312	0.491	-6.18
38	0.957	-0.38	130	0.455	-6.84	222	0.869	-1.22	314	0.489	-6.21
40	0.942	-0.52	132	0.464	-6.67	224	0.888	-1.03	316	0.488	-6.23
42	0.926	-0.67	134	0.468	-6.60	226	0.907	-0.85	318	0.491	-6.18
44	0.908	-0.84	136	0.468	-6.60	228	0.925	-0.68	320	0.494	-6.13
46	0.889	-1.02	138	0.463	-6.69	230	0.942	-0.52	322	0.499	-6.04
48	0.869	-1.22	140	0.455	-6.84	232	0.957	-0.38	324	0.507	-5.90
50	0.849	-1.42	142	0.442	-7.09	234	0.970	-0.26	326	0.516	-5.75
52	0.829	-1.63	144	0.425	-7.43	236	0.981	-0.17	328	0.527	-5.56
54	0.809	-1.84	146	0.406	-7.83	238	0.990	-0.09	330	0.540	-5.35
56	0.788	-2.07	148	0.383	-8.34	240	0.995	-0.04	332	0.555	-5.11
58	0.766	-2.32	150	0.359	-8.90	242	0.999	-0.01	334	0.571	-4.87
60	0.744	-2.57	152	0.333	-9.55	244	1.000	0.00	336	0.590	-4.58
62	0.721	-2.84	154	0.307	-10.26	246	0.999	-0.01	338	0.609	-4.31
64	0.697	-3.14	156	0.281	-11.03	248	0.995	-0.04	340	0.630	-4.01
66	0.670	-3.48	158	0.256	-11.84	250	0.989	-0.10	342	0.652	-3.72
68	0.642	-3.85	160	0.233	-12.65	252	0.981	-0.17	344	0.675	-3.41
70	0.613	-4.25	162	0.214	-13.39	254	0.971	-0.26	346	0.698	-3.12
72	0.582	-4.70	164	0.199	-14.02	256	0.960	-0.35	348	0.721	-2.84
74	0.547	-5.24	166	0.188	-14.52	258	0.947	-0.47	350	0.744	-2.57
76	0.512	-5.81	168	0.183	-14.75	260	0.933	-0.60	352	0.766	-2.32
78	0.475	-6.47	170	0.182	-14.80	262	0.919	-0.73	354	0.788	-2.07
80	0.437	-7.19	172	0.187	-14.56	264	0.903	-0.89	356	0.810	-1.83
82	0.400	-7.96	174	0.198	-14.07	266	0.886	-1.05	358	0.830	-1.62
84	0.363	-8.80	176	0.215	-13.35	268	0.868	-1.23	360	0.850	-1.41
86	0.327	-9.71	178	0.237	-12.51	270	0.850	-1.41			
88	0.293	-10.66	180	0.263	-11.60	272	0.830	-1.62			
90	0.263	-11.60	182	0.293	-10.66	274	0.810	-1.83			

Preliminary, subject to final design and review.

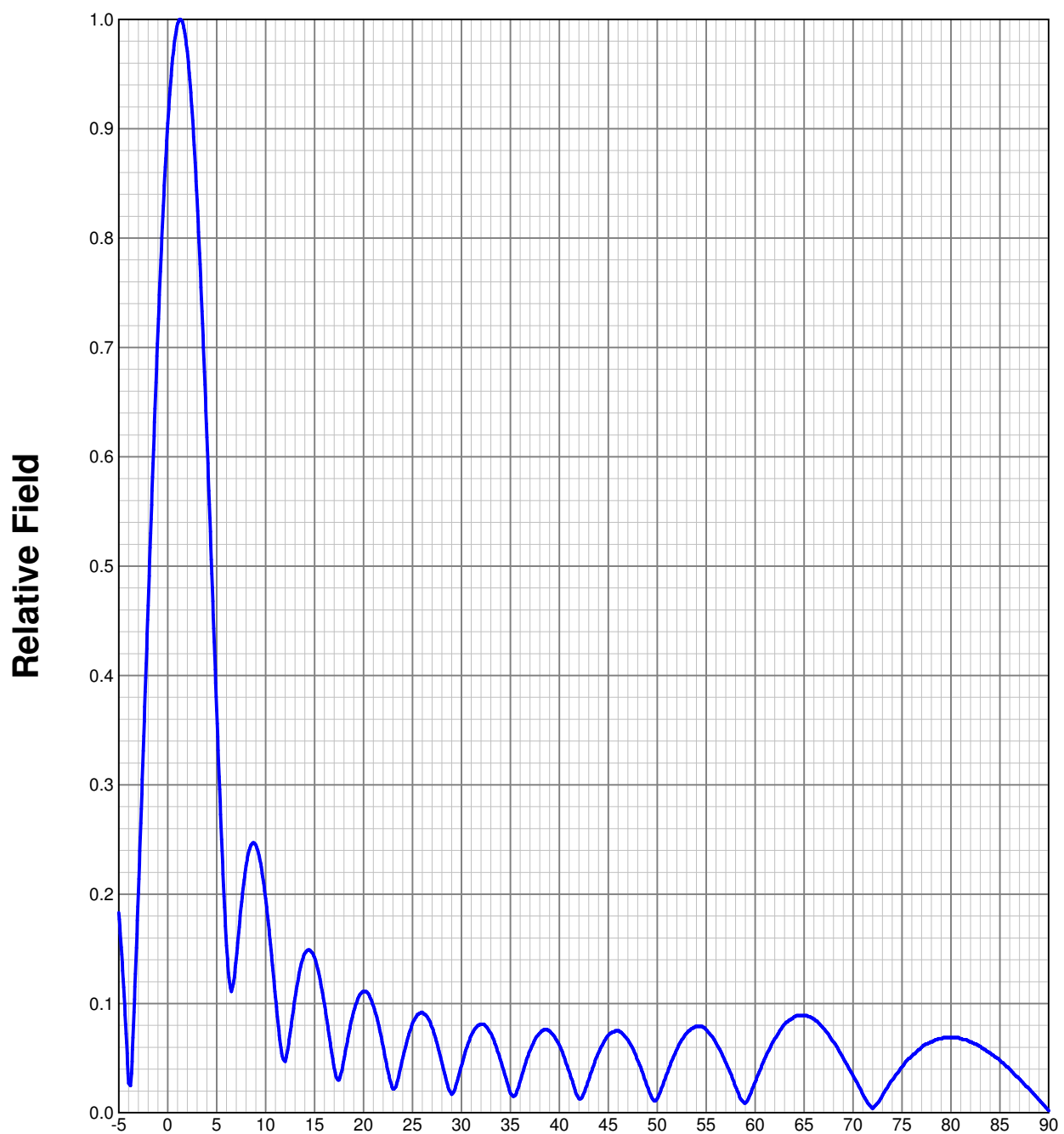
## **TABULATED DATA FOR AZIMUTH PATTERN FCC FILING FORMAT**

Type: ATW-P2

Polarization: Horizontal

<b>ANGLE</b>	<b>FIELD</b>	<b>ERP (kW)</b>	<b>ERP (dBk)</b>
0	0.850	415.438	26.185
10	0.934	501.605	27.004
20	0.989	562.420	27.501
30	0.995	569.264	27.553
40	0.942	510.234	27.078
50	0.849	414.461	26.175
60	0.744	318.283	25.028
70	0.613	216.067	23.346
80	0.437	109.807	20.406
90	0.263	39.772	15.996
100	0.182	19.046	12.798
110	0.233	31.216	14.944
120	0.358	73.694	18.674
130	0.455	119.039	20.757
140	0.455	119.039	20.757
150	0.359	74.107	18.699
160	0.233	31.216	14.944
170	0.182	19.046	12.798
180	0.263	39.772	15.996
190	0.437	109.807	20.406
200	0.613	216.067	23.346
210	0.744	318.283	25.028
220	0.849	414.461	26.175
230	0.942	510.234	27.078
240	0.995	569.264	27.553
250	0.989	562.420	27.501
260	0.933	500.531	26.994
270	0.850	415.438	26.185
280	0.743	317.428	25.016
290	0.630	228.218	23.583
300	0.540	167.670	22.245
310	0.494	140.321	21.471
320	0.494	140.321	21.471
330	0.540	167.670	22.245
340	0.630	228.218	23.583
350	0.744	318.283	25.028

*Preliminary, subject to final design and review.*

**ELEVATION PATTERN****Type:****ATW12H5H****Channel:****27****Directivity:****Numeric****dBd****Location:****Main Lobe:****12.00****10.79****Beam Tilt:****1.25****Horizontal:****9.83****9.92****Polarization:****Horizontal***Preliminary, subject to final design and review.*

## TABULATED DATA FOR ELEVATION PATTERN

Type: ATW12H5H  
Polarization: Horizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-5.00	0.183	-14.75	6.75	0.121	-18.34	27.00	0.078	-22.16	50.50	0.024	-32.40	74.00	0.030	-30.46
-4.75	0.151	-16.39	7.00	0.141	-17.02	27.50	0.064	-23.88	51.00	0.036	-28.87	74.50	0.036	-28.87
-4.50	0.115	-18.79	7.25	0.165	-15.65	28.00	0.046	-26.74	51.50	0.048	-26.38	75.00	0.042	-27.54
-4.25	0.073	-22.79	7.50	0.189	-14.47	28.50	0.028	-31.06	52.00	0.058	-24.73	75.50	0.048	-26.38
-4.00	0.027	-31.37	7.75	0.209	-13.60	29.00	0.017	-35.39	52.50	0.067	-23.48	76.00	0.052	-25.68
-3.75	0.030	-30.31	8.00	0.226	-12.92	29.50	0.027	-31.37	53.00	0.073	-22.73	76.50	0.056	-25.04
-3.50	0.080	-21.94	8.25	0.238	-12.47	30.00	0.043	-27.33	53.50	0.077	-22.27	77.00	0.060	-24.44
-3.25	0.139	-17.14	8.50	0.245	-12.22	30.50	0.059	-24.58	54.00	0.079	-22.05	77.50	0.063	-24.01
-3.00	0.201	-13.94	8.75	0.247	-12.15	31.00	0.071	-22.97	54.50	0.079	-22.05	78.00	0.065	-23.74
-2.75	0.265	-11.54	9.00	0.245	-12.22	31.50	0.078	-22.16	55.00	0.076	-22.38	78.50	0.067	-23.48
-2.50	0.331	-9.60	9.25	0.238	-12.47	32.00	0.081	-21.83	55.50	0.071	-22.97	79.00	0.068	-23.35
-2.25	0.398	-8.00	9.50	0.228	-12.84	32.50	0.079	-22.05	56.00	0.064	-23.88	79.50	0.069	-23.22
-2.00	0.464	-6.67	9.75	0.213	-13.43	33.00	0.073	-22.73	56.50	0.056	-25.04	80.00	0.069	-23.22
-1.75	0.530	-5.51	10.00	0.196	-14.15	33.50	0.062	-24.15	57.00	0.046	-26.74	80.50	0.069	-23.22
-1.50	0.594	-4.52	10.50	0.154	-16.25	34.00	0.048	-26.38	57.50	0.036	-28.87	81.00	0.068	-23.35
-1.25	0.656	-3.66	11.00	0.106	-19.49	34.50	0.033	-29.63	58.00	0.024	-32.40	81.50	0.067	-23.48
-1.00	0.715	-2.91	11.50	0.063	-24.01	35.00	0.018	-34.89	58.50	0.013	-37.72	82.00	0.065	-23.74
-0.75	0.770	-2.28	12.00	0.047	-26.56	35.50	0.016	-35.92	59.00	0.009	-40.92	82.50	0.063	-24.01
-0.50	0.820	-1.72	12.50	0.073	-22.73	36.00	0.029	-30.75	59.50	0.017	-35.39	83.00	0.061	-24.29
-0.25	0.865	-1.26	13.00	0.105	-19.58	36.50	0.044	-27.13	60.00	0.028	-31.06	83.50	0.058	-24.73
0.00	0.905	-0.87	13.50	0.131	-17.65	37.00	0.057	-24.88	60.50	0.039	-28.18	84.00	0.055	-25.19
0.25	0.937	-0.57	14.00	0.146	-16.71	37.50	0.067	-23.48	61.00	0.050	-26.02	84.50	0.051	-25.85
0.50	0.965	-0.31	14.50	0.149	-16.54	38.00	0.073	-22.73	61.50	0.059	-24.58	85.00	0.048	-26.38
0.75	0.983	-0.15	15.00	0.142	-16.95	38.50	0.076	-22.38	62.00	0.068	-23.35	85.50	0.044	-27.13
1.00	0.996	-0.03	15.50	0.125	-18.06	39.00	0.075	-22.50	62.50	0.075	-22.50	86.00	0.040	-27.96
1.25	1.000	0.00	16.00	0.100	-20.00	39.50	0.070	-23.10	63.00	0.081	-21.83	86.50	0.035	-29.12
1.50	0.998	-0.02	16.50	0.070	-23.10	40.00	0.062	-24.15	63.50	0.085	-21.41	87.00	0.031	-30.17
1.75	0.987	-0.11	17.00	0.041	-27.74	40.50	0.051	-25.85	64.00	0.088	-21.11	87.50	0.026	-31.70
2.00	0.971	-0.26	17.50	0.030	-30.46	41.00	0.038	-28.40	64.50	0.089	-21.01	88.00	0.022	-33.15
2.25	0.945	-0.49	18.00	0.049	-26.20	41.50	0.024	-32.40	65.00	0.089	-21.01	88.50	0.017	-35.39
2.50	0.915	-0.77	18.50	0.073	-22.73	42.00	0.013	-37.72	65.50	0.088	-21.11	89.00	0.012	-38.42
2.75	0.877	-1.14	19.00	0.093	-20.63	42.50	0.018	-34.89	66.00	0.086	-21.31	89.50	0.007	-43.10
3.00	0.835	-1.57	19.50	0.106	-19.49	43.00	0.030	-30.46	66.50	0.082	-21.72	90.00	0.002	-53.98
3.25	0.786	-2.09	20.00	0.111	-19.09	43.50	0.043	-27.33	67.00	0.077	-22.27			
3.50	0.733	-2.70	20.50	0.109	-19.25	44.00	0.055	-25.19	67.50	0.072	-22.85			
3.75	0.677	-3.38	21.00	0.098	-20.18	44.50	0.064	-23.88	68.00	0.065	-23.74			
4.00	0.618	-4.18	21.50	0.082	-21.72	45.00	0.071	-22.97	68.50	0.058	-24.73			
4.25	0.556	-5.09	22.00	0.061	-24.29	45.50	0.074	-22.62	69.00	0.050	-26.02			
4.50	0.493	-6.14	22.50	0.038	-28.40	46.00	0.075	-22.50	69.50	0.042	-27.54			
4.75	0.430	-7.32	23.00	0.022	-33.15	46.50	0.072	-22.85	70.00	0.034	-29.37			
5.00	0.368	-8.68	23.50	0.030	-30.46	47.00	0.067	-23.48	70.50	0.026	-31.70			
5.25	0.307	-10.24	24.00	0.050	-26.02	47.50	0.059	-24.58	71.00	0.017	-35.39			
5.50	0.250	-12.04	24.50	0.068	-23.35	48.00	0.048	-26.38	71.50	0.009	-40.92			
5.75	0.198	-14.07	25.00	0.082	-21.72	48.50	0.037	-28.64	72.00	0.004	-47.96			
6.00	0.153	-16.31	25.50	0.090	-20.92	49.00	0.024	-32.40	72.50	0.009	-40.92			
6.25	0.124	-18.13	26.00	0.092	-20.72	49.50	0.013	-37.72	73.00	0.016	-35.92			
6.50	0.111	-19.09	26.50	0.088	-21.11	50.00	0.013	-37.72	73.50	0.023	-32.77			

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