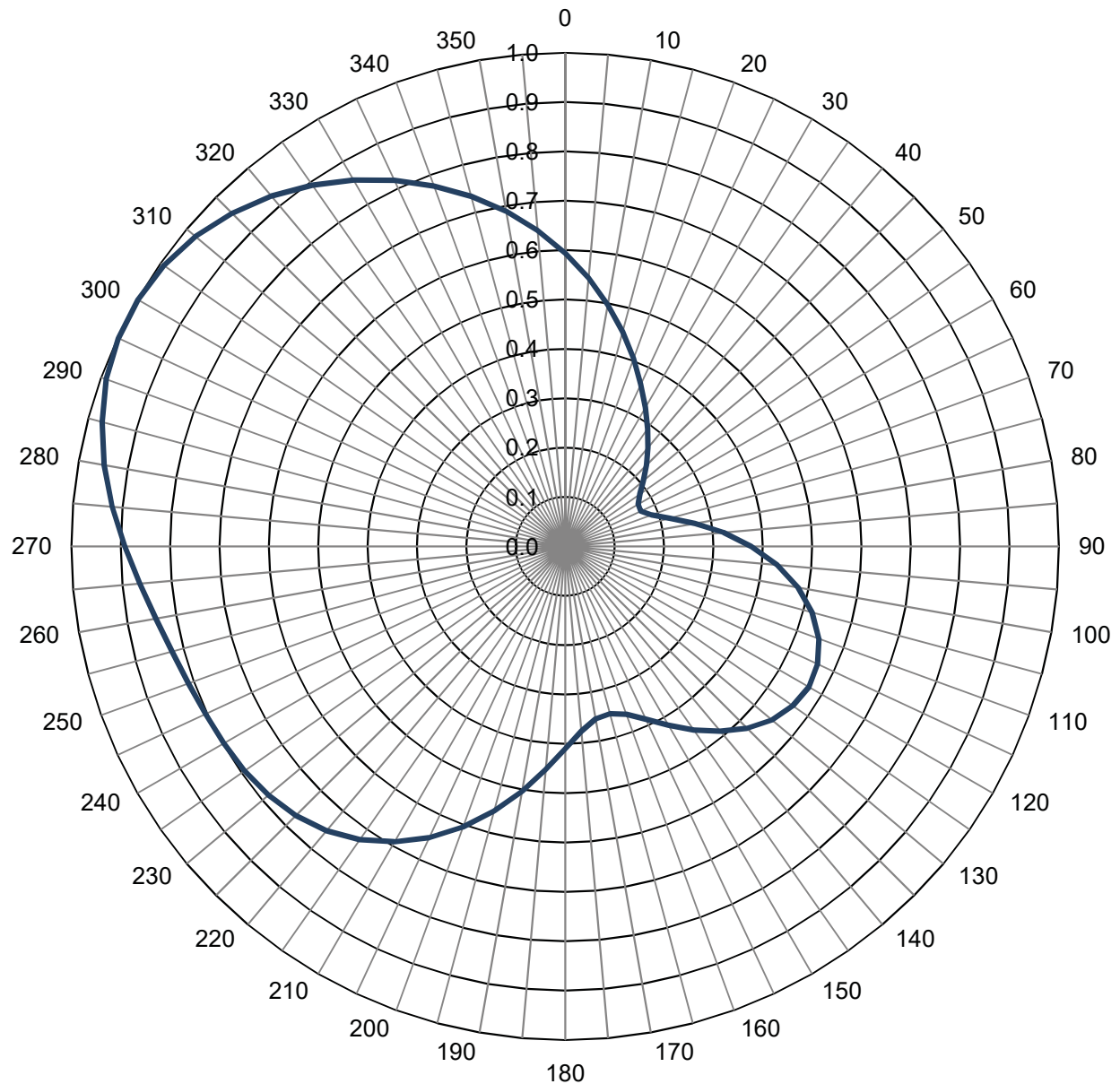


Azimuth Pattern

Type:	ATW-CX	Polarization:	Horizontal
Directivity:	2.43 numeric (3.85 dB)	Frequency:	21 (ATSC)
Peak(s) at:		Location:	Clear Water, FL
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

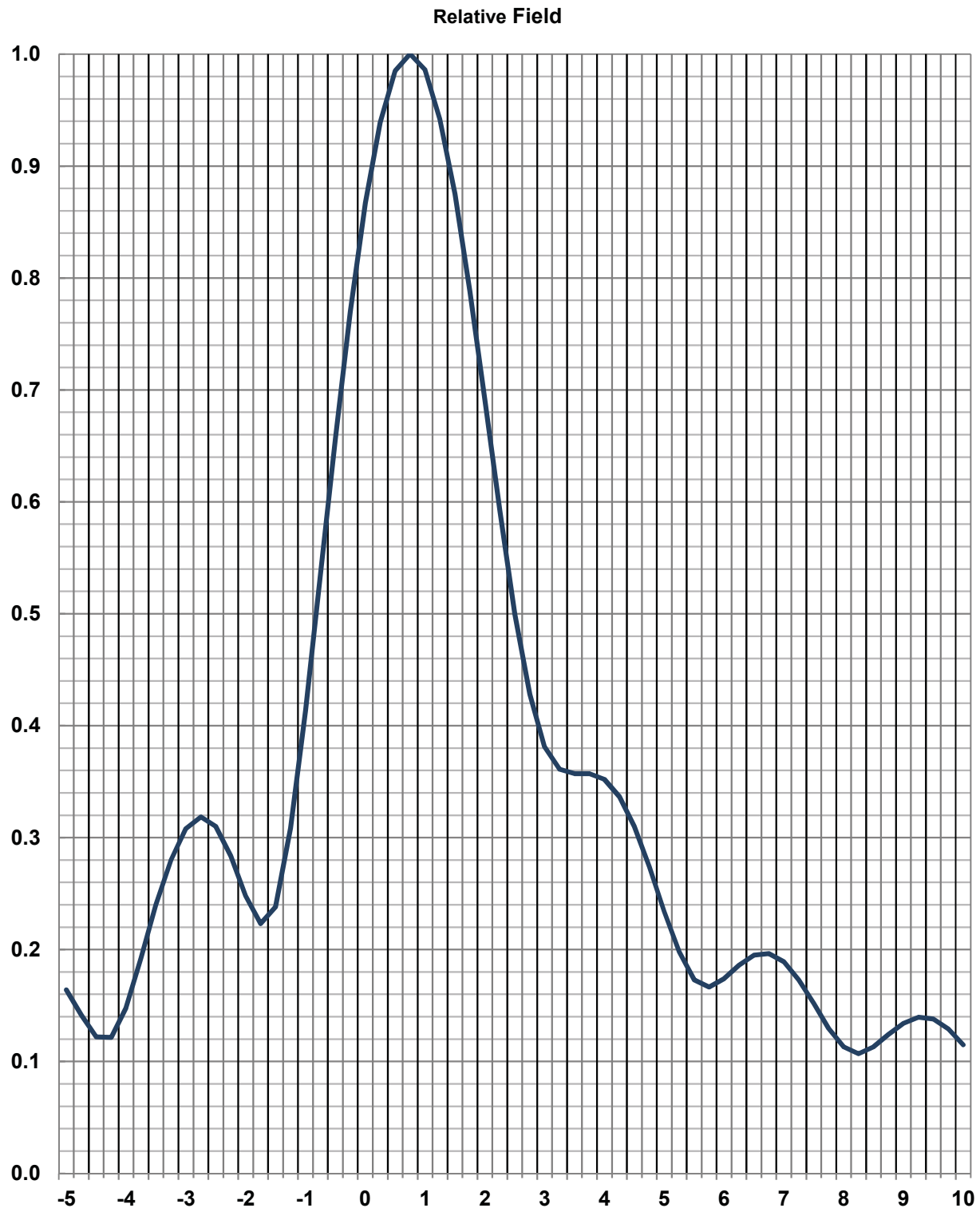
Relative Field

Tabulated Data for Azimuth PatternType: ATW-CX

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.594	-4.52	100	0.479	-6.39	200	0.605	-4.36	300	0.999	-0.01
2	0.575	-4.81	102	0.496	-6.09	202	0.624	-4.10	302	0.997	-0.03
4	0.555	-5.11	104	0.511	-5.83	204	0.642	-3.85	304	0.994	-0.05
6	0.536	-5.42	106	0.525	-5.60	206	0.659	-3.62	306	0.990	-0.09
8	0.516	-5.75	108	0.537	-5.40	208	0.676	-3.40	308	0.984	-0.14
10	0.497	-6.07	110	0.547	-5.24	210	0.691	-3.21	310	0.977	-0.20
12	0.478	-6.41	112	0.555	-5.11	212	0.706	-3.02	312	0.968	-0.28
14	0.459	-6.76	114	0.562	-5.01	214	0.719	-2.87	314	0.959	-0.36
16	0.441	-7.11	116	0.566	-4.94	216	0.731	-2.72	316	0.949	-0.45
18	0.423	-7.47	118	0.569	-4.90	218	0.742	-2.59	318	0.938	-0.56
20	0.405	-7.85	120	0.570	-4.88	220	0.752	-2.48	320	0.926	-0.67
22	0.388	-8.22	122	0.568	-4.91	222	0.760	-2.38	322	0.913	-0.79
24	0.371	-8.61	124	0.565	-4.96	224	0.768	-2.29	324	0.900	-0.92
26	0.355	-9.00	126	0.561	-5.02	226	0.774	-2.23	326	0.886	-1.05
28	0.340	-9.37	128	0.555	-5.11	228	0.780	-2.16	328	0.872	-1.19
30	0.325	-9.76	130	0.547	-5.24	230	0.784	-2.11	330	0.857	-1.34
32	0.311	-10.14	132	0.537	-5.40	232	0.788	-2.07	332	0.842	-1.49
34	0.298	-10.52	134	0.527	-5.56	234	0.791	-2.04	334	0.826	-1.66
36	0.285	-10.90	136	0.515	-5.76	236	0.794	-2.00	336	0.810	-1.83
38	0.273	-11.28	138	0.503	-5.97	238	0.796	-1.98	338	0.794	-2.00
40	0.261	-11.67	140	0.489	-6.21	240	0.798	-1.96	340	0.777	-2.19
42	0.249	-12.08	142	0.476	-6.45	242	0.800	-1.94	342	0.760	-2.38
44	0.238	-12.47	144	0.461	-6.73	244	0.803	-1.91	344	0.743	-2.58
46	0.228	-12.84	146	0.447	-6.99	246	0.805	-1.88	346	0.725	-2.79
48	0.217	-13.27	148	0.432	-7.29	248	0.808	-1.85	348	0.707	-3.01
50	0.207	-13.68	150	0.418	-7.58	250	0.812	-1.81	350	0.689	-3.24
52	0.198	-14.07	152	0.405	-7.85	252	0.816	-1.77	352	0.670	-3.48
54	0.189	-14.47	154	0.392	-8.13	254	0.822	-1.70	354	0.652	-3.72
56	0.182	-14.80	156	0.381	-8.38	256	0.828	-1.64	356	0.633	-3.97
58	0.175	-15.14	158	0.370	-8.64	258	0.834	-1.58	358	0.613	-4.25
60	0.171	-15.34	160	0.362	-8.83	260	0.842	-1.49	360	0.594	-4.52
62	0.168	-15.49	162	0.356	-8.97	262	0.851	-1.40			
64	0.168	-15.49	164	0.352	-9.07	264	0.860	-1.31			
66	0.171	-15.34	166	0.350	-9.12	266	0.870	-1.21			
68	0.177	-15.04	168	0.352	-9.07	268	0.881	-1.10			
70	0.186	-14.61	170	0.355	-9.00	270	0.892	-0.99			
72	0.198	-14.07	172	0.362	-8.83	272	0.903	-0.89			
74	0.212	-13.47	174	0.371	-8.61	274	0.915	-0.77			
76	0.229	-12.80	176	0.382	-8.36	276	0.926	-0.67			
78	0.247	-12.15	178	0.395	-8.07	278	0.937	-0.57			
80	0.267	-11.47	180	0.410	-7.74	280	0.948	-0.46			
82	0.289	-10.78	182	0.427	-7.39	282	0.958	-0.37			
84	0.310	-10.17	184	0.445	-7.03	284	0.967	-0.29			
86	0.333	-9.55	186	0.464	-6.67	286	0.975	-0.22			
88	0.355	-9.00	188	0.483	-6.32	288	0.983	-0.15			
90	0.377	-8.47	190	0.504	-5.95	290	0.989	-0.10			
92	0.399	-7.98	192	0.524	-5.61	292	0.993	-0.06			
94	0.421	-7.51	194	0.545	-5.27	294	0.997	-0.03			
96	0.441	-7.11	196	0.565	-4.96	296	0.999	-0.01			
98	0.460	-6.74	198	0.585	-4.66	298	1.000	0.00			

Elevation Pattern

Type:	ATW21H3H		Polarization:	Horizontal
Directivity:			Frequency:	21 (ATSC)
Main Lobe:	21.00 numeric	(13.22 dB)	Location:	Clear Water, FL
Horizontal:	15.79 numeric	(11.98 dB)	Beam Tilt:	0.75 degrees



Tabulated Data for Elevation PatternType: ATW21H3H

-5 to 10 degrees in 0.25 degree increments.

10 to 90 degrees in 0.50 degree increments.

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.164	-15.70	7.25	0.173	-15.24	29.00	0.041	-27.74	53.50	0.025	-32.04	78.00	0.036	-28.87
-4.75	0.142	-16.98	7.50	0.152	-16.36	29.50	0.032	-29.90	54.00	0.030	-30.46	78.50	0.030	-30.46
-4.50	0.122	-18.27	7.75	0.130	-17.75	30.00	0.035	-29.12	54.50	0.039	-28.18	79.00	0.025	-32.04
-4.25	0.122	-18.31	8.00	0.113	-18.94	30.50	0.045	-26.94	55.00	0.048	-26.38	79.50	0.021	-33.56
-4.00	0.148	-16.59	8.25	0.107	-19.41	31.00	0.051	-25.85	55.50	0.052	-25.68	80.00	0.018	-34.89
-3.75	0.193	-14.31	8.50	0.113	-18.94	31.50	0.048	-26.38	56.00	0.052	-25.68	80.50	0.016	-35.92
-3.50	0.240	-12.40	8.75	0.124	-18.13	32.00	0.037	-28.64	56.50	0.047	-26.56	81.00	0.016	-35.92
-3.25	0.280	-11.06	9.00	0.134	-17.46	32.50	0.029	-30.75	57.00	0.039	-28.18	81.50	0.017	-35.39
-3.00	0.308	-10.23	9.25	0.140	-17.11	33.00	0.033	-29.63	57.50	0.029	-30.75	82.00	0.018	-34.89
-2.75	0.319	-9.94	9.50	0.138	-17.20	33.50	0.044	-27.13	58.00	0.025	-32.04	82.50	0.020	-33.98
-2.50	0.310	-10.17	9.75	0.129	-17.79	34.00	0.049	-26.20	58.50	0.029	-30.75	83.00	0.021	-33.56
-2.25	0.284	-10.95	10.00	0.115	-18.79	34.50	0.046	-26.74	59.00	0.038	-28.40	83.50	0.022	-33.15
-2.00	0.248	-12.11	10.50	0.085	-21.41	35.00	0.036	-28.87	59.50	0.047	-26.56	84.00	0.022	-33.15
-1.75	0.223	-13.03	11.00	0.082	-21.72	35.50	0.028	-31.06	60.00	0.054	-25.35	84.50	0.022	-33.15
-1.50	0.238	-12.47	11.50	0.100	-20.00	36.00	0.031	-30.17	60.50	0.056	-25.04	85.00	0.022	-33.15
-1.25	0.309	-10.21	12.00	0.108	-19.33	36.50	0.041	-27.74	61.00	0.055	-25.19	85.50	0.021	-33.56
-1.00	0.414	-7.66	12.50	0.094	-20.54	37.00	0.047	-26.56	61.50	0.050	-26.02	86.00	0.020	-33.98
-0.75	0.535	-5.43	13.00	0.071	-22.97	37.50	0.046	-26.74	62.00	0.042	-27.54	86.50	0.018	-34.89
-0.50	0.657	-3.65	13.50	0.064	-23.88	38.00	0.038	-28.40	62.50	0.032	-29.90	87.00	0.016	-35.92
-0.25	0.770	-2.27	14.00	0.079	-22.05	38.50	0.028	-31.06	63.00	0.025	-32.04	87.50	0.014	-37.08
0.00	0.867	-1.24	14.50	0.089	-21.01	39.00	0.027	-31.37	63.50	0.025	-32.04	88.00	0.011	-39.17
0.25	0.939	-0.55	15.00	0.082	-21.72	39.50	0.036	-28.87	64.00	0.032	-29.90	88.50	0.009	-40.92
0.50	0.985	-0.13	15.50	0.062	-24.15	40.00	0.045	-26.94	64.50	0.041	-27.74	89.00	0.006	-44.44
0.75	1.000	0.00	16.00	0.053	-25.51	40.50	0.048	-26.38	65.00	0.050	-26.02	89.50	0.003	-50.46
1.00	0.986	-0.12	16.50	0.064	-23.88	41.00	0.043	-27.33	65.50	0.056	-25.04	90.00	0.000	---
1.25	0.942	-0.52	17.00	0.076	-22.38	41.50	0.034	-29.37	66.00	0.060	-24.44			
1.50	0.875	-1.16	17.50	0.074	-22.62	42.00	0.026	-31.70	66.50	0.061	-24.29			
1.75	0.789	-2.06	18.00	0.059	-24.58	42.50	0.029	-30.75	67.00	0.059	-24.58			
2.00	0.691	-3.21	18.50	0.046	-26.74	43.00	0.038	-28.40	67.50	0.054	-25.35			
2.25	0.592	-4.56	19.00	0.052	-25.68	43.50	0.046	-26.74	68.00	0.047	-26.56			
2.50	0.500	-6.02	19.50	0.064	-23.88	44.00	0.048	-26.38	68.50	0.038	-28.40			
2.75	0.428	-7.37	20.00	0.067	-23.48	44.50	0.043	-27.33	69.00	0.029	-30.75			
3.00	0.381	-8.38	20.50	0.057	-24.88	45.00	0.033	-29.63	69.50	0.023	-32.77			
3.25	0.361	-8.85	21.00	0.043	-27.33	45.50	0.026	-31.70	70.00	0.022	-33.15			
3.50	0.357	-8.95	21.50	0.042	-27.54	46.00	0.028	-31.06	70.50	0.028	-31.06			
3.75	0.357	-8.95	22.00	0.054	-25.35	46.50	0.037	-28.64	71.00	0.036	-28.87			
4.00	0.352	-9.07	22.50	0.061	-24.29	47.00	0.045	-26.94	71.50	0.044	-27.13			
4.25	0.337	-9.46	23.00	0.057	-24.88	47.50	0.049	-26.20	72.00	0.052	-25.68			
4.50	0.310	-10.17	23.50	0.044	-27.13	48.00	0.046	-26.74	72.50	0.058	-24.73			
4.75	0.274	-11.24	24.00	0.036	-28.87	48.50	0.038	-28.40	73.00	0.063	-24.01			
5.00	0.234	-12.62	24.50	0.044	-27.13	49.00	0.028	-31.06	73.50	0.066	-23.61			
5.25	0.198	-14.07	25.00	0.055	-25.19	49.50	0.025	-32.04	74.00	0.067	-23.48			
5.50	0.173	-15.24	25.50	0.056	-25.04	50.00	0.031	-30.17	74.50	0.067	-23.48			
5.75	0.167	-15.57	26.00	0.048	-26.38	50.50	0.041	-27.74	75.00	0.065	-23.74			
6.00	0.174	-15.19	26.50	0.036	-28.87	51.00	0.048	-26.38	75.50	0.062	-24.15			
6.25	0.186	-14.61	27.00	0.035	-29.12	51.50	0.050	-26.02	76.00	0.058	-24.73			
6.50	0.195	-14.20	27.50	0.045	-26.94	52.00	0.046	-26.74	76.50	0.053	-25.51			
6.75	0.197	-14.13	28.00	0.053	-25.51	52.50	0.039	-28.18	77.00	0.048	-26.38			
7.00	0.189	-14.47	28.50	0.051	-25.85	53.00	0.029	-30.75	77.50	0.042	-27.54			