ENGINEERING STATEMENT

The engineering data contained herein has been prepared on behalf of UMMAT BROADCASTING CORP., licensee of television translator WUBF-LP Channel 23 in Jacksonville, Florida, in support of this Application for Construction Permit to specify digital operation on Channel 23 from the licensed WUBF-LP site, as a "flash cut" proposal.

It is proposed to utilize the “off the shelf” ***ERI CARINA™ HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA ALP12M2-HSOC-23*** at the authorized height on the side of the existing tower. Exhibit A is a map upon which the predicted service contours are plotted. An interference study is provided an a power density calculation. Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me, for me, or under my immediate supervision, are true and correct to the best of my knowledge and belief.

Dated January 26, 2009

Anthony Gomes
Technical Consultant

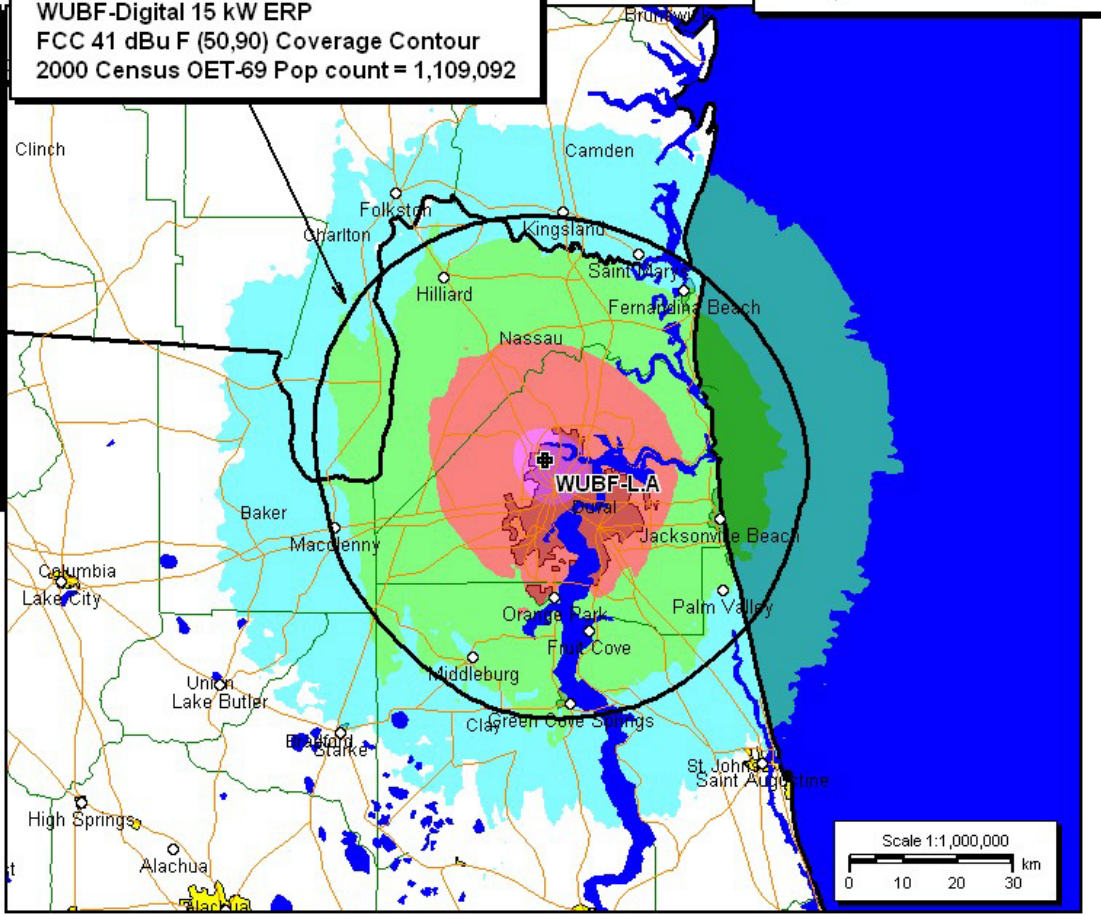
Ummat Broadcasting Corp

WUBF-L.A

Latitude: 30-23-41.50 N
Longitude: 081-43-41.60 W
ERP: 15.00 kW
Channel: 23
Frequency: 527.0 MHz
AMSL Height: 64.0 m
Elevation: 8.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

> 100.0 dBu
80.0 - 100.0
60.0 - 80.0
41.0 - 60.0

WUBF-Digital 15 kW ERP
FCC 41 dBu F (50,90) Coverage Contour
2000 Census OET-69 Pop count = 1,109,092



ELECTRONICS RESEARCH, INC. ERI®

PRELIMINARY SPECIFICATION FOR ERI CARINA™ HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

Prepared For

Channel 23

May 1, 2007

ANTENNA TYPE:
ALP12M2-HSOC-23

SPECIFICATION NO:

7777 Gardner Road
Chandler, IN 47610-9219
USA

+1 812 925-6000 (tel)
+1 812 925-4030 (fax)
877 ERI-LINE (toll-free)

Sales@eriinc.com
CustomerSupport@eriinc.com
www.eriinc.com

PRELIMINARY SPECIFICATION FOR ERI CARINA™ HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

ELECTRICAL CHARACTERISTICS:

CHANNEL:	NTSC:	23
FREQUENCY RANGE:	NTSC:	524.00 - 530.00 MHz
AZIMUTH PATTERN NUMBER:	Hor Pol:	ALP-OC
ELEVATION PATTERN NUMBER:	Hor Pol:	ALP12M2
AZIMUTH DIRECTIVITY:	Hor Pol:	1.70 (2.30 dB)
ELEVATION DIRECTIVITY:	Hor Pol:	12.64 (11.02 dBd)
PEAK POWER GAIN:	Hor Pol:	21.49 (13.32 dBd)
GAIN AT HORIZONTAL:	Hor Pol:	20.43 (13.10 dBd)
ELECTRICAL BEAM TILT:		-0.50 Degrees
INPUT POWER REQUIRED:		0.698 kW Peak Visual plus 10% Aural
MAXIMUM INPUT POWER:		12.000 kW Peak Visual plus 10% Aural
INPUT TYPE:		3-1/8" EIA
ANTENNA VSWR (MAXIMUM):	NTSC:	1.05 Visual + 0.5 MHz 1.08 Chroma 1.10 Over remainder of Channel

PRELIMINARY SPECIFICATION FOR ERI CARINA™ HORIZONTALLY POLARIZED COAXIAL SLOTTED ARRAY ANTENNA

MECHANICAL CHARACTERISTICS:

MOUNTING CONFIGURATION: **(Tower Interface supplied and installed by others.)*		*Side Mount*
HEIGHT OF ANTENNA:		*30.8 feet*
HEIGHT OF CENTER OF RADIATION:		*15.4 feet*
OVERALL HEIGHT (A):		*30.8 feet*
DEICING:		*Unpressurized Slot Cover Radome Enclosure*
RADOME DIAMETER (C):		*CONTACT ERI*
RADOME COLOR:		*GRAY*
CLIMBING DEVICE:		*NOT APPLICABLE*
CALCULATED WEIGHT[1]:		*175 lbs.*
ANTENNA AREA[3]:	*FRONT AREA:*	
	C_AA_C:	*10.9 square feet*
	A_C:	*9.1 square feet*
	SIDE AREA:	
	C_AA_C:	*16.0 square feet*
	A_C:	*13.3 square feet*

This antenna is designed to be supported by a structure that can resist the antenna base reactions and which provides a support that is rigid in the three transitional and three rotational degrees of freedom.

[1] Calculated weight is based on the PRELIMINARY design of the antenna. The actual weight of the antenna will be within ± 10% of the calculated weight. The actual weight will be given in the technical manual that accompanies the antenna.

[3] Antenna Area is calculated per EIA/TIA-RS222-F.

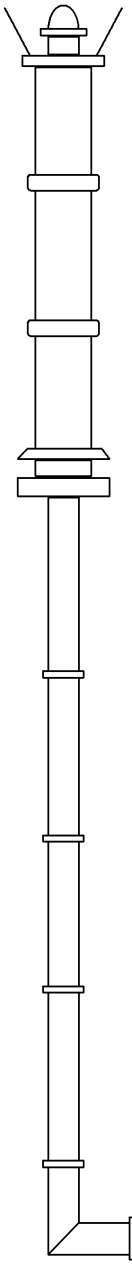
Note: Localized conditions may require higher wind speed specifications than TIA/EIA specifications. Check with local authorities to verify wind speed requirements.

Broadcast Antenna System

Power Analysis

Channel 23

ALP12M2-HSOC-23



ANTENNA PARAMETERS

Azimuth Directivity:
Hor. Pol: 1.70
dBd: 2.30

Elevation Directivity:
Hor. Pol: 12.64
dBd: 11.02

TRANSMISSION LINE:

VERTICAL RUN:
Type: HJ7-50A
Length, ft: 235 ft.
Attenuation, dB/100 ft: 0.491 dB/100 ft.

HORIZONTAL RUN:
Type: HJ7-50A
Length, ft: 0 ft.
Attenuation, dB/100 ft: 0.491 dB/100 ft.

Line Efficiency: 76.68 %

ERP:
kW: 14.99
dBk: 11.76

POWER GAIN:
Ratio: 21.49
dBd: 13.32

ANTENNA INPUT:
kW: 0.70
dBk: -1.56

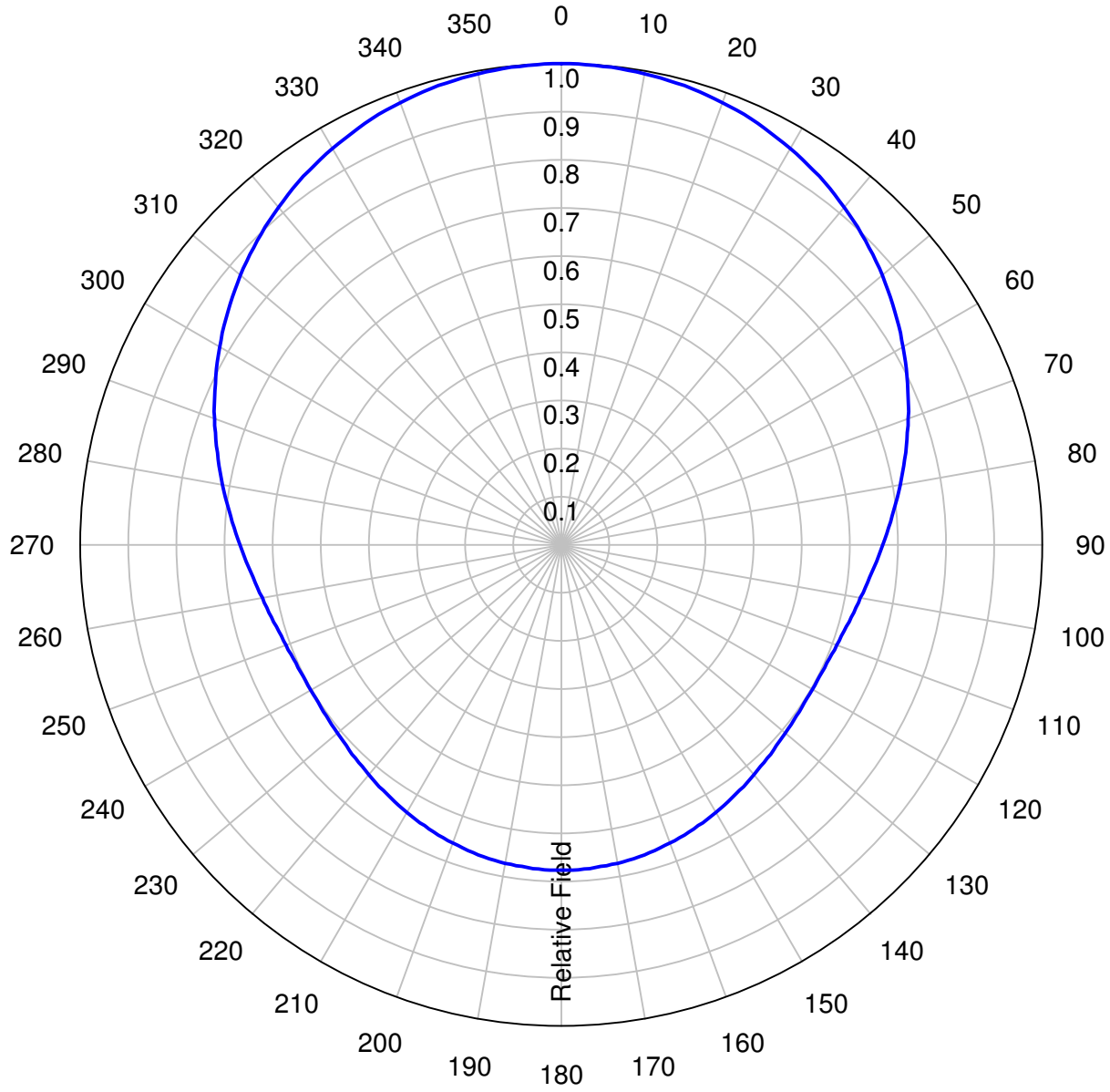
LINE LOSS:
kW: 0.21
dB: 1.15

TRANSMITTER POWER:
kW: 0.91
dBk: -0.41

AZIMUTH PATTERN

Type:	**ALP-OC**		**Channel:**	**23**
	Numeric	**dBd**	**Location:**	
Directivity:	**1.70**	**2.30**	**Polarization:**	**Horizontal**
Peak(s) at:				

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



TABULATED DATA FOR AZIMUTH PATTERN

Type: ALP-OC
Polarization: Horizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	92	0.660	-3.61	184	0.675	-3.41	276	0.695	-3.16
2	1.000	0.00	94	0.652	-3.72	186	0.674	-3.43	278	0.705	-3.04
4	0.999	-0.01	96	0.644	-3.82	188	0.673	-3.44	280	0.715	-2.91
6	0.998	-0.02	98	0.638	-3.90	190	0.672	-3.45	282	0.725	-2.79
8	0.996	-0.03	100	0.631	-4.00	192	0.670	-3.48	284	0.735	-2.67
10	0.994	-0.05	102	0.626	-4.07	194	0.668	-3.50	286	0.746	-2.55
12	0.992	-0.07	104	0.621	-4.14	196	0.665	-3.54	288	0.756	-2.43
14	0.989	-0.10	106	0.616	-4.21	198	0.662	-3.58	290	0.767	-2.30
16	0.986	-0.12	108	0.612	-4.26	200	0.659	-3.62	292	0.778	-2.18
18	0.982	-0.16	110	0.609	-4.31	202	0.656	-3.66	294	0.788	-2.07
20	0.978	-0.19	112	0.606	-4.35	204	0.653	-3.70	296	0.799	-1.95
22	0.974	-0.23	114	0.604	-4.38	206	0.649	-3.76	298	0.810	-1.83
24	0.969	-0.27	116	0.603	-4.39	208	0.646	-3.80	300	0.820	-1.72
26	0.963	-0.33	118	0.602	-4.41	210	0.642	-3.85	302	0.831	-1.61
28	0.957	-0.38	120	0.602	-4.41	212	0.638	-3.90	304	0.841	-1.50
30	0.951	-0.44	122	0.602	-4.41	214	0.634	-3.96	306	0.851	-1.40
32	0.945	-0.49	124	0.603	-4.39	216	0.630	-4.01	308	0.861	-1.30
34	0.938	-0.56	126	0.604	-4.38	218	0.627	-4.05	310	0.871	-1.20
36	0.931	-0.62	128	0.606	-4.35	220	0.623	-4.11	312	0.880	-1.11
38	0.923	-0.70	130	0.608	-4.32	222	0.619	-4.17	314	0.889	-1.02
40	0.915	-0.77	132	0.610	-4.29	224	0.616	-4.21	316	0.898	-0.93
42	0.907	-0.85	134	0.613	-4.25	226	0.613	-4.25	318	0.907	-0.85
44	0.898	-0.93	136	0.616	-4.21	228	0.610	-4.29	320	0.915	-0.77
46	0.889	-1.02	138	0.619	-4.17	230	0.608	-4.32	322	0.923	-0.70
48	0.880	-1.11	140	0.623	-4.11	232	0.606	-4.35	324	0.931	-0.62
50	0.871	-1.20	142	0.627	-4.05	234	0.604	-4.38	326	0.938	-0.56
52	0.861	-1.30	144	0.630	-4.01	236	0.603	-4.39	328	0.945	-0.49
54	0.851	-1.40	146	0.634	-3.96	238	0.602	-4.41	330	0.951	-0.44
56	0.841	-1.50	148	0.638	-3.90	240	0.602	-4.41	332	0.957	-0.38
58	0.831	-1.61	150	0.642	-3.85	242	0.602	-4.41	334	0.963	-0.33
60	0.820	-1.72	152	0.646	-3.80	244	0.603	-4.39	336	0.969	-0.27
62	0.810	-1.83	154	0.649	-3.76	246	0.604	-4.38	338	0.974	-0.23
64	0.799	-1.95	156	0.653	-3.70	248	0.606	-4.35	340	0.978	-0.19
66	0.788	-2.07	158	0.656	-3.66	250	0.609	-4.31	342	0.982	-0.16
68	0.778	-2.18	160	0.659	-3.62	252	0.612	-4.26	344	0.986	-0.12
70	0.767	-2.30	162	0.662	-3.58	254	0.616	-4.21	346	0.989	-0.10
72	0.756	-2.43	164	0.665	-3.54	256	0.621	-4.14	348	0.992	-0.07
74	0.746	-2.55	166	0.668	-3.50	258	0.626	-4.07	350	0.994	-0.05
76	0.735	-2.67	168	0.670	-3.48	260	0.631	-4.00	352	0.996	-0.03
78	0.725	-2.79	170	0.672	-3.45	262	0.638	-3.90	354	0.998	-0.02
80	0.715	-2.91	172	0.673	-3.44	264	0.644	-3.82	356	0.999	-0.01
82	0.705	-3.04	174	0.674	-3.43	266	0.652	-3.72	358	1.000	0.00
84	0.695	-3.16	176	0.675	-3.41	268	0.660	-3.61	360	1.000	0.00
86	0.686	-3.27	178	0.676	-3.40	270	0.668	-3.50			
88	0.677	-3.39	180	0.676	-3.40	272	0.677	-3.39			
90	0.668	-3.50	182	0.676	-3.40	274	0.686	-3.27			

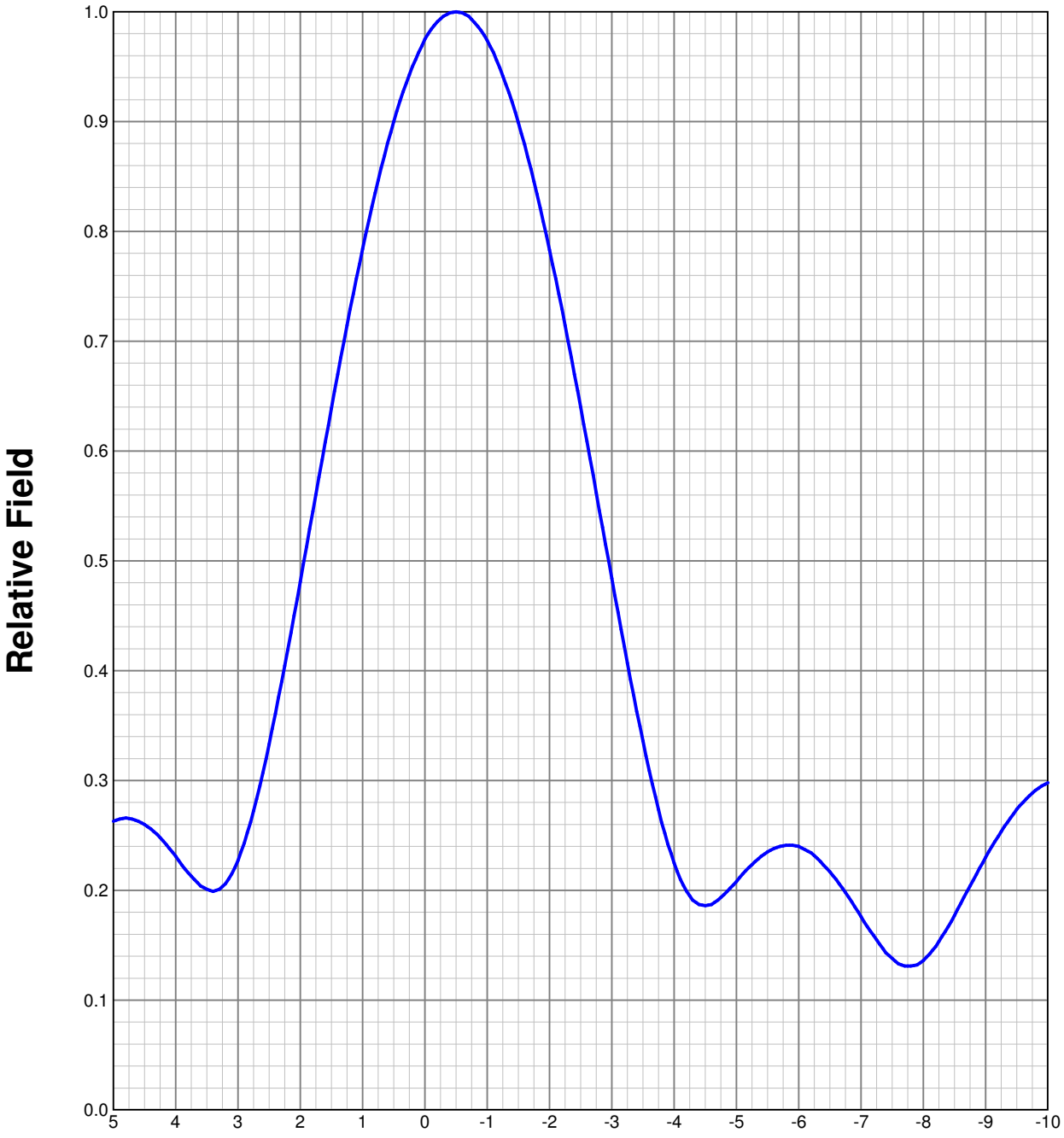
TABULATED DATA FOR AZIMUTH PATTERN
FCC FILING FORMAT

Type: ALP-OC
Polarization: Horizontal

ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	1.000	14.994	11.759
10	0.994	14.815	11.707
20	0.978	14.342	11.566
30	0.951	13.561	11.323
40	0.915	12.553	10.988
50	0.871	11.375	10.560
60	0.820	10.082	10.035
70	0.767	8.821	9.455
80	0.715	7.665	8.845
90	0.668	6.691	8.255
100	0.631	5.970	7.760
110	0.609	5.561	7.452
120	0.602	5.434	7.351
130	0.608	5.543	7.437
140	0.623	5.820	7.649
150	0.642	6.180	7.910
160	0.659	6.512	8.137
170	0.672	6.771	8.307
180	0.676	6.852	8.358
190	0.672	6.771	8.307
200	0.659	6.512	8.137
210	0.642	6.180	7.910
220	0.623	5.820	7.649
230	0.608	5.543	7.437
240	0.602	5.434	7.351
250	0.609	5.561	7.452
260	0.631	5.970	7.760
270	0.668	6.691	8.255
280	0.715	7.665	8.845
290	0.767	8.821	9.455
300	0.820	10.082	10.035
310	0.871	11.375	10.560
320	0.915	12.553	10.988
330	0.951	13.561	11.323
340	0.978	14.342	11.566
350	0.994	14.815	11.707

ELEVATION PATTERN

Type:	**ALP12M2**		**Channel:**	**23**
Directivity:	**Numeric**	**dBd**	**Location:**	
Main Lobe:	**12.64**	**11.02**	**Beam Tilt:**	**-0.50**
Horizontal:	**12.02**	**10.80**	**Polarization:**	**Horizontal**



TABULATED DATA FOR ELEVATION PATTERN

Type: ALP12M2
Polarization: Horizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
5.00	0.263	-11.60	-6.75	0.198	-14.07	-27.00	0.030	-30.46	-50.50	0.056	-25.04	-74.00	0.207	-13.68
4.75	0.266	-11.52	-7.00	0.176	-15.09	-27.50	0.021	-33.56	-51.00	0.071	-22.97	-74.50	0.204	-13.81
4.50	0.260	-11.70	-7.25	0.155	-16.19	-28.00	0.019	-34.42	-51.50	0.085	-21.41	-75.00	0.200	-13.98
4.25	0.248	-12.11	-7.50	0.138	-17.20	-28.50	0.017	-35.39	-52.00	0.096	-20.35	-75.50	0.195	-14.20
4.00	0.231	-12.73	-7.75	0.131	-17.65	-29.00	0.012	-38.42	-52.50	0.105	-19.58	-76.00	0.189	-14.47
3.75	0.213	-13.43	-8.00	0.136	-17.33	-29.50	0.006	-44.44	-53.00	0.110	-19.17	-76.50	0.183	-14.75
3.50	0.201	-13.94	-8.25	0.154	-16.28	-30.00	0.000	-40.00	-53.50	0.112	-19.02	-77.00	0.176	-15.09
3.25	0.204	-13.83	-8.50	0.177	-15.04	-30.50	0.005	-46.02	-54.00	0.110	-19.17	-77.50	0.168	-15.49
3.00	0.227	-12.88	-8.75	0.204	-13.81	-31.00	0.008	-41.94	-54.50	0.105	-19.58	-78.00	0.161	-15.86
2.75	0.272	-11.29	-9.00	0.230	-12.77	-31.50	0.013	-37.72	-55.00	0.097	-20.26	-78.50	0.153	-16.31
2.50	0.333	-9.55	-9.25	0.254	-11.92	-32.00	0.022	-33.15	-55.50	0.087	-21.21	-79.00	0.145	-16.77
2.25	0.405	-7.86	-9.50	0.274	-11.24	-32.50	0.037	-28.64	-56.00	0.076	-22.38	-79.50	0.137	-17.27
2.00	0.481	-6.36	-9.75	0.289	-10.80	-33.00	0.057	-24.88	-56.50	0.064	-23.88	-80.00	0.129	-17.79
1.75	0.561	-5.03	-10.00	0.298	-10.52	-33.50	0.080	-21.94	-57.00	0.055	-25.19	-80.50	0.121	-18.34
1.50	0.639	-3.89	-10.50	0.300	-10.46	-34.00	0.104	-19.66	-57.50	0.050	-26.02	-81.00	0.113	-18.94
1.25	0.714	-2.92	-11.00	0.282	-11.00	-34.50	0.128	-17.86	-58.00	0.050	-26.02	-81.50	0.105	-19.58
1.00	0.784	-2.11	-11.50	0.246	-12.18	-35.00	0.148	-16.59	-58.50	0.055	-25.19	-82.00	0.097	-20.26
0.75	0.847	-1.45	-12.00	0.199	-14.02	-35.50	0.164	-15.70	-59.00	0.063	-24.01	-82.50	0.090	-20.92
0.50	0.900	-0.92	-12.50	0.147	-16.65	-36.00	0.173	-15.24	-59.50	0.071	-22.97	-83.00	0.083	-21.62
0.25	0.943	-0.51	-13.00	0.096	-20.35	-36.50	0.176	-15.09	-60.00	0.077	-22.27	-83.50	0.075	-22.50
0.00	0.975	-0.22	-13.50	0.053	-25.51	-37.00	0.171	-15.34	-60.50	0.082	-21.72	-84.00	0.069	-23.22
-0.25	0.994	-0.06	-14.00	0.020	-33.98	-37.50	0.160	-15.92	-61.00	0.085	-21.41	-84.50	0.062	-24.15
-0.50	1.000	0.00	-14.50	0.001	-60.00	-38.00	0.144	-16.83	-61.50	0.085	-21.41	-85.00	0.056	-25.04
-0.75	0.993	-0.06	-15.00	0.011	-39.17	-38.50	0.123	-18.20	-62.00	0.083	-21.62	-85.50	0.049	-26.20
-1.00	0.974	-0.23	-15.50	0.015	-36.48	-39.00	0.100	-20.00	-62.50	0.079	-22.05	-86.00	0.043	-27.33
-1.25	0.942	-0.52	-16.00	0.023	-32.77	-39.50	0.076	-22.38	-63.00	0.073	-22.73	-86.50	0.038	-28.40
-1.50	0.899	-0.92	-16.50	0.035	-29.12	-40.00	0.056	-25.04	-63.50	0.067	-23.48	-87.00	0.032	-29.90
-1.75	0.845	-1.46	-17.00	0.047	-26.56	-40.50	0.043	-27.33	-64.00	0.062	-24.15	-87.50	0.026	-31.70
-2.00	0.783	-2.12	-17.50	0.055	-25.19	-41.00	0.039	-28.18	-64.50	0.060	-24.44	-88.00	0.021	-33.56
-2.25	0.714	-2.92	-18.00	0.056	-25.04	-41.50	0.042	-27.54	-65.00	0.062	-24.15	-88.50	0.016	-35.92
-2.50	0.640	-3.88	-18.50	0.051	-25.85	-42.00	0.047	-26.56	-65.50	0.069	-23.22	-89.00	0.010	-40.00
-2.75	0.562	-5.01	-19.00	0.048	-26.38	-42.50	0.049	-26.20	-66.00	0.079	-22.05	-89.50	0.005	-46.02
-3.00	0.484	-6.30	-19.50	0.059	-24.58	-43.00	0.047	-26.56	-66.50	0.092	-20.72	-90.00	0.000	-40.00
-3.25	0.407	-7.81	-20.00	0.087	-21.21	-43.50	0.043	-27.33	-67.00	0.106	-19.49			
-3.50	0.336	-9.47	-20.50	0.123	-18.20	-44.00	0.036	-28.87	-67.50	0.121	-18.34			
-3.75	0.273	-11.26	-21.00	0.159	-15.97	-44.50	0.029	-30.75	-68.00	0.135	-17.39			
-4.00	0.225	-12.96	-21.50	0.192	-14.33	-45.00	0.023	-32.77	-68.50	0.148	-16.59			
-4.25	0.195	-14.20	-22.00	0.216	-13.31	-45.50	0.020	-33.98	-69.00	0.161	-15.86			
-4.50	0.186	-14.61	-22.50	0.229	-12.80	-46.00	0.020	-33.98	-69.50	0.172	-15.29			
-4.75	0.194	-14.27	-23.00	0.231	-12.73	-46.50	0.021	-33.56	-70.00	0.182	-14.80			
-5.00	0.208	-13.64	-23.50	0.221	-13.11	-47.00	0.021	-33.56	-70.50	0.191	-14.38			
-5.25	0.224	-13.01	-24.00	0.201	-13.94	-47.50	0.018	-34.89	-71.00	0.198	-14.07			
-5.50	0.235	-12.58	-24.50	0.173	-15.24	-48.00	0.011	-39.17	-71.50	0.203	-13.85			
-5.75	0.241	-12.38	-25.00	0.141	-17.02	-48.50	0.002	-53.98	-72.00	0.207	-13.68			
-6.00	0.240	-12.40	-25.50	0.107	-19.41	-49.00	0.010	-40.00	-72.50	0.209	-13.60			
-6.25	0.232	-12.71	-26.00	0.076	-22.38	-49.50	0.024	-32.40	-73.00	0.209	-13.60			
-6.50	0.217	-13.27	-26.50	0.049	-26.20	-50.00	0.040	-27.96	-73.50	0.209	-13.60			