

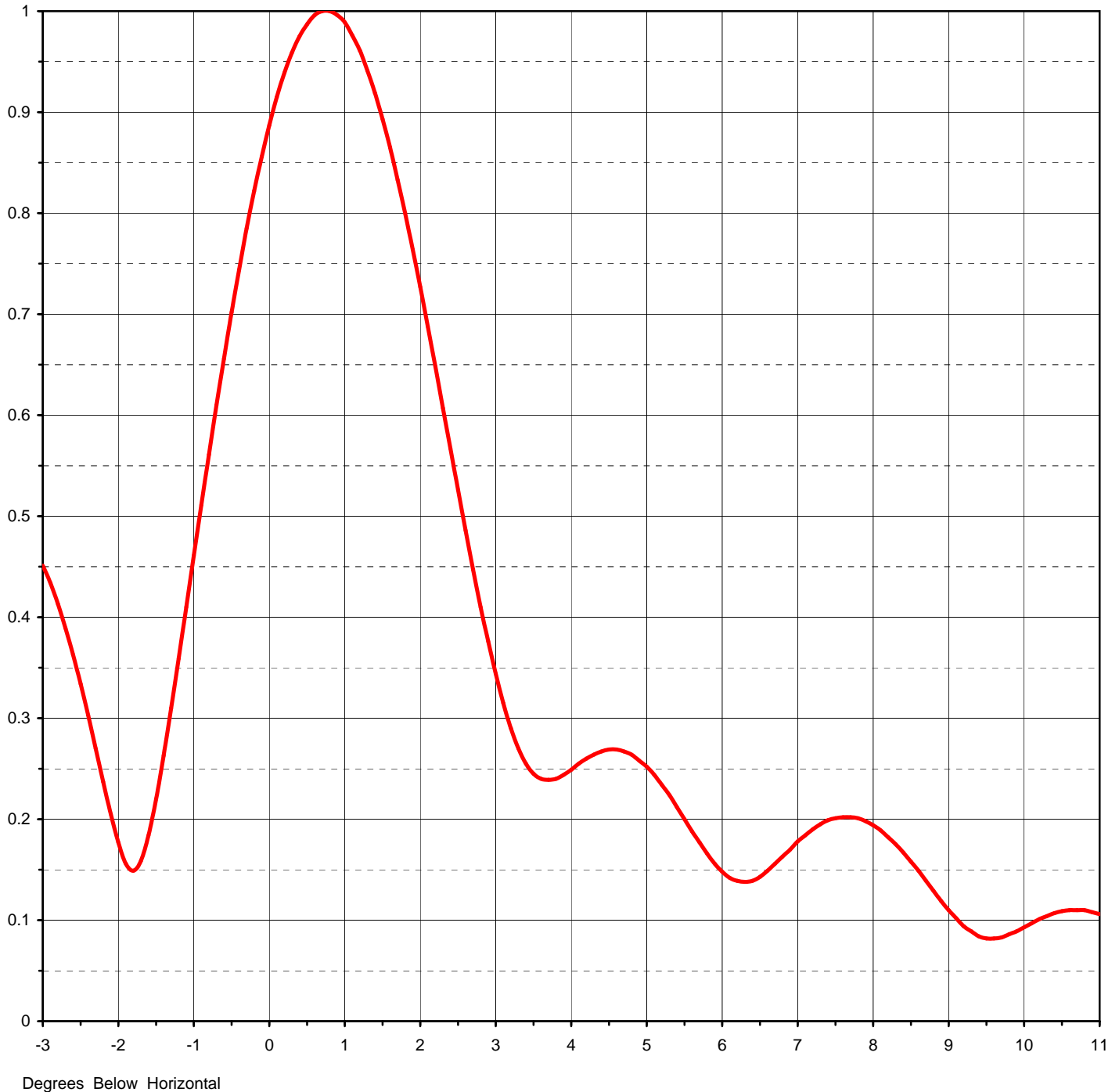


Proposal Number	DCA-10467	Revision:	1
Date	18-Feb-04		
Call Letters	WGBA	Channel	41
Location	Green Bay, WI		
Customer			
Antenna Type	TUA-C4-8/32U-1-S		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.90 (12.01 dB)
RMS Gain at Horizontal	12.50 (10.97 dB)
Calculated / Measured	Calculated

Beam Tilt	0.75 deg
Frequency	635.00 MHz
Drawing #	08U159080

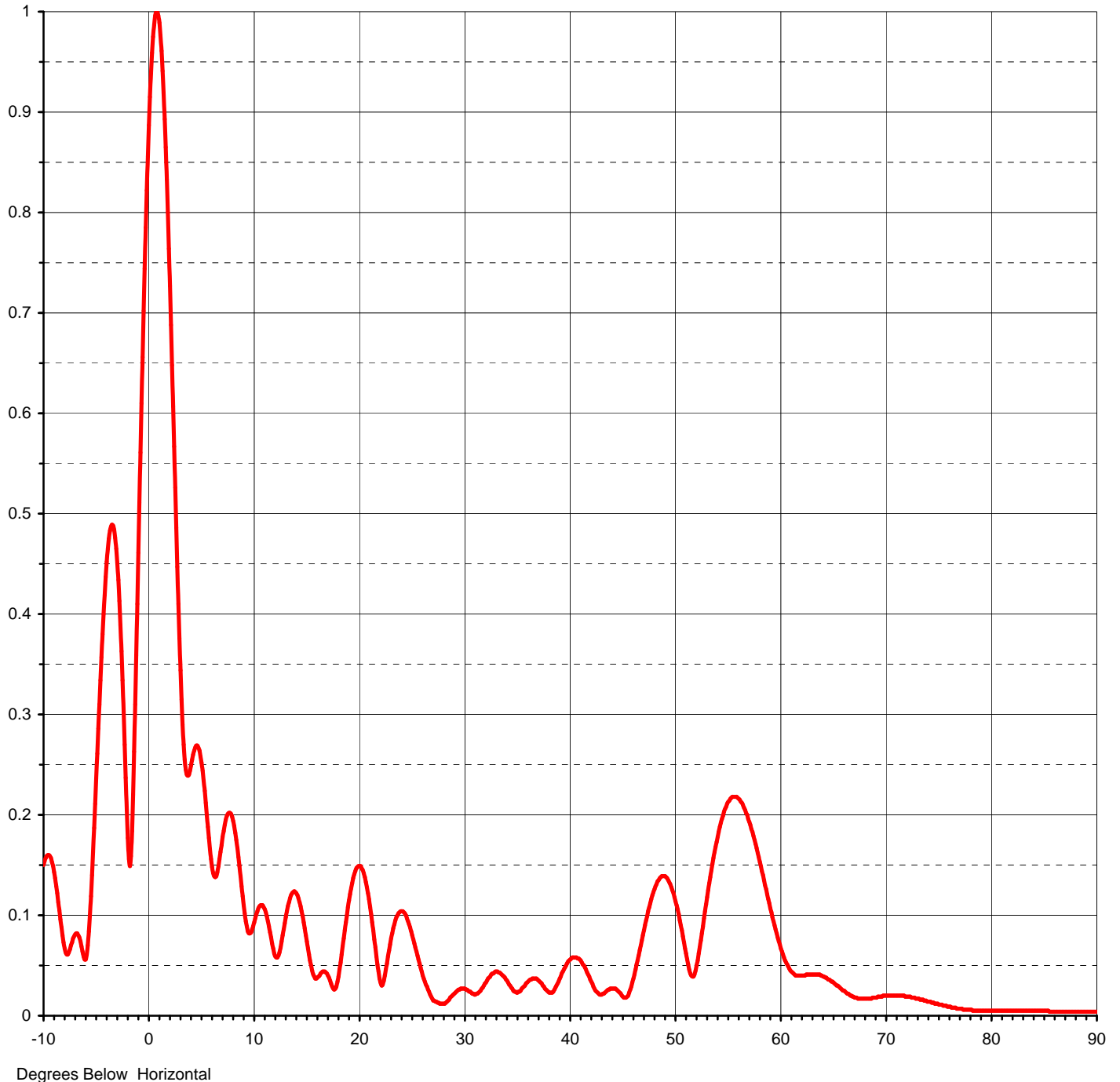




Proposal Number	DCA-10467	Revision:	1
Date	18-Feb-04		
Call Letters	WGBA	Channel	41
Location	Green Bay, WI		
Customer			
Antenna Type	TUA-C4-8/32U-1-S		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.90 (12.01 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	12.50 (10.97 dB)	Frequency	635.00 MHz
Calculated / Measured	Calculated	Drawing #	08U159080-90





Proposal Number **DCA-10467** Revision: **1**
 Date **18-Feb-04**
 Call Letters **WGBA** Channel **41**
 Location **Green Bay, WI**
 Customer
 Antenna Type **TUA-C4-8/32U-1-S**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **08U159080-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.150	2.4	0.567	10.6	0.109	30.5	0.024	51.0	0.067	71.5	0.020
-9.5	0.160	2.6	0.486	10.8	0.110	31.0	0.021	51.5	0.042	72.0	0.019
-9.0	0.143	2.8	0.410	11.0	0.108	31.5	0.024	52.0	0.045	72.5	0.018
-8.5	0.105	3.0	0.344	11.5	0.089	32.0	0.032	52.5	0.075	73.0	0.017
-8.0	0.067	3.2	0.290	12.0	0.062	32.5	0.039	53.0	0.111	73.5	0.016
-7.5	0.066	3.4	0.255	12.5	0.063	33.0	0.044	53.5	0.145	74.0	0.014
-7.0	0.081	3.6	0.240	13.0	0.092	33.5	0.042	54.0	0.173	74.5	0.013
-6.5	0.074	3.8	0.240	13.5	0.117	34.0	0.036	54.5	0.196	75.0	0.011
-6.0	0.056	4.0	0.249	14.0	0.123	34.5	0.028	55.0	0.211	75.5	0.010
-5.5	0.119	4.2	0.260	14.5	0.109	35.0	0.023	55.5	0.218	76.0	0.009
-5.0	0.236	4.4	0.267	15.0	0.080	35.5	0.027	56.0	0.217	76.5	0.008
-4.5	0.357	4.6	0.269	15.5	0.050	36.0	0.033	56.5	0.210	77.0	0.007
-4.0	0.452	4.8	0.264	16.0	0.037	36.5	0.037	57.0	0.196	77.5	0.006
-3.5	0.489	5.0	0.252	16.5	0.043	37.0	0.036	57.5	0.179	78.0	0.006
-3.0	0.451	5.2	0.234	17.0	0.042	37.5	0.030	58.0	0.158	78.5	0.005
-2.8	0.413	5.4	0.212	17.5	0.029	38.0	0.024	58.5	0.135	79.0	0.005
-2.6	0.363	5.6	0.188	18.0	0.034	38.5	0.024	59.0	0.112	79.5	0.005
-2.4	0.303	5.8	0.166	18.5	0.069	39.0	0.034	59.5	0.090	80.0	0.005
-2.2	0.237	6.0	0.148	19.0	0.108	39.5	0.046	60.0	0.071	80.5	0.005
-2.0	0.177	6.2	0.139	19.5	0.137	40.0	0.055	60.5	0.055	81.0	0.005
-1.8	0.149	6.4	0.139	20.0	0.149	40.5	0.058	61.0	0.045	81.5	0.005
-1.6	0.184	6.6	0.149	20.5	0.142	41.0	0.056	61.5	0.040	82.0	0.005
-1.4	0.263	6.8	0.163	21.0	0.116	41.5	0.048	62.0	0.040	82.5	0.005
-1.2	0.359	7.0	0.178	21.5	0.076	42.0	0.036	62.5	0.041	83.0	0.005
-1.0	0.461	7.2	0.190	22.0	0.037	42.5	0.025	63.0	0.041	83.5	0.005
-0.8	0.561	7.4	0.199	22.5	0.040	43.0	0.021	63.5	0.041	84.0	0.005
-0.6	0.656	7.6	0.202	23.0	0.071	43.5	0.024	64.0	0.040	84.5	0.005
-0.4	0.744	7.8	0.201	23.5	0.095	44.0	0.027	64.5	0.036	85.0	0.005
-0.2	0.822	8.0	0.194	24.0	0.104	44.5	0.026	65.0	0.033	85.5	0.004
0.0	0.887	8.2	0.182	24.5	0.100	45.0	0.020	65.5	0.029	86.0	0.004
0.2	0.939	8.4	0.167	25.0	0.084	45.5	0.019	66.0	0.025	86.5	0.004
0.4	0.975	8.6	0.149	25.5	0.064	46.0	0.033	66.5	0.021	87.0	0.004
0.6	0.996	8.8	0.129	26.0	0.044	46.5	0.055	67.0	0.018	87.5	0.004
0.8	1.000	9.0	0.110	26.5	0.029	47.0	0.080	67.5	0.017	88.0	0.004
1.0	0.989	9.2	0.094	27.0	0.017	47.5	0.104	68.0	0.017	88.5	0.004
1.2	0.961	9.4	0.084	27.5	0.013	48.0	0.123	68.5	0.017	89.0	0.004
1.4	0.919	9.6	0.082	28.0	0.012	48.5	0.135	69.0	0.018	89.5	0.004
1.6	0.865	9.8	0.083	28.5	0.015	49.0	0.139	69.5	0.019	90.0	0.004
1.8	0.800	10.0	0.089	29.0	0.021	49.5	0.133	70.0	0.020		
2.0	0.727	10.2	0.097	29.5	0.026	50.0	0.118	70.5	0.020		
2.2	0.648	10.4	0.104	30.0	0.027	50.5	0.095	71.0	0.020		

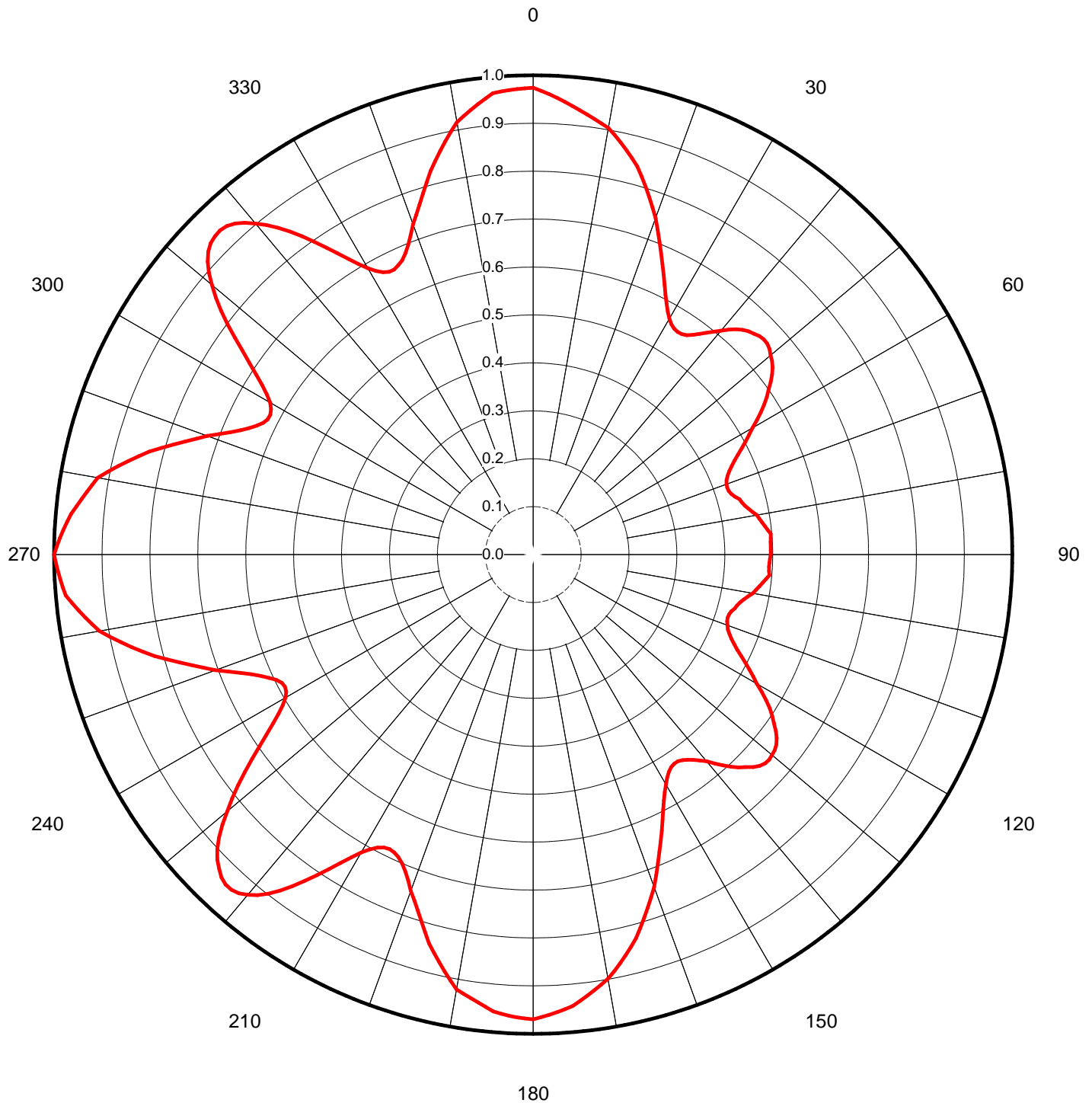


Proposal Number	DCA-10467	Revision:	1
Date	18-Feb-04		
Call Letters	WGBA	Channel	41
Location	Green Bay, WI		
Customer			
Antenna Type	TUA-C4-8/32U-1-S		

AZIMUTH PATTERN

Gain	1.80	(2.55 dB)
Calculated / Measured	Calculated	

Frequency	635.00 MHz
Drawing #	TUA-C4-6350





Proposal Number **DCA-10467** Revision: **1**
Date **18-Feb-04**
Call Letters **WGBA** Channel **41**
Location **Green Bay, WI**
Customer
Antenna Type **TUA-C4-8/32U-1-S**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUA-C4-6350**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.974	45	0.651	90	0.496	135	0.627	180	0.970	225	0.927	270	1.000	315	0.939
1	0.968	46	0.656	91	0.494	136	0.617	181	0.968	226	0.916	271	0.994	316	0.941
2	0.961	47	0.658	92	0.493	137	0.605	182	0.966	227	0.901	272	0.988	317	0.937
3	0.954	48	0.658	93	0.493	138	0.592	183	0.964	228	0.882	273	0.982	318	0.930
4	0.947	49	0.654	94	0.493	139	0.578	184	0.960	229	0.859	274	0.975	319	0.917
5	0.939	50	0.647	95	0.495	140	0.563	185	0.957	230	0.833	275	0.968	320	0.901
6	0.932	51	0.641	96	0.489	141	0.553	186	0.949	231	0.808	276	0.959	321	0.885
7	0.925	52	0.634	97	0.483	142	0.544	187	0.942	232	0.781	277	0.950	322	0.865
8	0.918	53	0.624	98	0.477	143	0.536	188	0.935	233	0.753	278	0.940	323	0.844
9	0.911	54	0.613	99	0.471	144	0.530	189	0.928	234	0.725	279	0.932	324	0.821
10	0.904	55	0.600	100	0.465	145	0.527	190	0.922	235	0.697	280	0.923	325	0.797
11	0.892	56	0.588	101	0.457	146	0.526	191	0.905	236	0.671	281	0.905	326	0.773
12	0.879	57	0.575	102	0.449	147	0.529	192	0.889	237	0.648	282	0.886	327	0.749
13	0.866	58	0.560	103	0.443	148	0.534	193	0.873	238	0.627	283	0.867	328	0.727
14	0.852	59	0.545	104	0.439	149	0.543	194	0.856	239	0.610	284	0.848	329	0.707
15	0.839	60	0.528	105	0.435	150	0.554	195	0.840	240	0.597	285	0.830	330	0.690
16	0.821	61	0.515	106	0.430	151	0.567	196	0.819	241	0.589	286	0.807	331	0.677
17	0.803	62	0.502	107	0.427	152	0.581	197	0.799	242	0.587	287	0.785	332	0.667
18	0.784	63	0.488	108	0.427	153	0.598	198	0.780	243	0.589	288	0.764	333	0.662
19	0.766	64	0.475	109	0.428	154	0.616	199	0.763	244	0.597	289	0.743	334	0.662
20	0.747	65	0.463	110	0.431	155	0.635	200	0.747	245	0.609	290	0.724	335	0.666
21	0.725	66	0.453	111	0.435	156	0.654	201	0.728	246	0.622	291	0.702	336	0.672
22	0.704	67	0.444	112	0.442	157	0.674	202	0.713	247	0.639	292	0.681	337	0.683
23	0.683	68	0.437	113	0.450	158	0.695	203	0.700	248	0.659	293	0.664	338	0.697
24	0.663	69	0.432	114	0.459	159	0.716	204	0.691	249	0.681	294	0.649	339	0.714
25	0.644	70	0.430	115	0.470	160	0.738	205	0.686	250	0.706	295	0.637	340	0.733
26	0.626	71	0.428	116	0.483	161	0.756	206	0.684	251	0.726	296	0.627	341	0.750
27	0.608	72	0.429	117	0.497	162	0.774	207	0.686	252	0.748	297	0.622	342	0.768
28	0.593	73	0.433	118	0.511	163	0.792	208	0.693	253	0.771	298	0.621	343	0.787
29	0.580	74	0.438	119	0.525	164	0.811	209	0.703	254	0.794	299	0.625	344	0.807
30	0.569	75	0.446	120	0.539	165	0.829	210	0.718	255	0.818	300	0.634	345	0.828
31	0.560	76	0.449	121	0.557	166	0.844	211	0.737	256	0.839	301	0.648	346	0.846
32	0.555	77	0.454	122	0.573	167	0.858	212	0.759	257	0.860	302	0.667	347	0.864
33	0.554	78	0.459	123	0.589	168	0.872	213	0.783	258	0.880	303	0.689	348	0.882
34	0.555	79	0.466	124	0.602	169	0.886	214	0.807	259	0.900	304	0.714	349	0.899
35	0.559	80	0.474	125	0.613	170	0.899	215	0.831	260	0.919	305	0.740	350	0.916
36	0.567	81	0.478	126	0.626	171	0.908	216	0.856	261	0.932	306	0.769	351	0.927
37	0.577	82	0.482	127	0.636	172	0.918	217	0.878	262	0.944	307	0.799	352	0.937
38	0.587	83	0.487	128	0.644	173	0.927	218	0.898	263	0.956	308	0.826	353	0.947
39	0.599	84	0.492	129	0.649	174	0.936	219	0.914	264	0.968	309	0.852	354	0.957
40	0.610	85	0.498	130	0.651	175	0.946	220	0.927	265	0.979	310	0.875	355	0.966
41	0.622	86	0.497	131	0.653	176	0.951	221	0.936	266	0.984	311	0.897	356	0.968
42	0.633	87	0.496	132	0.651	177	0.956	222	0.941	267	0.988	312	0.914	357	0.970
43	0.641	88	0.496	133	0.646	178	0.961	223	0.942	268	0.992	313	0.927	358	0.972
44	0.648	89	0.496	134	0.638	179	0.965	224	0.937	269	0.996	314	0.936	359	0.973