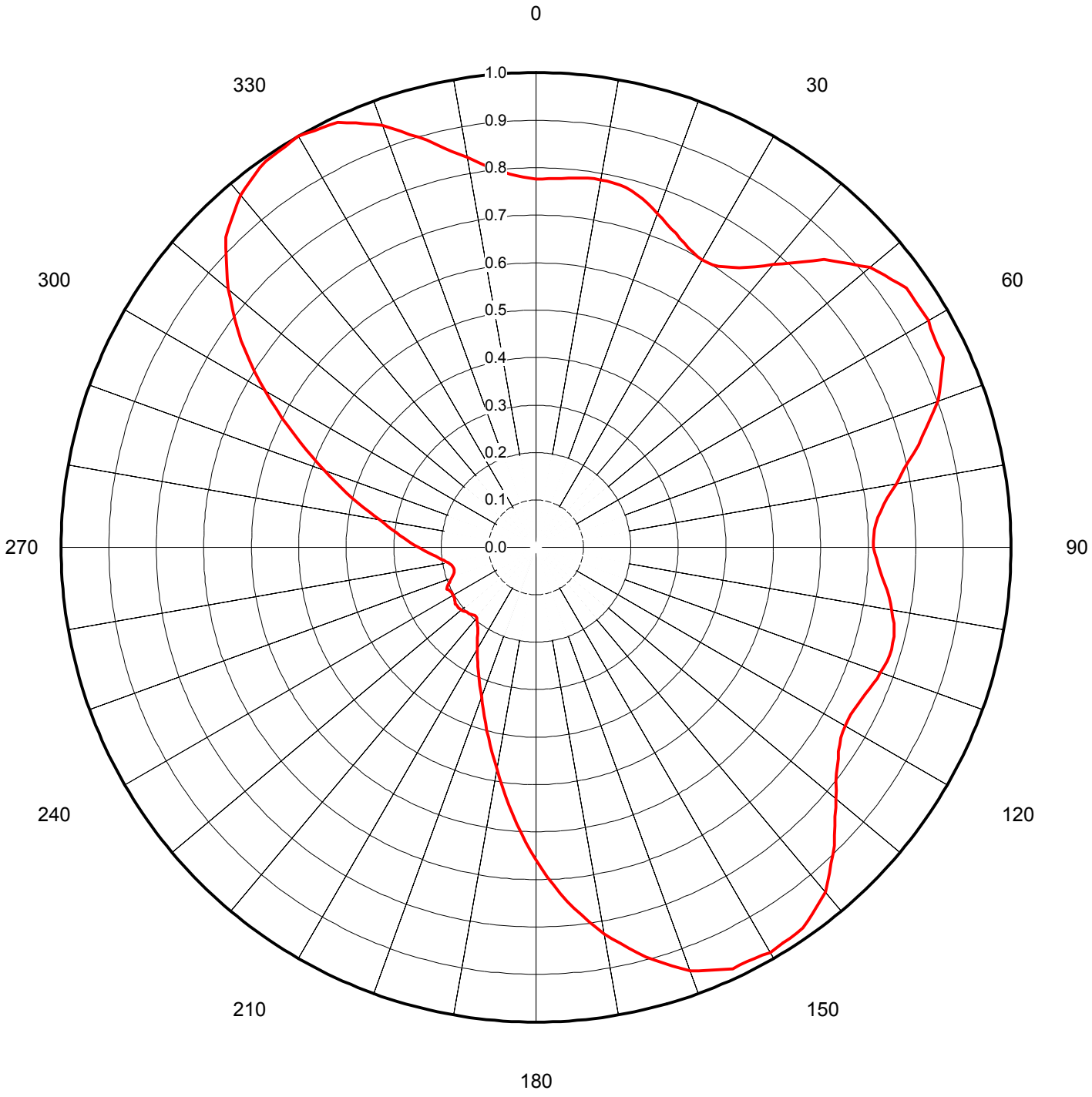
Dielectric

Proposal Number	**DCA-10300**		
Date	**25-Aug-03**		
Call Letters	**WCFE-DT**	Channel	**38**
Location	**Plattsburgh, NY**		
Customer	**MLPBS**		
Antenna Type	**TUF-C4SP-5/16H-1-T**		

AZIMUTH PATTERN

Gain	**2.00**	**(3.01 dB)**	
Calculated / Measured	**Calculated**		
Frequency	**617.00 MHz**		
Drawing #	**TUF-C4SP-6170A**		



Dielectric

Proposal Number	**DCA-10300**
Date	**25-Aug-03**
Call Letters	**WCFE-DT** Channel **38**
Location	**Plattsburgh, NY**
Customer	**MLPBS**
Antenna Type	**TUF-C4SP-5/16H-1-T**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUF-C4SP-6170A**

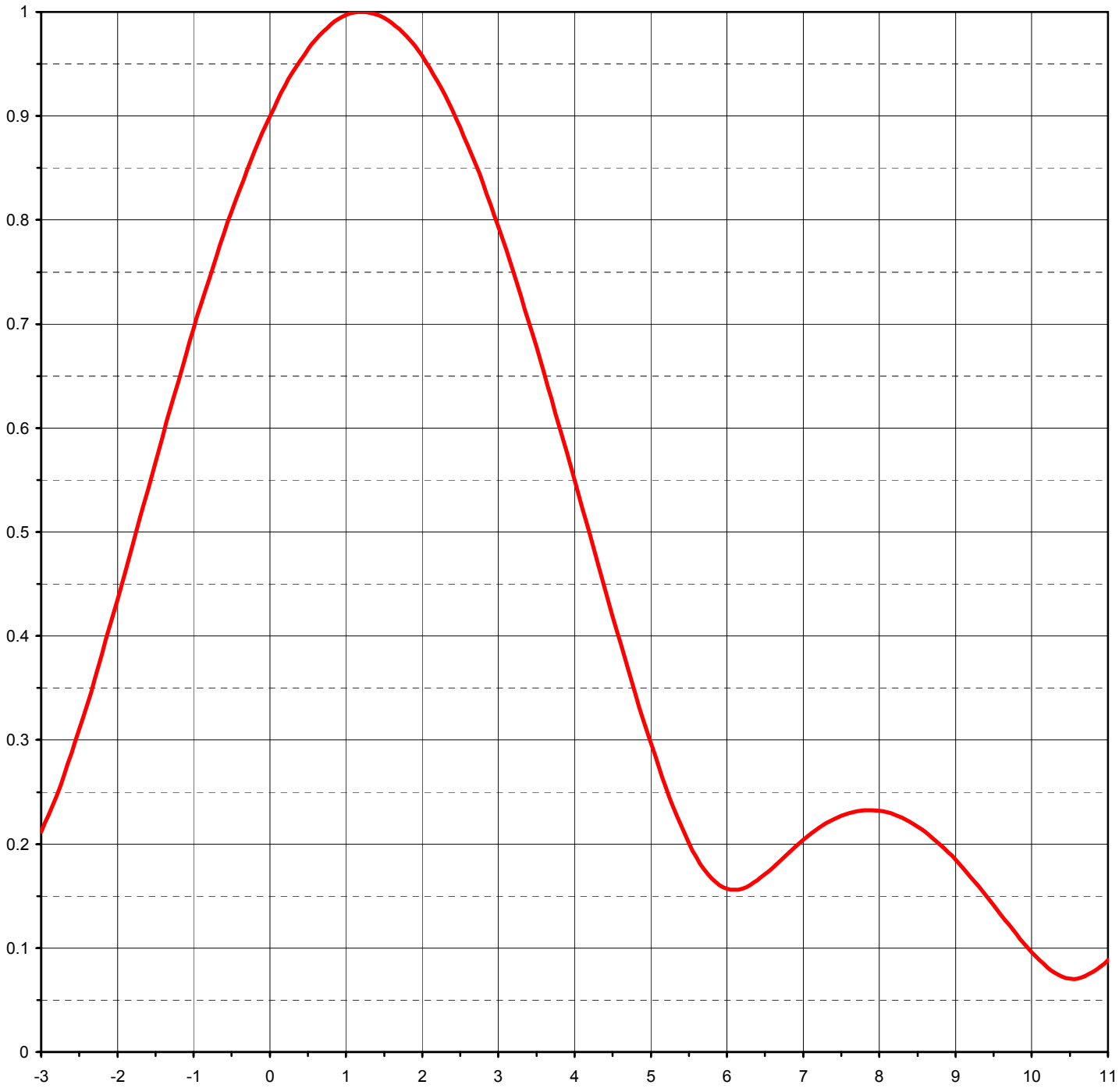
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.776	45	0.858	90	0.710	135	0.887	180	0.658	225	0.199	270	0.247	315	0.923
1	0.776	46	0.868	91	0.713	136	0.899	181	0.639	226	0.199	271	0.255	316	0.932
2	0.776	47	0.880	92	0.717	137	0.911	182	0.621	227	0.200	272	0.263	317	0.941
3	0.778	48	0.892	93	0.722	138	0.923	183	0.602	228	0.201	273	0.272	318	0.950
4	0.779	49	0.905	94	0.727	139	0.936	184	0.583	229	0.203	274	0.280	319	0.959
5	0.781	50	0.918	95	0.732	140	0.948	185	0.565	230	0.206	275	0.288	320	0.968
6	0.782	51	0.924	96	0.739	141	0.954	186	0.546	231	0.206	276	0.296	321	0.973
7	0.784	52	0.931	97	0.745	142	0.960	187	0.528	232	0.206	277	0.305	322	0.978
8	0.785	53	0.938	98	0.750	143	0.967	188	0.509	233	0.206	278	0.314	323	0.983
9	0.786	54	0.945	99	0.756	144	0.973	189	0.492	234	0.207	279	0.324	324	0.988
10	0.786	55	0.952	100	0.760	145	0.979	190	0.475	235	0.207	280	0.335	325	0.993
11	0.786	56	0.952	101	0.766	146	0.980	191	0.458	236	0.206	281	0.347	326	0.994
12	0.785	57	0.952	102	0.770	147	0.981	192	0.443	237	0.204	282	0.359	327	0.995
13	0.783	58	0.952	103	0.774	148	0.982	193	0.428	238	0.203	283	0.372	328	0.996
14	0.780	59	0.953	104	0.777	149	0.983	194	0.413	239	0.202	284	0.386	329	0.998
15	0.777	60	0.954	105	0.778	150	0.985	195	0.399	240	0.202	285	0.401	330	1.000
16	0.773	61	0.951	106	0.779	151	0.982	196	0.385	241	0.201	286	0.415	331	0.997
17	0.768	62	0.948	107	0.779	152	0.980	197	0.372	242	0.201	287	0.429	332	0.994
18	0.762	63	0.946	108	0.777	153	0.979	198	0.359	243	0.202	288	0.444	333	0.991
19	0.755	64	0.946	109	0.775	154	0.979	199	0.347	244	0.204	289	0.459	334	0.989
20	0.748	65	0.946	110	0.772	155	0.979	200	0.335	245	0.208	290	0.475	335	0.988
21	0.742	66	0.937	111	0.769	156	0.973	201	0.325	246	0.204	291	0.491	336	0.979
22	0.736	67	0.927	112	0.766	157	0.967	202	0.315	247	0.200	292	0.508	337	0.971
23	0.729	68	0.918	113	0.763	158	0.961	203	0.306	248	0.197	293	0.525	338	0.962
24	0.723	69	0.909	114	0.759	159	0.955	204	0.297	249	0.193	294	0.543	339	0.954
25	0.717	70	0.900	115	0.756	160	0.949	205	0.288	250	0.189	295	0.562	340	0.946
26	0.712	71	0.886	116	0.754	161	0.938	206	0.280	251	0.186	296	0.581	341	0.933
27	0.708	72	0.872	117	0.752	162	0.927	207	0.271	252	0.183	297	0.600	342	0.921
28	0.704	73	0.858	118	0.750	163	0.916	208	0.263	253	0.180	298	0.619	343	0.909
29	0.701	74	0.846	119	0.750	164	0.905	209	0.255	254	0.179	299	0.639	344	0.898
30	0.699	75	0.834	120	0.751	165	0.893	210	0.247	255	0.179	300	0.659	345	0.887
31	0.700	76	0.819	121	0.754	166	0.880	211	0.240	256	0.179	301	0.679	346	0.875
32	0.702	77	0.805	122	0.757	167	0.866	212	0.233	257	0.180	302	0.698	347	0.863
33	0.706	78	0.792	123	0.762	168	0.853	213	0.226	258	0.181	303	0.718	348	0.853
34	0.712	79	0.781	124	0.768	169	0.840	214	0.219	259	0.184	304	0.738	349	0.843
35	0.720	80	0.770	125	0.776	170	0.826	215	0.213	260	0.188	305	0.758	350	0.834
36	0.728	81	0.758	126	0.784	171	0.811	216	0.209	261	0.192	306	0.776	351	0.824
37	0.738	82	0.747	127	0.792	172	0.795	217	0.204	262	0.197	307	0.793	352	0.815
38	0.750	83	0.738	128	0.802	173	0.780	218	0.200	263	0.202	308	0.811	353	0.807
39	0.763	84	0.730	129	0.813	174	0.764	219	0.197	264	0.207	309	0.828	354	0.800
40	0.778	85	0.723	130	0.825	175	0.749	220	0.195	265	0.212	310	0.845	355	0.794
41	0.792	86	0.717	131	0.836	176	0.731	221	0.194	266	0.219	311	0.861	356	0.788
42	0.806	87	0.713	132	0.847	177	0.713	222	0.193	267	0.226	312	0.877	357	0.784
43	0.822	88	0.711	133	0.860	178	0.694	223	0.194	268	0.233	313	0.892	358	0.780
44	0.839	89	0.710	134	0.873	179	0.676	224	0.196	269	0.240	314	0.908	359	0.778

Dielectric

Proposal Number	**DCA-10300**	Revision:	**1**
Date	**9-Feb-04**		
Call Letters	**WCFE-DT**	Channel	**38**
Location	**Plattsburgh, NY**		
Customer	**MLPBS**		
Antenna Type	**TUF-C4SP-5/16H-1-T**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**10.6 (10.25 dB)**	Beam Tilt	**1.20 deg**
RMS Gain at Horizontal	**8.6 (9.34 dB)**	Frequency	**617.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**05U112120**



Dielectric

Proposal Number	**DCA-10300**	Revision:	**1**
Date	**9-Feb-04**		
Call Letters	**WCFE-DT**	Channel	**38**
Location	**Plattsburgh, NY**		
Customer	**MLPBS**		
Antenna Type	**TUF-C4SP-5/16H-1-T**		

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **05U112120-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.217	2.4	0.905	10.6	0.071	30.5	0.034	51.0	0.046	71.5	0.016
-9.5	0.189	2.6	0.872	10.8	0.073	31.0	0.028	51.5	0.048	72.0	0.017
-9.0	0.148	2.8	0.835	11.0	0.082	31.5	0.024	52.0	0.057	72.5	0.017
-8.5	0.103	3.0	0.794	11.5	0.119	32.0	0.025	52.5	0.071	73.0	0.018
-8.0	0.078	3.2	0.749	12.0	0.155	32.5	0.032	53.0	0.087	73.5	0.018
-7.5	0.102	3.4	0.702	12.5	0.183	33.0	0.040	53.5	0.105	74.0	0.019
-7.0	0.151	3.6	0.653	13.0	0.197	33.5	0.047	54.0	0.122	74.5	0.019
-6.5	0.199	3.8	0.602	13.5	0.197	34.0	0.052	54.5	0.138	75.0	0.019
-6.0	0.234	4.0	0.550	14.0	0.184	34.5	0.053	55.0	0.153	75.5	0.019
-5.5	0.249	4.2	0.497	14.5	0.159	35.0	0.051	55.5	0.166	76.0	0.018
-5.0	0.243	4.4	0.445	15.0	0.126	35.5	0.046	56.0	0.177	76.5	0.018
-4.5	0.217	4.6	0.393	15.5	0.090	36.0	0.038	56.5	0.186	77.0	0.017
-4.0	0.182	4.8	0.344	16.0	0.058	36.5	0.029	57.0	0.193	77.5	0.017
-3.5	0.166	5.0	0.297	16.5	0.047	37.0	0.023	57.5	0.198	78.0	0.016
-3.0	0.212	5.2	0.254	17.0	0.061	37.5	0.026	58.0	0.201	78.5	0.016
-2.8	0.247	5.4	0.217	17.5	0.082	38.0	0.037	58.5	0.200	79.0	0.015
-2.6	0.288	5.6	0.187	18.0	0.097	38.5	0.051	59.0	0.198	79.5	0.015
-2.4	0.334	5.8	0.167	18.5	0.103	39.0	0.063	59.5	0.194	80.0	0.014
-2.2	0.384	6.0	0.157	19.0	0.101	39.5	0.074	60.0	0.189	80.5	0.014
-2.0	0.435	6.2	0.157	19.5	0.091	40.0	0.081	60.5	0.181	81.0	0.013
-1.8	0.488	6.4	0.165	20.0	0.076	40.5	0.086	61.0	0.173	81.5	0.012
-1.6	0.541	6.6	0.177	20.5	0.059	41.0	0.086	61.5	0.163	82.0	0.012
-1.4	0.593	6.8	0.191	21.0	0.048	41.5	0.083	62.0	0.154	82.5	0.011
-1.2	0.645	7.0	0.204	21.5	0.051	42.0	0.077	62.5	0.143	83.0	0.010
-1.0	0.695	7.2	0.215	22.0	0.065	42.5	0.068	63.0	0.133	83.5	0.010
-0.8	0.743	7.4	0.224	22.5	0.082	43.0	0.056	63.5	0.122	84.0	0.009
-0.6	0.787	7.6	0.230	23.0	0.095	43.5	0.044	64.0	0.111	84.5	0.009
-0.4	0.828	7.8	0.233	23.5	0.105	44.0	0.032	64.5	0.098	85.0	0.009
-0.2	0.866	8.0	0.232	24.0	0.108	44.5	0.027	65.0	0.087	85.5	0.008
0.0	0.900	8.2	0.228	24.5	0.105	45.0	0.031	65.5	0.077	86.0	0.008
0.2	0.929	8.4	0.221	25.0	0.095	45.5	0.040	66.0	0.067	86.5	0.007
0.4	0.953	8.6	0.212	25.5	0.082	46.0	0.051	66.5	0.058	87.0	0.007
0.6	0.973	8.8	0.199	26.0	0.064	46.5	0.061	67.0	0.050	87.5	0.007
0.8	0.988	9.0	0.185	26.5	0.047	47.0	0.069	67.5	0.042	88.0	0.007
1.0	0.997	9.2	0.168	27.0	0.030	47.5	0.074	68.0	0.036	88.5	0.007
1.2	1.000	9.4	0.150	27.5	0.028	48.0	0.076	68.5	0.030	89.0	0.006
1.4	0.997	9.6	0.132	28.0	0.028	48.5	0.075	69.0	0.025	89.5	0.006
1.6	0.989	9.8	0.123	28.5	0.035	49.0	0.071	69.5	0.021	90.0	0.006
1.8	0.976	10.0	0.104	29.0	0.040	49.5	0.064	70.0	0.019		
2.0	0.958	10.2	0.088	29.5	0.041	50.0	0.057	70.5	0.017		
2.2	0.934	10.4	0.076	30.0	0.039	50.5	0.050	71.0	0.016		