Proposal Number	**DCA-8934**	Revision:	**1**
Date	**9-May-02**		
Call Letters	**WDBB-DT**	Channel	**18**
Location	**Bessemer, AL**		
Customer			
Antenna Type	**TFU-26ETT-R CT160 DC**		

AZIMUTH PATTERN

Gain	**1.60**	**(2.04 dB)**	Frequency	**497.00 MHz**
Calculated / Measured		**Calculated**	Drawing #	**TFU-CT160-17/18**
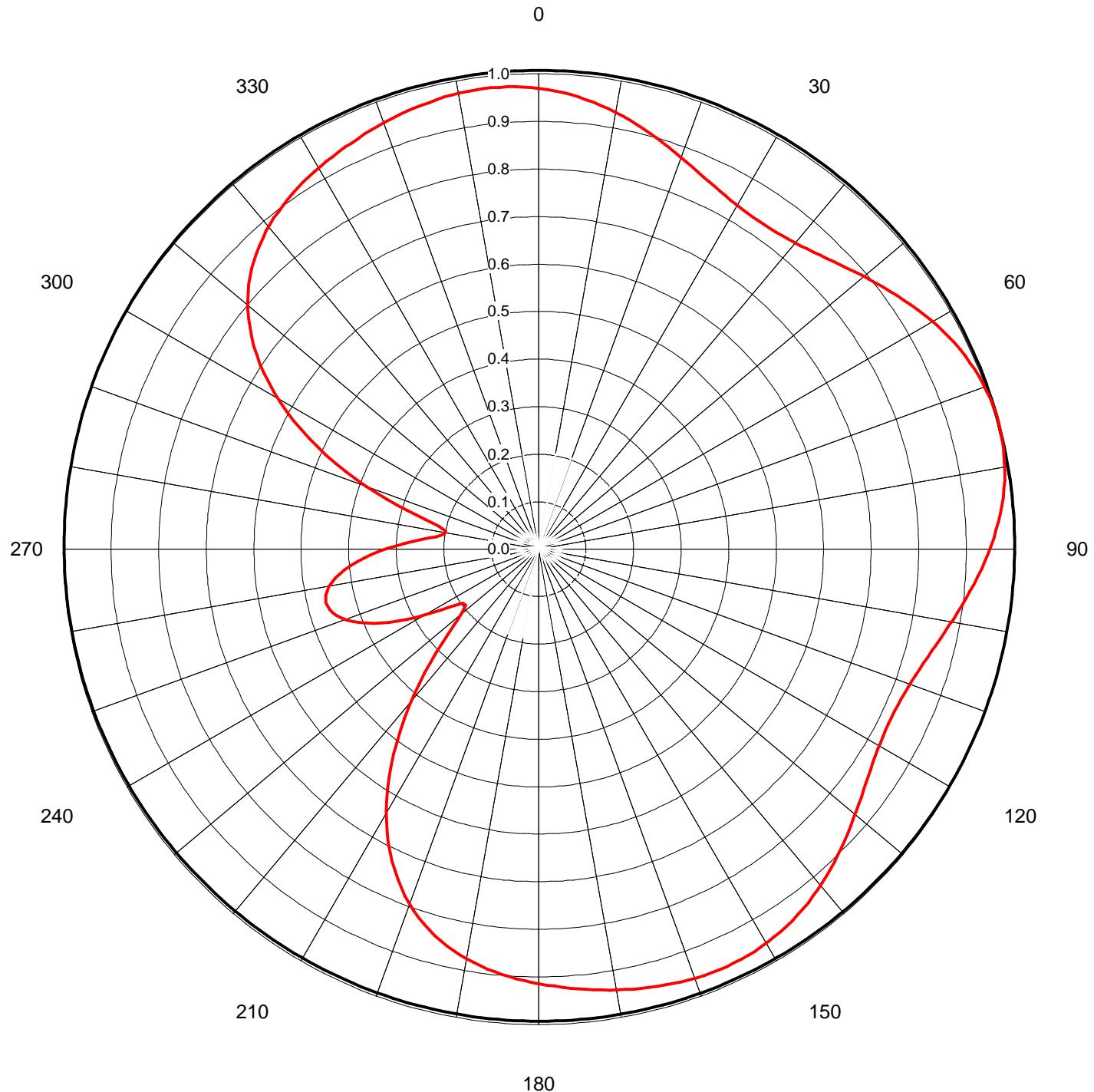
	Proposal Number	**DCA-8934**	Revision:	**1**
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	Call Letters	**WDBB-DT**	Channel	**18**
	Location	**Bessemer, AL**		
	Customer			
	Antenna Type	**TFU-26ETT-R CT160 DC**		

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #:   **TFU-CT160-17/18**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.962	45	0.855	90	0.950	135	0.898	180	0.921	225	0.289	270	0.301	315	0.849
1	0.960	46	0.860	91	0.944	136	0.904	181	0.918	226	0.268	271	0.283	316	0.857
2	0.957	47	0.866	92	0.938	137	0.910	182	0.915	227	0.247	272	0.266	317	0.864
3	0.954	48	0.872	93	0.932	138	0.915	183	0.912	228	0.231	273	0.248	318	0.870
4	0.951	49	0.878	94	0.925	139	0.920	184	0.908	229	0.215	274	0.234	319	0.877
5	0.948	50	0.885	95	0.918	140	0.925	185	0.905	230	0.207	275	0.219	320	0.882
6	0.944	51	0.891	96	0.912	141	0.930	186	0.901	231	0.199	276	0.210	321	0.887
7	0.940	52	0.898	97	0.905	142	0.935	187	0.897	232	0.200	277	0.201	322	0.892
8	0.935	53	0.905	98	0.898	143	0.940	188	0.892	233	0.201	278	0.200	323	0.897
9	0.930	54	0.912	99	0.891	144	0.944	189	0.887	234	0.210	279	0.199	324	0.901
10	0.925	55	0.918	100	0.885	145	0.948	190	0.882	235	0.219	280	0.207	325	0.905
11	0.920	56	0.925	101	0.878	146	0.951	191	0.877	236	0.234	281	0.215	326	0.908
12	0.915	57	0.932	102	0.872	147	0.954	192	0.870	237	0.248	282	0.231	327	0.912
13	0.910	58	0.938	103	0.866	148	0.957	193	0.864	238	0.266	283	0.247	328	0.915
14	0.904	59	0.944	104	0.860	149	0.960	194	0.857	239	0.283	284	0.268	329	0.918
15	0.898	60	0.950	105	0.855	150	0.962	195	0.849	240	0.301	285	0.289	330	0.921
16	0.893	61	0.956	106	0.850	151	0.964	196	0.841	241	0.319	286	0.312	331	0.924
17	0.887	62	0.962	107	0.845	152	0.966	197	0.832	242	0.336	287	0.336	332	0.927
18	0.881	63	0.967	108	0.841	153	0.967	198	0.822	243	0.354	288	0.361	333	0.930
19	0.876	64	0.972	109	0.837	154	0.968	199	0.812	244	0.370	289	0.386	334	0.933
20	0.870	65	0.977	110	0.834	155	0.968	200	0.801	245	0.386	290	0.411	335	0.935
21	0.865	66	0.981	111	0.831	156	0.969	201	0.789	246	0.399	291	0.436	336	0.938
22	0.859	67	0.985	112	0.828	157	0.969	202	0.776	247	0.413	292	0.461	337	0.941
23	0.854	68	0.988	113	0.826	158	0.968	203	0.763	248	0.424	293	0.486	338	0.943
24	0.850	69	0.991	114	0.825	159	0.968	204	0.748	249	0.435	294	0.510	339	0.946
25	0.845	70	0.994	115	0.824	160	0.967	205	0.733	250	0.443	295	0.535	340	0.948
26	0.841	71	0.996	116	0.824	161	0.966	206	0.717	251	0.451	296	0.558	341	0.951
27	0.837	72	0.998	117	0.824	162	0.964	207	0.700	252	0.456	297	0.581	342	0.953
28	0.834	73	0.999	118	0.826	163	0.963	208	0.682	253	0.461	298	0.602	343	0.955
29	0.831	74	1.000	119	0.827	164	0.961	209	0.664	254	0.463	299	0.624	344	0.957
30	0.829	75	1.000	120	0.829	165	0.959	210	0.644	255	0.464	300	0.644	345	0.959
31	0.827	76	1.000	121	0.831	166	0.957	211	0.624	256	0.463	301	0.664	346	0.961
32	0.826	77	0.999	122	0.834	167	0.955	212	0.602	257	0.461	302	0.682	347	0.963
33	0.824	78	0.998	123	0.837	168	0.953	213	0.581	258	0.456	303	0.700	348	0.964
34	0.824	79	0.996	124	0.841	169	0.951	214	0.558	259	0.451	304	0.717	349	0.966
35	0.824	80	0.994	125	0.845	170	0.948	215	0.535	260	0.443	305	0.733	350	0.967
36	0.825	81	0.991	126	0.850	171	0.946	216	0.510	261	0.435	306	0.748	351	0.968
37	0.826	82	0.988	127	0.854	172	0.943	217	0.486	262	0.424	307	0.763	352	0.968
38	0.828	83	0.985	128	0.859	173	0.941	218	0.461	263	0.413	308	0.776	353	0.969
39	0.830	84	0.981	129	0.865	174	0.938	219	0.436	264	0.399	309	0.789	354	0.969
40	0.834	85	0.977	130	0.870	175	0.935	220	0.411	265	0.386	310	0.801	355	0.968
41	0.837	86	0.972	131	0.876	176	0.933	221	0.386	266	0.370	311	0.812	356	0.968
42	0.841	87	0.967	132	0.881	177	0.930	222	0.361	267	0.354	312	0.822	357	0.967
43	0.845	88	0.962	133	0.887	178	0.927	223	0.336	268	0.336	313	0.832	358	0.965
44	0.850	89	0.956	134	0.893	179	0.924	224	0.312	269	0.319	314	0.841	359	0.964

Dielectric

Proposal Number	**DCA-8934** Revision: **1**
Date	**9-May-02**
Call Letters	**WDBB-DT** Channel **18**
Location	**Bessemer, AL**
Customer	
Antenna Type	**TFU-26ETT-R CT160 DC**

ELEVATION PATTERN

RMS Gain at Main Lobe	**21.50**	**(13.32 dB)**	Beam Tilt	**0.40 deg**
RMS Gain at Horizontal	**19.30**	**(12.86 dB)**	Frequency	**497.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**26E215040**
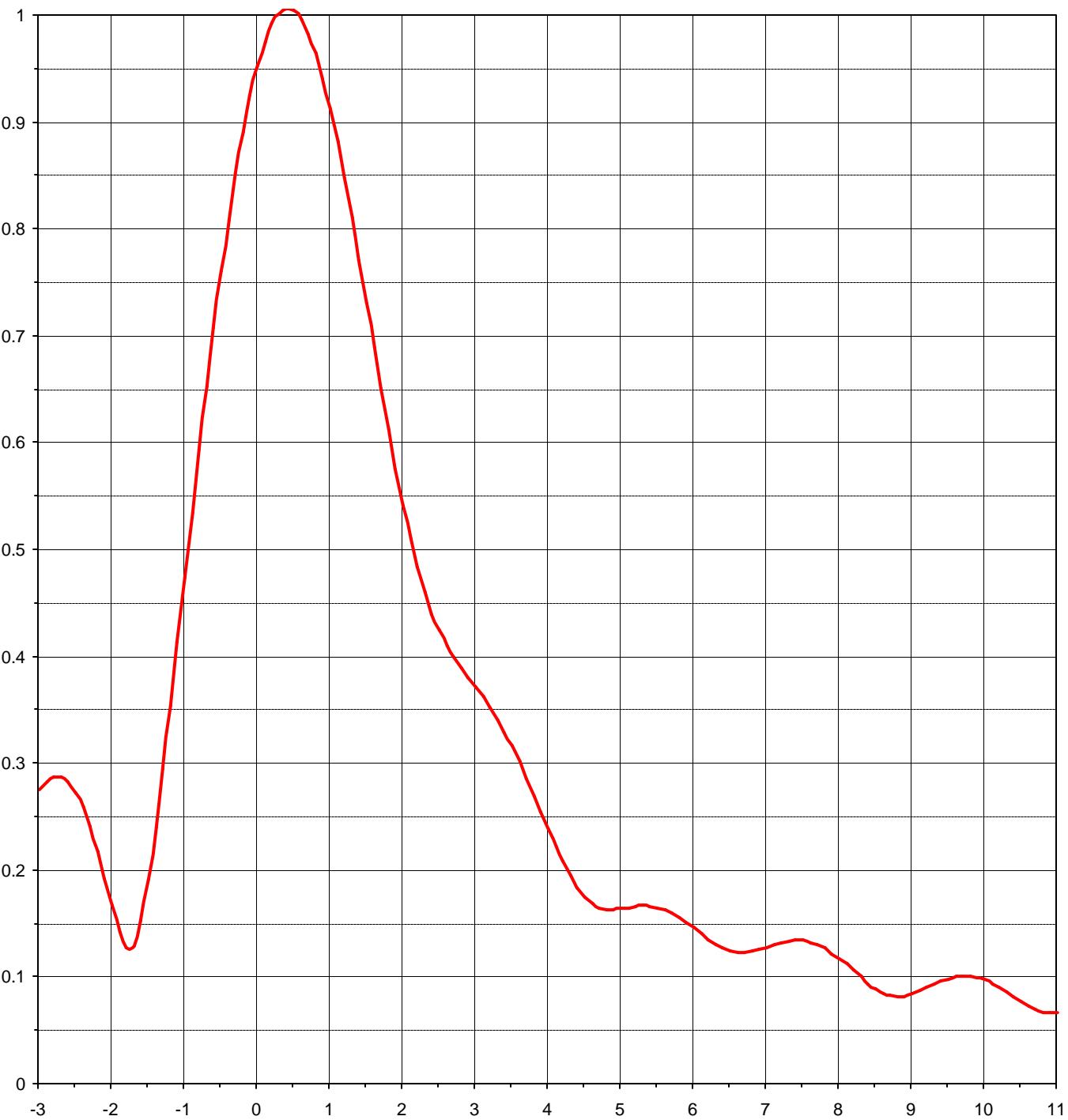
Degrees Below Horizontal

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **26E215040-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.083	2.4	0.434	10.6	0.071	30.5	0.032	51.0	0.026	71.5	0.050
-9.5	0.104	2.6	0.404	10.8	0.063	31.0	0.048	51.5	0.039	72.0	0.045
-9.0	0.082	2.8	0.383	11.0	0.060	31.5	0.048	52.0	0.046	72.5	0.039
-8.5	0.046	3.0	0.365	11.5	0.073	32.0	0.033	52.5	0.045	73.0	0.032
-8.0	0.083	3.2	0.346	12.0	0.085	32.5	0.012	53.0	0.038	73.5	0.025
-7.5	0.128	3.4	0.323	12.5	0.075	33.0	0.026	53.5	0.026	74.0	0.019
-7.0	0.128	3.6	0.296	13.0	0.050	33.5	0.044	54.0	0.016	74.5	0.017
-6.5	0.081	3.8	0.264	13.5	0.048	34.0	0.049	54.5	0.020	75.0	0.019
-6.0	0.067	4.0	0.232	14.0	0.067	34.5	0.039	55.0	0.032	75.5	0.024
-5.5	0.131	4.2	0.202	14.5	0.072	35.0	0.019	55.5	0.041	76.0	0.031
-5.0	0.164	4.4	0.178	15.0	0.054	35.5	0.017	56.0	0.044	76.5	0.037
-4.5	0.137	4.6	0.163	15.5	0.037	36.0	0.037	56.5	0.041	77.0	0.042
-4.0	0.108	4.8	0.157	16.0	0.052	36.5	0.047	57.0	0.033	77.5	0.046
-3.5	0.186	5.0	0.158	16.5	0.067	37.0	0.043	57.5	0.023	78.0	0.050
-3.0	0.269	5.2	0.160	17.0	0.061	37.5	0.028	58.0	0.018	78.5	0.052
-2.8	0.281	5.4	0.160	17.5	0.038	38.0	0.011	58.5	0.024	79.0	0.054
-2.6	0.277	5.6	0.157	18.0	0.030	38.5	0.026	59.0	0.035	79.5	0.054
-2.4	0.253	5.8	0.150	18.5	0.053	39.0	0.042	59.5	0.043	80.0	0.054
-2.2	0.212	6.0	0.140	19.0	0.062	39.5	0.048	60.0	0.047	80.5	0.053
-2.0	0.161	6.2	0.129	19.5	0.050	40.0	0.040	60.5	0.047	81.0	0.051
-1.8	0.121	6.4	0.121	20.0	0.027	40.5	0.023	61.0	0.042	81.5	0.048
-1.6	0.146	6.6	0.117	20.5	0.034	41.0	0.012	61.5	0.033	82.0	0.046
-1.4	0.234	6.8	0.118	21.0	0.055	41.5	0.028	62.0	0.024	82.5	0.043
-1.2	0.347	7.0	0.122	21.5	0.058	42.0	0.042	62.5	0.019	83.0	0.039
-1.0	0.468	7.2	0.126	22.0	0.041	42.5	0.045	63.0	0.022	83.5	0.036
-0.8	0.588	7.4	0.128	22.5	0.019	43.0	0.037	63.5	0.031	84.0	0.032
-0.6	0.701	7.6	0.126	23.0	0.035	43.5	0.021	64.0	0.038	84.5	0.029
-0.4	0.802	7.8	0.121	23.5	0.054	44.0	0.013	64.5	0.044	85.0	0.025
-0.2	0.885	8.0	0.111	24.0	0.053	44.5	0.028	65.0	0.045	85.5	0.022
0.0	0.947	8.2	0.100	24.5	0.035	45.0	0.042	65.5	0.043	86.0	0.018
0.2	0.986	8.4	0.088	25.0	0.018	45.5	0.047	66.0	0.038	86.5	0.015
0.4	1.000	8.6	0.079	25.5	0.037	46.0	0.041	66.5	0.032	87.0	0.012
0.6	0.990	8.8	0.076	26.0	0.052	46.5	0.028	67.0	0.027	87.5	0.009
0.8	0.958	9.0	0.078	26.5	0.050	47.0	0.014	67.5	0.025	88.0	0.006
1.0	0.907	9.2	0.084	27.0	0.030	47.5	0.021	68.0	0.029	88.5	0.004
1.2	0.841	9.4	0.090	27.5	0.015	48.0	0.035	68.5	0.035	89.0	0.002
1.4	0.765	9.6	0.094	28.0	0.035	48.5	0.044	69.0	0.042	89.5	0.001
1.6	0.684	9.8	0.095	28.5	0.051	49.0	0.043	69.5	0.047	90.0	0.000
1.8	0.606	10.0	0.093	29.0	0.049	49.5	0.035	70.0	0.051		
2.0	0.536	10.2	0.088	29.5	0.031	50.0	0.021	70.5	0.053		
2.2	0.478	10.4	0.080	30.0	0.014	50.5	0.014	71.0	0.052		