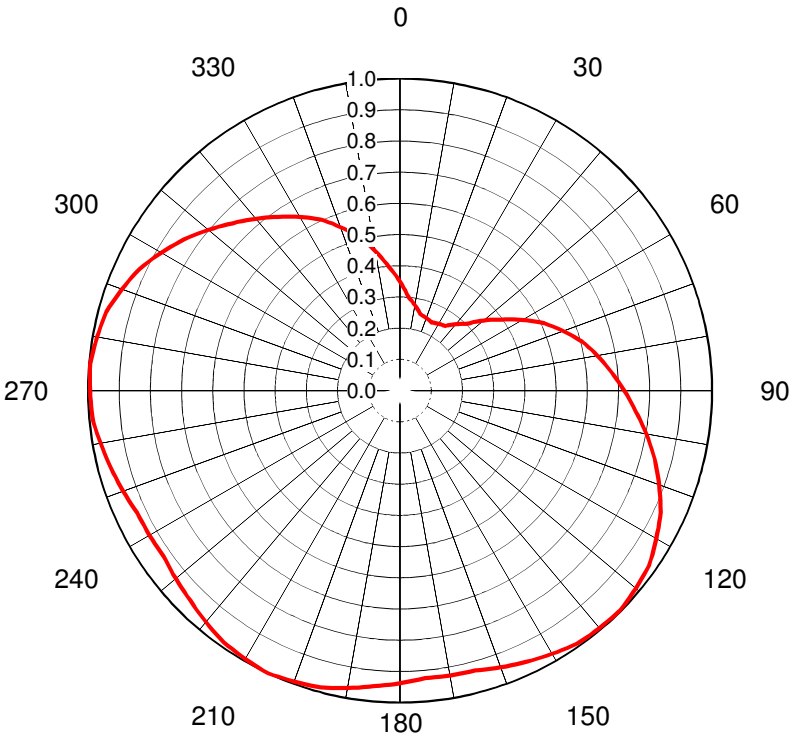
Dielectric®

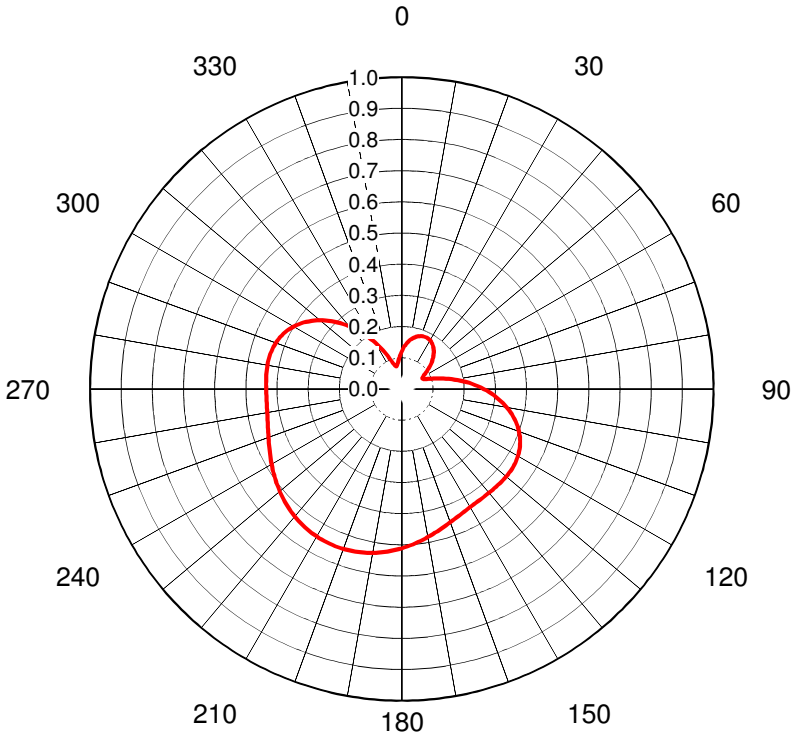


AZIMUTH PATTERN
Horizontal Polarization

In Free Space

Proposal No.	**C-70778-2**
Date	**26-Oct-17**
Call Letters	**KMIR**
Channel	**26**
Frequency	**545 MHz**
Antenna Type	**TFU-28DSC/VP-R C160**
Gain	**1.57 (1.95dB)**
	Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.350	36	0.258	72	0.576	108	0.868	144	0.991	180	0.938	216	0.982	252	0.950	288	0.959	324	0.688
1	0.340	37	0.263	73	0.586	109	0.876	145	0.990	181	0.941	217	0.978	253	0.953	289	0.954	325	0.680
2	0.331	38	0.268	74	0.595	110	0.883	146	0.987	182	0.943	218	0.975	254	0.956	290	0.948	326	0.673
3	0.321	39	0.273	75	0.605	111	0.891	147	0.984	183	0.946	219	0.971	255	0.959	291	0.943	327	0.665
4	0.312	40	0.278	76	0.613	112	0.899	148	0.981	184	0.948	220	0.968	256	0.962	292	0.938	328	0.658
5	0.302	41	0.282	77	0.620	113	0.907	149	0.978	185	0.951	221	0.965	257	0.965	293	0.933	329	0.650
6	0.297	42	0.287	78	0.627	114	0.914	150	0.975	186	0.954	222	0.961	258	0.968	294	0.927	330	0.642
7	0.292	43	0.292	79	0.635	115	0.922	151	0.971	187	0.958	223	0.958	259	0.971	295	0.922	331	0.635
8	0.287	44	0.297	80	0.642	116	0.927	152	0.968	188	0.961	224	0.954	260	0.975	296	0.914	332	0.627
9	0.282	45	0.302	81	0.650	117	0.933	153	0.965	189	0.965	225	0.951	261	0.978	297	0.907	333	0.620
10	0.278	46	0.312	82	0.658	118	0.938	154	0.962	190	0.968	226	0.948	262	0.981	298	0.899	334	0.613
11	0.273	47	0.321	83	0.665	119	0.943	155	0.959	191	0.971	227	0.946	263	0.984	299	0.891	335	0.605
12	0.268	48	0.331	84	0.673	120	0.948	156	0.956	192	0.975	228	0.943	264	0.987	300	0.883	336	0.595
13	0.263	49	0.340	85	0.680	121	0.954	157	0.953	193	0.978	229	0.941	265	0.990	301	0.876	337	0.586
14	0.258	50	0.350	86	0.688	122	0.959	158	0.950	194	0.982	230	0.938	266	0.991	302	0.868	338	0.576
15	0.253	51	0.359	87	0.696	123	0.964	159	0.947	195	0.985	231	0.935	267	0.991	303	0.860	339	0.567
16	0.252	52	0.368	88	0.703	124	0.970	160	0.944	196	0.987	232	0.933	268	0.992	304	0.853	340	0.558
17	0.251	53	0.378	89	0.711	125	0.975	161	0.941	197	0.988	233	0.930	269	0.993	305	0.845	341	0.548
18	0.249	54	0.387	90	0.719	126	0.977	162	0.938	198	0.989	234	0.928	270	0.993	306	0.836	342	0.539
19	0.248	55	0.397	91	0.727	127	0.979	163	0.935	199	0.991	235	0.925	271	0.994	307	0.828	343	0.529
20	0.247	56	0.408	92	0.735	128	0.982	164	0.932	200	0.993	236	0.925	272	0.995	308	0.819	344	0.520
21	0.246	57	0.420	93	0.742	129	0.984	165	0.929	201	0.994	237	0.926	273	0.996	309	0.810	345	0.510
22	0.245	58	0.431	94	0.750	130	0.986	166	0.929	202	0.996	238	0.926	274	0.996	310	0.802	346	0.499
23	0.243	59	0.442	95	0.758	131	0.988	167	0.928	203	0.997	239	0.927	275	0.997	311	0.793	347	0.487
24	0.242	60	0.454	96	0.767	132	0.990	168	0.928	204	0.998	240	0.927	276	0.995	312	0.784	348	0.476
25	0.241	61	0.465	97	0.775	133	0.993	169	0.927	205	1.000	241	0.927	277	0.993	313	0.775	349	0.465
26	0.242	62	0.476	98	0.784	134	0.995	170	0.927	206	0.998	242	0.928	278	0.990	314	0.767	350	0.454
27	0.243	63	0.487	99	0.793	135	0.997	171	0.927	207	0.997	243	0.928	279	0.988	315	0.758	351	0.442
28	0.245	64	0.499	100	0.802	136	0.996	172	0.926	208	0.996	244	0.929	280	0.986	316	0.750	352	0.431
29	0.246	65	0.510	101	0.810	137	0.996	173	0.926	209	0.994	245	0.929	281	0.984	317	0.742	353	0.420
30	0.247	66	0.520	102	0.819	138	0.995	174	0.925	210	0.993	246	0.932	282	0.982	318	0.735	354	0.408
31	0.248	67	0.529	103	0.828	139	0.994	175	0.925	211	0.991	247	0.935	283	0.979	319	0.727	355	0.397
32	0.249	68	0.539	104	0.836	140	0.993	176	0.928	212	0.989	248	0.938	284	0.977	320	0.719	356	0.387
33	0.251	69	0.548	105	0.845	141	0.993	177	0.930	213	0.988	249	0.941	285	0.975	321	0.711	357	0.378
34	0.252	70	0.558	106	0.853	142	0.992	178	0.933	214	0.987	250	0.944	286	0.970	322	0.703	358	0.368
35	0.253	71	0.567	107	0.860	143	0.991	179	0.935	215	0.985	251	0.947	287	0.964	323	0.696	359	0.359



AZIMUTH PATTERN
Vertical Polarization

In Free Space

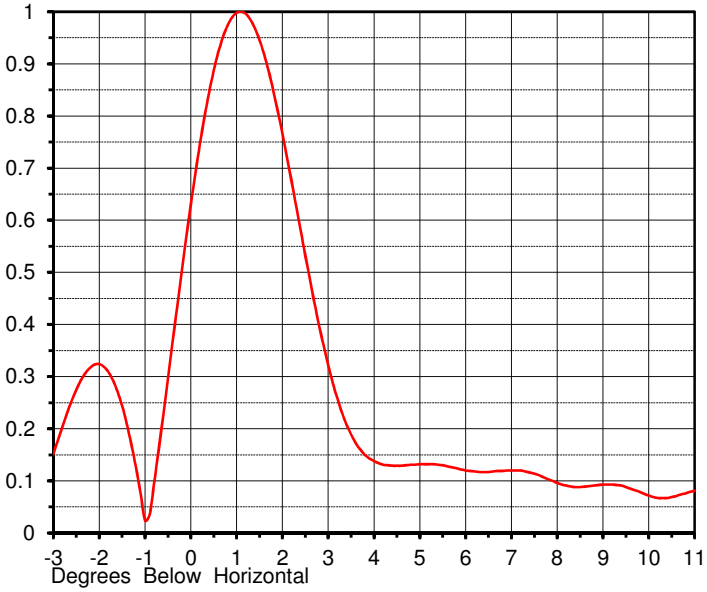
Proposal No.	**C-70778-2**
Date	**26-Oct-17**
Call Letters	**KMIR**
Channel	**26**
Frequency	**545 MHz**
Antenna Type	**TFU-28DSC/VP-R C160**
Gain	**2.15 (3.33dB)**
	Calculated

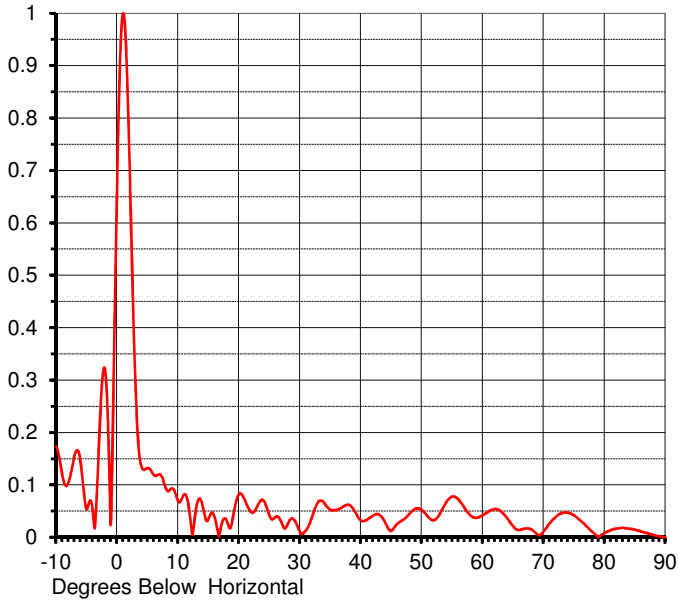
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.121	36	0.170	72	0.107	108	0.391	144	0.435	180	0.511	216	0.540	252	0.451	288	0.433	324	0.226
1	0.125	37	0.168	73	0.115	109	0.396	145	0.435	181	0.514	217	0.539	253	0.449	289	0.432	325	0.217
2	0.130	38	0.165	74	0.122	110	0.400	146	0.436	182	0.516	218	0.537	254	0.447	290	0.430	326	0.208
3	0.134	39	0.163	75	0.130	111	0.404	147	0.436	183	0.519	219	0.536	255	0.445	291	0.428	327	0.199
4	0.138	40	0.160	76	0.138	112	0.408	148	0.437	184	0.521	220	0.534	256	0.443	292	0.426	328	0.190
5	0.142	41	0.157	77	0.146	113	0.412	149	0.437	185	0.524	221	0.532	257	0.442	293	0.424	329	0.181
6	0.146	42	0.153	78	0.155	114	0.415	150	0.438	186	0.526	222	0.530	258	0.440	294	0.421	330	0.172
7	0.150	43	0.150	79	0.163	115	0.419	151	0.439	187	0.528	223	0.528	259	0.439	295	0.419	331	0.163
8	0.153	44	0.146	80	0.172	116	0.421	152	0.440	188	0.530	224	0.526	260	0.438	296	0.415	332	0.155
9	0.157	45	0.142	81	0.181	117	0.424	153	0.442	189	0.532	225	0.524	261	0.437	297	0.412	333	0.146
10	0.160	46	0.138	82	0.190	118	0.426	154	0.443	190	0.534	226	0.521	262	0.437	298	0.408	334	0.138
11	0.163	47	0.134	83	0.199	119	0.428	155	0.445	191	0.536	227	0.519	263	0.436	299	0.404	335	0.130
12	0.165	48	0.130	84	0.208	120	0.430	156	0.447	192	0.537	228	0.516	264	0.436	300	0.400	336	0.122
13	0.168	49	0.125	85	0.217	121	0.432	157	0.449	193	0.539	229	0.514	265	0.435	301	0.396	337	0.115
14	0.170	50	0.121	86	0.226	122	0.433	158	0.451	194	0.540	230	0.511	266	0.435	302	0.391	338	0.107
15	0.173	51	0.116	87	0.236	123	0.434	159	0.453	195	0.541	231	0.508	267	0.435	303	0.386	339	0.101
16	0.175	52	0.112	88	0.245	124	0.435	160	0.455	196	0.543	232	0.506	268	0.435	304	0.380	340	0.095
17	0.176	53	0.107	89	0.253	125	0.436	161	0.457	197	0.544	233	0.503	269	0.435	305	0.375	341	0.089
18	0.178	54	0.103	90	0.262	126	0.437	162	0.460	198	0.545	234	0.500	270	0.435	306	0.369	342	0.085
19	0.179	55	0.098	91	0.271	127	0.437	163	0.462	199	0.545	235	0.497	271	0.435	307	0.363	343	0.081
20	0.180	56	0.094	92	0.280	128	0.437	164	0.465	200	0.546	236	0.494	272	0.436	308	0.356	344	0.078
21	0.181	57	0.090	93	0.288	129	0.437	165	0.468	201	0.547	237	0.491	273	0.436	309	0.349	345	0.076
22	0.182	58	0.086	94	0.296	130	0.437	166	0.471	202	0.547	238	0.488	274	0.436	310	0.343	346	0.075
23	0.183	59	0.082	95	0.305	131	0.437	167	0.473	203	0.547	239	0.485	275	0.436	311	0.335	347	0.075
24	0.183	60	0.079	96	0.313	132	0.437	168	0.476	204	0.548	240	0.482	276	0.437	312	0.328	348	0.075
25	0.183	61	0.077	97	0.320	133	0.437	169	0.479	205	0.548	241	0.479	277	0.437	313	0.320	349	0.077
26	0.183	62	0.075	98	0.328	134	0.437	170	0.482	206	0.548	242	0.476	278	0.437	314	0.313	350	0.079
27	0.183	63	0.075	99	0.335	135	0.436	171	0.485	207	0.547	243	0.473	279	0.437	315	0.305	351	0.082
28	0.182	64	0.075	100	0.343	136	0.436	172	0.488	208	0.547	244	0.471	280	0.437	316	0.296	352	0.086
29	0.181	65	0.076	101	0.349	137	0.436	173	0.491	209	0.547	245	0.468	281	0.437	317	0.288	353	0.090
30	0.180	66	0.078	102	0.356	138	0.436	174	0.494	210	0.546	246	0.465	282	0.437	318	0.280	354	0.094
31	0.179	67	0.081	103	0.363	139	0.435	175	0.497	211	0.545	247	0.462	283	0.437	319	0.271	355	0.098
32	0.178	68	0.085	104	0.369	140	0.435	176	0.500	212	0.545	248	0.460	284	0.437	320	0.262	356	0.103
33	0.176	69	0.089	105	0.375	141	0.435	177	0.503	213	0.544	249	0.457	285	0.436	321	0.253	357	0.107
34	0.175	70	0.095	106	0.380	142	0.435	178	0.506	214	0.543	250	0.455	286	0.435	322	0.245	358	0.112
35	0.173	71	0.101	107	0.386	143	0.435	179	0.508	215	0.541	251	0.453	287	0.434	323	0.236	359	0.116

ELEVATION PATTERN

Proposal No.	**C-70778-2**
Date	**26-Oct-17**
Call Letters	**KMIR**
Channel	**26**
Frequency	**545 MHz**
Antenna Type	**TFU-28DSC/VP-R C160**

RMS Directivity at Main Lobe	**24.5 (13.89 dB)**	Beam Tilt	**1.00 deg**
RMS Directivity at Horizontal	**11.7 (10.68 dB)**	Pattern Number	**28Q245100**
	Calculated		





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.174	10.0	0.069	30.0	0.010	50.0	0.052	70.0	0.012
-9.0	0.118	11.0	0.082	31.0	0.013	51.0	0.039	71.0	0.027
-8.0	0.105	12.0	0.035	32.0	0.040	52.0	0.033	72.0	0.039
-7.0	0.156	13.0	0.058	33.0	0.068	53.0	0.046	73.0	0.046
-6.0	0.142	14.0	0.061	34.0	0.065	54.0	0.067	74.0	0.047
-5.0	0.053	15.0	0.036	35.0	0.052	55.0	0.078	75.0	0.042
-4.0	0.048	16.0	0.038	36.0	0.052	56.0	0.072	76.0	0.032
-3.0	0.179	17.0	0.018	37.0	0.058	57.0	0.056	77.0	0.021
-2.0	0.319	18.0	0.031	38.0	0.062	58.0	0.041	78.0	0.010
-1.0	0.035	19.0	0.039	39.0	0.049	59.0	0.037	79.0	0.000
0.0	0.690	20.0	0.083	40.0	0.032	60.0	0.042	80.0	0.008
1.0	1.000	21.0	0.069	41.0	0.034	61.0	0.050	81.0	0.014
2.0	0.721	22.0	0.048	42.0	0.042	62.0	0.054	82.0	0.017
3.0	0.288	23.0	0.060	43.0	0.043	63.0	0.049	83.0	0.018
4.0	0.134	24.0	0.070	44.0	0.027	64.0	0.036	84.0	0.017
5.0	0.132	25.0	0.041	45.0	0.013	65.0	0.021	85.0	0.014
6.0	0.119	26.0	0.039	46.0	0.026	66.0	0.014	86.0	0.011
7.0	0.120	27.0	0.027	47.0	0.034	67.0	0.017	87.0	0.008
8.0	0.093	28.0	0.026	48.0	0.045	68.0	0.015	88.0	0.004
9.0	0.093	29.0	0.034	49.0	0.055	69.0	0.005	89.0	0.002
								90.0	0.000