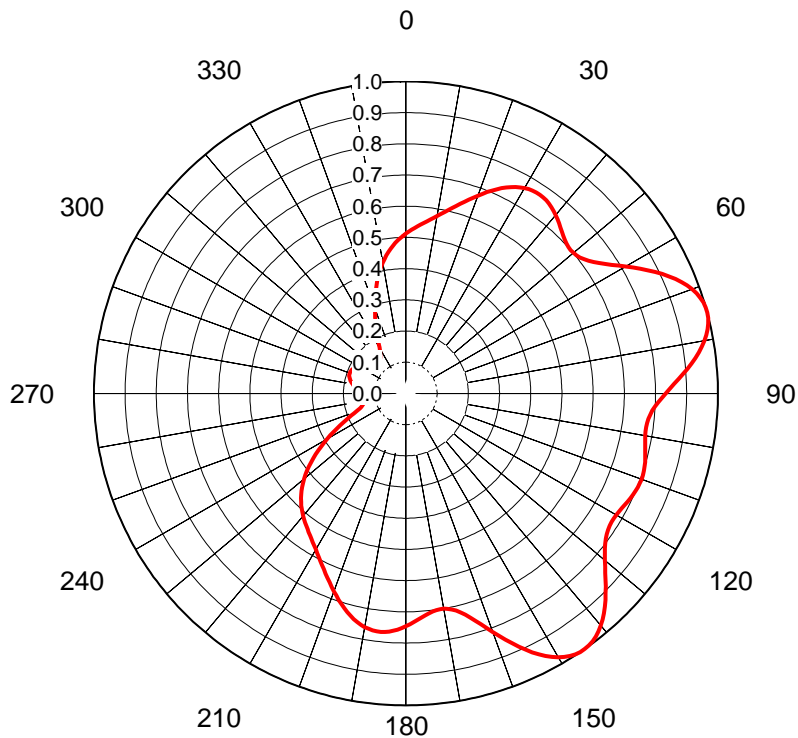


AZIMUTH PATTERN Horizontal Polarization



Proposal No. **C-70686**
 Date **13-Jun-17**
 Call Letters **WWOR**
 Channel **25**
 Frequency **539 MHz**
 Antenna Type **TUD-C5SP-10/34U-2-B**
 Gain **2.49 (3.95dB)**
 Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.512	36	0.765	72	0.992	108	0.802	144	0.998	180	0.746	216	0.537	252	0.156	288	0.191
1	0.519	37	0.762	73	0.997	109	0.803	145	1.000	181	0.752	217	0.531	253	0.151	289	0.191
2	0.525	38	0.757	74	1.000	110	0.804	146	1.000	182	0.757	218	0.525	254	0.146	290	0.192
3	0.531	39	0.752	75	1.000	111	0.803	147	0.997	183	0.762	219	0.519	255	0.143	291	0.191
4	0.537	40	0.746	76	0.998	112	0.802	148	0.992	184	0.765	220	0.512	256	0.141	292	0.191
5	0.543	41	0.740	77	0.994	113	0.800	149	0.985	185	0.767	221	0.506	257	0.139	293	0.190
6	0.549	42	0.733	78	0.989	114	0.797	150	0.977	186	0.768	222	0.499	258	0.138	294	0.188
7	0.556	43	0.727	79	0.981	115	0.794	151	0.966	187	0.768	223	0.491	259	0.137	295	0.187
8	0.563	44	0.720	80	0.972	116	0.791	152	0.953	188	0.767	224	0.484	260	0.137	296	0.184
9	0.570	45	0.714	81	0.961	117	0.787	153	0.939	189	0.764	225	0.476	261	0.137	297	0.182
10	0.578	46	0.709	82	0.948	118	0.784	154	0.923	190	0.760	226	0.467	262	0.137	298	0.179
11	0.586	47	0.704	83	0.935	119	0.781	155	0.906	191	0.755	227	0.457	263	0.137	299	0.176
12	0.594	48	0.702	84	0.920	120	0.779	156	0.889	192	0.749	228	0.448	264	0.138	300	0.173
13	0.603	49	0.700	85	0.906	121	0.778	157	0.870	193	0.742	229	0.437	265	0.139	301	0.170
14	0.612	50	0.701	86	0.890	122	0.778	158	0.851	194	0.734	230	0.426	266	0.140	302	0.167
15	0.622	51	0.703	87	0.875	123	0.779	159	0.832	195	0.726	231	0.414	267	0.141	303	0.164
16	0.632	52	0.708	88	0.860	124	0.782	160	0.814	196	0.716	232	0.402	268	0.142	304	0.160
17	0.643	53	0.715	89	0.846	125	0.786	161	0.795	197	0.706	233	0.389	269	0.143	305	0.157
18	0.653	54	0.724	90	0.832	126	0.792	162	0.778	198	0.696	234	0.376	270	0.145	306	0.154
19	0.664	55	0.734	91	0.820	127	0.800	163	0.762	199	0.685	235	0.362	271	0.147	307	0.152
20	0.675	56	0.747	92	0.809	128	0.809	164	0.747	200	0.675	236	0.349	272	0.149	308	0.149
21	0.685	57	0.762	93	0.800	129	0.820	165	0.734	201	0.664	237	0.334	273	0.152	309	0.147
22	0.696	58	0.778	94	0.792	130	0.832	166	0.724	202	0.653	238	0.320	274	0.154	310	0.145
23	0.706	59	0.795	95	0.786	131	0.846	167	0.715	203	0.643	239	0.306	275	0.157	311	0.143
24	0.716	60	0.814	96	0.782	132	0.860	168	0.708	204	0.632	240	0.291	276	0.160	312	0.142
25	0.726	61	0.832	97	0.779	133	0.875	169	0.703	205	0.622	241	0.277	277	0.164	313	0.141
26	0.734	62	0.851	98	0.778	134	0.890	170	0.701	206	0.612	242	0.262	278	0.167	314	0.140
27	0.742	63	0.870	99	0.778	135	0.906	171	0.700	207	0.603	243	0.249	279	0.170	315	0.139
28	0.749	64	0.889	100	0.779	136	0.920	172	0.702	208	0.594	244	0.235	280	0.173	316	0.138
29	0.755	65	0.906	101	0.781	137	0.935	173	0.704	209	0.586	245	0.222	281	0.176	317	0.137
30	0.760	66	0.923	102	0.784	138	0.948	174	0.709	210	0.578	246	0.210	282	0.179	318	0.137
31	0.764	67	0.939	103	0.787	139	0.961	175	0.714	211	0.570	247	0.198	283	0.182	319	0.137
32	0.767	68	0.953	104	0.791	140	0.972	176	0.720	212	0.563	248	0.188	284	0.184	320	0.137
33	0.768	69	0.966	105	0.794	141	0.981	177	0.727	213	0.556	249	0.178	285	0.187	321	0.137
34	0.768	70	0.977	106	0.797	142	0.989	178	0.733	214	0.549	250	0.170	286	0.188	322	0.138
35	0.767	71	0.985	107	0.800	143	0.994	179	0.740	215	0.543	251	0.162	287	0.190	323	0.139

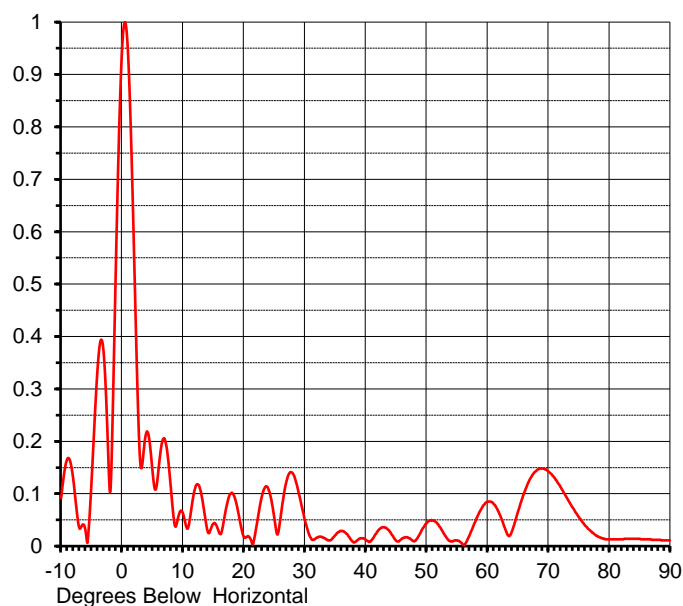
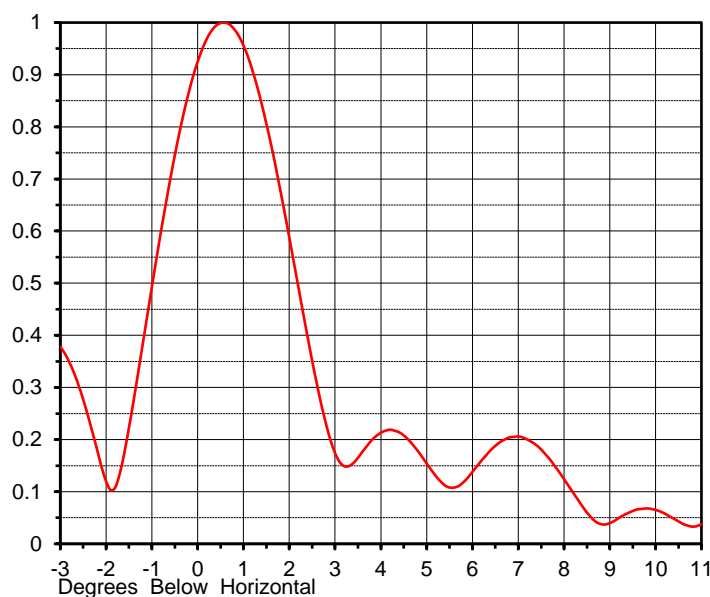
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ELEVATION PATTERN

Proposal No. **C-70686**
 Date **13-Jun-17**
 Call Letters **WWOR**
 Channel **25**
 Frequency **539 MHz**
 Antenna Type **TUD-C5SP-10/34U-2-B**

RMS Directivity at Main Lobe **19.7 (12.96 dB)**
 RMS Directivity at Horizontal **17.8 (12.50 dB)**
Calculated

Beam Tilt **0.50 deg**
 Pattern Number **10U198050**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.092	10.0	0.062	30.0	0.049	50.0	0.044	70.0	0.142
-9.0	0.166	11.0	0.043	31.0	0.015	51.0	0.049	71.0	0.130
-8.0	0.126	12.0	0.111	32.0	0.016	52.0	0.039	72.0	0.112
-7.0	0.034	13.0	0.099	33.0	0.016	53.0	0.020	73.0	0.092
-6.0	0.029	14.0	0.030	34.0	0.011	54.0	0.009	74.0	0.073
-5.0	0.127	15.0	0.043	35.0	0.021	55.0	0.011	75.0	0.055
-4.0	0.343	16.0	0.024	36.0	0.029	56.0	0.002	76.0	0.039
-3.0	0.365	17.0	0.068	37.0	0.022	57.0	0.020	77.0	0.028
-2.0	0.103	18.0	0.102	38.0	0.007	58.0	0.048	78.0	0.019
-1.0	0.547	19.0	0.068	39.0	0.014	59.0	0.072	79.0	0.014
0.0	0.949	20.0	0.017	40.0	0.012	60.0	0.085	80.0	0.013
1.0	0.934	21.0	0.015	41.0	0.012	61.0	0.080	81.0	0.013
2.0	0.540	22.0	0.035	42.0	0.029	62.0	0.060	82.0	0.013
3.0	0.157	23.0	0.098	43.0	0.036	63.0	0.029	83.0	0.014
4.0	0.217	24.0	0.109	44.0	0.027	64.0	0.029	84.0	0.014
5.0	0.142	25.0	0.052	45.0	0.010	65.0	0.067	85.0	0.014
6.0	0.149	26.0	0.054	46.0	0.015	66.0	0.102	86.0	0.013
7.0	0.204	27.0	0.125	47.0	0.016	67.0	0.129	87.0	0.012
8.0	0.111	28.0	0.139	48.0	0.010	68.0	0.144	88.0	0.012
9.0	0.044	29.0	0.100	49.0	0.026	69.0	0.148	89.0	0.011
								90.0	0.011

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