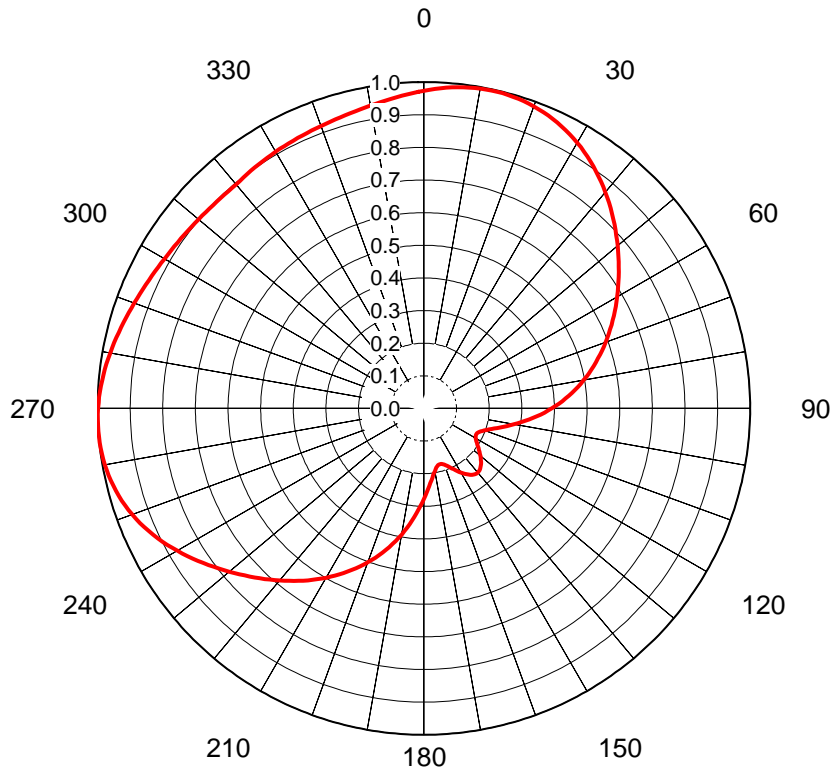


AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70179-5**
 Date **4-Mar-19**
 Call Letters **WYDO**
 Channel **19**
 Frequency **503 MHz**
 Antenna Type **TFU-20DSB/VP-M-R**
 Gain **1.88 (2.73dB)**
 Calculated

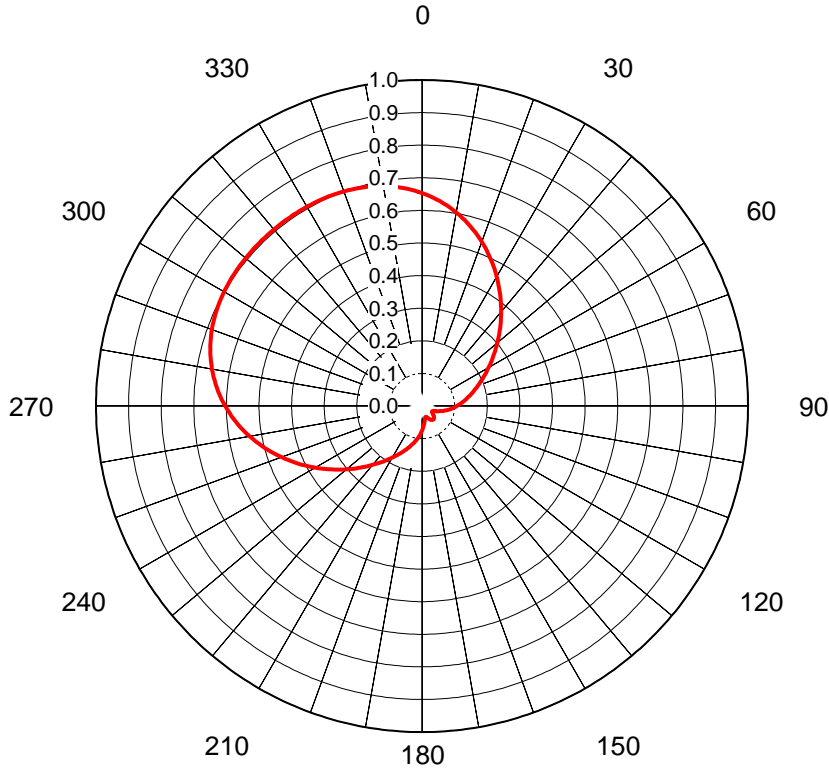


Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.974	36	0.898	72	0.574	108	0.209	144	0.251	180	0.278	216	0.653	252	0.963	288	0.951	324	0.901
1	0.977	37	0.890	73	0.565	109	0.203	145	0.248	181	0.289	217	0.662	253	0.968	289	0.947	325	0.902
2	0.980	38	0.882	74	0.555	110	0.197	146	0.245	182	0.300	218	0.671	254	0.972	290	0.944	326	0.904
3	0.983	39	0.874	75	0.546	111	0.192	147	0.241	183	0.311	219	0.680	255	0.977	291	0.941	327	0.905
4	0.985	40	0.865	76	0.536	112	0.188	148	0.236	184	0.322	220	0.688	256	0.981	292	0.938	328	0.906
5	0.988	41	0.857	77	0.527	113	0.184	149	0.232	185	0.334	221	0.697	257	0.984	293	0.935	329	0.907
6	0.990	42	0.848	78	0.517	114	0.182	150	0.227	186	0.346	222	0.706	258	0.987	294	0.933	330	0.908
7	0.992	43	0.839	79	0.507	115	0.180	151	0.222	187	0.357	223	0.715	259	0.990	295	0.930	331	0.910
8	0.993	44	0.830	80	0.497	116	0.179	152	0.217	188	0.369	224	0.724	260	0.993	296	0.927	332	0.911
9	0.994	45	0.821	81	0.487	117	0.179	153	0.212	189	0.381	225	0.733	261	0.995	297	0.925	333	0.912
10	0.995	46	0.812	82	0.477	118	0.180	154	0.207	190	0.393	226	0.742	262	0.996	298	0.922	334	0.913
11	0.996	47	0.803	83	0.467	119	0.182	155	0.202	191	0.404	227	0.751	263	0.998	299	0.920	335	0.914
12	0.996	48	0.794	84	0.457	120	0.184	156	0.198	192	0.415	228	0.760	264	0.999	300	0.918	336	0.916
13	0.996	49	0.784	85	0.446	121	0.187	157	0.194	193	0.427	229	0.769	265	1.000	301	0.916	337	0.917
14	0.996	50	0.775	86	0.436	122	0.190	158	0.190	194	0.438	230	0.778	266	1.000	302	0.914	338	0.918
15	0.995	51	0.766	87	0.425	123	0.194	159	0.186	195	0.449	231	0.788	267	1.000	303	0.912	339	0.920
16	0.993	52	0.757	88	0.414	124	0.198	160	0.183	196	0.460	232	0.797	268	1.000	304	0.910	340	0.921
17	0.992	53	0.748	89	0.403	125	0.202	161	0.181	197	0.470	233	0.807	269	0.999	305	0.908	341	0.923
18	0.990	54	0.739	90	0.392	126	0.207	162	0.179	198	0.481	234	0.816	270	0.998	306	0.907	342	0.925
19	0.988	55	0.730	91	0.381	127	0.211	163	0.178	199	0.491	235	0.826	271	0.997	307	0.905	343	0.926
20	0.985	56	0.720	92	0.370	128	0.216	164	0.178	200	0.502	236	0.835	272	0.996	308	0.904	344	0.928
21	0.982	57	0.711	93	0.358	129	0.221	165	0.178	201	0.512	237	0.845	273	0.994	309	0.903	345	0.930
22	0.979	58	0.702	94	0.347	130	0.226	166	0.180	202	0.522	238	0.854	274	0.992	310	0.901	346	0.932
23	0.975	59	0.693	95	0.335	131	0.231	167	0.182	203	0.532	239	0.863	275	0.990	311	0.900	347	0.935
24	0.971	60	0.684	96	0.324	132	0.235	168	0.185	204	0.542	240	0.873	276	0.987	312	0.899	348	0.937
25	0.967	61	0.675	97	0.313	133	0.240	169	0.189	205	0.552	241	0.882	277	0.985	313	0.899	349	0.940
26	0.962	62	0.666	98	0.302	134	0.244	170	0.194	206	0.561	242	0.890	278	0.982	314	0.898	350	0.942
27	0.957	63	0.657	99	0.291	135	0.247	171	0.200	207	0.571	243	0.899	279	0.979	315	0.897	351	0.945
28	0.952	64	0.648	100	0.280	136	0.250	172	0.206	208	0.580	244	0.907	280	0.976	316	0.897	352	0.948
29	0.946	65	0.639	101	0.270	137	0.253	173	0.214	209	0.590	245	0.916	281	0.973	317	0.896	353	0.951
30	0.940	66	0.630	102	0.260	138	0.255	174	0.221	210	0.599	246	0.923	282	0.970	318	0.896	354	0.954
31	0.934	67	0.620	103	0.250	139	0.256	175	0.229	211	0.608	247	0.931	283	0.967	319	0.896	355	0.958
32	0.927	68	0.611	104	0.241	140	0.257	176	0.238	212	0.617	248	0.938	284	0.964	320	0.895	356	0.961
33	0.920	69	0.602	105	0.232	141	0.256	177	0.248	213	0.626	249	0.945	285	0.960	321	0.897	357	0.964
34	0.913	70	0.593	106	0.224	142	0.255	178	0.257	214	0.635	250	0.951	286	0.957	322	0.898	358	0.967
35	0.906	71	0.583	107	0.216	143	0.253	179	0.267	215	0.644	251	0.957	287	0.954	323	0.900	359	0.971

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70179-5**
 Date **4-Mar-19**
 Call Letters **WYDO**
 Channel **19**
 Frequency **503 MHz**
 Antenna Type **TFU-20DSB/VP-M-R**
 Gain **2.67 (4.27dB)**
 Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.653	36	0.409	72	0.173	108	0.051	144	0.052	180	0.075	216	0.213	252	0.475	288	0.681
1	0.649	37	0.401	73	0.169	109	0.049	145	0.052	181	0.079	217	0.218	253	0.483	289	0.683
2	0.645	38	0.393	74	0.164	110	0.046	146	0.051	182	0.082	218	0.224	254	0.491	290	0.686
3	0.640	39	0.385	75	0.160	111	0.044	147	0.050	183	0.085	219	0.230	255	0.499	291	0.688
4	0.635	40	0.377	76	0.156	112	0.042	148	0.049	184	0.088	220	0.236	256	0.506	292	0.690
5	0.631	41	0.369	77	0.152	113	0.040	149	0.048	185	0.091	221	0.242	257	0.514	293	0.692
6	0.625	42	0.361	78	0.148	114	0.038	150	0.047	186	0.095	222	0.248	258	0.522	294	0.694
7	0.620	43	0.354	79	0.145	115	0.037	151	0.045	187	0.098	223	0.254	259	0.529	295	0.695
8	0.615	44	0.346	80	0.141	116	0.036	152	0.044	188	0.101	224	0.261	260	0.537	296	0.697
9	0.609	45	0.338	81	0.137	117	0.035	153	0.043	189	0.104	225	0.267	261	0.544	297	0.698
10	0.603	46	0.331	82	0.134	118	0.035	154	0.041	190	0.107	226	0.274	262	0.551	298	0.699
11	0.597	47	0.323	83	0.130	119	0.035	155	0.040	191	0.111	227	0.281	263	0.558	299	0.700
12	0.591	48	0.316	84	0.127	120	0.035	156	0.039	192	0.114	228	0.288	264	0.565	300	0.701
13	0.584	49	0.308	85	0.123	121	0.036	157	0.038	193	0.117	229	0.295	265	0.572	301	0.702
14	0.578	50	0.301	86	0.120	122	0.036	158	0.037	194	0.120	230	0.302	266	0.579	302	0.703
15	0.571	51	0.294	87	0.117	123	0.037	159	0.036	195	0.124	231	0.309	267	0.585	303	0.703
16	0.564	52	0.287	88	0.114	124	0.039	160	0.035	196	0.127	232	0.316	268	0.592	304	0.704
17	0.557	53	0.280	89	0.110	125	0.040	161	0.035	197	0.131	233	0.324	269	0.598	305	0.705
18	0.550	54	0.273	90	0.107	126	0.041	162	0.035	198	0.134	234	0.331	270	0.604	306	0.705
19	0.543	55	0.267	91	0.104	127	0.043	163	0.035	199	0.138	235	0.339	271	0.610	307	0.705
20	0.536	56	0.260	92	0.101	128	0.044	164	0.036	200	0.141	236	0.347	272	0.615	308	0.706
21	0.528	57	0.254	93	0.097	129	0.045	165	0.037	201	0.145	237	0.354	273	0.621	309	0.706
22	0.521	58	0.247	94	0.094	130	0.047	166	0.038	202	0.149	238	0.362	274	0.626	310	0.706
23	0.513	59	0.241	95	0.091	131	0.048	167	0.040	203	0.153	239	0.370	275	0.631	311	0.706
24	0.505	60	0.235	96	0.088	132	0.049	168	0.042	204	0.157	240	0.378	276	0.636	312	0.707
25	0.498	61	0.229	97	0.085	133	0.050	169	0.044	205	0.161	241	0.386	277	0.641	313	0.707
26	0.490	62	0.224	98	0.082	134	0.051	170	0.046	206	0.165	242	0.394	278	0.646	314	0.707
27	0.482	63	0.218	99	0.078	135	0.052	171	0.049	207	0.169	243	0.402	279	0.650	315	0.707
28	0.474	64	0.212	100	0.075	136	0.052	172	0.051	208	0.173	244	0.410	280	0.654	316	0.707
29	0.466	65	0.207	101	0.072	137	0.053	173	0.054	209	0.178	245	0.418	281	0.658	317	0.707
30	0.458	66	0.202	102	0.069	138	0.053	174	0.057	210	0.183	246	0.426	282	0.662	318	0.707
31	0.450	67	0.197	103	0.066	139	0.054	175	0.060	211	0.187	247	0.434	283	0.666	319	0.707
32	0.442	68	0.192	104	0.063	140	0.054	176	0.063	212	0.192	248	0.443	284	0.669	320	0.707
33	0.434	69	0.187	105	0.060	141	0.054	177	0.066	213	0.197	249	0.451	285	0.672	321	0.707
34	0.426	70	0.182	106	0.057	142	0.053	178	0.069	214	0.202	250	0.459	286	0.675	322	0.707
35	0.417	71	0.178	107	0.054	143	0.053	179	0.072	215	0.207	251	0.467	287	0.678	323	0.707

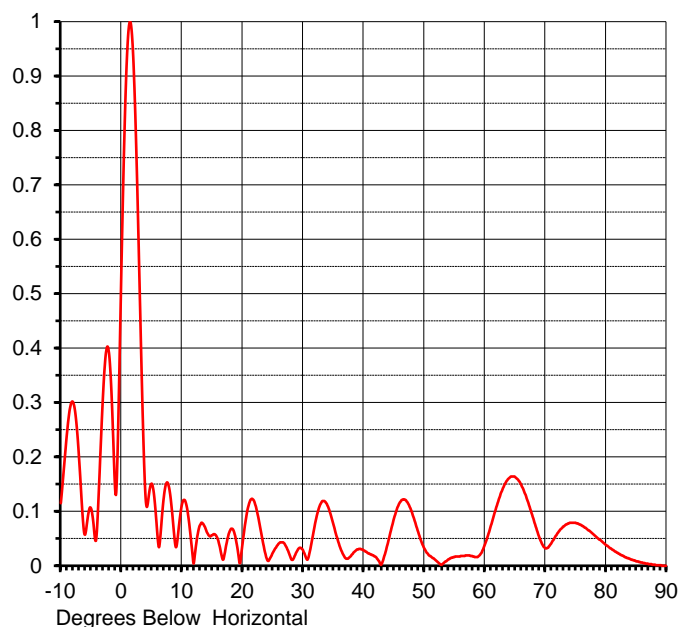
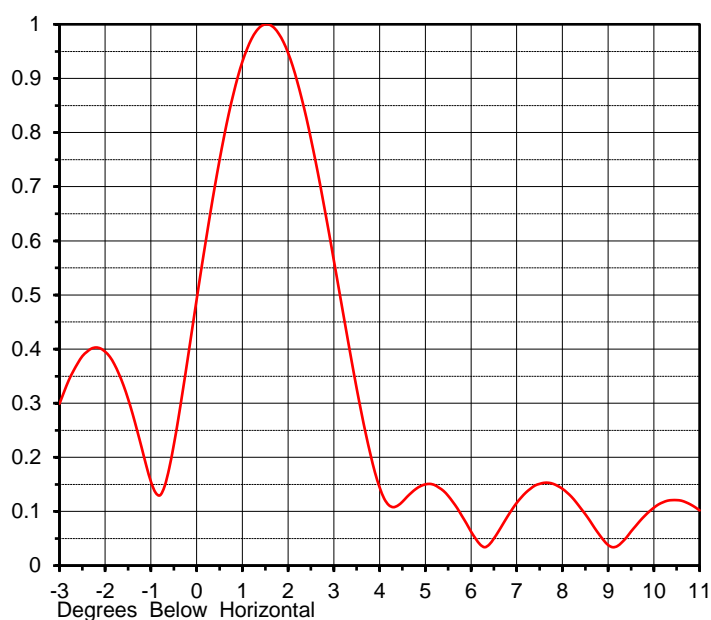
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ELEVATION PATTERN

Proposal No. **C-70179-5**
 Date **4-Mar-19**
 Call Letters **WYDO**
 Channel **19**
 Frequency **503 MHz**
 Antenna Type **TFU-20DSB/VP-M-R**

RMS Directivity at Main Lobe **19.5 (12.90 dB)**
 RMS Directivity at Horizontal **5.8 (7.63 dB)**
Calculated

Beam Tilt **1.50 deg**
 Pattern Number **20B195150**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.115	10.0	0.113	30.0	0.028	50.0	0.032	70.0	0.032
-9.0	0.242	11.0	0.094	31.0	0.021	51.0	0.018	71.0	0.042
-8.0	0.301	12.0	0.008	32.0	0.079	52.0	0.009	72.0	0.060
-7.0	0.199	13.0	0.075	33.0	0.116	53.0	0.003	73.0	0.072
-6.0	0.057	14.0	0.065	34.0	0.111	54.0	0.012	74.0	0.079
-5.0	0.105	15.0	0.056	35.0	0.076	55.0	0.016	75.0	0.079
-4.0	0.073	16.0	0.046	36.0	0.037	56.0	0.018	76.0	0.074
-3.0	0.321	17.0	0.020	37.0	0.014	57.0	0.019	77.0	0.066
-2.0	0.386	18.0	0.066	38.0	0.020	58.0	0.017	78.0	0.057
-1.0	0.135	19.0	0.042	39.0	0.030	59.0	0.018	79.0	0.048
0.0	0.547	20.0	0.041	40.0	0.028	60.0	0.039	80.0	0.038
1.0	0.954	21.0	0.111	41.0	0.022	61.0	0.074	81.0	0.030
2.0	0.923	22.0	0.116	42.0	0.016	62.0	0.111	82.0	0.023
3.0	0.516	23.0	0.065	43.0	0.004	63.0	0.143	83.0	0.017
4.0	0.124	24.0	0.013	44.0	0.042	64.0	0.161	84.0	0.012
5.0	0.151	25.0	0.024	45.0	0.087	65.0	0.163	85.0	0.008
6.0	0.050	26.0	0.041	46.0	0.117	66.0	0.149	86.0	0.006
7.0	0.126	27.0	0.039	47.0	0.120	67.0	0.121	87.0	0.003
8.0	0.135	28.0	0.013	48.0	0.097	68.0	0.087	88.0	0.002
9.0	0.034	29.0	0.027	49.0	0.062	69.0	0.052	89.0	0.001
								90.0	0.000

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