Dielectric®

AZIMUTH PATTERN
Horizontal Polarization
In Free Space

Proposal No.	**C-70033-1**
Date	**15-Feb-17**
Call Letters	**WICD**
Frequency	**581 MHz**
Channel	**32**
Antenna Type	**TFU-24JSC/VP-R 2C180**
Gain	**1.84 (2.64dB)**
	Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.781	36	0.775	72	0.979	108	0.793	144	0.376	180	0.441	216	0.372	252	0.770	288	0.981	324	0.779
1	0.780	37	0.779	73	0.984	109	0.781	145	0.372	181	0.441	217	0.376	253	0.783	289	0.976	325	0.776
2	0.780	38	0.784	74	0.988	110	0.768	146	0.368	182	0.441	218	0.380	254	0.795	290	0.971	326	0.772
3	0.779	39	0.789	75	0.991	111	0.755	147	0.365	183	0.440	219	0.386	255	0.808	291	0.966	327	0.770
4	0.779	40	0.795	76	0.994	112	0.743	148	0.362	184	0.440	220	0.391	256	0.821	292	0.960	328	0.767
5	0.779	41	0.800	77	0.997	113	0.730	149	0.360	185	0.439	221	0.398	257	0.833	293	0.954	329	0.765
6	0.778	42	0.806	78	0.998	114	0.717	150	0.359	186	0.438	222	0.405	258	0.845	294	0.948	330	0.763
7	0.778	43	0.812	79	1.000	115	0.704	151	0.358	187	0.436	223	0.412	259	0.856	295	0.942	331	0.761
8	0.777	44	0.817	80	1.000	116	0.691	152	0.358	188	0.434	224	0.420	260	0.868	296	0.936	332	0.759
9	0.777	45	0.823	81	1.000	117	0.677	153	0.359	189	0.432	225	0.429	261	0.879	297	0.929	333	0.758
10	0.776	46	0.830	82	0.998	118	0.664	154	0.361	190	0.429	226	0.438	262	0.890	298	0.923	334	0.758
11	0.775	47	0.836	83	0.996	119	0.651	155	0.363	191	0.426	227	0.447	263	0.900	299	0.917	335	0.757
12	0.774	48	0.842	84	0.993	120	0.638	156	0.366	192	0.423	228	0.457	264	0.910	300	0.910	336	0.757
13	0.773	49	0.848	85	0.990	121	0.625	157	0.369	193	0.420	229	0.468	265	0.920	301	0.904	337	0.758
14	0.771	50	0.855	86	0.986	122	0.612	158	0.373	194	0.416	230	0.479	266	0.929	302	0.897	338	0.758
15	0.770	51	0.862	87	0.981	123	0.599	159	0.376	195	0.411	231	0.490	267	0.938	303	0.891	339	0.760
16	0.768	52	0.868	88	0.976	124	0.585	160	0.381	196	0.407	232	0.502	268	0.946	304	0.885	340	0.761
17	0.766	53	0.875	89	0.970	125	0.572	161	0.385	197	0.403	233	0.514	269	0.954	305	0.878	341	0.762
18	0.765	54	0.881	90	0.964	126	0.559	162	0.390	198	0.398	234	0.526	270	0.961	306	0.872	342	0.764
19	0.763	55	0.888	91	0.957	127	0.546	163	0.394	199	0.394	235	0.539	271	0.968	307	0.866	343	0.766
20	0.761	56	0.894	92	0.950	128	0.533	164	0.399	200	0.389	236	0.552	272	0.974	308	0.859	344	0.767
21	0.759	57	0.901	93	0.943	129	0.521	165	0.403	201	0.385	237	0.565	273	0.980	309	0.853	345	0.769
22	0.758	58	0.907	94	0.935	130	0.508	166	0.408	202	0.381	238	0.578	274	0.985	310	0.847	346	0.771
23	0.756	59	0.913	95	0.927	131	0.495	167	0.412	203	0.377	239	0.592	275	0.989	311	0.841	347	0.773
24	0.755	60	0.919	96	0.918	132	0.482	168	0.417	204	0.373	240	0.605	276	0.993	312	0.836	348	0.775
25	0.754	61	0.925	97	0.910	133	0.470	169	0.420	205	0.370	241	0.619	277	0.995	313	0.830	349	0.776
26	0.754	62	0.930	98	0.901	134	0.458	170	0.424	206	0.367	242	0.633	278	0.998	314	0.825	350	0.778
27	0.754	63	0.936	99	0.891	135	0.446	171	0.428	207	0.365	243	0.647	279	0.999	315	0.819	351	0.779
28	0.754	64	0.941	100	0.881	136	0.435	172	0.431	208	0.363	244	0.661	280	1.000	316	0.814	352	0.780
29	0.755	65	0.946	101	0.871	137	0.425	173	0.433	209	0.362	245	0.675	281	1.000	317	0.809	353	0.781
30	0.756	66	0.951	102	0.861	138	0.415	174	0.436	210	0.362	246	0.688	282	0.999	318	0.804	354	0.781
31	0.758	67	0.956	103	0.850	139	0.406	175	0.437	211	0.362	247	0.702	283	0.998	319	0.799	355	0.781
32	0.760	68	0.961	104	0.839	140	0.399	176	0.439	212	0.362	248	0.716	284	0.995	320	0.795	356	0.781
33	0.763	69	0.966	105	0.828	141	0.392	177	0.440	213	0.364	249	0.729	285	0.993	321	0.791	357	0.781
34	0.766	70	0.970	106	0.817	142	0.386	178	0.440	214	0.366	250	0.743	286	0.989	322	0.786	358	0.781
35	0.770	71	0.975	107	0.805	143	0.380	179	0.441	215	0.368	251	0.756	287	0.985	323	0.783	359	0.781

Trusted for Decades. Ready for Tomorrow.
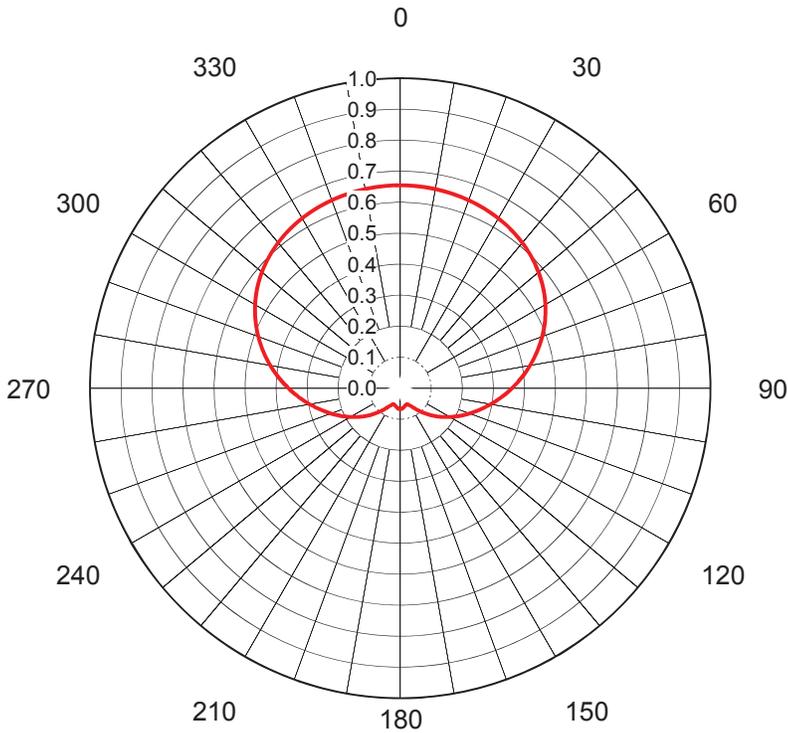
AZIMUTH PATTERN
Vertical Polarization
In Free Space

Proposal No.	C-70033-1
Date	15-Feb-17
Call Letters	WICD
Frequency	581 MHz
Channel	32
Antenna Type	TFU-24JSC/VP-R 2C180
Gain	2.39 (3.78dB)
	Calculated

| Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.655	36	0.622	72	0.475	108	0.249	144	0.082	180	0.067	216	0.082	252	0.249	288	0.475	324	0.622
1	0.655	37	0.619	73	0.469	109	0.244	145	0.078	181	0.067	217	0.085	253	0.255	289	0.481	325	0.624
2	0.655	38	0.617	74	0.463	110	0.238	146	0.075	182	0.067	218	0.088	254	0.261	290	0.487	326	0.626
3	0.654	39	0.615	75	0.457	111	0.233	147	0.072	183	0.067	219	0.092	255	0.267	291	0.493	327	0.628
4	0.654	40	0.612	76	0.451	112	0.227	148	0.070	184	0.067	220	0.096	256	0.273	292	0.498	328	0.629
5	0.654	41	0.610	77	0.445	113	0.222	149	0.067	185	0.066	221	0.100	257	0.279	293	0.504	329	0.631
6	0.654	42	0.607	78	0.438	114	0.216	150	0.065	186	0.066	222	0.103	258	0.285	294	0.510	330	0.633
7	0.654	43	0.604	79	0.432	115	0.211	151	0.063	187	0.065	223	0.108	259	0.291	295	0.515	331	0.634
8	0.653	44	0.602	80	0.425	116	0.206	152	0.061	188	0.064	224	0.112	260	0.297	296	0.520	332	0.636
9	0.653	45	0.599	81	0.419	117	0.201	153	0.060	189	0.064	225	0.116	261	0.303	297	0.525	333	0.637
10	0.652	46	0.596	82	0.413	118	0.196	154	0.059	190	0.063	226	0.120	262	0.309	298	0.530	334	0.639
11	0.652	47	0.592	83	0.406	119	0.191	155	0.058	191	0.062	227	0.124	263	0.315	299	0.535	335	0.640
12	0.651	48	0.589	84	0.400	120	0.185	156	0.057	192	0.061	228	0.129	264	0.322	300	0.540	336	0.641
13	0.651	49	0.586	85	0.393	121	0.180	157	0.056	193	0.061	229	0.133	265	0.328	301	0.545	337	0.642
14	0.650	50	0.582	86	0.386	122	0.176	158	0.056	194	0.060	230	0.138	266	0.334	302	0.550	338	0.643
15	0.650	51	0.578	87	0.380	123	0.171	159	0.056	195	0.059	231	0.142	267	0.341	303	0.554	339	0.644
16	0.649	52	0.575	88	0.373	124	0.166	160	0.056	196	0.058	232	0.147	268	0.347	304	0.558	340	0.645
17	0.648	53	0.571	89	0.367	125	0.161	161	0.057	197	0.058	233	0.152	269	0.354	305	0.563	341	0.646
18	0.647	54	0.567	90	0.360	126	0.156	162	0.057	198	0.057	234	0.156	270	0.360	306	0.567	342	0.647
19	0.646	55	0.563	91	0.354	127	0.152	163	0.058	199	0.057	235	0.161	271	0.367	307	0.571	343	0.648
20	0.645	56	0.558	92	0.347	128	0.147	164	0.058	200	0.056	236	0.166	272	0.373	308	0.575	344	0.649
21	0.644	57	0.554	93	0.341	129	0.142	165	0.059	201	0.056	237	0.171	273	0.380	309	0.578	345	0.650
22	0.643	58	0.550	94	0.334	130	0.138	166	0.060	202	0.056	238	0.176	274	0.386	310	0.582	346	0.650
23	0.642	59	0.545	95	0.328	131	0.133	167	0.061	203	0.056	239	0.180	275	0.393	311	0.586	347	0.651
24	0.641	60	0.540	96	0.322	132	0.129	168	0.061	204	0.057	240	0.185	276	0.400	312	0.589	348	0.651
25	0.640	61	0.535	97	0.315	133	0.124	169	0.062	205	0.058	241	0.191	277	0.406	313	0.592	349	0.652
26	0.639	62	0.530	98	0.309	134	0.120	170	0.063	206	0.059	242	0.196	278	0.413	314	0.596	350	0.652
27	0.637	63	0.525	99	0.303	135	0.116	171	0.064	207	0.060	243	0.201	279	0.419	315	0.599	351	0.653
28	0.636	64	0.520	100	0.297	136	0.112	172	0.064	208	0.061	244	0.206	280	0.425	316	0.602	352	0.653
29	0.634	65	0.515	101	0.291	137	0.108	173	0.065	209	0.063	245	0.211	281	0.432	317	0.604	353	0.654
30	0.633	66	0.510	102	0.285	138	0.103	174	0.066	210	0.065	246	0.216	282	0.438	318	0.607	354	0.654
31	0.631	67	0.504	103	0.279	139	0.100	175	0.066	211	0.067	247	0.222	283	0.445	319	0.610	355	0.654
32	0.629	68	0.498	104	0.273	140	0.096	176	0.067	212	0.070	248	0.227	284	0.451	320	0.612	356	0.654
33	0.628	69	0.493	105	0.267	141	0.092	177	0.067	213	0.072	249	0.233	285	0.457	321	0.615	357	0.654
34	0.626	70	0.487	106	0.261	142	0.088	178	0.067	214	0.075	250	0.238	286	0.463	322	0.617	358	0.655
35	0.624	71	0.481	107	0.255	143	0.085	179	0.067	215	0.078	251	0.244	287	0.469	323	0.619	359	0.655

ELEVATION PATTERN

Proposal No.	**C-70033-1**
Date	**15-Feb-17**
Call Letters	**WICD**
Frequency	**581 MHz**
Channel	**32**
Antenna Type	**TFU-24JSC/VP-R 2C180**

RMS Directivity at Main Lobe **24.00 (13.80 dB)** Beam Tilt **1.00 deg**
RMS Directivity at Horizontal **13.70 (11.37 dB)** Drawing Number **24J240100**
Calculated

Degrees Below Horizontal

Degrees Below Horizontal
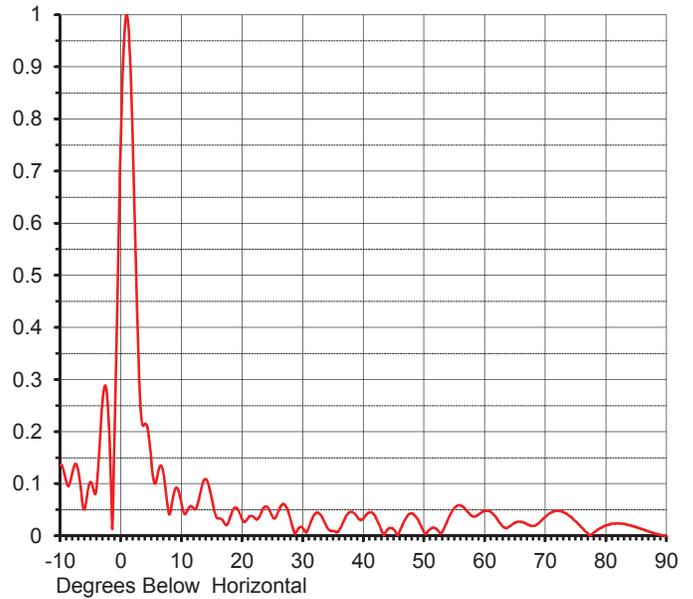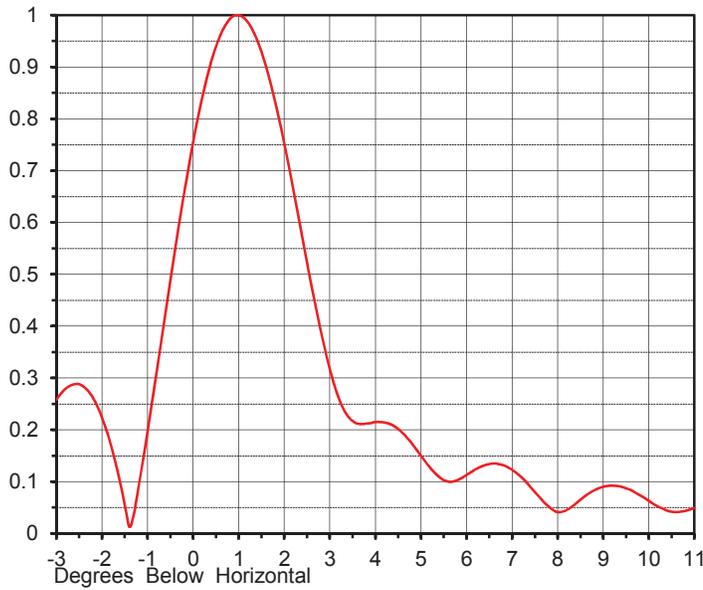
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.135	10.0	0.063	30.0	0.015	50.0	0.008	70.0	0.036
-9.0	0.105	11.0	0.049	31.0	0.015	51.0	0.012	71.0	0.045
-8.0	0.120	12.0	0.053	32.0	0.041	52.0	0.014	72.0	0.048
-7.0	0.125	13.0	0.076	33.0	0.040	53.0	0.007	73.0	0.046
-6.0	0.050	14.0	0.109	34.0	0.017	54.0	0.032	74.0	0.038
-5.0	0.103	15.0	0.072	35.0	0.009	55.0	0.053	75.0	0.028
-4.0	0.091	16.0	0.033	36.0	0.010	56.0	0.058	76.0	0.016
-3.0	0.258	17.0	0.026	37.0	0.034	57.0	0.049	77.0	0.005
-2.0	0.224	18.0	0.034	38.0	0.046	58.0	0.038	78.0	0.006
-1.0	0.196	19.0	0.054	39.0	0.036	59.0	0.041	79.0	0.014
0.0	0.755	20.0	0.032	40.0	0.033	60.0	0.048	80.0	0.020
1.0	1.000	21.0	0.034	41.0	0.045	61.0	0.046	81.0	0.023
2.0	0.752	22.0	0.035	42.0	0.037	62.0	0.034	82.0	0.024
3.0	0.317	23.0	0.040	43.0	0.010	63.0	0.018	83.0	0.023
4.0	0.215	24.0	0.056	44.0	0.012	64.0	0.017	84.0	0.020
5.0	0.150	25.0	0.037	45.0	0.012	65.0	0.025	85.0	0.017
6.0	0.113	26.0	0.047	46.0	0.009	66.0	0.027	86.0	0.013
7.0	0.123	27.0	0.060	47.0	0.033	67.0	0.022	87.0	0.009
8.0	0.041	28.0	0.032	48.0	0.043	68.0	0.019	88.0	0.005
9.0	0.090	29.0	0.008	49.0	0.031	69.0	0.025	89.0	0.002
								90.0	0.000