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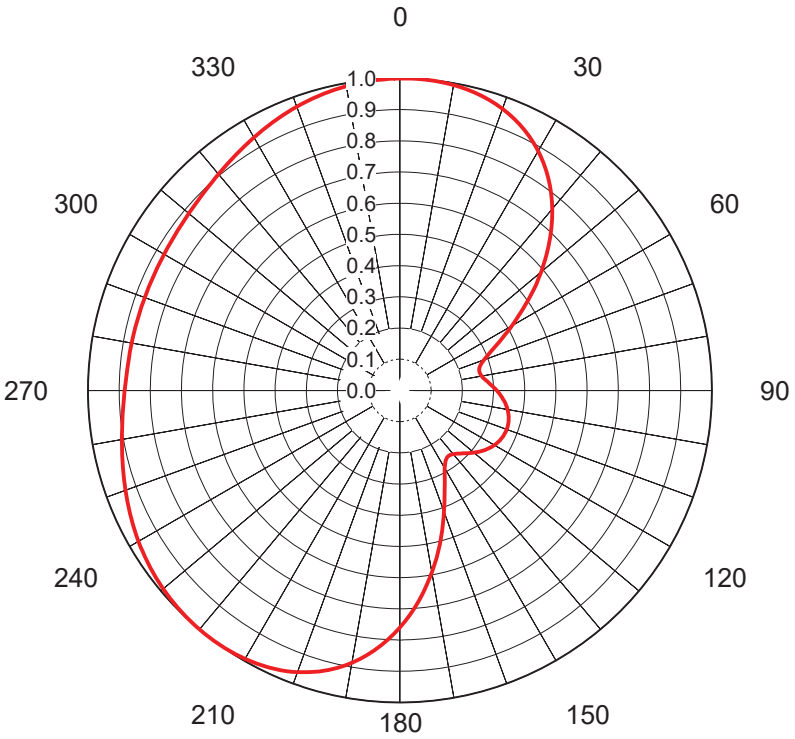

AZIMUTH PATTERN
Horizontal Polarization

Proposal No.	**C-70711-5**
Date	**31-Jul-17**
Call Letters	**WNJX**
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TFU-16ETT/VP-R 4C170**
Gain	**1.67 (2.23dB)**
	Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.816	72	0.274	108	0.364	144	0.262	180	0.760	216	1.000	252	0.929	288	0.871	324	0.916
1	1.000	37	0.803	73	0.269	109	0.365	145	0.263	181	0.775	217	1.000	253	0.926	289	0.871	325	0.920
2	1.000	38	0.789	74	0.266	110	0.365	146	0.266	182	0.789	218	1.000	254	0.923	290	0.871	326	0.923
3	1.000	39	0.775	75	0.263	111	0.365	147	0.269	183	0.803	219	1.000	255	0.920	291	0.871	327	0.926
4	1.000	40	0.760	76	0.262	112	0.364	148	0.274	184	0.816	220	1.000	256	0.916	292	0.871	328	0.929
5	0.999	41	0.744	77	0.262	113	0.363	149	0.280	185	0.829	221	0.999	257	0.913	293	0.871	329	0.933
6	0.998	42	0.729	78	0.262	114	0.362	150	0.287	186	0.842	222	0.999	258	0.910	294	0.871	330	0.936
7	0.997	43	0.713	79	0.264	115	0.361	151	0.296	187	0.854	223	0.998	259	0.907	295	0.871	331	0.939
8	0.996	44	0.696	80	0.266	116	0.359	152	0.305	188	0.865	224	0.998	260	0.905	296	0.871	332	0.943
9	0.995	45	0.679	81	0.269	117	0.358	153	0.316	189	0.876	225	0.997	261	0.902	297	0.872	333	0.946
10	0.993	46	0.662	82	0.273	118	0.355	154	0.327	190	0.886	226	0.996	262	0.899	298	0.872	334	0.949
11	0.992	47	0.645	83	0.277	119	0.353	155	0.340	191	0.896	227	0.994	263	0.897	299	0.872	335	0.952
12	0.990	48	0.627	84	0.281	120	0.350	156	0.353	192	0.905	228	0.993	264	0.894	300	0.873	336	0.956
13	0.987	49	0.609	85	0.285	121	0.347	157	0.367	193	0.914	229	0.992	265	0.892	301	0.873	337	0.959
14	0.984	50	0.591	86	0.290	122	0.344	158	0.382	194	0.922	230	0.990	266	0.890	302	0.874	338	0.962
15	0.981	51	0.573	87	0.295	123	0.340	159	0.398	195	0.930	231	0.988	267	0.888	303	0.875	339	0.965
16	0.978	52	0.555	88	0.300	124	0.337	160	0.414	196	0.937	232	0.987	268	0.886	304	0.876	340	0.968
17	0.974	53	0.537	89	0.305	125	0.333	161	0.431	197	0.944	233	0.985	269	0.884	305	0.877	341	0.970
18	0.970	54	0.519	90	0.310	126	0.329	162	0.448	198	0.950	234	0.983	270	0.883	306	0.878	342	0.973
19	0.966	55	0.501	91	0.315	127	0.324	163	0.465	199	0.956	235	0.980	271	0.881	307	0.879	343	0.976
20	0.961	56	0.483	92	0.320	128	0.320	164	0.483	200	0.961	236	0.978	272	0.880	308	0.880	344	0.978
21	0.956	57	0.465	93	0.324	129	0.315	165	0.501	201	0.966	237	0.976	273	0.879	309	0.881	345	0.980
22	0.950	58	0.448	94	0.329	130	0.310	166	0.519	202	0.970	238	0.973	274	0.878	310	0.883	346	0.983
23	0.944	59	0.431	95	0.333	131	0.305	167	0.537	203	0.974	239	0.970	275	0.876	311	0.884	347	0.985
24	0.937	60	0.414	96	0.337	132	0.300	168	0.555	204	0.978	240	0.968	276	0.876	312	0.886	348	0.987
25	0.930	61	0.398	97	0.340	133	0.295	169	0.573	205	0.981	241	0.965	277	0.875	313	0.888	349	0.988
26	0.922	62	0.382	98	0.344	134	0.290	170	0.591	206	0.984	242	0.962	278	0.874	314	0.890	350	0.990
27	0.914	63	0.367	99	0.347	135	0.286	171	0.609	207	0.987	243	0.959	279	0.873	315	0.892	351	0.992
28	0.905	64	0.353	100	0.350	136	0.281	172	0.627	208	0.990	244	0.956	280	0.873	316	0.894	352	0.993
29	0.896	65	0.340	101	0.353	137	0.277	173	0.645	209	0.992	245	0.952	281	0.872	317	0.897	353	0.994
30	0.886	66	0.327	102	0.355	138	0.273	174	0.662	210	0.993	246	0.949	282	0.872	318	0.899	354	0.996
31	0.876	67	0.316	103	0.358	139	0.269	175	0.679	211	0.995	247	0.946	283	0.872	319	0.902	355	0.997
32	0.865	68	0.305	104	0.359	140	0.266	176	0.696	212	0.996	248	0.943	284	0.871	320	0.905	356	0.998
33	0.854	69	0.296	105	0.361	141	0.264	177	0.713	213	0.997	249	0.939	285	0.871	321	0.907	357	0.998
34	0.842	70	0.287	106	0.362	142	0.262	178	0.729	214	0.998	250	0.936	286	0.871	322	0.910	358	0.999
35	0.829	71	0.280	107	0.363	143	0.262	179	0.744	215	0.999	251	0.933	287	0.871	323	0.913	359	0.999

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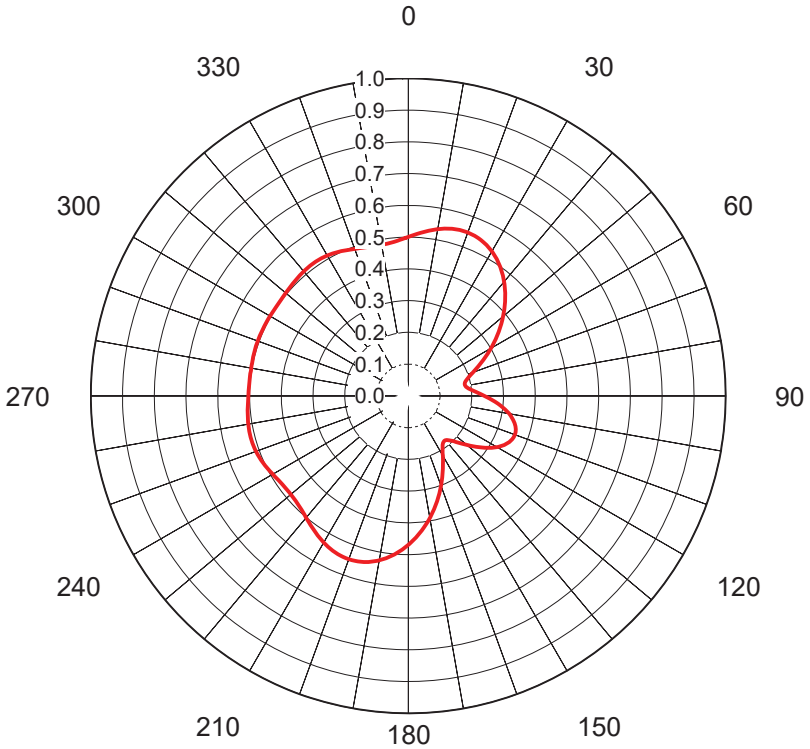

AZIMUTH PATTERN
Vertical Polarization

Proposal No.	**C-70711-5**
Date	**31-Jul-17**
Call Letters	**WNJX**
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TFU-16ETT/VP-R 4C170**
Gain	**1.54 (1.87dB)**
	Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.501	36	0.496	72	0.204	108	0.356	144	0.186	180	0.470	216	0.514	252	0.512	288	0.505	324	0.513
1	0.504	37	0.490	73	0.198	109	0.357	145	0.189	181	0.477	217	0.510	253	0.513	289	0.505	325	0.513
2	0.507	38	0.483	74	0.193	110	0.357	146	0.193	182	0.483	218	0.507	254	0.513	290	0.505	326	0.513
3	0.510	39	0.477	75	0.189	111	0.357	147	0.198	183	0.490	219	0.504	255	0.513	291	0.505	327	0.513
4	0.514	40	0.470	76	0.186	112	0.356	148	0.204	184	0.496	220	0.501	256	0.513	292	0.505	328	0.512
5	0.517	41	0.463	77	0.183	113	0.354	149	0.211	185	0.502	221	0.498	257	0.513	293	0.504	329	0.511
6	0.521	42	0.455	78	0.182	114	0.352	150	0.217	186	0.507	222	0.495	258	0.513	294	0.504	330	0.511
7	0.524	43	0.448	79	0.181	115	0.348	151	0.225	187	0.512	223	0.492	259	0.513	295	0.504	331	0.509
8	0.527	44	0.440	80	0.182	116	0.344	152	0.233	188	0.517	224	0.490	260	0.512	296	0.504	332	0.508
9	0.530	45	0.432	81	0.184	117	0.340	153	0.241	189	0.522	225	0.488	261	0.511	297	0.503	333	0.506
10	0.533	46	0.424	82	0.187	118	0.335	154	0.249	190	0.526	226	0.486	262	0.510	298	0.503	334	0.505
11	0.536	47	0.416	83	0.191	119	0.329	155	0.257	191	0.530	227	0.485	263	0.510	299	0.503	335	0.503
12	0.538	48	0.407	84	0.196	120	0.322	156	0.266	192	0.534	228	0.484	264	0.509	300	0.503	336	0.501
13	0.541	49	0.399	85	0.202	121	0.315	157	0.275	193	0.537	229	0.483	265	0.508	301	0.502	337	0.499
14	0.543	50	0.390	86	0.209	122	0.308	158	0.284	194	0.539	230	0.483	266	0.507	302	0.502	338	0.497
15	0.544	51	0.382	87	0.216	123	0.300	159	0.293	195	0.542	231	0.483	267	0.506	303	0.502	339	0.495
16	0.546	52	0.373	88	0.224	124	0.292	160	0.301	196	0.544	232	0.483	268	0.505	304	0.502	340	0.493
17	0.547	53	0.364	89	0.232	125	0.284	161	0.310	197	0.545	233	0.483	269	0.505	305	0.502	341	0.491
18	0.547	54	0.355	90	0.240	126	0.275	162	0.319	198	0.546	234	0.484	270	0.504	306	0.502	342	0.490
19	0.548	55	0.346	91	0.249	127	0.267	163	0.328	199	0.547	235	0.485	271	0.503	307	0.503	343	0.488
20	0.548	56	0.337	92	0.258	128	0.258	164	0.337	200	0.548	236	0.487	272	0.503	308	0.503	344	0.487
21	0.547	57	0.328	93	0.267	129	0.249	165	0.346	201	0.548	237	0.488	273	0.503	309	0.503	345	0.485
22	0.546	58	0.319	94	0.275	130	0.240	166	0.355	202	0.547	238	0.490	274	0.502	310	0.504	346	0.484
23	0.545	59	0.310	95	0.284	131	0.232	167	0.364	203	0.547	239	0.491	275	0.502	311	0.505	347	0.483
24	0.544	60	0.301	96	0.292	132	0.224	168	0.373	204	0.546	240	0.493	276	0.502	312	0.505	348	0.483
25	0.542	61	0.293	97	0.300	133	0.216	169	0.382	205	0.544	241	0.495	277	0.502	313	0.506	349	0.483
26	0.539	62	0.284	98	0.308	134	0.209	170	0.390	206	0.543	242	0.497	278	0.502	314	0.507	350	0.483
27	0.537	63	0.275	99	0.315	135	0.202	171	0.399	207	0.541	243	0.499	279	0.502	315	0.508	351	0.483
28	0.534	64	0.266	100	0.322	136	0.196	172	0.407	208	0.538	244	0.501	280	0.503	316	0.509	352	0.484
29	0.530	65	0.257	101	0.329	137	0.191	173	0.416	209	0.536	245	0.503	281	0.503	317	0.510	353	0.485
30	0.526	66	0.249	102	0.335	138	0.187	174	0.424	210	0.533	246	0.505	282	0.503	318	0.510	354	0.486
31	0.522	67	0.241	103	0.340	139	0.184	175	0.432	211	0.530	247	0.506	283	0.503	319	0.511	355	0.488
32	0.517	68	0.233	104	0.344	140	0.182	176	0.440	212	0.527	248	0.508	284	0.504	320	0.512	356	0.490
33	0.512	69	0.225	105	0.348	141	0.181	177	0.448	213	0.524	249	0.509	285	0.504	321	0.513	357	0.492
34	0.507	70	0.217	106	0.352	142	0.182	178	0.455	214	0.521	250	0.511	286	0.504	322	0.513	358	0.495
35	0.502	71	0.211	107	0.354	143	0.183	179	0.463	215	0.517	251	0.511	287	0.504	323	0.513	359	0.498

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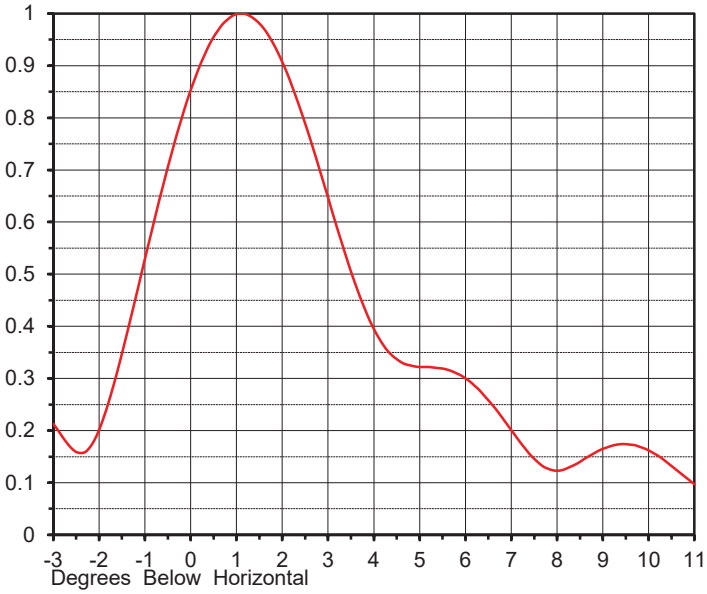
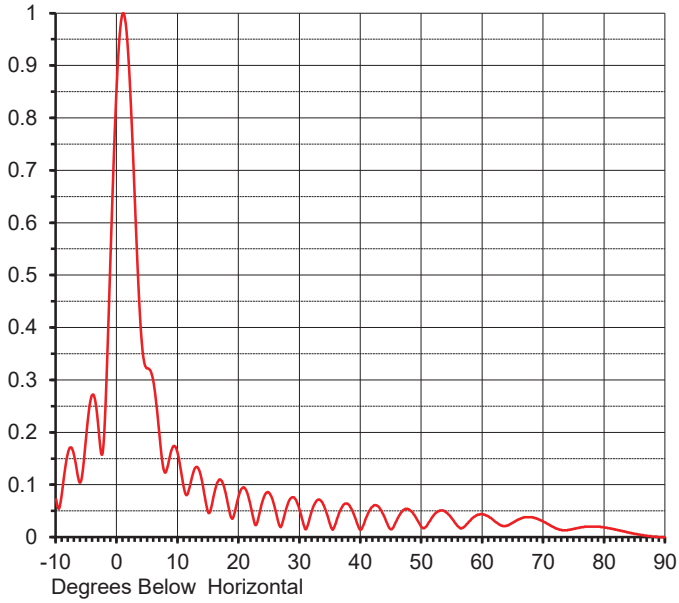
ELEVATION PATTERN

Proposal No.	**C-70711-5**
Date	**31-Jul-17**
Call Letters	**WNJX**
Channel	**31**
Frequency	**575 MHz**
Antenna Type	**TFU-16ETT/VP-R 4C170**

RMS Directivity at Main Lobe	**15.3 (11.85 dB)**	Beam Tilt	**1.00 deg**
RMS Directivity at Horizontal	**11.8 (10.72 dB)**	Pattern Number	**16E153100**

Calculated





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.072	10.0	0.157	30.0	0.050	50.0	0.019	70.0	0.029
-9.0	0.089	11.0	0.092	31.0	0.015	51.0	0.025	71.0	0.023
-8.0	0.164	12.0	0.100	32.0	0.051	52.0	0.042	72.0	0.017
-7.0	0.153	13.0	0.134	33.0	0.071	53.0	0.051	73.0	0.013
-6.0	0.105	14.0	0.103	34.0	0.058	54.0	0.047	74.0	0.014
-5.0	0.201	15.0	0.046	35.0	0.023	55.0	0.035	75.0	0.016
-4.0	0.272	16.0	0.086	36.0	0.031	56.0	0.020	76.0	0.018
-3.0	0.201	17.0	0.109	37.0	0.059	57.0	0.020	77.0	0.020
-2.0	0.225	18.0	0.074	38.0	0.062	58.0	0.032	78.0	0.020
-1.0	0.565	19.0	0.036	39.0	0.039	59.0	0.042	79.0	0.020
0.0	0.877	20.0	0.080	40.0	0.014	60.0	0.044	80.0	0.018
1.0	1.000	21.0	0.093	41.0	0.040	61.0	0.039	81.0	0.016
2.0	0.887	22.0	0.055	42.0	0.059	62.0	0.030	82.0	0.014
3.0	0.617	23.0	0.028	43.0	0.057	63.0	0.022	83.0	0.011
4.0	0.379	24.0	0.073	44.0	0.035	64.0	0.022	84.0	0.009
5.0	0.322	25.0	0.084	45.0	0.015	65.0	0.028	85.0	0.006
6.0	0.294	26.0	0.051	46.0	0.035	66.0	0.034	86.0	0.004
7.0	0.189	27.0	0.022	47.0	0.052	67.0	0.038	87.0	0.002
8.0	0.124	28.0	0.063	48.0	0.052	68.0	0.038	88.0	0.001
9.0	0.168	29.0	0.076	49.0	0.038	69.0	0.035	89.0	0.000
								90.0	0.000

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