

AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-70165-3**
 Date **25-Jul-18**
 Call Letters **KTCW**
 Channel **36**
 Frequency **605 MHz**
 Antenna Type **TFU-12DSB/VP-B**
 Gain **1.76 (2.45dB)**
 Calculated
 Circularity **+/- 3.0 dB**

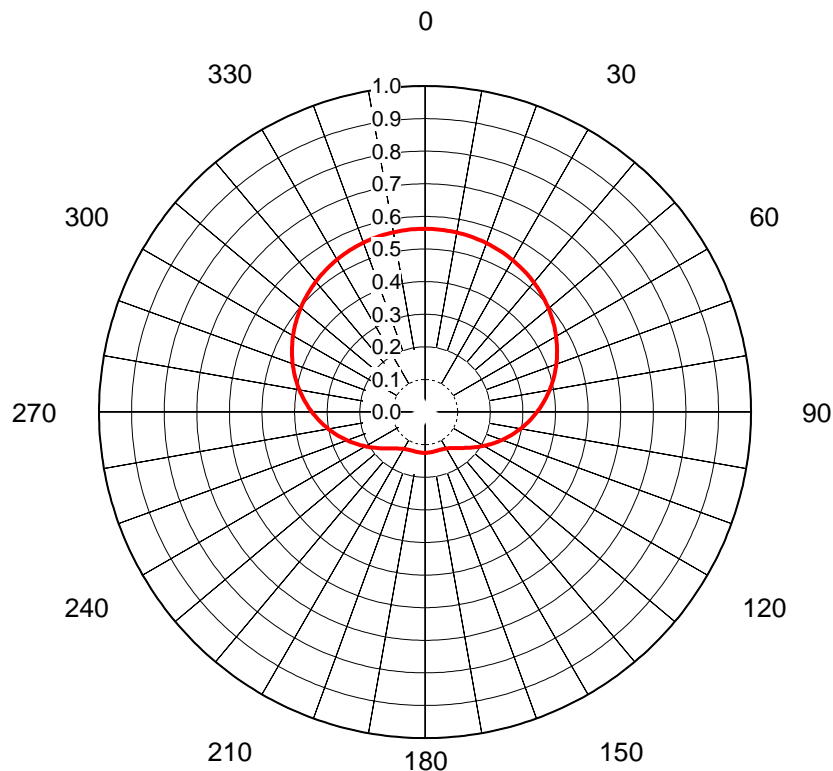
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.935	72	0.759	108	0.589	144	0.594	180	0.645	216	0.600	252	0.584	288	0.747	324	0.930
1	1.000	37	0.932	73	0.754	109	0.586	145	0.596	181	0.645	217	0.598	253	0.587	289	0.753	325	0.934
2	0.999	38	0.928	74	0.748	110	0.583	146	0.598	182	0.645	218	0.596	254	0.590	290	0.759	326	0.938
3	0.999	39	0.924	75	0.742	111	0.581	147	0.600	183	0.645	219	0.594	255	0.593	291	0.765	327	0.941
4	0.999	40	0.920	76	0.737	112	0.579	148	0.603	184	0.645	220	0.592	256	0.596	292	0.771	328	0.944
5	0.998	41	0.916	77	0.731	113	0.577	149	0.605	185	0.644	221	0.590	257	0.600	293	0.777	329	0.948
6	0.998	42	0.912	78	0.726	114	0.575	150	0.607	186	0.644	222	0.589	258	0.603	294	0.783	330	0.951
7	0.998	43	0.908	79	0.720	115	0.574	151	0.609	187	0.643	223	0.587	259	0.607	295	0.789	331	0.954
8	0.997	44	0.904	80	0.714	116	0.573	152	0.611	188	0.643	224	0.586	260	0.610	296	0.795	332	0.956
9	0.996	45	0.899	81	0.709	117	0.571	153	0.614	189	0.642	225	0.584	261	0.614	297	0.801	333	0.959
10	0.996	46	0.895	82	0.703	118	0.570	154	0.616	190	0.641	226	0.583	262	0.618	298	0.806	334	0.962
11	0.995	47	0.890	83	0.698	119	0.569	155	0.618	191	0.640	227	0.582	263	0.622	299	0.812	335	0.964
12	0.994	48	0.886	84	0.692	120	0.569	156	0.619	192	0.640	228	0.581	264	0.625	300	0.817	336	0.966
13	0.993	49	0.881	85	0.687	121	0.568	157	0.621	193	0.639	229	0.580	265	0.629	301	0.823	337	0.968
14	0.992	50	0.876	86	0.682	122	0.568	158	0.623	194	0.638	230	0.579	266	0.633	302	0.828	338	0.971
15	0.990	51	0.872	87	0.676	123	0.568	159	0.625	195	0.637	231	0.578	267	0.637	303	0.834	339	0.973
16	0.989	52	0.867	88	0.671	124	0.568	160	0.627	196	0.636	232	0.577	268	0.641	304	0.839	340	0.975
17	0.987	53	0.862	89	0.666	125	0.568	161	0.628	197	0.634	233	0.576	269	0.646	305	0.844	341	0.977
18	0.985	54	0.857	90	0.661	126	0.568	162	0.630	198	0.633	234	0.575	270	0.650	306	0.849	342	0.979
19	0.983	55	0.852	91	0.656	127	0.569	163	0.632	199	0.632	235	0.574	271	0.654	307	0.854	343	0.980
20	0.981	56	0.847	92	0.651	128	0.569	164	0.633	200	0.631	236	0.573	272	0.659	308	0.859	344	0.982
21	0.979	57	0.842	93	0.646	129	0.570	165	0.634	201	0.629	237	0.572	273	0.663	309	0.864	345	0.984
22	0.977	58	0.836	94	0.641	130	0.571	166	0.636	202	0.628	238	0.572	274	0.668	310	0.869	346	0.986
23	0.975	59	0.831	95	0.637	131	0.572	167	0.637	203	0.626	239	0.571	275	0.673	311	0.874	347	0.988
24	0.972	60	0.826	96	0.632	132	0.573	168	0.638	204	0.625	240	0.570	276	0.678	312	0.879	348	0.990
25	0.970	61	0.820	97	0.628	133	0.574	169	0.639	205	0.623	241	0.570	277	0.683	313	0.883	349	0.991
26	0.967	62	0.815	98	0.624	134	0.575	170	0.640	206	0.621	242	0.570	278	0.688	314	0.888	350	0.993
27	0.964	63	0.810	99	0.619	135	0.577	171	0.641	207	0.619	243	0.570	279	0.694	315	0.893	351	0.994
28	0.961	64	0.804	100	0.615	136	0.578	172	0.642	208	0.618	244	0.570	280	0.699	316	0.897	352	0.995
29	0.958	65	0.799	101	0.612	137	0.580	173	0.643	209	0.616	245	0.571	281	0.705	317	0.902	353	0.996
30	0.955	66	0.793	102	0.608	138	0.582	174	0.643	210	0.613	246	0.572	282	0.711	318	0.906	354	0.997
31	0.952	67	0.787	103	0.604	139	0.584	175	0.644	211	0.611	247	0.573	283	0.716	319	0.910	355	0.998
32	0.949	68	0.782	104	0.601	140	0.586	176	0.644	212	0.609	248	0.575	284	0.722	320	0.914	356	0.999
33	0.946	69	0.776	105	0.597	141	0.588	177	0.645	213	0.607	249	0.577	285	0.728	321	0.919	357	0.999
34	0.942	70	0.771	106	0.594	142	0.590	178	0.645	214	0.605	250	0.579	286	0.734	322	0.923	358	0.999
35	0.939	71	0.765	107	0.591	143	0.592	179	0.645	215	0.602	251	0.581	287	0.740	323	0.927	359	1.000

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AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-70165-3**
Date **25-Jul-18**
Call Letters **KTCW**
Channel **36**
Frequency **605 MHz**
Antenna Type **TFU-12DSB/VP-B**
Gain **2.22 (3.47dB)**
Calculated
Circularity **+/- 7.0 dB**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.562	36	0.527	72	0.421	108	0.260	144	0.137	180	0.125	216	0.138	252	0.263	288	0.424
1	0.562	37	0.525	73	0.417	109	0.255	145	0.135	181	0.125	217	0.140	253	0.268	289	0.428
2	0.562	38	0.523	74	0.413	110	0.251	146	0.134	182	0.125	218	0.142	254	0.273	290	0.432
3	0.562	39	0.521	75	0.409	111	0.246	147	0.132	183	0.125	219	0.144	255	0.277	291	0.436
4	0.562	40	0.519	76	0.404	112	0.242	148	0.131	184	0.125	220	0.146	256	0.282	292	0.439
5	0.561	41	0.517	77	0.400	113	0.237	149	0.130	185	0.125	221	0.148	257	0.287	293	0.443
6	0.561	42	0.514	78	0.396	114	0.233	150	0.129	186	0.125	222	0.151	258	0.291	294	0.447
7	0.561	43	0.512	79	0.392	115	0.228	151	0.128	187	0.125	223	0.153	259	0.296	295	0.450
8	0.560	44	0.510	80	0.388	116	0.224	152	0.127	188	0.125	224	0.156	260	0.301	296	0.454
9	0.560	45	0.507	81	0.383	117	0.220	153	0.127	189	0.125	225	0.158	261	0.305	297	0.457
10	0.559	46	0.505	82	0.379	118	0.216	154	0.126	190	0.125	226	0.161	262	0.310	298	0.461
11	0.559	47	0.502	83	0.375	119	0.211	155	0.126	191	0.125	227	0.164	263	0.315	299	0.464
12	0.558	48	0.500	84	0.370	120	0.207	156	0.125	192	0.125	228	0.167	264	0.319	300	0.467
13	0.557	49	0.497	85	0.366	121	0.203	157	0.125	193	0.125	229	0.170	265	0.324	301	0.471
14	0.557	50	0.494	86	0.362	122	0.199	158	0.125	194	0.125	230	0.173	266	0.329	302	0.474
15	0.556	51	0.492	87	0.357	123	0.195	159	0.124	195	0.125	231	0.177	267	0.333	303	0.477
16	0.555	52	0.489	88	0.353	124	0.192	160	0.124	196	0.125	232	0.180	268	0.338	304	0.480
17	0.554	53	0.486	89	0.348	125	0.188	161	0.124	197	0.125	233	0.183	269	0.343	305	0.483
18	0.553	54	0.483	90	0.343	126	0.184	162	0.124	198	0.125	234	0.187	270	0.347	306	0.486
19	0.552	55	0.480	91	0.339	127	0.181	163	0.124	199	0.125	235	0.191	271	0.352	307	0.489
20	0.551	56	0.477	92	0.334	128	0.177	164	0.124	200	0.125	236	0.195	272	0.356	308	0.492
21	0.550	57	0.474	93	0.330	129	0.174	165	0.124	201	0.125	237	0.198	273	0.361	309	0.495
22	0.549	58	0.471	94	0.325	130	0.171	166	0.124	202	0.126	238	0.202	274	0.365	310	0.497
23	0.548	59	0.467	95	0.320	131	0.167	167	0.124	203	0.126	239	0.206	275	0.370	311	0.500
24	0.546	60	0.464	96	0.316	132	0.164	168	0.124	204	0.126	240	0.210	276	0.374	312	0.503
25	0.545	61	0.461	97	0.311	133	0.161	169	0.124	205	0.127	241	0.215	277	0.379	313	0.505
26	0.544	62	0.457	98	0.306	134	0.159	170	0.124	206	0.127	242	0.219	278	0.383	314	0.508
27	0.542	63	0.454	99	0.302	135	0.156	171	0.124	207	0.128	243	0.223	279	0.387	315	0.510
28	0.541	64	0.450	100	0.297	136	0.153	172	0.125	208	0.129	244	0.227	280	0.391	316	0.513
29	0.539	65	0.447	101	0.292	137	0.151	173	0.125	209	0.130	245	0.232	281	0.396	317	0.515
30	0.538	66	0.443	102	0.288	138	0.148	174	0.125	210	0.131	246	0.236	282	0.400	318	0.517
31	0.536	67	0.440	103	0.283	139	0.146	175	0.125	211	0.132	247	0.241	283	0.404	319	0.519
32	0.534	68	0.436	104	0.278	140	0.144	176	0.125	212	0.133	248	0.245	284	0.408	320	0.521
33	0.533	69	0.432	105	0.274	141	0.142	177	0.125	213	0.134	249	0.250	285	0.412	321	0.524
34	0.531	70	0.428	106	0.269	142	0.140	178	0.125	214	0.135	250	0.254	286	0.416	322	0.526
35	0.529	71	0.424	107	0.264	143	0.138	179	0.125	215	0.137	251	0.259	287	0.420	323	0.528

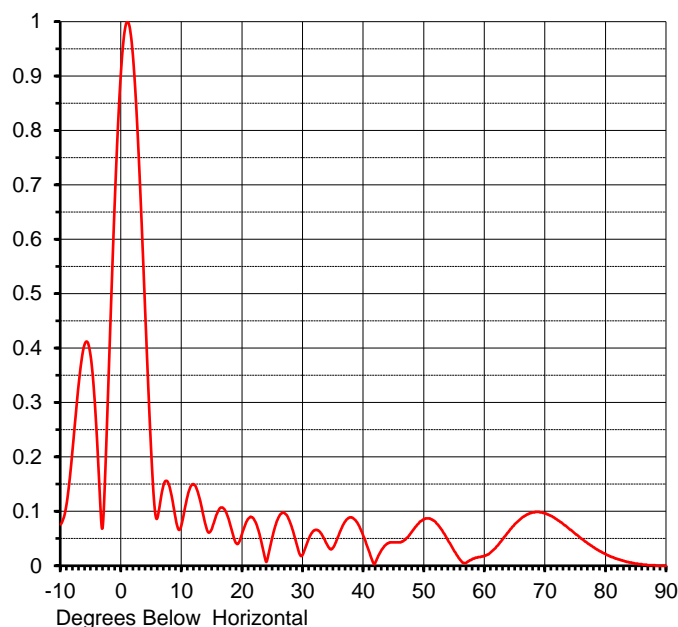
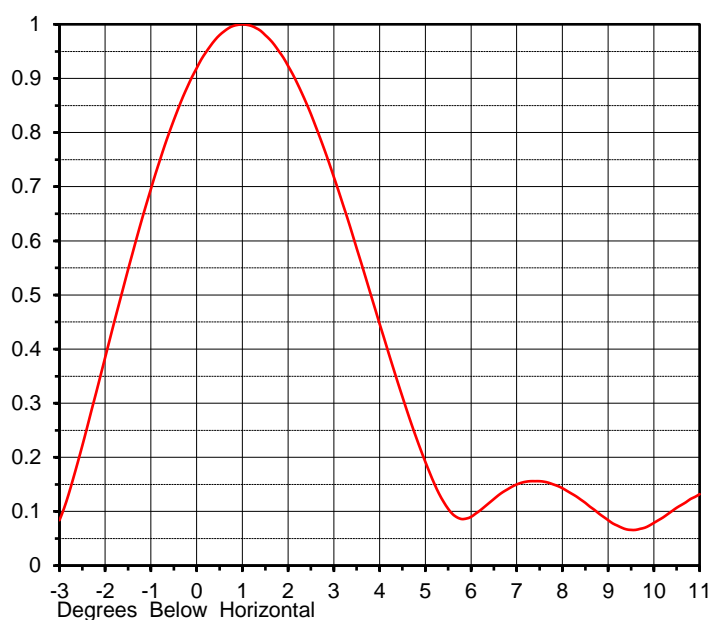
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ELEVATION PATTERN

Proposal No. **C-70165-3**
 Date **25-Jul-18**
 Call Letters **KTCW**
 Channel **36**
 Frequency **605 MHz**
 Antenna Type **TFU-12DSB/VP-B**

RMS Directivity at Main Lobe **12.0 (10.79 dB)**
 RMS Directivity at Horizontal **10.1 (10.04 dB)**
Calculated

Beam Tilt **1.00 deg**
 Pattern Number **12B120100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.076	10.0	0.079	30.0	0.022	50.0	0.086	70.0	0.096
-9.0	0.117	11.0	0.132	31.0	0.051	51.0	0.086	71.0	0.091
-8.0	0.221	12.0	0.149	32.0	0.066	52.0	0.078	72.0	0.084
-7.0	0.339	13.0	0.120	33.0	0.059	53.0	0.064	73.0	0.076
-6.0	0.409	14.0	0.071	34.0	0.038	54.0	0.045	74.0	0.067
-5.0	0.379	15.0	0.070	35.0	0.034	55.0	0.026	75.0	0.058
-4.0	0.227	16.0	0.101	36.0	0.060	56.0	0.010	76.0	0.049
-3.0	0.084	17.0	0.104	37.0	0.082	57.0	0.006	77.0	0.041
-2.0	0.385	18.0	0.074	38.0	0.089	58.0	0.013	78.0	0.034
-1.0	0.696	19.0	0.041	39.0	0.078	59.0	0.016	79.0	0.027
0.0	0.919	20.0	0.062	40.0	0.053	60.0	0.018	80.0	0.021
1.0	1.000	21.0	0.087	41.0	0.023	61.0	0.025	81.0	0.016
2.0	0.923	22.0	0.083	42.0	0.008	62.0	0.036	82.0	0.012
3.0	0.718	23.0	0.049	43.0	0.030	63.0	0.050	83.0	0.009
4.0	0.447	24.0	0.008	44.0	0.041	64.0	0.064	84.0	0.006
5.0	0.192	25.0	0.056	45.0	0.043	65.0	0.077	85.0	0.004
6.0	0.090	26.0	0.090	46.0	0.043	66.0	0.087	86.0	0.002
7.0	0.150	27.0	0.096	47.0	0.050	67.0	0.094	87.0	0.001
8.0	0.143	28.0	0.075	48.0	0.063	68.0	0.098	88.0	0.001
9.0	0.084	29.0	0.037	49.0	0.077	69.0	0.099	89.0	0.000
								90.0	0.000

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