

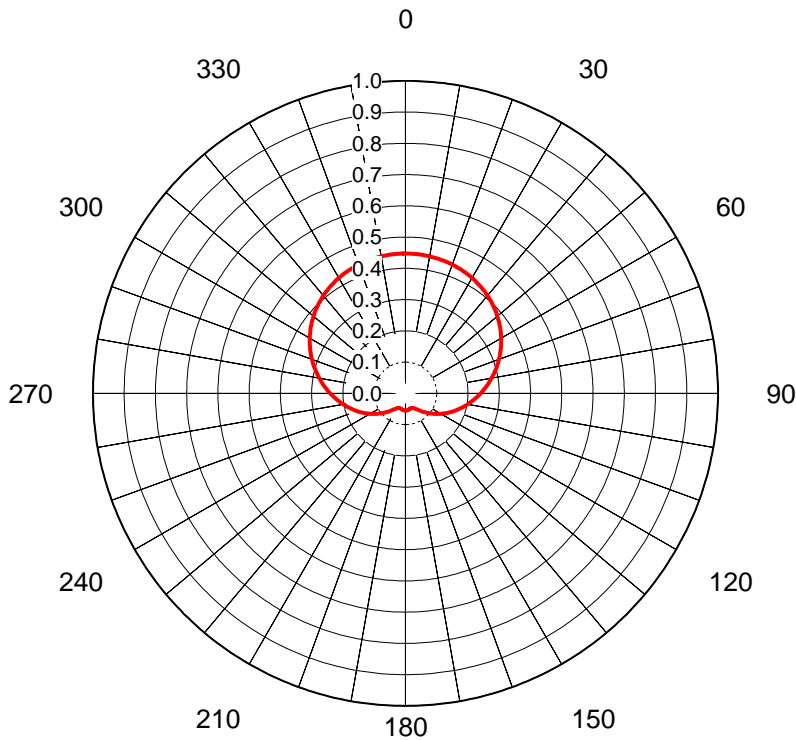
AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-80018**
Date **10-Mar-23**
Call Letters **KIFI**
Channel **18**
Frequency **497 MHz**
Antenna Type **TFU-25EST/VP-R C170**
Gain **1.67 (2.24dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.941	36	0.965	72	0.995	108	0.743	144	0.226	180	0.216	216	0.226	252	0.743	288	0.995
1	0.941	37	0.966	73	0.993	109	0.730	145	0.216	181	0.216	217	0.237	253	0.755	289	0.996
2	0.941	38	0.968	74	0.991	110	0.717	146	0.205	182	0.215	218	0.249	254	0.768	290	0.997
3	0.941	39	0.969	75	0.989	111	0.703	147	0.197	183	0.214	219	0.262	255	0.779	291	0.998
4	0.941	40	0.971	76	0.987	112	0.690	148	0.188	184	0.213	220	0.274	256	0.791	292	0.999
5	0.941	41	0.972	77	0.984	113	0.676	149	0.181	185	0.211	221	0.288	257	0.803	293	0.999
6	0.941	42	0.974	78	0.981	114	0.662	150	0.174	186	0.209	222	0.301	258	0.814	294	1.000
7	0.941	43	0.976	79	0.978	115	0.648	151	0.169	187	0.207	223	0.315	259	0.824	295	1.000
8	0.941	44	0.977	80	0.974	116	0.633	152	0.164	188	0.205	224	0.329	260	0.835	296	1.000
9	0.942	45	0.979	81	0.970	117	0.618	153	0.161	189	0.202	225	0.344	261	0.845	297	1.000
10	0.942	46	0.980	82	0.966	118	0.604	154	0.159	190	0.199	226	0.359	262	0.855	298	0.999
11	0.942	47	0.982	83	0.962	119	0.589	155	0.158	191	0.195	227	0.374	263	0.864	299	0.999
12	0.943	48	0.984	84	0.957	120	0.574	156	0.157	192	0.192	228	0.389	264	0.874	300	0.998
13	0.943	49	0.985	85	0.952	121	0.558	157	0.158	193	0.188	229	0.404	265	0.882	301	0.998
14	0.944	50	0.987	86	0.946	122	0.543	158	0.159	194	0.184	230	0.419	266	0.891	302	0.997
15	0.944	51	0.988	87	0.941	123	0.528	159	0.161	195	0.180	231	0.435	267	0.899	303	0.996
16	0.945	52	0.990	88	0.935	124	0.512	160	0.163	196	0.177	232	0.450	268	0.907	304	0.995
17	0.945	53	0.991	89	0.928	125	0.497	161	0.166	197	0.173	233	0.466	269	0.914	305	0.993
18	0.946	54	0.992	90	0.921	126	0.481	162	0.169	198	0.169	234	0.481	270	0.921	306	0.992
19	0.947	55	0.993	91	0.914	127	0.466	163	0.173	199	0.166	235	0.497	271	0.928	307	0.991
20	0.947	56	0.995	92	0.907	128	0.450	164	0.177	200	0.163	236	0.512	272	0.935	308	0.990
21	0.948	57	0.996	93	0.899	129	0.435	165	0.180	201	0.161	237	0.528	273	0.941	309	0.988
22	0.949	58	0.997	94	0.891	130	0.419	166	0.184	202	0.159	238	0.543	274	0.946	310	0.987
23	0.950	59	0.998	95	0.882	131	0.404	167	0.188	203	0.158	239	0.558	275	0.952	311	0.985
24	0.950	60	0.998	96	0.874	132	0.389	168	0.192	204	0.157	240	0.574	276	0.957	312	0.984
25	0.951	61	0.999	97	0.864	133	0.374	169	0.195	205	0.158	241	0.589	277	0.962	313	0.982
26	0.952	62	0.999	98	0.855	134	0.359	170	0.199	206	0.159	242	0.604	278	0.966	314	0.980
27	0.953	63	1.000	99	0.845	135	0.344	171	0.202	207	0.161	243	0.618	279	0.970	315	0.979
28	0.954	64	1.000	100	0.835	136	0.329	172	0.205	208	0.164	244	0.633	280	0.974	316	0.977
29	0.956	65	1.000	101	0.824	137	0.315	173	0.207	209	0.169	245	0.648	281	0.978	317	0.976
30	0.957	66	1.000	102	0.814	138	0.301	174	0.209	210	0.174	246	0.662	282	0.981	318	0.974
31	0.958	67	0.999	103	0.803	139	0.288	175	0.211	211	0.181	247	0.676	283	0.984	319	0.972
32	0.959	68	0.999	104	0.791	140	0.274	176	0.213	212	0.188	248	0.690	284	0.987	320	0.971
33	0.961	69	0.998	105	0.779	141	0.262	177	0.214	213	0.197	249	0.703	285	0.989	321	0.969
34	0.962	70	0.997	106	0.768	142	0.249	178	0.215	214	0.205	250	0.717	286	0.991	322	0.968
35	0.963	71	0.996	107	0.755	143	0.237	179	0.216	215	0.216	251	0.730	287	0.993	323	0.966

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AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-80018**
 Date **10-Mar-23**
 Call Letters **KIFI**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-25EST/VP-R C170**
 Gain **2.47 (3.92dB)**
 Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.447	36	0.416	72	0.311	108	0.173	144	0.064	180	0.055	216	0.064	252	0.173	288	0.311	324	0.416
1	0.447	37	0.414	73	0.307	109	0.169	145	0.062	181	0.055	217	0.066	253	0.176	289	0.315	325	0.418
2	0.447	38	0.412	74	0.303	110	0.165	146	0.061	182	0.055	218	0.068	254	0.180	290	0.318	326	0.420
3	0.447	39	0.410	75	0.299	111	0.162	147	0.059	183	0.055	219	0.070	255	0.184	291	0.322	327	0.422
4	0.447	40	0.408	76	0.296	112	0.158	148	0.058	184	0.055	220	0.072	256	0.187	292	0.326	328	0.423
5	0.447	41	0.406	77	0.292	113	0.155	149	0.056	185	0.055	221	0.075	257	0.191	293	0.329	329	0.425
6	0.446	42	0.404	78	0.288	114	0.151	150	0.055	186	0.054	222	0.077	258	0.195	294	0.333	330	0.426
7	0.446	43	0.402	79	0.284	115	0.148	151	0.054	187	0.054	223	0.080	259	0.198	295	0.336	331	0.428
8	0.446	44	0.399	80	0.280	116	0.144	152	0.053	188	0.054	224	0.082	260	0.202	296	0.340	332	0.429
9	0.445	45	0.397	81	0.276	117	0.141	153	0.052	189	0.054	225	0.085	261	0.206	297	0.343	333	0.430
10	0.445	46	0.394	82	0.272	118	0.138	154	0.052	190	0.053	226	0.088	262	0.210	298	0.347	334	0.432
11	0.445	47	0.392	83	0.268	119	0.134	155	0.051	191	0.053	227	0.090	263	0.214	299	0.350	335	0.433
12	0.444	48	0.389	84	0.264	120	0.131	156	0.051	192	0.053	228	0.093	264	0.217	300	0.354	336	0.434
13	0.444	49	0.387	85	0.260	121	0.127	157	0.051	193	0.052	229	0.096	265	0.221	301	0.357	337	0.435
14	0.443	50	0.384	86	0.256	122	0.124	158	0.051	194	0.052	230	0.099	266	0.225	302	0.360	338	0.436
15	0.442	51	0.381	87	0.252	123	0.121	159	0.051	195	0.052	231	0.102	267	0.229	303	0.363	339	0.437
16	0.442	52	0.378	88	0.249	124	0.118	160	0.051	196	0.051	232	0.105	268	0.233	304	0.366	340	0.438
17	0.441	53	0.375	89	0.245	125	0.114	161	0.051	197	0.051	233	0.108	269	0.237	305	0.369	341	0.439
18	0.440	54	0.373	90	0.241	126	0.111	162	0.051	198	0.051	234	0.111	270	0.241	306	0.373	342	0.440
19	0.439	55	0.369	91	0.237	127	0.108	163	0.051	199	0.051	235	0.114	271	0.245	307	0.375	343	0.441
20	0.438	56	0.366	92	0.233	128	0.105	164	0.051	200	0.051	236	0.118	272	0.249	308	0.378	344	0.442
21	0.437	57	0.363	93	0.229	129	0.102	165	0.052	201	0.051	237	0.121	273	0.252	309	0.381	345	0.442
22	0.436	58	0.360	94	0.225	130	0.099	166	0.052	202	0.051	238	0.124	274	0.256	310	0.384	346	0.443
23	0.435	59	0.357	95	0.221	131	0.096	167	0.052	203	0.051	239	0.127	275	0.260	311	0.387	347	0.444
24	0.434	60	0.354	96	0.217	132	0.093	168	0.053	204	0.051	240	0.131	276	0.264	312	0.389	348	0.444
25	0.433	61	0.350	97	0.214	133	0.090	169	0.053	205	0.051	241	0.134	277	0.268	313	0.392	349	0.445
26	0.432	62	0.347	98	0.210	134	0.088	170	0.053	206	0.052	242	0.138	278	0.272	314	0.394	350	0.445
27	0.430	63	0.343	99	0.206	135	0.085	171	0.054	207	0.052	243	0.141	279	0.276	315	0.397	351	0.445
28	0.429	64	0.340	100	0.202	136	0.082	172	0.054	208	0.053	244	0.144	280	0.280	316	0.399	352	0.446
29	0.428	65	0.336	101	0.198	137	0.080	173	0.054	209	0.054	245	0.148	281	0.284	317	0.402	353	0.446
30	0.426	66	0.333	102	0.195	138	0.077	174	0.054	210	0.055	246	0.151	282	0.288	318	0.404	354	0.446
31	0.425	67	0.329	103	0.191	139	0.075	175	0.055	211	0.056	247	0.155	283	0.292	319	0.406	355	0.447
32	0.423	68	0.326	104	0.187	140	0.072	176	0.055	212	0.058	248	0.158	284	0.296	320	0.408	356	0.447
33	0.422	69	0.322	105	0.184	141	0.070	177	0.055	213	0.059	249	0.162	285	0.299	321	0.410	357	0.447
34	0.420	70	0.318	106	0.180	142	0.068	178	0.055	214	0.061	250	0.165	286	0.303	322	0.412	358	0.447
35	0.418	71	0.315	107	0.176	143	0.066	179	0.055	215	0.062	251	0.169	287	0.307	323	0.414	359	0.447

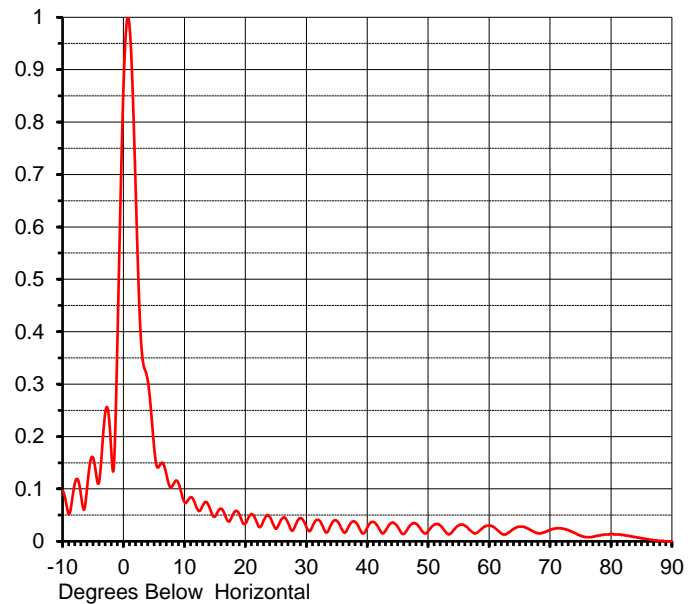
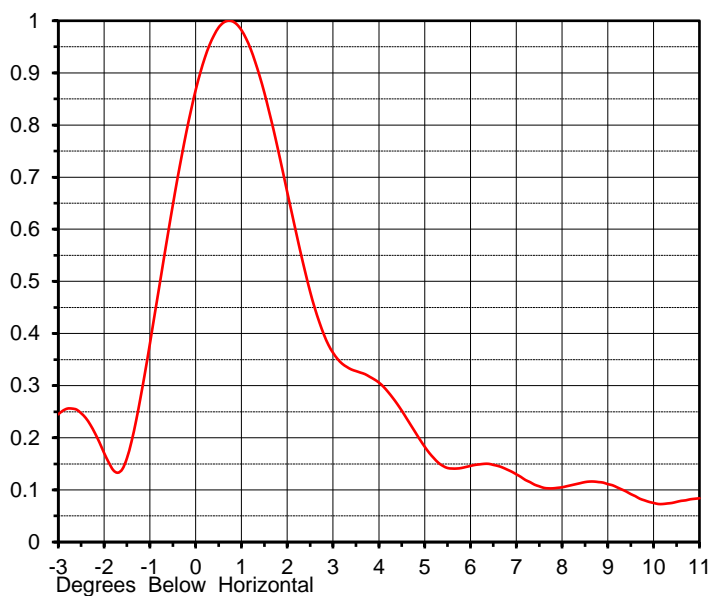
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ELEVATION PATTERN

Proposal No. **C-80018**
 Date **10-Mar-23**
 Call Letters **KIFI**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-25EST/VP-R C170**

RMS Directivity at Main Lobe **22.0 (13.42 dB)**
 RMS Directivity at Horizontal **16.5 (12.17 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **24E220075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.097	10.0	0.075	30.0	0.028	50.0	0.019	70.0	0.022
-9.0	0.052	11.0	0.084	31.0	0.028	51.0	0.032	71.0	0.025
-8.0	0.110	12.0	0.064	32.0	0.041	52.0	0.030	72.0	0.024
-7.0	0.090	13.0	0.068	33.0	0.021	53.0	0.016	73.0	0.021
-6.0	0.099	14.0	0.068	34.0	0.030	54.0	0.019	74.0	0.016
-5.0	0.160	15.0	0.047	35.0	0.039	55.0	0.030	75.0	0.011
-4.0	0.114	16.0	0.062	36.0	0.019	56.0	0.030	76.0	0.008
-3.0	0.245	17.0	0.041	37.0	0.029	57.0	0.020	77.0	0.009
-2.0	0.171	18.0	0.052	38.0	0.037	58.0	0.016	78.0	0.011
-1.0	0.380	19.0	0.052	39.0	0.018	59.0	0.026	79.0	0.013
0.0	0.867	20.0	0.034	40.0	0.026	60.0	0.030	80.0	0.014
1.0	0.982	21.0	0.052	41.0	0.037	61.0	0.025	81.0	0.013
2.0	0.671	22.0	0.033	42.0	0.023	62.0	0.015	82.0	0.012
3.0	0.363	23.0	0.040	43.0	0.020	63.0	0.015	83.0	0.010
4.0	0.306	24.0	0.047	44.0	0.035	64.0	0.023	84.0	0.008
5.0	0.183	25.0	0.024	45.0	0.028	65.0	0.028	85.0	0.006
6.0	0.146	26.0	0.043	46.0	0.014	66.0	0.026	86.0	0.004
7.0	0.130	27.0	0.035	47.0	0.030	67.0	0.020	87.0	0.002
8.0	0.105	28.0	0.025	48.0	0.034	68.0	0.016	88.0	0.001
9.0	0.111	29.0	0.044	49.0	0.020	69.0	0.017	89.0	0.000
								90.0	0.000

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