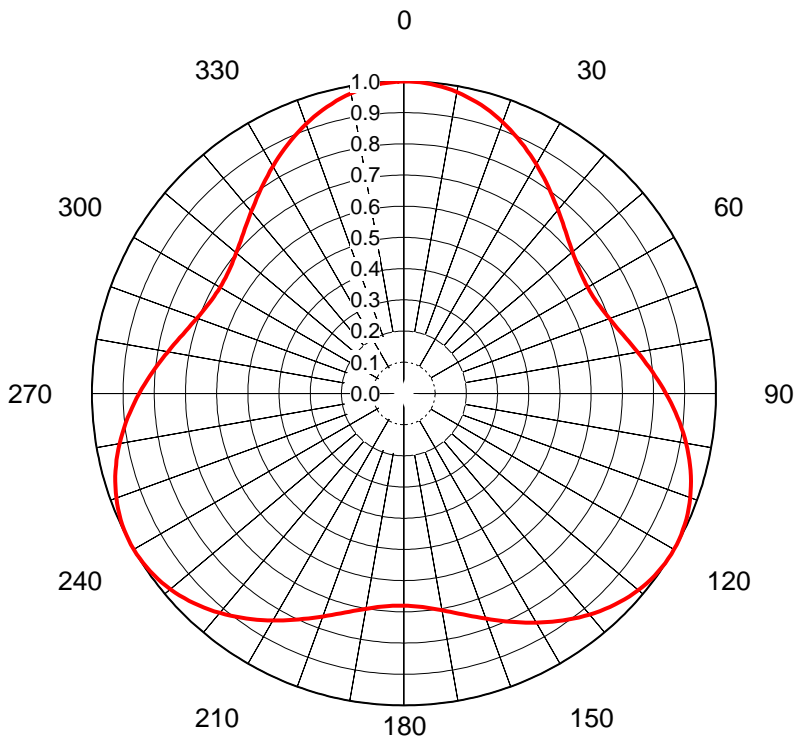


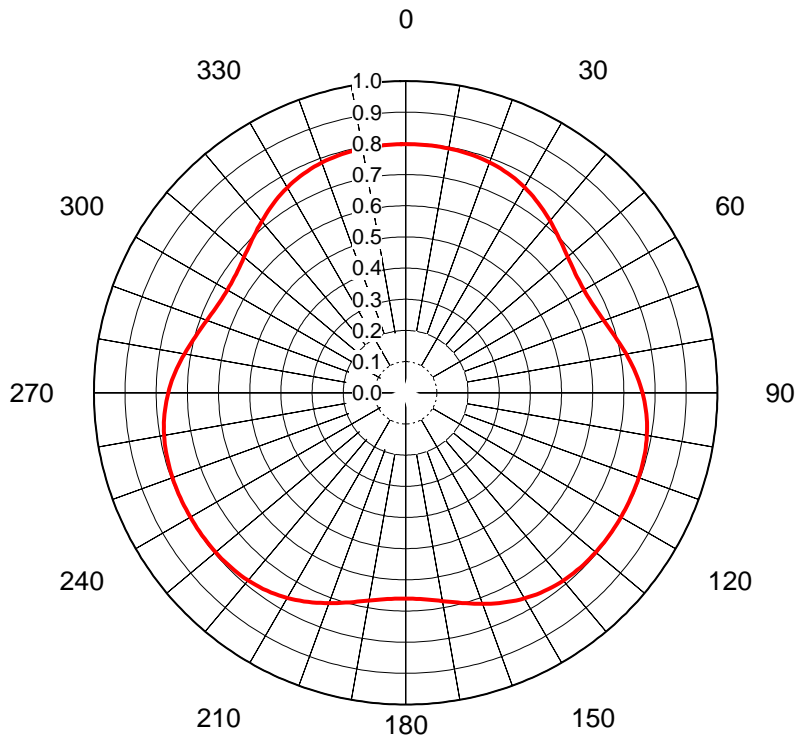
AZIMUTH PATTERN Horizontal Polarization



Proposal No. **C-71473-2**
 Date **12-Mar-20**
 Call Letters **KEPR**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-20GTH/VP-R 6T140**
 Gain **1.39 (1.42dB)**
 Calculated
 Circularity **+/- 2.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.799	72	0.711	108	0.967	144	0.896	180	0.681	216	0.888	252	0.972	288	0.716
1	1.000	37	0.791	73	0.716	109	0.972	145	0.888	181	0.680	217	0.896	253	0.968	289	0.710
2	0.999	38	0.784	74	0.721	110	0.977	146	0.881	182	0.681	218	0.904	254	0.962	290	0.706
3	0.999	39	0.776	75	0.727	111	0.981	147	0.873	183	0.682	219	0.911	255	0.957	291	0.701
4	0.997	40	0.768	76	0.733	112	0.984	148	0.865	184	0.683	220	0.918	256	0.951	292	0.697
5	0.996	41	0.761	77	0.740	113	0.988	149	0.857	185	0.685	221	0.925	257	0.945	293	0.693
6	0.993	42	0.754	78	0.747	114	0.991	150	0.848	186	0.688	222	0.932	258	0.939	294	0.690
7	0.991	43	0.747	79	0.754	115	0.994	151	0.840	187	0.690	223	0.939	259	0.932	295	0.687
8	0.988	44	0.740	80	0.761	116	0.995	152	0.832	188	0.694	224	0.945	260	0.925	296	0.685
9	0.985	45	0.733	81	0.768	117	0.997	153	0.824	189	0.697	225	0.951	261	0.918	297	0.683
10	0.981	46	0.727	82	0.776	118	0.998	154	0.816	190	0.701	226	0.957	262	0.911	298	0.682
11	0.977	47	0.721	83	0.783	119	1.000	155	0.807	191	0.706	227	0.962	263	0.904	299	0.681
12	0.972	48	0.716	84	0.791	120	1.000	156	0.799	192	0.711	228	0.967	264	0.896	300	0.681
13	0.968	49	0.710	85	0.799	121	1.000	157	0.791	193	0.716	229	0.972	265	0.888	301	0.680
14	0.962	50	0.706	86	0.807	122	0.999	158	0.784	194	0.721	230	0.977	266	0.881	302	0.681
15	0.957	51	0.701	87	0.816	123	0.999	159	0.776	195	0.727	231	0.981	267	0.873	303	0.682
16	0.951	52	0.697	88	0.824	124	0.997	160	0.768	196	0.733	232	0.984	268	0.865	304	0.683
17	0.945	53	0.693	89	0.832	125	0.996	161	0.761	197	0.740	233	0.988	269	0.857	305	0.685
18	0.939	54	0.690	90	0.840	126	0.993	162	0.754	198	0.747	234	0.991	270	0.848	306	0.688
19	0.932	55	0.687	91	0.848	127	0.991	163	0.747	199	0.754	235	0.994	271	0.840	307	0.690
20	0.925	56	0.685	92	0.856	128	0.988	164	0.740	200	0.761	236	0.995	272	0.832	308	0.694
21	0.918	57	0.683	93	0.865	129	0.985	165	0.733	201	0.768	237	0.997	273	0.824	309	0.697
22	0.911	58	0.682	94	0.873	130	0.981	166	0.727	202	0.776	238	0.998	274	0.816	310	0.701
23	0.904	59	0.681	95	0.881	131	0.977	167	0.721	203	0.783	239	1.000	275	0.807	311	0.706
24	0.896	60	0.681	96	0.888	132	0.972	168	0.716	204	0.791	240	1.000	276	0.799	312	0.711
25	0.888	61	0.680	97	0.896	133	0.968	169	0.710	205	0.799	241	1.000	277	0.791	313	0.716
26	0.881	62	0.681	98	0.904	134	0.962	170	0.706	206	0.807	242	0.999	278	0.784	314	0.721
27	0.873	63	0.682	99	0.911	135	0.957	171	0.701	207	0.816	243	0.999	279	0.776	315	0.727
28	0.865	64	0.683	100	0.918	136	0.951	172	0.697	208	0.824	244	0.997	280	0.768	316	0.733
29	0.857	65	0.685	101	0.925	137	0.945	173	0.693	209	0.832	245	0.996	281	0.761	317	0.740
30	0.848	66	0.688	102	0.932	138	0.939	174	0.690	210	0.840	246	0.993	282	0.754	318	0.747
31	0.840	67	0.690	103	0.939	139	0.932	175	0.687	211	0.848	247	0.991	283	0.747	319	0.754
32	0.832	68	0.694	104	0.945	140	0.925	176	0.685	212	0.856	248	0.988	284	0.740	320	0.761
33	0.824	69	0.697	105	0.951	141	0.918	177	0.683	213	0.865	249	0.985	285	0.733	321	0.768
34	0.816	70	0.701	106	0.957	142	0.911	178	0.682	214	0.873	250	0.981	286	0.727	322	0.776
35	0.807	71	0.706	107	0.962	143	0.904	179	0.681	215	0.881	251	0.977	287	0.721	323	0.783

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-71473-2**
 Date **12-Mar-20**
 Call Letters **KEPR**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-20GTH/VP-R 6T140**
 Gain **1.14 (0.58dB)**
 Calculated
 Circularity **+/- 1.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.798	36	0.738	72	0.684	108	0.795	144	0.779	180	0.660	216	0.778	252	0.795	288	0.686	324	0.736
1	0.798	37	0.734	73	0.688	109	0.795	145	0.776	181	0.660	217	0.780	253	0.794	289	0.682	325	0.740
2	0.798	38	0.729	74	0.692	110	0.796	146	0.774	182	0.661	218	0.782	254	0.793	290	0.679	326	0.744
3	0.797	39	0.725	75	0.696	111	0.796	147	0.771	183	0.661	219	0.784	255	0.793	291	0.675	327	0.749
4	0.797	40	0.720	76	0.700	112	0.796	148	0.768	184	0.663	220	0.786	256	0.792	292	0.672	328	0.752
5	0.797	41	0.716	77	0.705	113	0.797	149	0.765	185	0.664	221	0.787	257	0.791	293	0.670	329	0.756
6	0.797	42	0.711	78	0.709	114	0.797	150	0.762	186	0.666	222	0.789	258	0.789	294	0.667	330	0.760
7	0.797	43	0.707	79	0.714	115	0.797	151	0.758	187	0.668	223	0.790	259	0.788	295	0.665	331	0.763
8	0.797	44	0.702	80	0.718	116	0.797	152	0.754	188	0.671	224	0.791	260	0.787	296	0.663	332	0.767
9	0.796	45	0.698	81	0.723	117	0.797	153	0.751	189	0.674	225	0.792	261	0.785	297	0.662	333	0.770
10	0.796	46	0.694	82	0.727	118	0.798	154	0.747	190	0.677	226	0.793	262	0.783	298	0.661	334	0.772
11	0.795	47	0.690	83	0.732	119	0.798	155	0.742	191	0.680	227	0.794	263	0.781	299	0.660	335	0.775
12	0.795	48	0.686	84	0.736	120	0.798	156	0.738	192	0.684	228	0.795	264	0.779	300	0.660	336	0.778
13	0.794	49	0.682	85	0.740	121	0.798	157	0.734	193	0.688	229	0.795	265	0.776	301	0.660	337	0.780
14	0.793	50	0.679	86	0.744	122	0.798	158	0.729	194	0.692	230	0.796	266	0.774	302	0.661	338	0.782
15	0.793	51	0.675	87	0.749	123	0.797	159	0.725	195	0.696	231	0.796	267	0.771	303	0.661	339	0.784
16	0.792	52	0.672	88	0.752	124	0.797	160	0.720	196	0.700	232	0.796	268	0.768	304	0.663	340	0.786
17	0.791	53	0.670	89	0.756	125	0.797	161	0.716	197	0.705	233	0.797	269	0.765	305	0.664	341	0.787
18	0.789	54	0.667	90	0.760	126	0.797	162	0.711	198	0.709	234	0.797	270	0.762	306	0.666	342	0.789
19	0.788	55	0.665	91	0.763	127	0.797	163	0.707	199	0.714	235	0.797	271	0.758	307	0.668	343	0.790
20	0.787	56	0.663	92	0.767	128	0.797	164	0.702	200	0.718	236	0.797	272	0.754	308	0.671	344	0.791
21	0.785	57	0.662	93	0.770	129	0.796	165	0.698	201	0.723	237	0.797	273	0.751	309	0.674	345	0.792
22	0.783	58	0.661	94	0.772	130	0.796	166	0.694	202	0.727	238	0.798	274	0.747	310	0.677	346	0.793
23	0.781	59	0.660	95	0.775	131	0.795	167	0.690	203	0.732	239	0.798	275	0.742	311	0.680	347	0.794
24	0.779	60	0.660	96	0.778	132	0.795	168	0.686	204	0.736	240	0.798	276	0.738	312	0.684	348	0.795
25	0.776	61	0.660	97	0.780	133	0.794	169	0.682	205	0.740	241	0.798	277	0.734	313	0.688	349	0.795
26	0.774	62	0.661	98	0.782	134	0.793	170	0.679	206	0.744	242	0.798	278	0.729	314	0.692	350	0.796
27	0.771	63	0.661	99	0.784	135	0.793	171	0.675	207	0.749	243	0.797	279	0.725	315	0.696	351	0.796
28	0.768	64	0.663	100	0.786	136	0.792	172	0.672	208	0.752	244	0.797	280	0.720	316	0.700	352	0.796
29	0.765	65	0.664	101	0.787	137	0.791	173	0.670	209	0.756	245	0.797	281	0.716	317	0.705	353	0.797
30	0.762	66	0.666	102	0.789	138	0.789	174	0.667	210	0.760	246	0.797	282	0.711	318	0.709	354	0.797
31	0.758	67	0.668	103	0.790	139	0.788	175	0.665	211	0.763	247	0.797	283	0.707	319	0.714	355	0.797
32	0.754	68	0.671	104	0.791	140	0.787	176	0.663	212	0.767	248	0.797	284	0.702	320	0.718	356	0.797
33	0.751	69	0.674	105	0.792	141	0.785	177	0.662	213	0.770	249	0.796	285	0.698	321	0.723	357	0.797
34	0.747	70	0.677	106	0.793	142	0.783	178	0.661	214	0.772	250	0.796	286	0.694	322	0.727	358	0.798
35	0.742	71	0.680	107	0.794	143	0.781	179	0.660	215	0.775	251	0.795	287	0.690	323	0.732	359	0.798

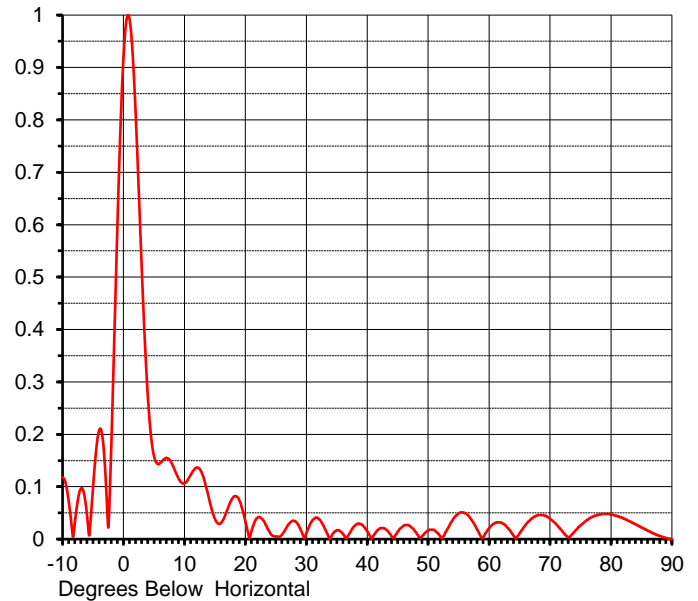
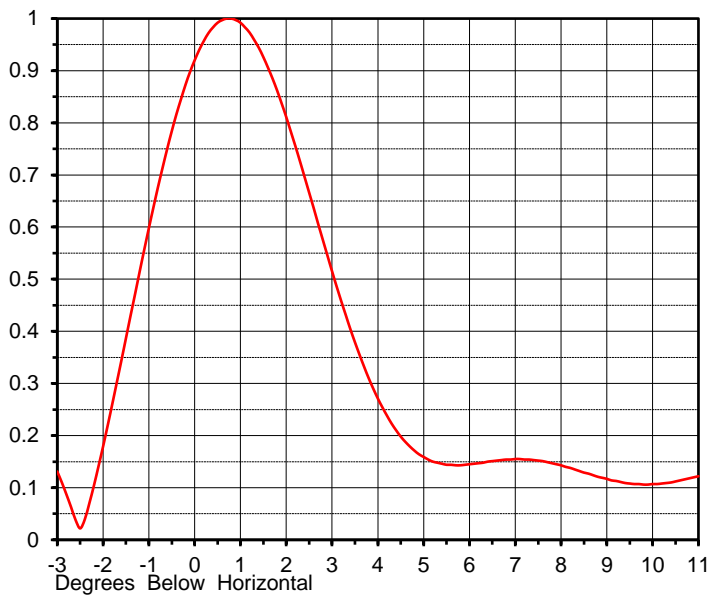
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ELEVATION PATTERN

Proposal No. **C-71473-2**
 Date **12-Mar-20**
 Call Letters **KEPR**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-20GTH/VP-R 6T140**

RMS Directivity at Main Lobe **18.0 (12.55 dB)**
 RMS Directivity at Horizontal **15.2 (11.82 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **20G180075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.118	10.0	0.107	30.0	0.011	50.0	0.017	70.0	0.039
-9.0	0.073	11.0	0.122	31.0	0.036	51.0	0.017	71.0	0.029
-8.0	0.030	12.0	0.136	32.0	0.039	52.0	0.005	72.0	0.015
-7.0	0.096	13.0	0.122	33.0	0.021	53.0	0.016	73.0	0.003
-6.0	0.047	14.0	0.079	34.0	0.003	54.0	0.036	74.0	0.014
-5.0	0.098	15.0	0.039	35.0	0.017	55.0	0.049	75.0	0.026
-4.0	0.208	16.0	0.031	36.0	0.010	56.0	0.050	76.0	0.036
-3.0	0.131	17.0	0.055	37.0	0.009	57.0	0.039	77.0	0.043
-2.0	0.179	18.0	0.080	38.0	0.026	58.0	0.019	78.0	0.047
-1.0	0.598	19.0	0.074	39.0	0.028	59.0	0.003	79.0	0.048
0.0	0.920	20.0	0.034	40.0	0.015	60.0	0.021	80.0	0.047
1.0	0.992	21.0	0.015	41.0	0.006	61.0	0.031	81.0	0.044
2.0	0.811	22.0	0.041	42.0	0.020	62.0	0.031	82.0	0.040
3.0	0.515	23.0	0.035	43.0	0.019	63.0	0.022	83.0	0.034
4.0	0.271	24.0	0.013	44.0	0.005	64.0	0.007	84.0	0.028
5.0	0.159	25.0	0.005	45.0	0.014	65.0	0.011	85.0	0.022
6.0	0.145	26.0	0.008	46.0	0.026	66.0	0.027	86.0	0.016
7.0	0.155	27.0	0.027	47.0	0.025	67.0	0.039	87.0	0.011
8.0	0.143	28.0	0.035	48.0	0.013	68.0	0.046	88.0	0.006
9.0	0.117	29.0	0.020	49.0	0.005	69.0	0.045	89.0	0.002
								90.0	0.000

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