

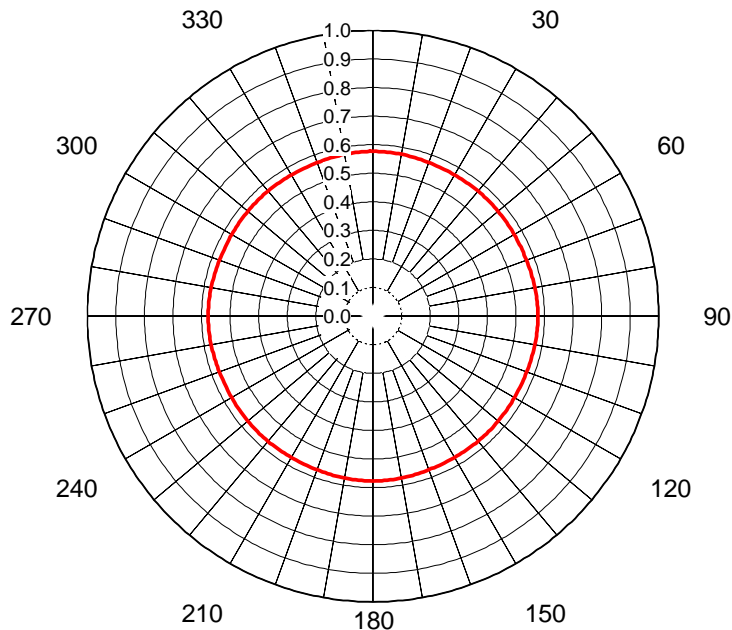
## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-71448**  
 Date **14-Jan-20**  
 Call Letters **KHGI**  
 Channel **27**  
 Frequency **551 MHz**  
 Antenna Type **TLP-12A/VP-R**  
 Gain **1.01 (0.05dB)**  
 Calculated

Pattern Number **TLP-A-27 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.987	36	0.994	72	0.996	108	0.992	144	0.991	180	0.999	216	0.994	252	0.991	288	0.999	324	0.993
1	0.988	37	0.994	73	0.996	109	0.992	145	0.991	181	0.999	217	0.993	253	0.991	289	0.999	325	0.992
2	0.988	38	0.994	74	0.996	110	0.992	146	0.991	182	1.000	218	0.993	254	0.991	290	1.000	326	0.992
3	0.988	39	0.994	75	0.996	111	0.992	147	0.992	183	1.000	219	0.993	255	0.991	291	1.000	327	0.992
4	0.988	40	0.994	76	0.996	112	0.991	148	0.992	184	1.000	220	0.993	256	0.991	292	1.000	328	0.992
5	0.988	41	0.994	77	0.996	113	0.991	149	0.992	185	1.000	221	0.992	257	0.992	293	1.000	329	0.991
6	0.989	42	0.994	78	0.996	114	0.991	150	0.992	186	0.999	222	0.992	258	0.992	294	1.000	330	0.991
7	0.989	43	0.994	79	0.996	115	0.991	151	0.993	187	0.999	223	0.992	259	0.992	295	1.000	331	0.991
8	0.989	44	0.994	80	0.996	116	0.991	152	0.993	188	0.999	224	0.992	260	0.992	296	1.000	332	0.990
9	0.989	45	0.995	81	0.996	117	0.991	153	0.993	189	0.999	225	0.992	261	0.992	297	1.000	333	0.990
10	0.989	46	0.995	82	0.996	118	0.990	154	0.993	190	0.999	226	0.991	262	0.993	298	1.000	334	0.990
11	0.990	47	0.995	83	0.996	119	0.990	155	0.994	191	0.999	227	0.991	263	0.993	299	1.000	335	0.990
12	0.990	48	0.995	84	0.996	120	0.990	156	0.994	192	0.999	228	0.991	264	0.993	300	1.000	336	0.990
13	0.990	49	0.995	85	0.996	121	0.990	157	0.994	193	0.999	229	0.991	265	0.993	301	1.000	337	0.989
14	0.990	50	0.995	86	0.996	122	0.990	158	0.995	194	0.999	230	0.991	266	0.994	302	1.000	338	0.989
15	0.990	51	0.995	87	0.996	123	0.990	159	0.995	195	0.998	231	0.991	267	0.994	303	0.999	339	0.989
16	0.990	52	0.995	88	0.996	124	0.990	160	0.995	196	0.998	232	0.991	268	0.994	304	0.999	340	0.989
17	0.991	53	0.995	89	0.996	125	0.990	161	0.995	197	0.998	233	0.990	269	0.995	305	0.999	341	0.989
18	0.991	54	0.995	90	0.996	126	0.989	162	0.996	198	0.998	234	0.990	270	0.995	306	0.999	342	0.989
19	0.991	55	0.995	91	0.996	127	0.989	163	0.996	199	0.998	235	0.990	271	0.995	307	0.998	343	0.988
20	0.991	56	0.995	92	0.995	128	0.989	164	0.996	200	0.997	236	0.990	272	0.995	308	0.998	344	0.988
21	0.991	57	0.995	93	0.995	129	0.989	165	0.997	201	0.997	237	0.990	273	0.996	309	0.998	345	0.988
22	0.992	58	0.995	94	0.995	130	0.989	166	0.997	202	0.997	238	0.990	274	0.996	310	0.998	346	0.988
23	0.992	59	0.996	95	0.995	131	0.989	167	0.997	203	0.997	239	0.990	275	0.996	311	0.997	347	0.988
24	0.992	60	0.996	96	0.995	132	0.989	168	0.997	204	0.996	240	0.990	276	0.996	312	0.997	348	0.988
25	0.992	61	0.996	97	0.995	133	0.990	169	0.998	205	0.996	241	0.990	277	0.997	313	0.997	349	0.988
26	0.992	62	0.996	98	0.994	134	0.990	170	0.998	206	0.996	242	0.990	278	0.997	314	0.996	350	0.988
27	0.992	63	0.996	99	0.994	135	0.990	171	0.998	207	0.996	243	0.990	279	0.997	315	0.996	351	0.988
28	0.993	64	0.996	100	0.994	136	0.990	172	0.998	208	0.996	244	0.990	280	0.998	316	0.996	352	0.988
29	0.993	65	0.996	101	0.994	137	0.990	173	0.998	209	0.995	245	0.990	281	0.998	317	0.995	353	0.988
30	0.993	66	0.996	102	0.994	138	0.990	174	0.999	210	0.995	246	0.990	282	0.998	318	0.995	354	0.988
31	0.993	67	0.996	103	0.993	139	0.990	175	0.999	211	0.995	247	0.990	283	0.998	319	0.995	355	0.988
32	0.993	68	0.996	104	0.993	140	0.990	176	0.999	212	0.995	248	0.990	284	0.999	320	0.994	356	0.988
33	0.993	69	0.996	105	0.993	141	0.990	177	0.999	213	0.994	249	0.990	285	0.999	321	0.994	357	0.988
34	0.993	70	0.996	106	0.993	142	0.991	178	0.999	214	0.994	250	0.990	286	0.999	322	0.993	358	0.988
35	0.994	71	0.996	107	0.993	143	0.991	179	0.999	215	0.994	251	0.991	287	0.999	323	0.993	359	0.988

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-71448**  
 Date **14-Jan-20**  
 Call Letters **KHGI**  
 Channel **27**  
 Frequency **551 MHz**  
 Antenna Type **TLP-12A/VP-R**  
 Gain **1.01 (0.06dB)**  
 Calculated

Pattern Number **TLP-A-27 Vpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.577	36	0.571	72	0.573	108	0.573	144	0.571	180	0.577	216	0.571	252	0.573	288	0.573	324	0.571
1	0.577	37	0.572	73	0.573	109	0.572	145	0.571	181	0.577	217	0.572	253	0.573	289	0.572	325	0.571
2	0.577	38	0.572	74	0.573	110	0.572	146	0.571	182	0.577	218	0.572	254	0.573	290	0.572	326	0.571
3	0.577	39	0.572	75	0.573	111	0.572	147	0.571	183	0.577	219	0.572	255	0.573	291	0.572	327	0.571
4	0.577	40	0.572	76	0.574	112	0.572	148	0.571	184	0.577	220	0.572	256	0.574	292	0.572	328	0.571
5	0.577	41	0.572	77	0.574	113	0.572	149	0.571	185	0.577	221	0.572	257	0.574	293	0.572	329	0.571
6	0.576	42	0.572	78	0.575	114	0.571	150	0.571	186	0.576	222	0.572	258	0.575	294	0.571	330	0.571
7	0.576	43	0.572	79	0.575	115	0.571	151	0.571	187	0.576	223	0.572	259	0.575	295	0.571	331	0.571
8	0.576	44	0.572	80	0.575	116	0.571	152	0.571	188	0.576	224	0.572	260	0.575	296	0.571	332	0.571
9	0.576	45	0.572	81	0.575	117	0.571	153	0.571	189	0.576	225	0.572	261	0.575	297	0.571	333	0.571
10	0.575	46	0.572	82	0.576	118	0.571	154	0.571	190	0.575	226	0.572	262	0.576	298	0.571	334	0.571
11	0.575	47	0.572	83	0.576	119	0.571	155	0.571	191	0.575	227	0.572	263	0.576	299	0.571	335	0.571
12	0.575	48	0.572	84	0.576	120	0.571	156	0.571	192	0.575	228	0.572	264	0.576	300	0.571	336	0.571
13	0.574	49	0.572	85	0.577	121	0.571	157	0.571	193	0.574	229	0.572	265	0.577	301	0.571	337	0.571
14	0.574	50	0.572	86	0.577	122	0.571	158	0.572	194	0.574	230	0.572	266	0.577	302	0.571	338	0.572
15	0.574	51	0.572	87	0.577	123	0.571	159	0.572	195	0.574	231	0.572	267	0.577	303	0.571	339	0.572
16	0.573	52	0.572	88	0.577	124	0.571	160	0.572	196	0.573	232	0.572	268	0.577	304	0.571	340	0.572
17	0.573	53	0.571	89	0.577	125	0.571	161	0.572	197	0.573	233	0.571	269	0.577	305	0.571	341	0.572
18	0.573	54	0.571	90	0.577	126	0.571	162	0.573	198	0.573	234	0.571	270	0.577	306	0.571	342	0.573
19	0.572	55	0.571	91	0.577	127	0.572	163	0.573	199	0.572	235	0.571	271	0.577	307	0.572	343	0.573
20	0.572	56	0.571	92	0.577	128	0.572	164	0.573	200	0.572	236	0.571	272	0.577	308	0.572	344	0.573
21	0.572	57	0.571	93	0.577	129	0.572	165	0.573	201	0.572	237	0.571	273	0.577	309	0.572	345	0.573
22	0.572	58	0.571	94	0.577	130	0.572	166	0.574	202	0.572	238	0.571	274	0.577	310	0.572	346	0.574
23	0.572	59	0.571	95	0.577	131	0.572	167	0.574	203	0.572	239	0.571	275	0.577	311	0.572	347	0.574
24	0.571	60	0.571	96	0.576	132	0.572	168	0.575	204	0.571	240	0.571	276	0.576	312	0.572	348	0.575
25	0.571	61	0.571	97	0.576	133	0.572	169	0.575	205	0.571	241	0.571	277	0.576	313	0.572	349	0.575
26	0.571	62	0.571	98	0.576	134	0.572	170	0.575	206	0.571	242	0.571	278	0.576	314	0.572	350	0.575
27	0.571	63	0.571	99	0.576	135	0.572	171	0.575	207	0.571	243	0.571	279	0.576	315	0.572	351	0.575
28	0.571	64	0.571	100	0.575	136	0.572	172	0.576	208	0.571	244	0.571	280	0.575	316	0.572	352	0.576
29	0.571	65	0.571	101	0.575	137	0.572	173	0.576	209	0.571	245	0.571	281	0.575	317	0.572	353	0.576
30	0.571	66	0.571	102	0.575	138	0.572	174	0.576	210	0.571	246	0.571	282	0.575	318	0.572	354	0.576
31	0.571	67	0.571	103	0.574	139	0.572	175	0.577	211	0.571	247	0.571	283	0.574	319	0.572	355	0.577
32	0.571	68	0.572	104	0.574	140	0.572	176	0.577	212	0.571	248	0.572	284	0.574	320	0.572	356	0.577
33	0.571	69	0.572	105	0.574	141	0.572	177	0.577	213	0.571	249	0.572	285	0.574	321	0.572	357	0.577
34	0.571	70	0.572	106	0.573	142	0.572	178	0.577	214	0.571	250	0.572	286	0.573	322	0.572	358	0.577
35	0.571	71	0.572	107	0.573	143	0.571	179	0.577	215	0.571	251	0.572	287	0.573	323	0.571	359	0.577

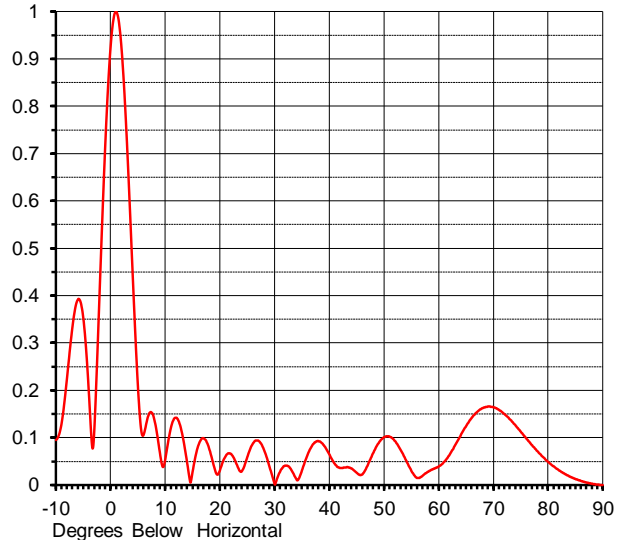
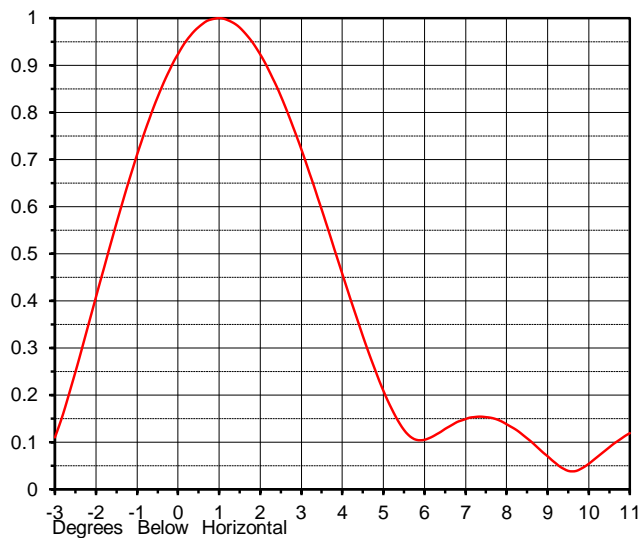
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## ELEVATION PATTERN

Proposal No. **C-71448**  
 Date **14-Jan-20**  
 Call Letters **KHGI**  
 Channel **27**  
 Frequency **551 MHz**  
 Antenna Type **TLP-12A/VP-R**

RMS Directivity at Main Lobe **12.3 ( 10.89 dB )**  
 RMS Directivity at Horizontal **10.5 ( 10.21 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Pattern Number **12L123100-27**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.095	10.0	0.054	30.0	0.002	50.0	0.101	70.0	0.164
-9.0	0.127	11.0	0.119	31.0	0.028	51.0	0.102	71.0	0.159
-8.0	0.222	12.0	0.142	32.0	0.041	52.0	0.093	72.0	0.150
-7.0	0.331	13.0	0.113	33.0	0.033	53.0	0.075	73.0	0.139
-6.0	0.391	14.0	0.047	34.0	0.012	54.0	0.053	74.0	0.127
-5.0	0.354	15.0	0.028	35.0	0.031	55.0	0.030	75.0	0.113
-4.0	0.201	16.0	0.082	36.0	0.063	56.0	0.015	76.0	0.099
-3.0	0.110	17.0	0.099	37.0	0.086	57.0	0.019	77.0	0.085
-2.0	0.408	18.0	0.078	38.0	0.093	58.0	0.028	78.0	0.072
-1.0	0.710	19.0	0.036	39.0	0.084	59.0	0.034	79.0	0.060
0.0	0.924	20.0	0.031	40.0	0.065	60.0	0.039	80.0	0.049
1.0	1.000	21.0	0.060	41.0	0.045	61.0	0.049	81.0	0.040
2.0	0.923	22.0	0.066	42.0	0.036	62.0	0.064	82.0	0.031
3.0	0.722	23.0	0.045	43.0	0.037	63.0	0.084	83.0	0.024
4.0	0.457	24.0	0.029	44.0	0.035	64.0	0.104	84.0	0.018
5.0	0.209	25.0	0.059	45.0	0.026	65.0	0.124	85.0	0.013
6.0	0.105	26.0	0.087	46.0	0.022	66.0	0.141	86.0	0.009
7.0	0.149	27.0	0.094	47.0	0.041	67.0	0.154	87.0	0.005
8.0	0.138	28.0	0.076	48.0	0.067	68.0	0.162	88.0	0.003
9.0	0.070	29.0	0.041	49.0	0.088	69.0	0.166	89.0	0.001
								90.0	0.000

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