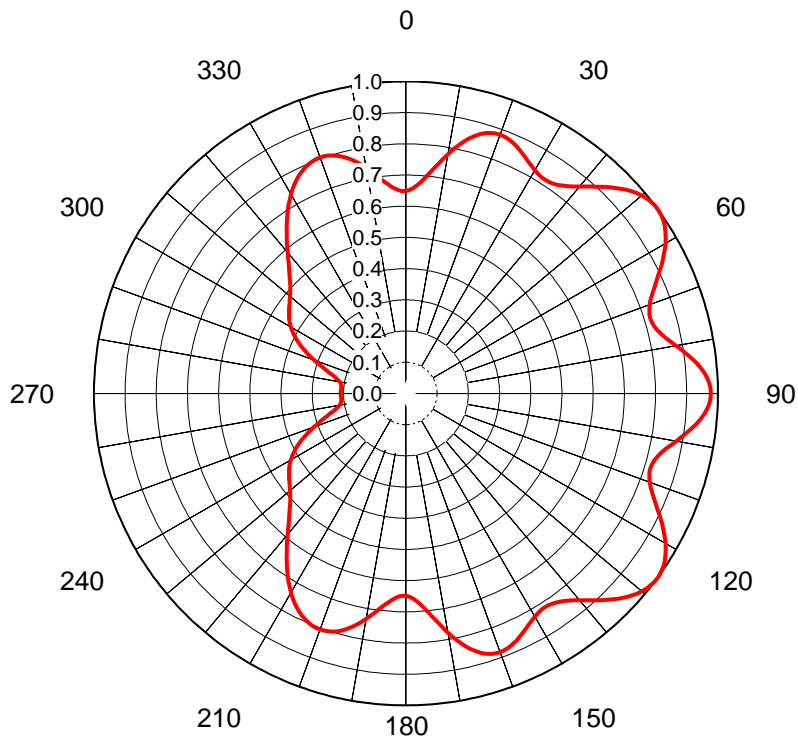


AZIMUTH PATTERN Horizontal Polarization



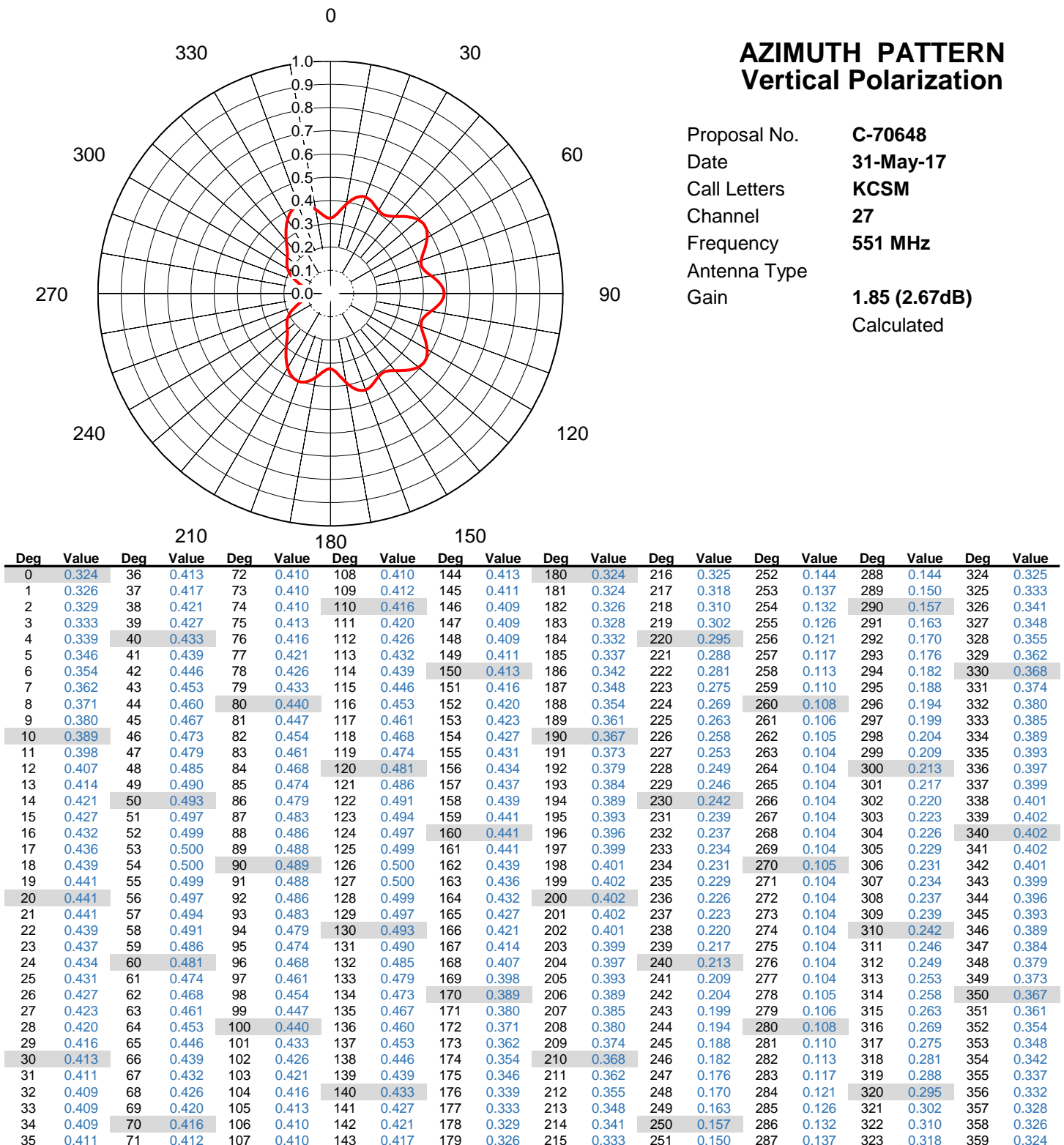
Proposal No. **C-70648**
 Date **31-May-17**
 Call Letters **KCSM**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type
 Gain **1.85 (2.67dB)**
 Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.649	36	0.827	72	0.821	108	0.821	144	0.827	180	0.649	216	0.651	252	0.287	288	0.287
1	0.652	37	0.834	73	0.819	109	0.825	145	0.821	181	0.649	217	0.635	253	0.275	289	0.300
2	0.658	38	0.843	74	0.821	110	0.832	146	0.818	182	0.651	218	0.620	254	0.263	290	0.313
3	0.667	39	0.854	75	0.825	111	0.840	147	0.817	183	0.657	219	0.605	255	0.252	291	0.326
4	0.678	40	0.865	76	0.832	112	0.851	148	0.819	184	0.664	220	0.590	256	0.243	292	0.339
5	0.692	41	0.878	77	0.841	113	0.864	149	0.822	185	0.674	221	0.576	257	0.234	293	0.352
6	0.708	42	0.892	78	0.853	114	0.878	150	0.826	186	0.684	222	0.562	258	0.227	294	0.365
7	0.725	43	0.906	79	0.866	115	0.892	151	0.832	187	0.696	223	0.549	259	0.221	295	0.377
8	0.743	44	0.920	80	0.879	116	0.907	152	0.839	188	0.709	224	0.537	260	0.216	296	0.388
9	0.761	45	0.934	81	0.894	117	0.921	153	0.847	189	0.722	225	0.526	261	0.212	297	0.398
10	0.779	46	0.947	82	0.908	118	0.935	154	0.854	190	0.734	226	0.516	262	0.210	298	0.408
11	0.797	47	0.959	83	0.923	119	0.949	155	0.862	191	0.746	227	0.507	263	0.209	299	0.417
12	0.813	48	0.970	84	0.936	120	0.961	156	0.869	192	0.758	228	0.499	264	0.208	300	0.426
13	0.829	49	0.979	85	0.948	121	0.972	157	0.874	193	0.768	229	0.491	265	0.208	301	0.433
14	0.843	50	0.987	86	0.958	122	0.981	158	0.879	194	0.778	230	0.485	266	0.208	302	0.440
15	0.855	51	0.993	87	0.967	123	0.989	159	0.881	195	0.786	231	0.479	267	0.208	303	0.446
16	0.865	52	0.997	88	0.973	124	0.995	160	0.882	196	0.793	232	0.473	268	0.209	304	0.452
17	0.872	53	1.000	89	0.976	125	0.998	161	0.881	197	0.798	233	0.468	269	0.209	305	0.458
18	0.878	54	1.000	90	0.978	126	1.000	162	0.878	198	0.802	234	0.463	270	0.209	306	0.463
19	0.881	55	0.998	91	0.976	127	1.000	163	0.872	199	0.804	235	0.458	271	0.209	307	0.468
20	0.882	56	0.995	92	0.973	128	0.997	164	0.865	200	0.805	236	0.452	272	0.209	308	0.473
21	0.881	57	0.989	93	0.967	129	0.993	165	0.855	201	0.804	237	0.446	273	0.208	309	0.479
22	0.879	58	0.981	94	0.958	130	0.987	166	0.843	202	0.802	238	0.440	274	0.208	310	0.485
23	0.874	59	0.972	95	0.948	131	0.979	167	0.829	203	0.798	239	0.433	275	0.208	311	0.491
24	0.869	60	0.961	96	0.936	132	0.970	168	0.813	204	0.793	240	0.426	276	0.208	312	0.499
25	0.862	61	0.949	97	0.923	133	0.959	169	0.797	205	0.787	241	0.417	277	0.209	313	0.507
26	0.854	62	0.935	98	0.908	134	0.947	170	0.779	206	0.779	242	0.408	278	0.210	314	0.516
27	0.847	63	0.921	99	0.894	135	0.934	171	0.761	207	0.770	243	0.398	279	0.212	315	0.526
28	0.839	64	0.907	100	0.879	136	0.920	172	0.743	208	0.760	244	0.388	280	0.216	316	0.537
29	0.832	65	0.892	101	0.866	137	0.906	173	0.725	209	0.749	245	0.377	281	0.221	317	0.549
30	0.826	66	0.878	102	0.853	138	0.892	174	0.708	210	0.737	246	0.365	282	0.227	318	0.562
31	0.822	67	0.864	103	0.841	139	0.878	175	0.692	211	0.724	247	0.352	283	0.234	319	0.576
32	0.819	68	0.851	104	0.832	140	0.865	176	0.678	212	0.710	248	0.339	284	0.243	320	0.590
33	0.817	69	0.840	105	0.825	141	0.854	177	0.667	213	0.696	249	0.326	285	0.252	321	0.605
34	0.818	70	0.832	106	0.821	142	0.843	178	0.658	214	0.681	250	0.313	286	0.263	322	0.620
35	0.821	71	0.825	107	0.819	143	0.834	179	0.652	215	0.666	251	0.300	287	0.275	323	0.635

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70648**
 Date **31-May-17**
 Call Letters **KCSM**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type
 Gain **1.85 (2.67dB)**
 Calculated



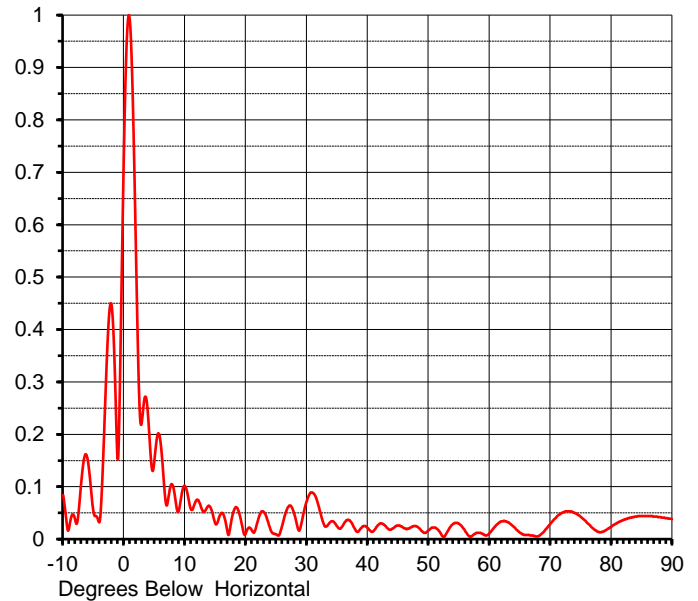
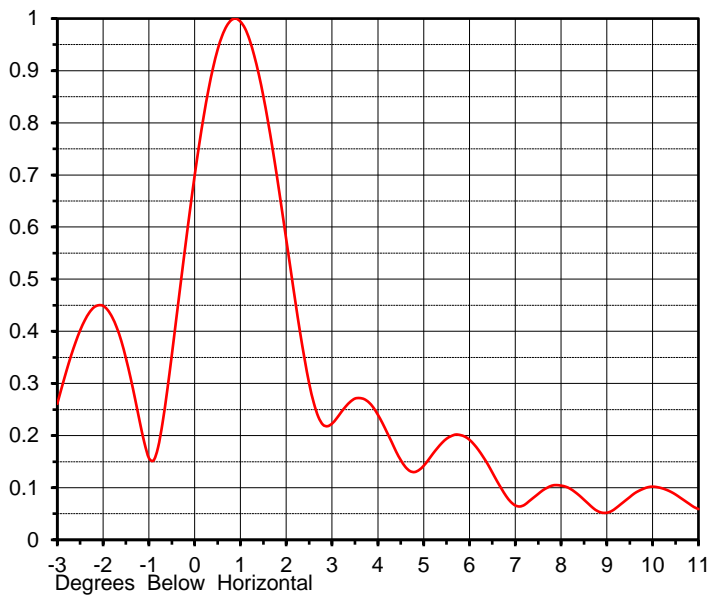
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ELEVATION PATTERN

Proposal No. **C-70648**
 Date **31-May-17**
 Call Letters **KCSM**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type

RMS Directivity at Main Lobe **25.8 (14.12 dB)**
 RMS Directivity at Horizontal **14.9 (11.73 dB)**
Calculated

Beam Tilt **0.80 deg**
 Pattern Number **14U258080**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.084	10.0	0.101	30.0	0.073	50.0	0.017	70.0	0.030
-9.0	0.023	11.0	0.056	31.0	0.088	51.0	0.022	71.0	0.043
-8.0	0.035	12.0	0.075	32.0	0.060	52.0	0.010	72.0	0.051
-7.0	0.112	13.0	0.052	33.0	0.024	53.0	0.013	73.0	0.053
-6.0	0.153	14.0	0.063	34.0	0.034	54.0	0.029	74.0	0.050
-5.0	0.051	15.0	0.029	35.0	0.024	55.0	0.029	75.0	0.042
-4.0	0.034	16.0	0.050	36.0	0.028	56.0	0.015	76.0	0.031
-3.0	0.293	17.0	0.012	37.0	0.036	57.0	0.005	77.0	0.020
-2.0	0.441	18.0	0.054	38.0	0.017	58.0	0.012	78.0	0.013
-1.0	0.152	19.0	0.045	39.0	0.022	59.0	0.009	79.0	0.017
0.0	0.759	20.0	0.012	40.0	0.021	60.0	0.012	80.0	0.024
1.0	0.981	21.0	0.016	41.0	0.016	61.0	0.026	81.0	0.031
2.0	0.516	22.0	0.037	42.0	0.030	62.0	0.034	82.0	0.037
3.0	0.233	23.0	0.051	43.0	0.024	63.0	0.032	83.0	0.041
4.0	0.224	24.0	0.019	44.0	0.020	64.0	0.023	84.0	0.043
5.0	0.153	25.0	0.009	45.0	0.026	65.0	0.012	85.0	0.044
6.0	0.183	26.0	0.028	46.0	0.021	66.0	0.008	86.0	0.044
7.0	0.064	27.0	0.062	47.0	0.022	67.0	0.007	87.0	0.043
8.0	0.102	28.0	0.045	48.0	0.024	68.0	0.006	88.0	0.042
9.0	0.055	29.0	0.025	49.0	0.014	69.0	0.016	89.0	0.040
								90.0	0.038

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