



Antenna Model: **TUA-O4-16/64H-1-R-T**

Proposal Number: **C-70903-4**
Date: **13-Mar-18**
Customer: **NEXSTAR**
Location: **Lubbock**

Electrical Specifications

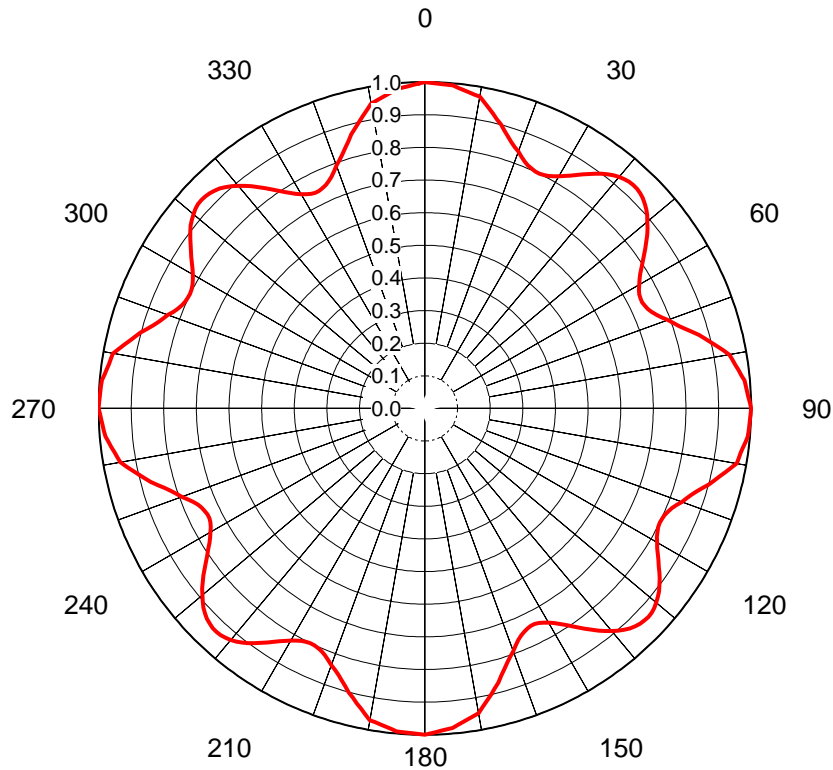
Polarization: **Horizontal**
Azimuth Pattern: **Omni**
Antenna Input: **7-3/16"** **75 Ohm** **EIA/DCA**
VSWR: **Channel** **1.08 : 1** **Band** **1.08 : 1**
Bandwidth: **470-690 MHz**
Rated Input Power: **70 kW** **(18.45 dBk)** **Maximum combined average power**

Mechanical Specifications

Mounting: **Bottom of Stack**
Environmental Protection: **Full Radome**
Height: **58.6 ft (17.9m)** **less Lightning Protector**
Weight: **21400 lb (9.7t)**
Effective Projected Area: **117.9 ft² (11m²)** **TIA-222-G** **Basic Wind Speed: 90 m/h (144.8 km/h)**

Channel Specifications

	Call	CH	Freq	Hpol ERP	TPO	RMS Main Lobe Hpol Gain	RMS at Horizontal Hpol Gain
1	KAMC	27	551 MHz	500 kW (26.99 dBk)	22.3 kW (13.49 dBk)	26.74 (14.27dB)	17.37 (12.40dB)
2	KL BK	31	575 MHz	480 kW (26.81 dBk)	21.2 kW (13.27 dBk)	27.10 (14.33dB)	17.30 (12.38dB)
3	KL BK	40	629 MHz	480 kW (26.81 dBk)	21.9 kW (13.40 dBk)	26.50 (14.23dB)	16.41 (12.15dB)



AZIMUTH PATTERN Horizontal Polarization

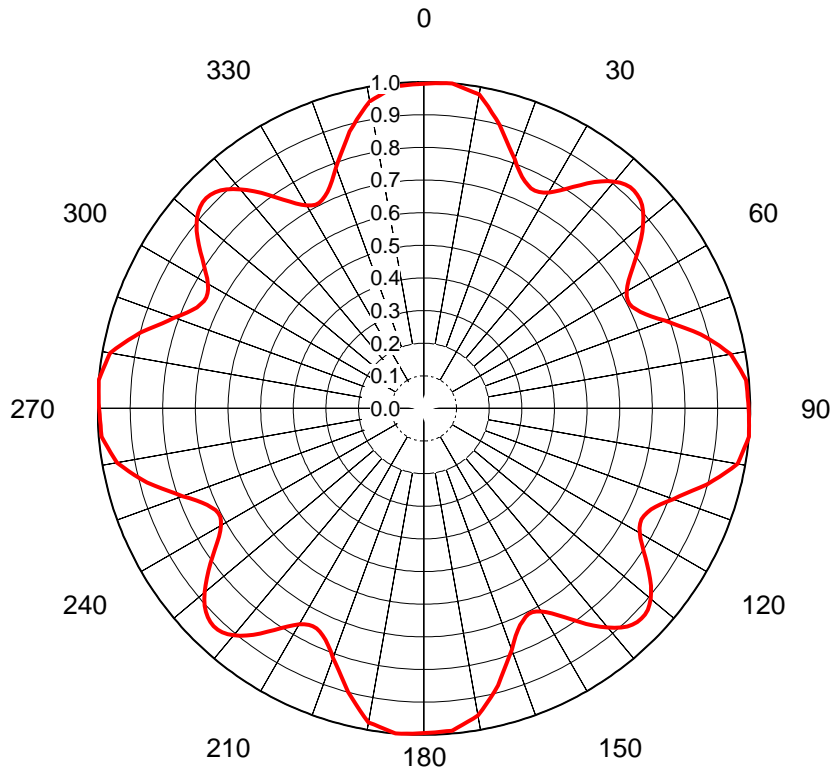
Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KAMC**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**
 Gain **1.28 (1.07dB)**
 Calculated
 Circularity **+/- 2.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.889	72	0.818	108	0.858	144	0.835	180	1.000	216	0.889	252	0.818	288	0.858	324	0.835
1	0.998	37	0.901	73	0.834	109	0.847	145	0.819	181	0.998	217	0.901	253	0.834	289	0.847	325	0.819
2	0.997	38	0.911	74	0.852	110	0.838	146	0.805	182	0.997	218	0.911	254	0.852	290	0.838	326	0.805
3	0.996	39	0.919	75	0.870	111	0.826	147	0.791	183	0.996	219	0.919	255	0.870	291	0.826	327	0.791
4	0.995	40	0.926	76	0.885	112	0.817	148	0.779	184	0.995	220	0.926	256	0.885	292	0.817	328	0.779
5	0.994	41	0.931	77	0.900	113	0.809	149	0.768	185	0.994	221	0.931	257	0.900	293	0.809	329	0.768
6	0.988	42	0.935	78	0.916	114	0.804	150	0.759	186	0.988	222	0.935	258	0.916	294	0.804	330	0.759
7	0.982	43	0.937	79	0.932	115	0.801	151	0.750	187	0.982	223	0.937	259	0.932	295	0.801	331	0.750
8	0.978	44	0.936	80	0.948	116	0.801	152	0.744	188	0.978	224	0.936	260	0.948	296	0.801	332	0.744
9	0.974	45	0.933	81	0.954	117	0.803	153	0.741	189	0.974	225	0.933	261	0.954	297	0.803	333	0.741
10	0.971	46	0.928	82	0.961	118	0.807	154	0.741	190	0.971	226	0.928	262	0.961	298	0.807	334	0.741
11	0.956	47	0.922	83	0.968	119	0.813	155	0.744	191	0.956	227	0.922	263	0.968	299	0.813	335	0.744
12	0.941	48	0.913	84	0.975	120	0.821	156	0.749	192	0.941	228	0.913	264	0.975	300	0.821	336	0.749
13	0.927	49	0.902	85	0.983	121	0.831	157	0.755	193	0.927	229	0.902	265	0.983	301	0.831	337	0.755
14	0.914	50	0.890	86	0.986	122	0.842	158	0.765	194	0.914	230	0.890	266	0.986	302	0.842	338	0.765
15	0.901	51	0.878	87	0.989	123	0.853	159	0.777	195	0.901	231	0.878	267	0.989	303	0.853	339	0.777
16	0.885	52	0.864	88	0.992	124	0.865	160	0.792	196	0.885	232	0.864	268	0.992	304	0.865	340	0.792
17	0.871	53	0.850	89	0.996	125	0.877	161	0.804	197	0.871	233	0.850	269	0.996	305	0.877	341	0.804
18	0.858	54	0.835	90	1.000	126	0.889	162	0.818	198	0.858	234	0.835	270	1.000	306	0.889	342	0.818
19	0.847	55	0.819	91	0.998	127	0.901	163	0.834	199	0.847	235	0.819	271	0.998	307	0.901	343	0.834
20	0.838	56	0.805	92	0.997	128	0.911	164	0.852	200	0.838	236	0.805	272	0.997	308	0.911	344	0.852
21	0.826	57	0.791	93	0.996	129	0.919	165	0.870	201	0.826	237	0.791	273	0.996	309	0.919	345	0.870
22	0.817	58	0.779	94	0.995	130	0.926	166	0.885	202	0.817	238	0.779	274	0.995	310	0.926	346	0.885
23	0.809	59	0.768	95	0.994	131	0.931	167	0.900	203	0.809	239	0.768	275	0.994	311	0.931	347	0.900
24	0.804	60	0.759	96	0.988	132	0.935	168	0.916	204	0.804	240	0.759	276	0.988	312	0.935	348	0.916
25	0.801	61	0.750	97	0.982	133	0.937	169	0.932	205	0.801	241	0.750	277	0.982	313	0.937	349	0.932
26	0.801	62	0.744	98	0.978	134	0.936	170	0.948	206	0.801	242	0.744	278	0.978	314	0.936	350	0.948
27	0.803	63	0.741	99	0.974	135	0.933	171	0.954	207	0.803	243	0.741	279	0.974	315	0.933	351	0.954
28	0.807	64	0.741	100	0.971	136	0.928	172	0.961	208	0.807	244	0.741	280	0.971	316	0.928	352	0.961
29	0.813	65	0.744	101	0.956	137	0.922	173	0.968	209	0.813	245	0.744	281	0.956	317	0.922	353	0.968
30	0.821	66	0.749	102	0.941	138	0.913	174	0.975	210	0.821	246	0.749	282	0.941	318	0.913	354	0.975
31	0.831	67	0.755	103	0.927	139	0.902	175	0.983	211	0.831	247	0.755	283	0.927	319	0.902	355	0.983
32	0.842	68	0.765	104	0.914	140	0.890	176	0.986	212	0.842	248	0.765	284	0.914	320	0.890	356	0.986
33	0.853	69	0.777	105	0.901	141	0.878	177	0.989	213	0.853	249	0.777	285	0.901	321	0.878	357	0.989
34	0.865	70	0.792	106	0.885	142	0.864	178	0.992	214	0.865	250	0.792	286	0.885	322	0.864	358	0.992
35	0.877	71	0.804	107	0.871	143	0.850	179	0.996	215	0.877	251	0.804	287	0.871	323	0.850	359	0.996

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AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KLBK**
 Channel **31**
 Frequency **575 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**
 Gain **1.32 (1.21dB)**
 Calculated
 Circularity **+/- 2.0 dB**

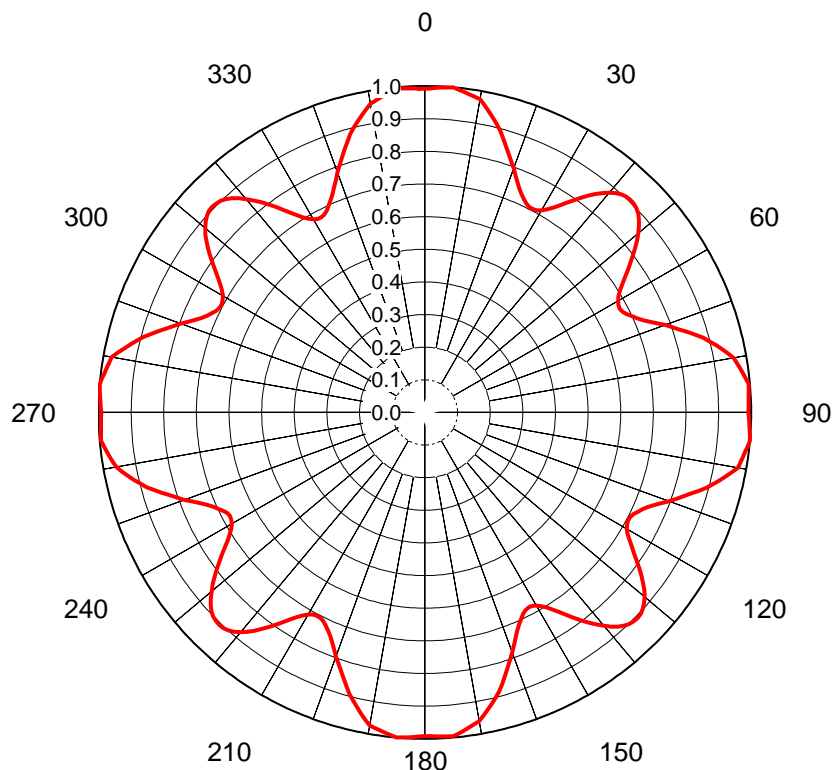


Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.995	36	0.852	72	0.821	108	0.844	144	0.808	180	0.995	216	0.852	252	0.821	288	0.844	324	0.808
1	0.996	37	0.868	73	0.839	109	0.828	145	0.790	181	0.996	217	0.868	253	0.839	289	0.828	325	0.790
2	0.997	38	0.883	74	0.859	110	0.814	146	0.772	182	0.997	218	0.883	254	0.859	290	0.814	326	0.772
3	0.998	39	0.896	75	0.878	111	0.797	147	0.755	183	0.998	219	0.896	255	0.878	291	0.797	327	0.755
4	0.999	40	0.907	76	0.894	112	0.783	148	0.740	184	0.999	220	0.907	256	0.894	292	0.783	328	0.740
5	1.000	41	0.917	77	0.910	113	0.771	149	0.728	185	1.000	221	0.917	257	0.910	293	0.771	329	0.728
6	0.995	42	0.923	78	0.925	114	0.762	150	0.718	186	0.995	222	0.923	258	0.925	294	0.762	330	0.718
7	0.990	43	0.927	79	0.940	115	0.755	151	0.711	187	0.990	223	0.927	259	0.940	295	0.755	331	0.711
8	0.985	44	0.928	80	0.955	116	0.750	152	0.707	188	0.985	224	0.928	260	0.955	296	0.750	332	0.707
9	0.981	45	0.925	81	0.962	117	0.749	153	0.707	189	0.981	225	0.925	261	0.962	297	0.749	333	0.707
10	0.977	46	0.921	82	0.969	118	0.751	154	0.711	190	0.977	226	0.921	262	0.969	298	0.751	334	0.711
11	0.961	47	0.914	83	0.977	119	0.756	155	0.718	191	0.961	227	0.914	263	0.977	299	0.756	335	0.718
12	0.946	48	0.904	84	0.984	120	0.764	156	0.727	192	0.946	228	0.904	264	0.984	300	0.764	336	0.727
13	0.930	49	0.891	85	0.991	121	0.775	157	0.738	193	0.930	229	0.891	265	0.991	301	0.775	337	0.738
14	0.914	50	0.876	86	0.992	122	0.788	158	0.752	194	0.914	230	0.876	266	0.992	302	0.788	338	0.752
15	0.899	51	0.861	87	0.992	123	0.803	159	0.769	195	0.899	231	0.861	267	0.992	303	0.803	339	0.769
16	0.880	52	0.844	88	0.993	124	0.819	160	0.787	196	0.880	232	0.844	268	0.993	304	0.819	340	0.787
17	0.861	53	0.827	89	0.994	125	0.835	161	0.803	197	0.861	233	0.827	269	0.994	305	0.835	341	0.803
18	0.844	54	0.808	90	0.995	126	0.852	162	0.821	198	0.844	234	0.808	270	0.995	306	0.852	342	0.821
19	0.828	55	0.790	91	0.996	127	0.868	163	0.839	199	0.828	235	0.790	271	0.996	307	0.868	343	0.839
20	0.814	56	0.772	92	0.997	128	0.883	164	0.859	200	0.814	236	0.772	272	0.997	308	0.883	344	0.859
21	0.797	57	0.755	93	0.998	129	0.896	165	0.878	201	0.797	237	0.755	273	0.998	309	0.896	345	0.878
22	0.783	58	0.740	94	0.999	130	0.907	166	0.894	202	0.783	238	0.740	274	0.999	310	0.907	346	0.894
23	0.771	59	0.728	95	1.000	131	0.917	167	0.910	203	0.771	239	0.728	275	1.000	311	0.917	347	0.910
24	0.762	60	0.718	96	0.995	132	0.923	168	0.925	204	0.762	240	0.718	276	0.995	312	0.923	348	0.925
25	0.755	61	0.711	97	0.990	133	0.927	169	0.940	205	0.755	241	0.711	277	0.990	313	0.927	349	0.940
26	0.750	62	0.707	98	0.985	134	0.928	170	0.955	206	0.750	242	0.707	278	0.985	314	0.928	350	0.955
27	0.749	63	0.707	99	0.981	135	0.925	171	0.962	207	0.749	243	0.707	279	0.981	315	0.925	351	0.962
28	0.751	64	0.711	100	0.977	136	0.921	172	0.969	208	0.751	244	0.711	280	0.977	316	0.921	352	0.969
29	0.756	65	0.718	101	0.961	137	0.914	173	0.977	209	0.756	245	0.718	281	0.961	317	0.914	353	0.977
30	0.764	66	0.727	102	0.946	138	0.904	174	0.984	210	0.764	246	0.727	282	0.946	318	0.904	354	0.984
31	0.775	67	0.738	103	0.930	139	0.891	175	0.991	211	0.775	247	0.738	283	0.930	319	0.891	355	0.991
32	0.788	68	0.752	104	0.914	140	0.876	176	0.992	212	0.788	248	0.752	284	0.914	320	0.876	356	0.992
33	0.803	69	0.769	105	0.899	141	0.861	177	0.992	213	0.803	249	0.769	285	0.899	321	0.861	357	0.992
34	0.819	70	0.787	106	0.880	142	0.844	178	0.993	214	0.819	250	0.787	286	0.880	322	0.844	358	0.993
35	0.835	71	0.803	107	0.861	143	0.827	179	0.994	215	0.835	251	0.803	287	0.861	323	0.827	359	0.994

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AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KLBK**
 Channel **40**
 Frequency **629 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**
 Gain **1.37 (1.36dB)**
 Calculated
 Circularity **+/- 2.0 dB**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.992	36	0.812	72	0.822	108	0.832	144	0.778	180	0.992	216	0.812	252	0.822	288	0.832	324	0.778
1	0.994	37	0.831	73	0.842	109	0.814	145	0.759	181	0.994	217	0.831	253	0.842	289	0.814	325	0.759
2	0.995	38	0.849	74	0.863	110	0.796	146	0.739	182	0.995	218	0.849	254	0.863	290	0.796	326	0.739
3	0.997	39	0.865	75	0.884	111	0.776	147	0.721	183	0.997	219	0.865	255	0.884	291	0.776	327	0.721
4	0.999	40	0.879	76	0.900	112	0.758	148	0.705	184	0.999	220	0.879	256	0.900	292	0.758	328	0.705
5	1.000	41	0.891	77	0.916	113	0.743	149	0.692	185	1.000	221	0.891	257	0.916	293	0.743	329	0.692
6	0.995	42	0.899	78	0.931	114	0.730	150	0.683	186	0.995	222	0.899	258	0.931	294	0.730	330	0.683
7	0.989	43	0.905	79	0.946	115	0.720	151	0.678	187	0.989	223	0.905	259	0.946	295	0.720	331	0.678
8	0.984	44	0.907	80	0.961	116	0.711	152	0.677	188	0.984	224	0.907	260	0.961	296	0.711	332	0.677
9	0.979	45	0.905	81	0.968	117	0.706	153	0.680	189	0.979	225	0.905	261	0.968	297	0.706	333	0.680
10	0.975	46	0.901	82	0.975	118	0.705	154	0.687	190	0.975	226	0.901	262	0.975	298	0.705	334	0.687
11	0.959	47	0.894	83	0.982	119	0.708	155	0.699	191	0.959	227	0.894	263	0.982	299	0.708	335	0.699
12	0.943	48	0.883	84	0.989	120	0.715	156	0.710	192	0.943	228	0.883	264	0.989	300	0.715	336	0.710
13	0.926	49	0.870	85	0.996	121	0.726	157	0.725	193	0.926	229	0.870	265	0.996	301	0.726	337	0.725
14	0.910	50	0.853	86	0.995	122	0.740	158	0.743	194	0.910	230	0.853	266	0.995	302	0.740	338	0.743
15	0.893	51	0.837	87	0.994	123	0.756	159	0.762	195	0.893	231	0.837	267	0.994	303	0.756	339	0.762
16	0.872	52	0.818	88	0.993	124	0.774	160	0.784	196	0.872	232	0.818	268	0.993	304	0.774	340	0.784
17	0.852	53	0.798	89	0.993	125	0.793	161	0.802	197	0.852	233	0.798	269	0.993	305	0.793	341	0.802
18	0.832	54	0.778	90	0.992	126	0.812	162	0.822	198	0.832	234	0.778	270	0.992	306	0.812	342	0.822
19	0.814	55	0.759	91	0.994	127	0.831	163	0.842	199	0.814	235	0.759	271	0.994	307	0.831	343	0.842
20	0.796	56	0.739	92	0.995	128	0.849	164	0.863	200	0.796	236	0.739	272	0.995	308	0.849	344	0.863
21	0.776	57	0.721	93	0.997	129	0.865	165	0.884	201	0.776	237	0.721	273	0.997	309	0.865	345	0.884
22	0.758	58	0.705	94	0.999	130	0.879	166	0.900	202	0.758	238	0.705	274	0.999	310	0.879	346	0.900
23	0.743	59	0.692	95	1.000	131	0.891	167	0.916	203	0.743	239	0.692	275	1.000	311	0.891	347	0.916
24	0.730	60	0.683	96	0.995	132	0.899	168	0.931	204	0.730	240	0.683	276	0.995	312	0.899	348	0.931
25	0.720	61	0.678	97	0.989	133	0.905	169	0.946	205	0.720	241	0.678	277	0.989	313	0.905	349	0.946
26	0.711	62	0.677	98	0.984	134	0.907	170	0.961	206	0.711	242	0.677	278	0.984	314	0.907	350	0.961
27	0.706	63	0.680	99	0.979	135	0.905	171	0.968	207	0.706	243	0.680	279	0.979	315	0.905	351	0.968
28	0.705	64	0.687	100	0.975	136	0.901	172	0.975	208	0.705	244	0.687	280	0.975	316	0.901	352	0.975
29	0.708	65	0.699	101	0.959	137	0.894	173	0.982	209	0.708	245	0.699	281	0.959	317	0.894	353	0.982
30	0.715	66	0.710	102	0.943	138	0.883	174	0.989	210	0.715	246	0.710	282	0.943	318	0.883	354	0.989
31	0.726	67	0.725	103	0.926	139	0.870	175	0.996	211	0.726	247	0.725	283	0.926	319	0.870	355	0.996
32	0.740	68	0.743	104	0.910	140	0.853	176	0.995	212	0.740	248	0.743	284	0.910	320	0.853	356	0.995
33	0.756	69	0.762	105	0.893	141	0.837	177	0.994	213	0.756	249	0.762	285	0.893	321	0.837	357	0.994
34	0.774	70	0.784	106	0.872	142	0.818	178	0.993	214	0.774	250	0.784	286	0.872	322	0.818	358	0.993
35	0.793	71	0.802	107	0.852	143	0.798	179	0.993	215	0.793	251	0.802	287	0.852	323	0.798	359	0.993

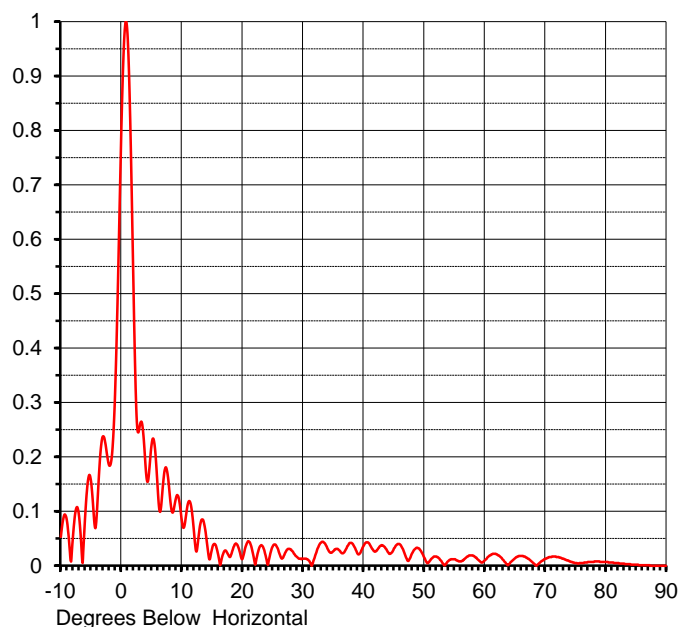
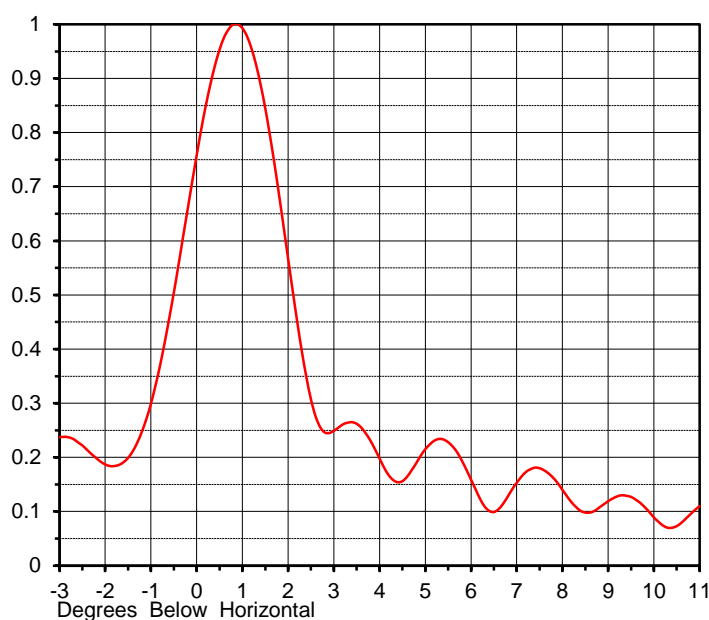
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ELEVATION PATTERN

Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KAMC**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**

RMS Directivity at Main Lobe **26.7 (14.27 dB)**
 RMS Directivity at Horizontal **17.4 (12.41 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **16U267075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.053	10.0	0.081	30.0	0.013	50.0	0.015	70.0	0.013
-9.0	0.083	11.0	0.115	31.0	0.009	51.0	0.010	71.0	0.016
-8.0	0.053	12.0	0.060	32.0	0.019	52.0	0.017	72.0	0.016
-7.0	0.092	13.0	0.075	33.0	0.043	53.0	0.005	73.0	0.013
-6.0	0.088	14.0	0.053	34.0	0.032	54.0	0.009	74.0	0.008
-5.0	0.154	15.0	0.033	35.0	0.027	55.0	0.012	75.0	0.005
-4.0	0.107	16.0	0.019	36.0	0.028	56.0	0.008	76.0	0.005
-3.0	0.238	17.0	0.027	37.0	0.029	57.0	0.016	77.0	0.007
-2.0	0.184	18.0	0.017	38.0	0.042	58.0	0.019	78.0	0.007
-1.0	0.333	19.0	0.040	39.0	0.022	59.0	0.010	79.0	0.007
0.0	0.806	20.0	0.013	40.0	0.037	60.0	0.010	80.0	0.007
1.0	0.978	21.0	0.045	41.0	0.039	61.0	0.020	81.0	0.006
2.0	0.508	22.0	0.006	42.0	0.027	62.0	0.021	82.0	0.005
3.0	0.255	23.0	0.037	43.0	0.038	63.0	0.011	83.0	0.004
4.0	0.181	24.0	0.009	44.0	0.025	64.0	0.003	84.0	0.003
5.0	0.224	25.0	0.036	45.0	0.032	65.0	0.014	85.0	0.002
6.0	0.141	26.0	0.025	46.0	0.039	66.0	0.018	86.0	0.001
7.0	0.164	27.0	0.023	47.0	0.015	67.0	0.014	87.0	0.001
8.0	0.128	28.0	0.030	48.0	0.023	68.0	0.005	88.0	0.000
9.0	0.124	29.0	0.016	49.0	0.032	69.0	0.005	89.0	0.000
								90.0	0.000

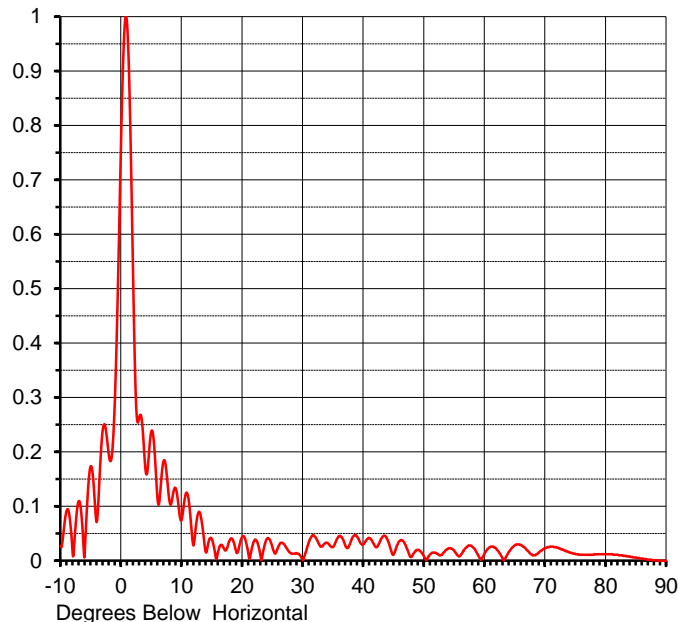
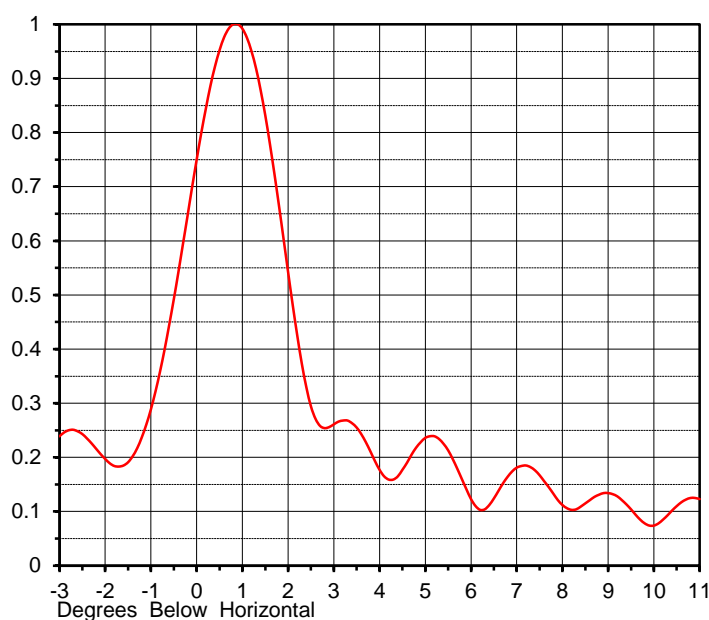
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ELEVATION PATTERN

Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KLBK**
 Channel **31**
 Frequency **575 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**

RMS Directivity at Main Lobe **27.1 (14.33 dB)**
 RMS Directivity at Horizontal **17.3 (12.38 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **16U271075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.027	10.0	0.078	30.0	0.001	50.0	0.007	70.0	0.023
-9.0	0.093	11.0	0.119	31.0	0.036	51.0	0.012	71.0	0.026
-8.0	0.008	12.0	0.033	32.0	0.044	52.0	0.014	72.0	0.024
-7.0	0.110	13.0	0.087	33.0	0.026	53.0	0.012	73.0	0.020
-6.0	0.028	14.0	0.015	34.0	0.033	54.0	0.023	74.0	0.015
-5.0	0.174	15.0	0.038	35.0	0.026	55.0	0.017	75.0	0.012
-4.0	0.075	16.0	0.018	36.0	0.045	56.0	0.010	76.0	0.011
-3.0	0.246	17.0	0.021	37.0	0.027	57.0	0.025	77.0	0.011
-2.0	0.189	18.0	0.040	38.0	0.039	58.0	0.025	78.0	0.011
-1.0	0.322	19.0	0.015	39.0	0.043	59.0	0.008	79.0	0.012
0.0	0.799	20.0	0.045	40.0	0.031	60.0	0.014	80.0	0.012
1.0	0.975	21.0	0.010	41.0	0.041	61.0	0.026	81.0	0.012
2.0	0.482	22.0	0.038	42.0	0.025	62.0	0.020	82.0	0.011
3.0	0.266	23.0	0.007	43.0	0.042	63.0	0.003	83.0	0.009
4.0	0.165	24.0	0.040	44.0	0.037	64.0	0.017	84.0	0.007
5.0	0.239	25.0	0.022	45.0	0.013	65.0	0.029	85.0	0.006
6.0	0.110	26.0	0.028	46.0	0.037	66.0	0.029	86.0	0.004
7.0	0.184	27.0	0.028	47.0	0.026	67.0	0.019	87.0	0.002
8.0	0.106	28.0	0.014	48.0	0.009	68.0	0.010	88.0	0.001
9.0	0.132	29.0	0.013	49.0	0.020	69.0	0.016	89.0	0.000
								90.0	0.000

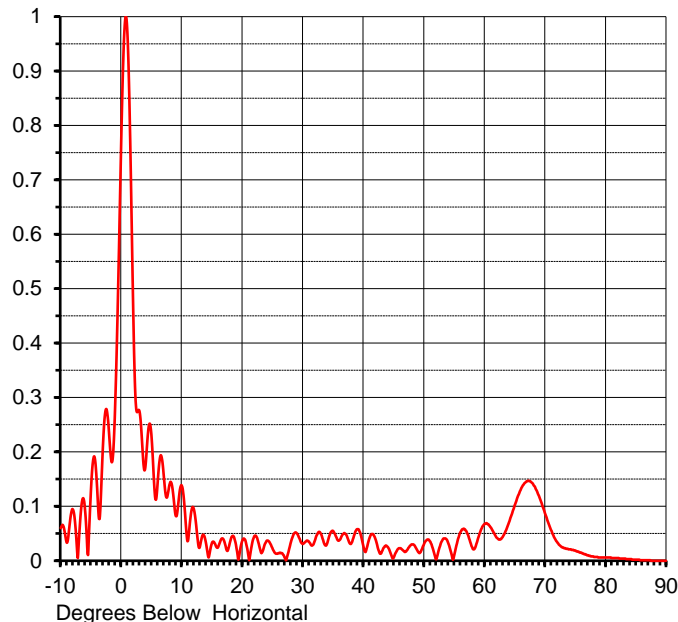
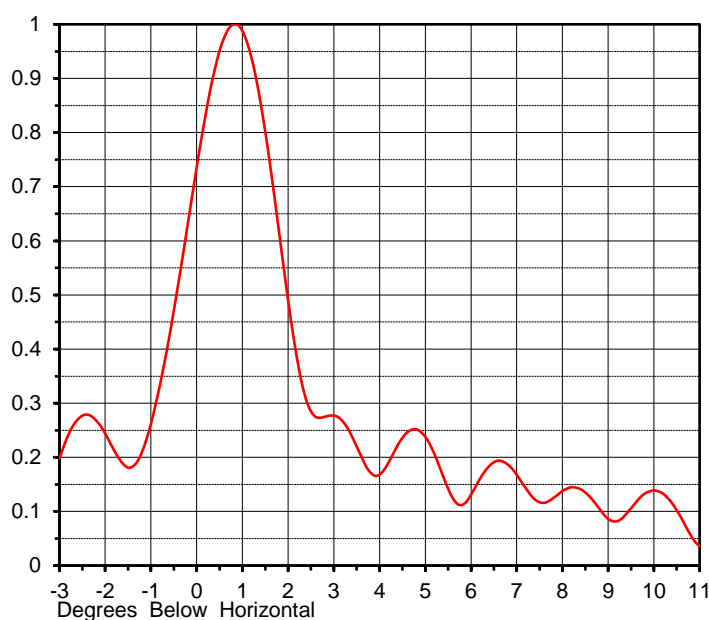
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ELEVATION PATTERN

Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KLBK**
 Channel **40**
 Frequency **629 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**

RMS Directivity at Main Lobe **26.5 (14.23 dB)**
 RMS Directivity at Horizontal **16.4 (12.15 dB)**
Calculated

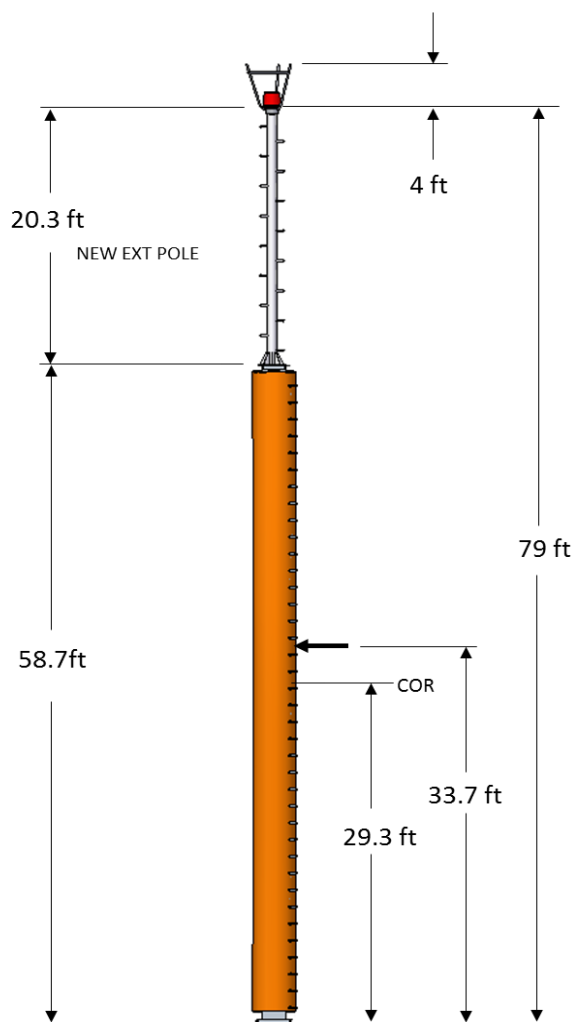
Beam Tilt **0.75 deg**
 Pattern Number **16U265075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.060	10.0	0.137	30.0	0.031	50.0	0.032	70.0	0.085
-9.0	0.033	11.0	0.037	31.0	0.034	51.0	0.035	71.0	0.055
-8.0	0.094	12.0	0.093	32.0	0.039	52.0	0.003	72.0	0.033
-7.0	0.041	13.0	0.028	33.0	0.048	53.0	0.038	73.0	0.024
-6.0	0.093	14.0	0.030	34.0	0.033	54.0	0.031	74.0	0.021
-5.0	0.136	15.0	0.034	35.0	0.054	55.0	0.013	75.0	0.018
-4.0	0.132	16.0	0.026	36.0	0.038	56.0	0.053	76.0	0.014
-3.0	0.222	17.0	0.035	37.0	0.049	57.0	0.053	77.0	0.010
-2.0	0.228	18.0	0.037	38.0	0.033	58.0	0.022	78.0	0.007
-1.0	0.297	19.0	0.023	39.0	0.058	59.0	0.045	79.0	0.006
0.0	0.787	20.0	0.038	40.0	0.024	60.0	0.068	80.0	0.006
1.0	0.967	21.0	0.007	41.0	0.043	61.0	0.061	81.0	0.005
2.0	0.432	22.0	0.046	42.0	0.038	62.0	0.042	82.0	0.005
3.0	0.274	23.0	0.017	43.0	0.017	63.0	0.045	83.0	0.004
4.0	0.177	24.0	0.037	44.0	0.025	64.0	0.071	84.0	0.003
5.0	0.224	25.0	0.021	45.0	0.007	65.0	0.104	85.0	0.002
6.0	0.146	26.0	0.014	46.0	0.023	66.0	0.133	86.0	0.001
7.0	0.155	27.0	0.005	47.0	0.017	67.0	0.146	87.0	0.001
8.0	0.142	28.0	0.035	48.0	0.030	68.0	0.140	88.0	0.000
9.0	0.082	29.0	0.050	49.0	0.016	69.0	0.117	89.0	0.000
								90.0	0.000

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MECHANICAL SPECIFICATIONS



Proposal No. **C-70903-4**
 Date **13-Mar-18**
 Call Letters **KAMC**
 Channel **27**
 Frequency **551 MHz**
 Antenna Type **TUA-O4-16/64H-1-R-T**

Preliminary Specifications

Bottom of Stack

With ice TIA-222-G

Height AGL(z) 800 ft (243.8 m)
 Basic Wind Speed 90 m/h (144.8 km/h)

Structure Class III
 Exposure Category D
 Topography Category 1

Design Ice 0.75 in $t_{iz} = 2.42$ in
 Wind Speed w/Ice 40 m/h (64.4 km/h)

Mechanical Specifications

		without ice	with ice	full stack	full stack with ice
Height with Lightning Protector	H4	ft (m)		83 ft (25.3m)	
Height less Lightning Protector	H2	58.6 ft (17.9m)		79 ft (24.1m)	
Height of Center of Radiation	H3	29.3 ft (8.9m)		29.3 ft (8.9m)	
Effective Projected Area	(EPA) _S	117.9 ft ² (11m ²)	273.8 ft ² (25.4m ²)	131.1 ft ² (12.2m ²)	271.1 ft ² (25.2m ²)
Moment Arm	D1	30 ft (9.1m)	30.9 ft (9.4m)	33.7 ft (10.3m)	35.5 ft (10.8m)

Weight	W	21400 lb (9.7t)	27600 lb (12.5t)	22500 lb (10.2t)	29700 lb (13.5t)
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Antenna designed in accordance with AISC specifications for design of structural steel as prescribed by TIA-222-G

Prepared by: CAB

Date: 13-Mar-18

ME:

EE:

Rev. No.4 by: JBC

Date: 13-Mar-18

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KAMC
Channel	27
Frequency	551 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	500 kW	(26.99 dBk)
RMS Gain*	26.74	(14.27 dB)

Antenna Input Power	18.7 kW	(12.72 dBk)
----------------------------	----------------	----------------------

Transmission Line

Type:	Rigid	Attenuation:	(0.77 dB)
Size:	8-3/16"	Efficiency:	83.8%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

22.3 kW	(13.49 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KAMC
Channel	27
Frequency	551 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	500 kW	(26.99 dBk)
RMS Gain*	26.74	(14.27 dB)

Antenna Input Power	18.7 kW	(12.72 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(1.03 dB)
Size:	6-1/8"	Efficiency:	78.9%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

23.7 kW	(13.75 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KLBK
Channel	31
Frequency	575 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	480 kW	(26.81 dBk)
RMS Gain*	27.10	(14.33 dB)

Antenna Input Power	17.7 kW	(12.48 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(0.78 dB)
Size:	8-3/16"	Efficiency:	83.5%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

21.2 kW	(13.27 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KLBK
Channel	31
Frequency	575 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	480 kW	(26.81 dBk)
RMS Gain*	27.10	(14.33 dB)

Antenna Input Power	17.7 kW	(12.48 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(1.05 dB)
Size:	6-1/8"	Efficiency:	78.5%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

22.6 kW	(13.54 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KLBK
Channel	40
Frequency	629 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	480 kW	(26.81 dBk)
RMS Gain*	26.50	(14.23 dB)

Antenna Input Power	18.1 kW	(12.58 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(1.11 dB)
Size:	6-1/8"	Efficiency:	77.5%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

23.4 kW	(13.69 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.	C-70903-4
Date	13-Mar-18
Call Letters	KLBK
Channel	40
Frequency	629 MHz
Antenna Type	TUA-O4-16/64H-1-R-T

Antenna

		Hpol
ERP:	480 kW	(26.81 dBk)
RMS Gain*	26.50	(14.23 dB)

Antenna Input Power	18.1 kW	(12.58 dBk)
----------------------------	----------------	----------------------

Transmission Line

Type:	Rigid	Attenuation:	(0.82 dB)
Size:	8-3/16"	Efficiency:	82.8%
Impedance:	75 Ohm		
Length:	900 ft	274.3 m	

Transmitter Output

21.9 kW	(13.40 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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