



ENGINEERING STATEMENT
OF
BENJAMIN L. PIDEK, P.E.
IN SUPPORT OF AN APPLICATION FOR
CONSTRUCTION PERMIT FOR AN AUXILIARY STATION
KMCI-TV
LAWRENCE, KS

Background

Scripps Media, Inc. (Scripps) is the licensee of KMCI-TV which is authorized to operate its post-transition DTV facility on Channel 41 (BLCDT-20110421AAR) at Lawrence, KS, with an ERP of 730 kW at an HAAT of 323.7m. The tower is located at the following coordinates:

(NAD27)
38° 58' 42" N
94° 32' 01" W

Scripps, in the instant application, is applying for a construction permit for a KMCI Auxiliary DTV facility.

Antenna System and Tower

Scripps proposes a KMCI Auxiliary DTV facility that would use the same site and tower as its main facility but operate from a side-mounted directional Dielectric TFU-18DSC/VP-R 2C230 (antenna data and dBk table attached hereto) antenna rather than the top-mounted main antenna.

**PROVIDING COMMUNICATION
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The antenna is installed on the tower (ASR#1234587) and has a center-of-radiation of 594m AMSL. No modifications to the overall structure height are necessary; for that reason, neither notification to the FAA nor a change in the ASR is required.

The proposed KMCI auxiliary facility will incorporate both horizontal (630 kW) and vertical polarization (53 kW). The vertically polarized radiation component will not exceed the authorized horizontally polarized component in any direction.

ERP and Coverage

Scripps proposes to operate the KMCI Auxiliary DTV facility with and ERP of 630 kW; the entire principal community of Lawrence, KS will be well within the predicted F(50,90) 48 dBu contour of this facility. Furthermore, as shown in Figure 1, attached hereto, the predicted noise-limited contour of the proposed auxiliary facility would not extend beyond the noise-limited contour of the licensed facility.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; since the structure is existing and registered, such conditions should not be an issue requiring further consideration.

The location of the proposed facility is a multi-user site and it is assumed that the site is currently "in compliance" with FCC guidelines for human exposure to RFR (as defined in OET-65). The additional worst case ground level RFR contributed to the site by this proposal in public areas

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is calculated to be 0.0088 mW/cm², which is less than 5% of the MPE for public exposure (0.423333 mW/cm²) at Ch. 41 (632 MHz - 638 MHz). The contribution to the overall RFR from the proposed facility is negligible (less than 5%) and, therefore, the site will remain “in compliance” with FCC guidelines.

Scripps agrees to comply with the Commission’s requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of potential RFR hazards is posted.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.



Benjamin L. Pidek, P.E.
December 21, 2012

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Mid-State Consultants

KMCI-TV

BLCDT20110421AAR
Latitude: 38-58-42 N
Longitude: 094-32-01 W
ERP: 730.00 kW
Channel: 41
Frequency: 635.0 MHz
AMSL Height: 611.9 m
Horiz. Pattern: Omni

KMCI-TV (Aux)

Latitude: 38-58-42 N
Longitude: 094-32-01 W
ERP: 630.00 kW
Channel: 41
Frequency: 635.0 MHz
AMSL Height: 594.0 m
Horiz. Pattern: Directional

Noise Limited Contour of Licensed KMCI Facility (Black) vs. Noise Limited Contour of Proposed KMCI Auxiliary Facility (Red) Utilizing Dielectric TFU-18DSC/VP-R 2C230 Antenna

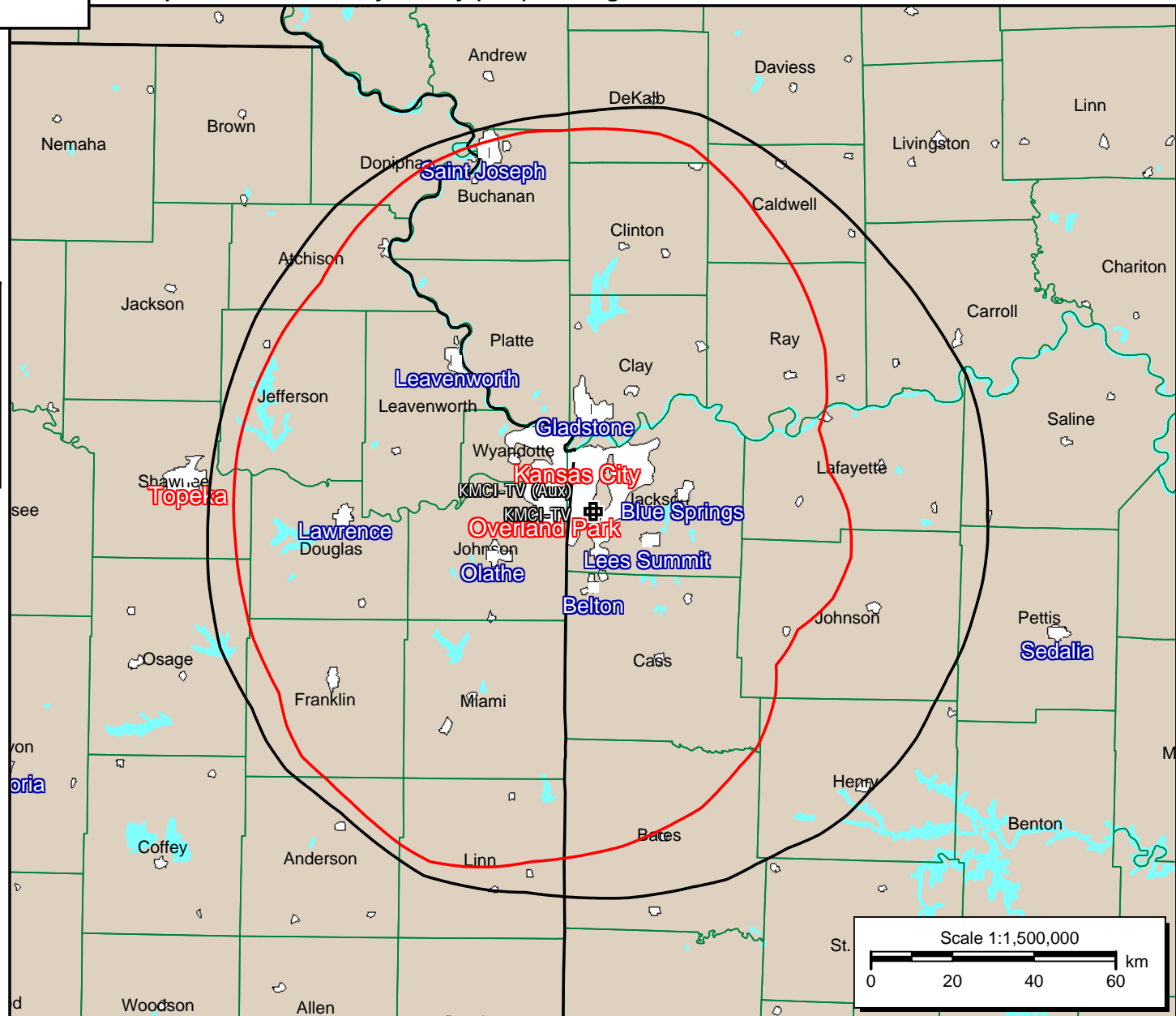


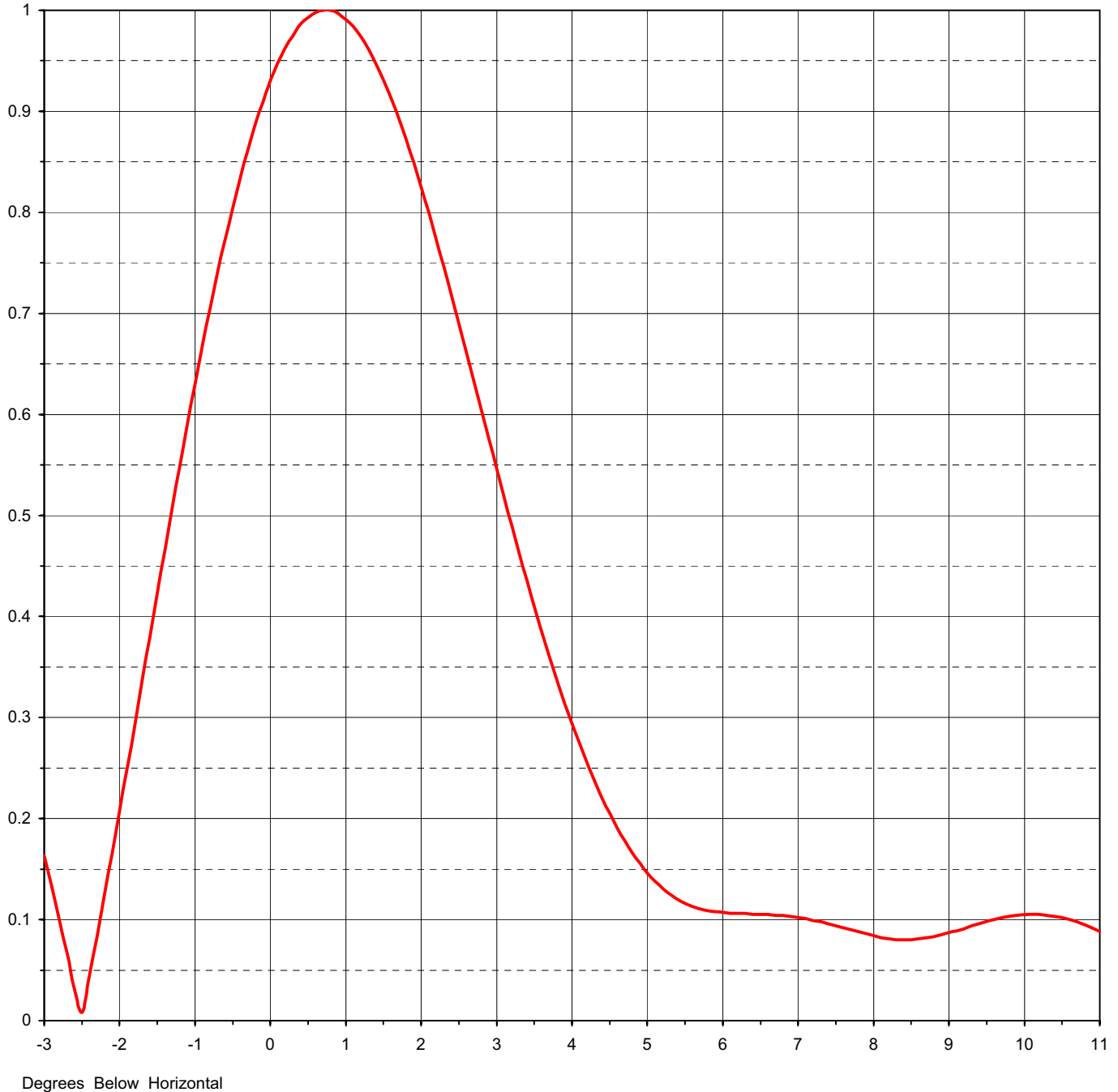
Figure 1
12-19-12



Proposal Number	C-01384	Revision:	2
Date	20-Sep-07		
Call Letters	KMCI-DT	Channel	41
Location	Lawrence, KS		
Customer			
Antenna Type	TFU-18DSC/VP-R 2C230		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	13.00 (11.14 dB)	Frequency	635.00 MHz
Calculated / Measured	Calculated	Drawing #	18Q150075

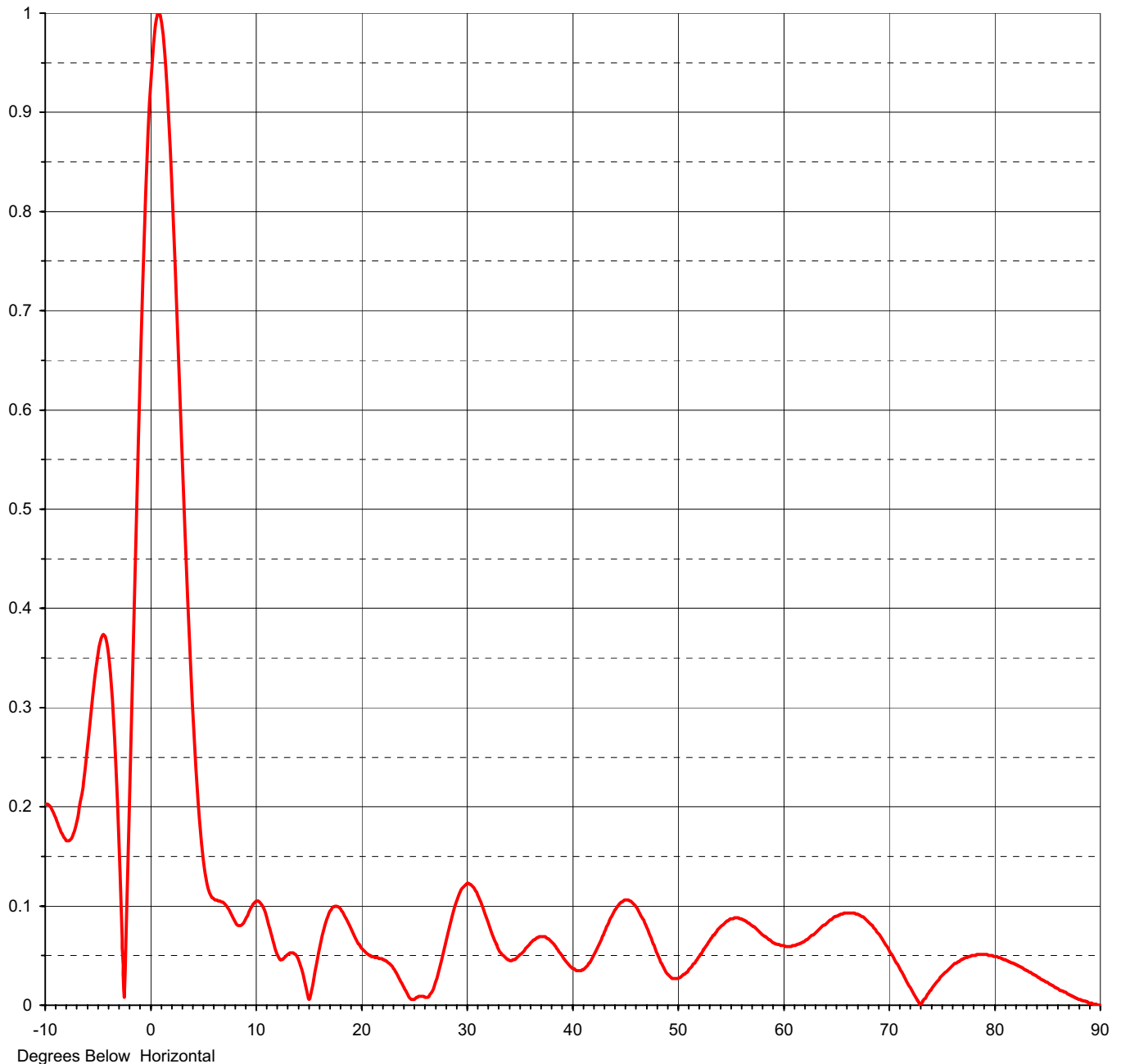




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Date	20-Sep-07		
Call Letters	KMCI-DT	Channel	41
Location	Lawrence, KS		
Customer			
Antenna Type	TFU-18DSC/VP-R 2C230		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.00 (11.76 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	13.00 (11.14 dB)	Frequency	635.00 MHz
Calculated / Measured	Calculated	Drawing #	18Q150075-90



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Proposal Number **C-01384** Revision: 2
Date **20-Sep-07**
Call Letters **KMCI-DT** Channel **41**
Location **Lawrence, KS**
Customer
Antenna Type **TFU-18DSC/VP-R 2C230**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **18Q150075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.202	2.4	0.719	10.6	0.102	30.5	0.121	51.0	0.034	71.5	0.027
-9.5	0.200	2.6	0.662	10.8	0.098	31.0	0.114	51.5	0.041	72.0	0.018
-9.0	0.189	2.8	0.604	11.0	0.092	31.5	0.101	52.0	0.048	72.5	0.008
-8.5	0.175	3.0	0.546	11.5	0.073	32.0	0.086	52.5	0.056	73.0	0.001
-8.0	0.166	3.2	0.490	12.0	0.054	32.5	0.071	53.0	0.064	73.5	0.009
-7.5	0.168	3.4	0.436	12.5	0.046	33.0	0.058	53.5	0.071	74.0	0.017
-7.0	0.184	3.6	0.385	13.0	0.050	33.5	0.050	54.0	0.078	74.5	0.024
-6.5	0.216	3.8	0.337	13.5	0.053	34.0	0.046	54.5	0.083	75.0	0.030
-6.0	0.262	4.0	0.294	14.0	0.048	34.5	0.046	55.0	0.087	75.5	0.035
-5.5	0.313	4.2	0.255	14.5	0.032	35.0	0.050	55.5	0.088	76.0	0.040
-5.0	0.355	4.4	0.220	15.0	0.008	35.5	0.055	56.0	0.087	76.5	0.044
-4.5	0.374	4.6	0.191	15.5	0.024	36.0	0.061	56.5	0.085	77.0	0.047
-4.0	0.353	4.8	0.166	16.0	0.053	36.5	0.066	57.0	0.081	77.5	0.049
-3.5	0.284	5.0	0.146	16.5	0.077	37.0	0.069	57.5	0.077	78.0	0.050
-3.0	0.163	5.2	0.131	17.0	0.093	37.5	0.069	58.0	0.072	78.5	0.051
-2.8	0.100	5.4	0.120	17.5	0.099	38.0	0.065	58.5	0.068	79.0	0.051
-2.6	0.032	5.6	0.113	18.0	0.098	38.5	0.059	59.0	0.064	79.5	0.050
-2.4	0.044	5.8	0.109	18.5	0.090	39.0	0.051	59.5	0.061	80.0	0.049
-2.2	0.124	6.0	0.107	19.0	0.079	39.5	0.044	60.0	0.060	80.5	0.048
-2.0	0.207	6.2	0.106	19.5	0.068	40.0	0.038	60.5	0.059	81.0	0.046
-1.8	0.293	6.4	0.105	20.0	0.059	40.5	0.035	61.0	0.060	81.5	0.043
-1.6	0.380	6.6	0.105	20.5	0.053	41.0	0.036	61.5	0.062	82.0	0.041
-1.4	0.466	6.8	0.104	21.0	0.049	41.5	0.040	62.0	0.064	82.5	0.038
-1.2	0.550	7.0	0.102	21.5	0.048	42.0	0.049	62.5	0.068	83.0	0.035
-1.0	0.630	7.2	0.099	22.0	0.047	42.5	0.059	63.0	0.072	83.5	0.032
-0.8	0.705	7.4	0.096	22.5	0.044	43.0	0.071	63.5	0.077	84.0	0.029
-0.6	0.773	7.6	0.092	23.0	0.039	43.5	0.083	64.0	0.081	84.5	0.026
-0.4	0.834	7.8	0.088	23.5	0.030	44.0	0.094	64.5	0.086	85.0	0.023
-0.2	0.887	8.0	0.084	24.0	0.020	44.5	0.102	65.0	0.090	85.5	0.020
0.0	0.930	8.2	0.081	24.5	0.010	45.0	0.106	65.5	0.092	86.0	0.017
0.2	0.963	8.4	0.080	25.0	0.006	45.5	0.105	66.0	0.093	86.5	0.014
0.4	0.986	8.6	0.081	25.5	0.009	46.0	0.101	66.5	0.093	87.0	0.011
0.6	0.998	8.8	0.083	26.0	0.009	46.5	0.092	67.0	0.092	87.5	0.008
0.8	1.000	9.0	0.087	26.5	0.009	47.0	0.081	67.5	0.089	88.0	0.006
1.0	0.991	9.2	0.091	27.0	0.021	47.5	0.068	68.0	0.084	88.5	0.004
1.2	0.974	9.4	0.096	27.5	0.039	48.0	0.054	68.5	0.078	89.0	0.002
1.4	0.947	9.6	0.100	28.0	0.061	48.5	0.042	69.0	0.072	89.5	0.001
1.6	0.913	9.8	0.102	28.5	0.083	49.0	0.032	69.5	0.064	90.0	0.000
1.8	0.872	10.0	0.104	29.0	0.102	49.5	0.027	70.0	0.055		
2.0	0.825	10.2	0.105	29.5	0.116	50.0	0.027	70.5	0.046		
2.2	0.773	10.4	0.104	30.0	0.122	50.5	0.030	71.0	0.037		

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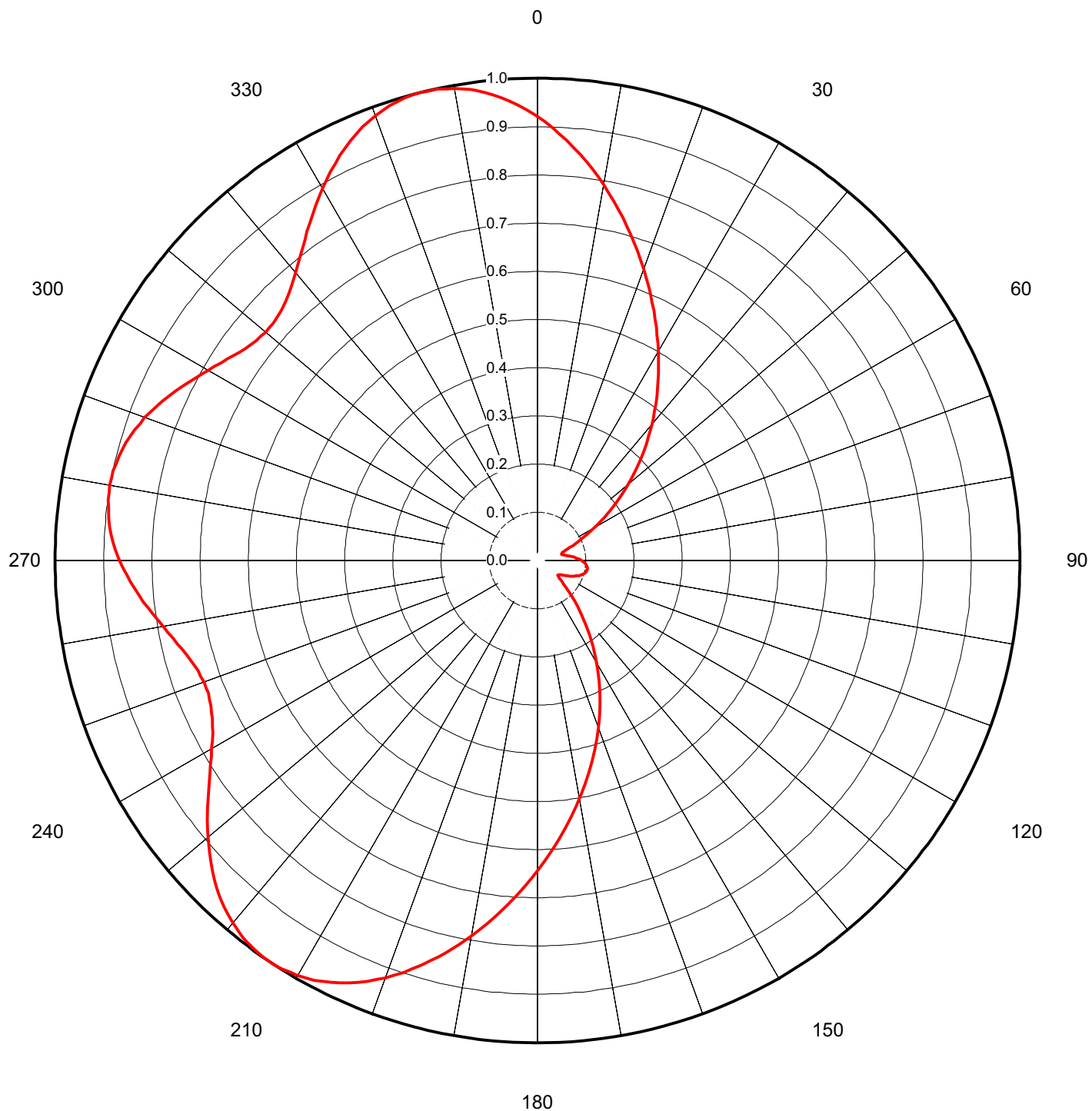


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Date	20-Sep-07		
Call Letters	KMCI-DT	Channel	41
Location	Lawrence, KS		
Customer			
Antenna Type	TFU-18DSC/VP-R 2C230		

AZIMUTH PATTERN

Gain	2.30	(3.62 dB)
Calculated / Measured		Calculated

Frequency	635.00 MHz
Drawing #	TFU-2C230-41





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Location **Lawrence, KS**
Customer
Antenna Type **TFU-18DSC/VP-R 2C230**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-2C230-41**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.920	45	0.306	90	0.091	135	0.093	180	0.643	225	0.944	270	0.866	315	0.745
1	0.909	46	0.294	91	0.094	136	0.101	181	0.658	226	0.934	271	0.872	316	0.750
2	0.898	47	0.281	92	0.096	137	0.109	182	0.672	227	0.924	272	0.878	317	0.756
3	0.885	48	0.269	93	0.098	138	0.118	183	0.687	228	0.914	273	0.883	318	0.763
4	0.873	49	0.257	94	0.100	139	0.127	184	0.702	229	0.902	274	0.887	319	0.771
5	0.860	50	0.245	95	0.101	140	0.136	185	0.717	230	0.891	275	0.891	320	0.779
6	0.847	51	0.233	96	0.103	141	0.146	186	0.732	231	0.879	276	0.894	321	0.789
7	0.833	52	0.222	97	0.104	142	0.156	187	0.747	232	0.868	277	0.896	322	0.799
8	0.819	53	0.210	98	0.104	143	0.167	188	0.761	233	0.856	278	0.899	323	0.810
9	0.805	54	0.199	99	0.105	144	0.177	189	0.776	234	0.844	279	0.899	324	0.821
10	0.791	55	0.188	100	0.105	145	0.188	190	0.791	235	0.832	280	0.900	325	0.832
11	0.776	56	0.177	101	0.105	146	0.199	191	0.805	236	0.821	281	0.899	326	0.844
12	0.761	57	0.167	102	0.104	147	0.210	192	0.819	237	0.810	282	0.899	327	0.856
13	0.747	58	0.156	103	0.104	148	0.222	193	0.833	238	0.799	283	0.896	328	0.868
14	0.732	59	0.146	104	0.103	149	0.233	194	0.847	239	0.789	284	0.894	329	0.879
15	0.717	60	0.136	105	0.101	150	0.245	195	0.860	240	0.779	285	0.891	330	0.891
16	0.702	61	0.127	106	0.100	151	0.257	196	0.873	241	0.771	286	0.887	331	0.902
17	0.687	62	0.118	107	0.098	152	0.269	197	0.885	242	0.763	287	0.883	332	0.914
18	0.672	63	0.109	108	0.096	153	0.281	198	0.898	243	0.756	288	0.878	333	0.924
19	0.658	64	0.101	109	0.094	154	0.294	199	0.909	244	0.750	289	0.872	334	0.934
20	0.643	65	0.093	110	0.091	155	0.306	200	0.920	245	0.745	290	0.866	335	0.944
21	0.628	66	0.086	111	0.089	156	0.318	201	0.930	246	0.741	291	0.859	336	0.953
22	0.614	67	0.079	112	0.086	157	0.331	202	0.941	247	0.739	292	0.852	337	0.961
23	0.599	68	0.073	113	0.083	158	0.344	203	0.950	248	0.736	293	0.845	338	0.969
24	0.585	69	0.067	114	0.080	159	0.356	204	0.959	249	0.736	294	0.837	339	0.976
25	0.570	70	0.062	115	0.077	160	0.369	205	0.966	250	0.736	295	0.829	340	0.982
26	0.556	71	0.059	116	0.073	161	0.382	206	0.973	251	0.738	296	0.821	341	0.987
27	0.542	72	0.055	117	0.070	162	0.395	207	0.979	252	0.740	297	0.813	342	0.992
28	0.528	73	0.053	118	0.067	163	0.408	208	0.985	253	0.744	298	0.805	343	0.995
29	0.515	74	0.052	119	0.064	164	0.421	209	0.990	254	0.748	299	0.796	344	0.998
30	0.501	75	0.052	120	0.061	165	0.434	210	0.994	255	0.754	300	0.788	345	0.999
31	0.487	76	0.052	121	0.058	166	0.447	211	0.996	256	0.759	301	0.781	346	1.000
32	0.474	77	0.054	122	0.055	167	0.460	212	0.999	257	0.766	302	0.773	347	0.999
33	0.460	78	0.055	123	0.054	168	0.474	213	0.999	258	0.773	303	0.766	348	0.999
34	0.447	79	0.058	124	0.052	169	0.487	214	1.000	259	0.781	304	0.759	349	0.996
35	0.434	80	0.061	125	0.052	170	0.501	215	0.999	260	0.788	305	0.754	350	0.994
36	0.421	81	0.064	126	0.052	171	0.515	216	0.998	261	0.796	306	0.748	351	0.990
37	0.408	82	0.067	127	0.053	172	0.528	217	0.995	262	0.805	307	0.744	352	0.985
38	0.395	83	0.070	128	0.055	173	0.542	218	0.992	263	0.813	308	0.740	353	0.979
39	0.382	84	0.073	129	0.059	174	0.556	219	0.987	264	0.821	309	0.738	354	0.973
40	0.369	85	0.077	130	0.062	175	0.570	220	0.982	265	0.829	310	0.736	355	0.966
41	0.356	86	0.080	131	0.067	176	0.585	221	0.976	266	0.837	311	0.736	356	0.959
42	0.344	87	0.083	132	0.073	177	0.599	222	0.969	267	0.845	312	0.736	357	0.950
43	0.331	88	0.086	133	0.079	178	0.614	223	0.961	268	0.852	313	0.739	358	0.941
44	0.318	89	0.089	134	0.086	179	0.628	224	0.953	269	0.859	314	0.741	359	0.930

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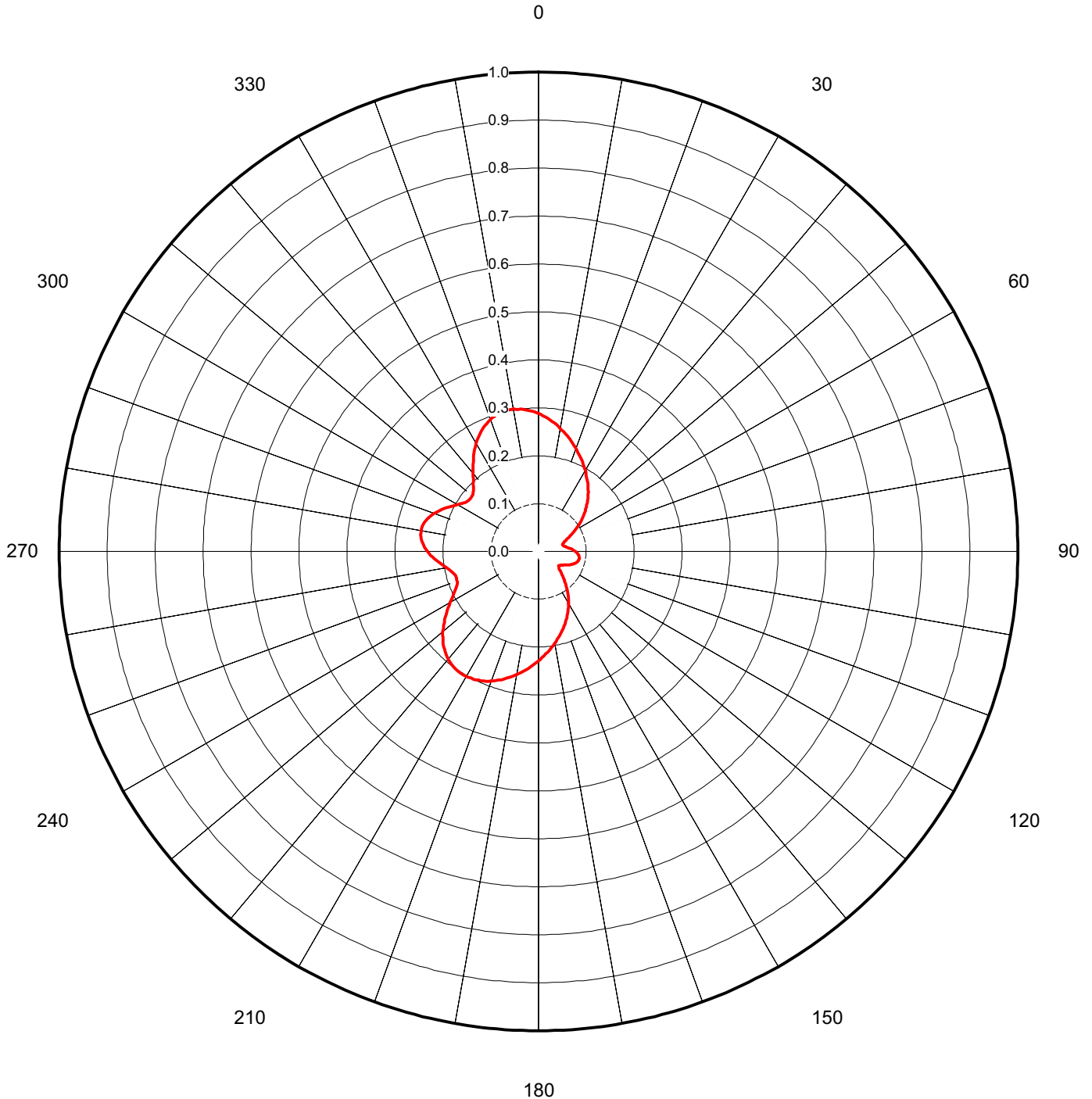


Proposal Number	C-01384	Revision:	2
Date	20-Sep-07		
Call Letters	KMCI-DT	Channel	41
Location	Lawrence, KS		
Customer			
Antenna Type	TFU-18DSC/VP-R 2C230		

AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain	2.20	(3.42 dB)
Calculated / Measured		Calculated

Frequency	635.00 MHz
Drawing #	TFU-2C220-VP



DIRECTIONAL ANTENNA DATA
KMCI-TV Auxiliary
dBk Table

Actual Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	CONTOURS(km)	
				48 dBu	41 dBu
N000E	0.00	0.920	27.27	82.7	95.1
	10.00	0.791	25.96		
	20.00	0.643	24.16		
	30.00	0.501	21.99		
	40.00	0.369	19.33		
N045E	45.00	0.306	17.71	69.6	78.4
	50.00	0.245	15.78		
	60.00	0.136	10.66		
	70.00	0.062	3.84		
	80.00	0.061	3.70		
N090E	90.00	0.091	7.17	49.7	58.2
	100.00	0.105	8.42		
	110.00	0.091	7.17		
	120.00	0.061	3.70		
	130.00	0.062	3.84		
N135E	135.00	0.093	7.36	49.6	58.1
	140.00	0.136	10.66		
	150.00	0.245	15.78		
	160.00	0.369	19.33		
	170.00	0.501	21.99		
N180E	180.00	0.643	24.16	70.9	80.0
	190.00	0.791	25.96		
	200.00	0.920	27.27		
	210.00	0.994	27.94		
	220.00	0.982	27.84		
N225E	225.00	0.944	27.49	81.0	93.4
	230.00	0.891	26.99		
	240.00	0.779	25.82		
	250.00	0.736	25.33		
	260.00	0.788	25.92		
N270E	270.00	0.866	26.74	75.7	86.5
	280.00	0.900	27.08		
	290.00	0.866	26.74		
	300.00	0.788	25.92		
	310.00	0.736	25.33		
N315E	315.00	0.745	25.44	77.6	89.0
	320.00	0.779	25.82		
	330.00	0.891	26.99		
	340.00	0.982	27.84		
	350.00	0.994	27.94		

Maximum: N214E 27.99 dBk

Minima: N080E 3.7 dBk