

**Technical Summary**  
**Request for Special Temporary Authority**  
**Engineering Exhibit**

**KSPX-TV – Sacramento, CA**

Facility ID: 52953

Licensee "ION MEDIA SACRAMENTO LICENSE, INC" is currently licensed to operate on Pre-Repack DTV channel 48. The Antenna Structure Registration Number is 1015686 with a Latitude of 38° 15' 54.0" N+ and a Longitude of 121° 29' 28.0" W-. The station has been assigned DTV channel 21 with a Phase 9 deadline.

The lease for current tower location will soon expire and the station has secured an alternate tower location for its temporary Pre-Repack and Post-Repack operations. Although the station may request temporary Post-Repack facilities it does not anticipate needing relief from the Phase 9 completion timing.

Therefore, this application is to request special temporary authority to operate from Antenna Structure Registration Number 1012855 with a Latitude of 38° 14' 50.0" N+ and a Longitude of 121° 30' 7.0" W-. The HAAT is 226.27 m (AGL 228.6 m) with an AMSL of 228.6 m. An ERP of 48 kW will be utilized.

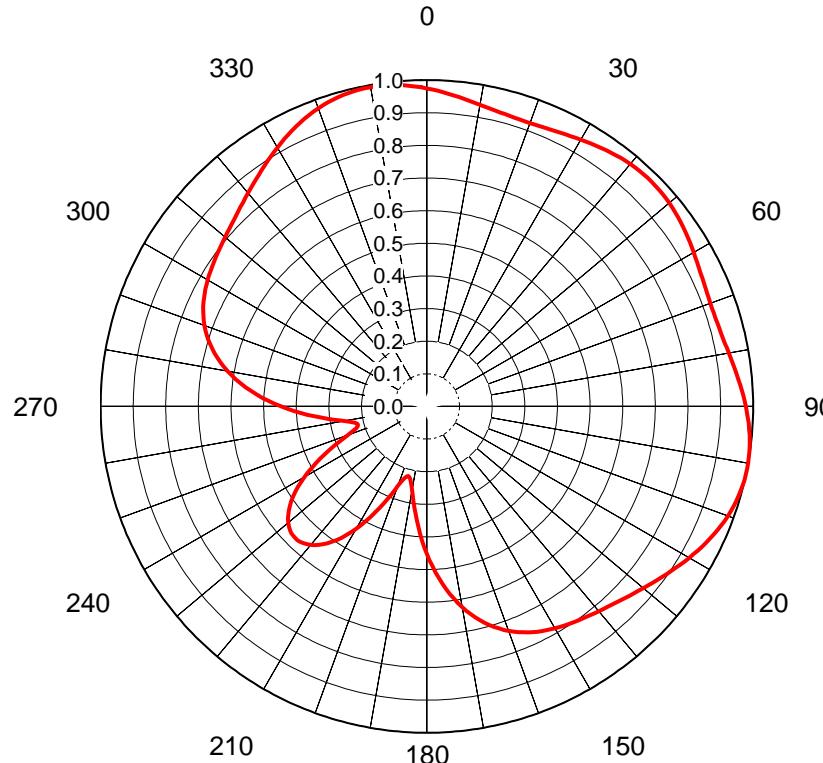
**Antenna System**

A side mounted directional antenna will be utilized. It will be affixed to an existing guyed tower structure and will not increase the overall height of the structure. Elevation and Azimuth patterns are attached. Furthermore, the proposed STA operation will not expand the station's noise limited contour.

**RF Hazard (Environmental)**

Compliance with RF Hazard (Environmental) is provided in the attached RF Hazard Statement.

# Dielectric®



## AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No.	<b>C-71313</b>
Date	<b>30-Apr-19</b>
Call Letters	<b>KSPX</b>
Channel	<b>48</b>
Frequency	<b>677 MHz</b>
Antenna Type	<b>TFU-8WB-R C160</b>
Gain	<b>1.62 (2.11dB)</b>
Calculated	

Deg	Value																		
0	0.975	36	0.961	72	0.925	108	0.989	144	0.806	180	0.452	216	0.518	252	0.234	288	0.709	324	0.877
1	0.971	37	0.964	73	0.925	109	0.985	145	0.802	181	0.432	217	0.529	253	0.226	289	0.717	325	0.883
2	0.968	38	0.966	74	0.926	110	0.982	146	0.799	182	0.412	218	0.538	254	0.220	290	0.725	326	0.890
3	0.964	39	0.968	75	0.927	111	0.978	147	0.796	183	0.391	219	0.547	255	0.218	291	0.732	327	0.896
4	0.960	40	0.970	76	0.929	112	0.973	148	0.792	184	0.371	220	0.554	256	0.219	292	0.739	328	0.903
5	0.956	41	0.971	77	0.931	113	0.968	149	0.789	185	0.351	221	0.560	257	0.224	293	0.745	329	0.909
6	0.953	42	0.973	78	0.934	114	0.963	150	0.785	186	0.331	222	0.565	258	0.232	294	0.750	330	0.916
7	0.949	43	0.973	79	0.937	115	0.958	151	0.781	187	0.312	223	0.568	259	0.243	295	0.755	331	0.922
8	0.945	44	0.974	80	0.940	116	0.952	152	0.777	188	0.294	224	0.570	260	0.257	296	0.760	332	0.929
9	0.942	45	0.974	81	0.943	117	0.946	153	0.773	189	0.277	225	0.571	261	0.272	297	0.764	333	0.935
10	0.939	46	0.974	82	0.947	118	0.940	154	0.768	190	0.261	226	0.570	262	0.289	298	0.768	334	0.941
11	0.936	47	0.973	83	0.950	119	0.934	155	0.763	191	0.247	227	0.568	263	0.307	299	0.772	335	0.947
12	0.933	48	0.973	84	0.954	120	0.928	156	0.758	192	0.236	228	0.565	264	0.327	300	0.775	336	0.953
13	0.931	49	0.971	85	0.958	121	0.922	157	0.752	193	0.228	229	0.560	265	0.346	301	0.779	337	0.958
14	0.929	50	0.970	86	0.962	122	0.915	158	0.746	194	0.223	230	0.555	266	0.366	302	0.782	338	0.963
15	0.927	51	0.968	87	0.966	123	0.909	159	0.739	195	0.221	231	0.547	267	0.387	303	0.785	339	0.968
16	0.926	52	0.966	88	0.970	124	0.903	160	0.732	196	0.223	232	0.539	268	0.407	304	0.788	340	0.972
17	0.925	53	0.964	89	0.974	125	0.896	161	0.724	197	0.228	233	0.530	269	0.427	305	0.791	341	0.976
18	0.924	54	0.961	90	0.978	126	0.890	162	0.716	198	0.236	234	0.519	270	0.447	306	0.794	342	0.980
19	0.924	55	0.959	91	0.981	127	0.884	163	0.707	199	0.247	235	0.507	271	0.467	307	0.797	343	0.983
20	0.924	56	0.956	92	0.984	128	0.878	164	0.697	200	0.260	236	0.494	272	0.486	308	0.801	344	0.986
21	0.925	57	0.953	93	0.988	129	0.872	165	0.687	201	0.275	237	0.481	273	0.505	309	0.804	345	0.988
22	0.926	58	0.950	94	0.990	130	0.866	166	0.676	202	0.291	238	0.466	274	0.523	310	0.807	346	0.990
23	0.927	59	0.947	95	0.993	131	0.860	167	0.664	203	0.308	239	0.450	275	0.541	311	0.811	347	0.992
24	0.929	60	0.944	96	0.995	132	0.855	168	0.652	204	0.326	240	0.434	276	0.558	312	0.815	348	0.993
25	0.931	61	0.941	97	0.997	133	0.850	169	0.638	205	0.344	241	0.417	277	0.574	313	0.819	349	0.994
26	0.933	62	0.938	98	0.998	134	0.845	170	0.625	206	0.362	242	0.399	278	0.590	314	0.823	350	0.994
27	0.936	63	0.936	99	0.999	135	0.840	171	0.610	207	0.380	243	0.381	279	0.605	315	0.827	351	0.994
28	0.938	64	0.933	100	1.000	136	0.836	172	0.595	208	0.398	244	0.363	280	0.620	316	0.832	352	0.993
29	0.941	65	0.931	101	1.000	137	0.831	173	0.579	209	0.416	245	0.345	281	0.633	317	0.837	353	0.992
30	0.944	66	0.929	102	1.000	138	0.827	174	0.563	210	0.433	246	0.326	282	0.646	318	0.842	354	0.990
31	0.947	67	0.927	103	0.999	139	0.823	175	0.545	211	0.449	247	0.308	283	0.658	319	0.847	355	0.989
32	0.950	68	0.926	104	0.998	140	0.819	176	0.528	212	0.465	248	0.291	284	0.670	320	0.853	356	0.986
33	0.953	69	0.925	105	0.996	141	0.816	177	0.509	213	0.480	249	0.274	285	0.681	321	0.859	357	0.984
34	0.956	70	0.925	106	0.994	142	0.812	178	0.491	214	0.493	250	0.259	286	0.691	322	0.865	358	0.981
35	0.959	71	0.924	107	0.992	143	0.809	179	0.471	215	0.506	251	0.246	287	0.700	323	0.871	359	0.978

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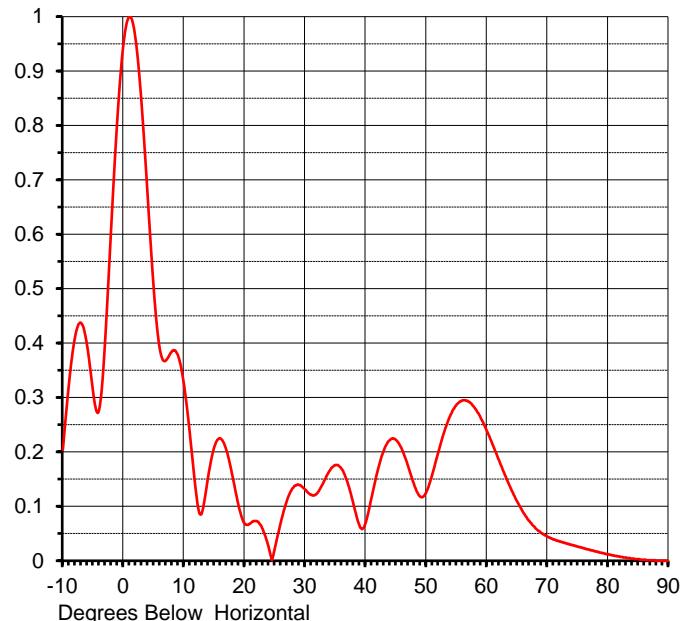
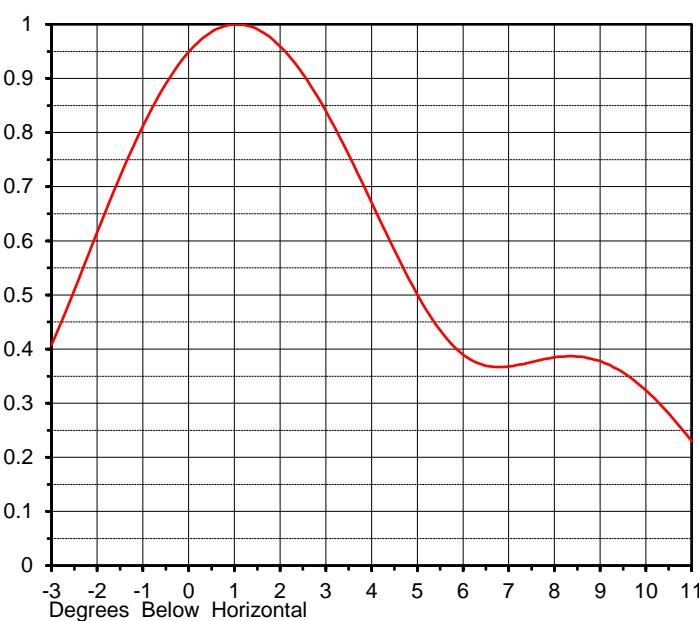
## ELEVATION PATTERN

Proposal No. C-71313  
 Date 30-Apr-19  
 Call Letters KSPX  
 Channel 48  
 Frequency 677 MHz  
 Antenna Type TFU-8WB-R C160

RMS Directivity at Main Lobe  
 RMS Directivity at Horizontal

**7.4 ( 8.69 dB )**  
**6.7 ( 8.26 dB )**  
 Calculated

Beam Tilt 1.05 deg  
 Pattern Number 08W074105



Angle	Field								
-10.0	0.204	10.0	0.324	30.0	0.131	50.0	0.126	70.0	0.044
-9.0	0.324	11.0	0.230	31.0	0.121	51.0	0.159	71.0	0.039
-8.0	0.410	12.0	0.125	32.0	0.124	52.0	0.200	72.0	0.036
-7.0	0.437	13.0	0.090	33.0	0.143	53.0	0.238	73.0	0.032
-6.0	0.396	14.0	0.155	34.0	0.165	54.0	0.268	74.0	0.029
-5.0	0.310	15.0	0.209	35.0	0.176	55.0	0.287	75.0	0.026
-4.0	0.278	16.0	0.225	36.0	0.169	56.0	0.295	76.0	0.023
-3.0	0.408	17.0	0.203	37.0	0.144	57.0	0.292	77.0	0.020
-2.0	0.616	18.0	0.156	38.0	0.103	58.0	0.281	78.0	0.017
-1.0	0.812	19.0	0.102	39.0	0.064	59.0	0.262	79.0	0.014
0.0	0.949	20.0	0.069	40.0	0.070	60.0	0.239	80.0	0.012
1.0	1.000	21.0	0.069	41.0	0.118	61.0	0.212	81.0	0.009
2.0	0.959	22.0	0.073	42.0	0.167	62.0	0.185	82.0	0.007
3.0	0.840	23.0	0.058	43.0	0.203	63.0	0.157	83.0	0.006
4.0	0.671	24.0	0.024	44.0	0.222	64.0	0.132	84.0	0.004
5.0	0.501	25.0	0.023	45.0	0.222	65.0	0.109	85.0	0.003
6.0	0.390	26.0	0.071	46.0	0.204	66.0	0.089	86.0	0.002
7.0	0.368	27.0	0.111	47.0	0.174	67.0	0.073	87.0	0.001
8.0	0.385	28.0	0.134	48.0	0.140	68.0	0.060	88.0	0.000
9.0	0.378	29.0	0.139	49.0	0.118	69.0	0.051	89.0	0.000
						70.0	0.000	90.0	0.000

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**KSPX-STA**

Latitude: 38-14-50 N  
Longitude: 121-30-07 W  
ERP: 48.00 kW  
Channel: 48  
Frequency: 677.0 MHz  
AGL: 228.6 m  
HAAT: 226.27 m  
AMSL: 228.6 m  
Horiz. Pattern: Directional  
Vert. Pattern: Yes  
Elec Tilt: 1.05  
Prop Model: None

