

Technical Summary

Request for Special Temporary Authority

Engineering Exhibit

WLPX-TV – Charleston, WV

Facility ID: 73189

Licensee "ION MEDIA CHARLESTON LICENSE, INC" is currently authorized to operate on Post-Repack DTV channel 18. The Antenna Structure Registration Number is 1234025 with a Latitude of 38° 30' 21.1" N+ and a Longitude of 082° 12' 32.3" W-.

The purpose of this application is to request special temporary authority operate from Antenna Structure Registration Number 1234025 with a Latitude of 38° 30' 21.1" N+ and a Longitude of 082° 12' 32.3" W-. The HAAT is 327.2 m (AGL 213.0 m) with an AMSL of 509.2 m. An ERP of 200 kW will be utilized.

Antenna System

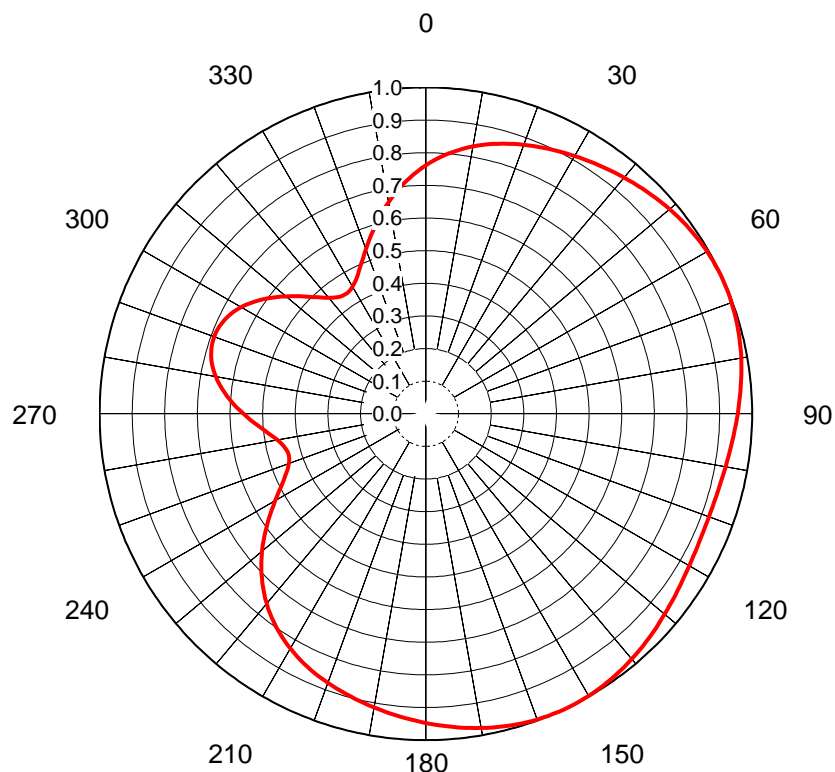
A directional side-mounted antenna will be utilized. It will be affixed to an existing guyed tower structure and will not increase the overall height of the structure. Elevation and Azimuth patterns are attached.

RF Hazard (Environmental)

Human Exposure measurements were calculated using the OET- 65 equation and the outcome is compliant with FCC 1.1310. Furthermore, the calculation is under 5% of the limit categorically excluding the application from further environmental evaluations.

Calculated Maximum	Calculated Exposure	Percent of Limit
mW/cm ²	mW/cm ²	
0.331	0.001472	0.44%

The station will coordinate with other(s) to comply with access, antenna and/or tower issues related to RF Exposure.



AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-71355**
 Date **19-Jun-19**
 Call Letters **WLPX**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-8WB-R C160**
 Gain **1.5 (1.76dB)**
 Calculated

Pattern Number

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.762	36	0.932	72	0.995	108	0.924	144	0.990	180	0.947	216	0.792	252	0.440	288	0.689	324	0.445
1	0.770	37	0.935	73	0.994	109	0.923	145	0.992	181	0.944	217	0.784	253	0.439	289	0.690	325	0.443
2	0.778	38	0.938	74	0.993	110	0.923	146	0.993	182	0.941	218	0.776	254	0.439	290	0.690	326	0.442
3	0.786	39	0.942	75	0.991	111	0.923	147	0.995	183	0.937	219	0.768	255	0.440	291	0.690	327	0.442
4	0.794	40	0.945	76	0.989	112	0.924	148	0.996	184	0.934	220	0.759	256	0.442	292	0.689	328	0.443
5	0.801	41	0.948	77	0.988	113	0.924	149	0.997	185	0.931	221	0.750	257	0.446	293	0.687	329	0.446
6	0.808	42	0.952	78	0.986	114	0.925	150	0.998	186	0.927	222	0.741	258	0.450	294	0.684	330	0.450
7	0.814	43	0.955	79	0.984	115	0.925	151	0.999	187	0.924	223	0.731	259	0.456	295	0.681	331	0.455
8	0.820	44	0.958	80	0.981	116	0.926	152	0.999	188	0.920	224	0.721	260	0.462	296	0.677	332	0.461
9	0.826	45	0.961	81	0.979	117	0.928	153	1.000	189	0.917	225	0.711	261	0.470	297	0.672	333	0.468
10	0.832	46	0.964	82	0.977	118	0.929	154	1.000	190	0.914	226	0.700	262	0.478	298	0.666	334	0.476
11	0.837	47	0.967	83	0.974	119	0.931	155	1.000	191	0.910	227	0.689	263	0.487	299	0.660	335	0.484
12	0.843	48	0.970	84	0.972	120	0.932	156	1.000	192	0.907	228	0.678	264	0.496	300	0.654	336	0.494
13	0.848	49	0.973	85	0.969	121	0.934	157	0.999	193	0.903	229	0.667	265	0.506	301	0.646	337	0.504
14	0.852	50	0.975	86	0.966	122	0.936	158	0.999	194	0.900	230	0.655	266	0.516	302	0.638	338	0.514
15	0.857	51	0.978	87	0.964	123	0.938	159	0.998	195	0.896	231	0.643	267	0.527	303	0.630	339	0.525
16	0.861	52	0.980	88	0.961	124	0.940	160	0.997	196	0.893	232	0.631	268	0.538	304	0.621	340	0.537
17	0.866	53	0.983	89	0.958	125	0.943	161	0.996	197	0.889	233	0.619	269	0.548	305	0.611	341	0.549
18	0.870	54	0.985	90	0.956	126	0.945	162	0.994	198	0.885	234	0.607	270	0.559	306	0.602	342	0.561
19	0.874	55	0.987	91	0.953	127	0.948	163	0.993	199	0.882	235	0.594	271	0.570	307	0.591	343	0.573
20	0.877	56	0.989	92	0.950	128	0.950	164	0.991	200	0.878	236	0.582	272	0.581	308	0.581	344	0.585
21	0.881	57	0.991	93	0.948	129	0.953	165	0.989	201	0.874	237	0.569	273	0.591	309	0.571	345	0.598
22	0.885	58	0.992	94	0.945	130	0.955	166	0.987	202	0.870	238	0.557	274	0.601	310	0.560	346	0.610
23	0.888	59	0.994	95	0.943	131	0.958	167	0.985	203	0.865	239	0.545	275	0.611	311	0.549	347	0.622
24	0.892	60	0.995	96	0.941	132	0.961	168	0.983	204	0.861	240	0.533	276	0.621	312	0.538	348	0.635
25	0.895	61	0.996	97	0.939	133	0.963	169	0.980	205	0.856	241	0.522	277	0.630	313	0.528	349	0.647
26	0.899	62	0.997	98	0.936	134	0.966	170	0.978	206	0.852	242	0.511	278	0.638	314	0.517	350	0.658
27	0.902	63	0.998	99	0.934	135	0.969	171	0.975	207	0.847	243	0.500	279	0.646	315	0.507	351	0.670
28	0.905	64	0.998	100	0.933	136	0.972	172	0.972	208	0.842	244	0.490	280	0.653	316	0.497	352	0.681
29	0.909	65	0.998	101	0.931	137	0.974	173	0.970	209	0.836	245	0.481	281	0.660	317	0.488	353	0.693
30	0.912	66	0.998	102	0.929	138	0.977	174	0.967	210	0.831	246	0.472	282	0.666	318	0.480	354	0.703
31	0.915	67	0.998	103	0.928	139	0.979	175	0.964	211	0.825	247	0.464	283	0.672	319	0.472	355	0.714
32	0.919	68	0.998	104	0.927	140	0.982	176	0.960	212	0.819	248	0.457	284	0.677	320	0.464	356	0.724
33	0.922	69	0.998	105	0.926	141	0.984	177	0.957	213	0.812	249	0.451	285	0.681	321	0.458	357	0.734
34	0.925	70	0.997	106	0.925	142	0.986	178	0.954	214	0.806	250	0.447	286	0.684	322	0.452	358	0.744
35	0.929	71	0.996	107	0.924	143	0.988	179	0.951	215	0.799	251	0.443	287	0.687	323	0.448	359	0.753

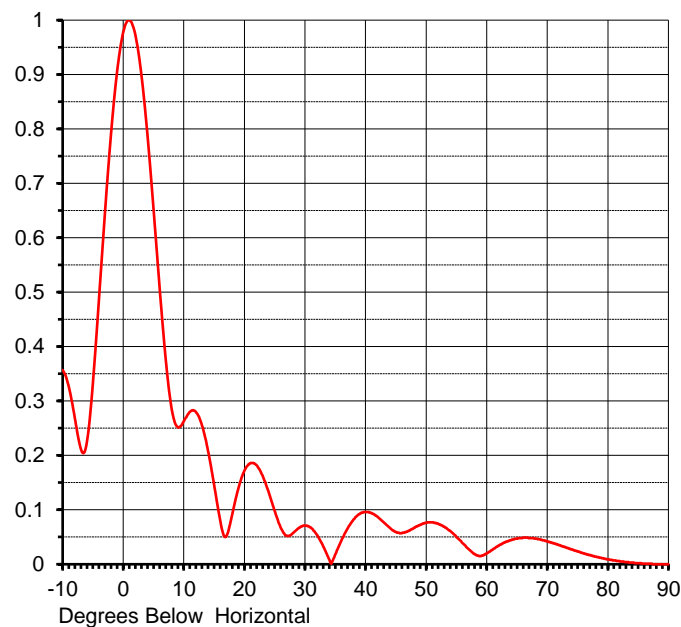
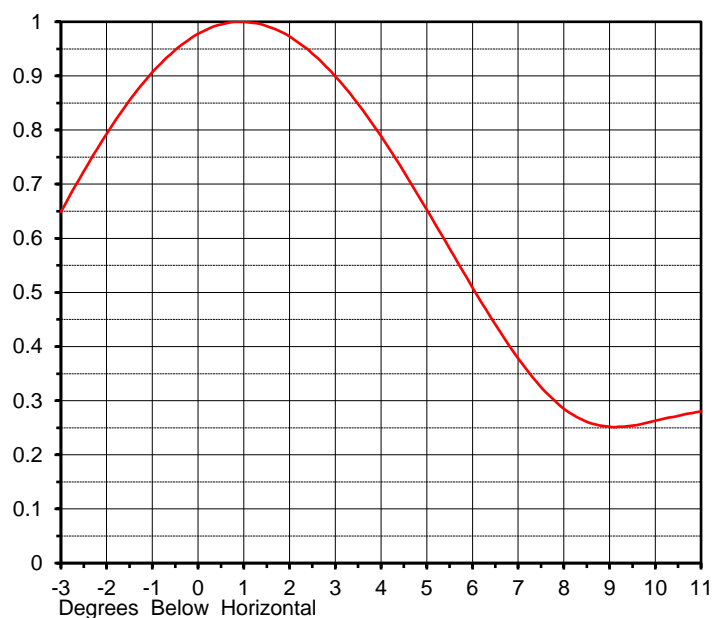
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ELEVATION PATTERN

Proposal No. **C-71355**
 Date **19-Jun-19**
 Call Letters **WLPX**
 Channel **18**
 Frequency **497 MHz**
 Antenna Type **TFU-8WB-R C160**

RMS Directivity at Main Lobe **7.6 (8.81 dB)**
 RMS Directivity at Horizontal **7.3 (8.63 dB)**
Calculated

Beam Tilt **1.05 deg**
 Pattern Number **08W076105**

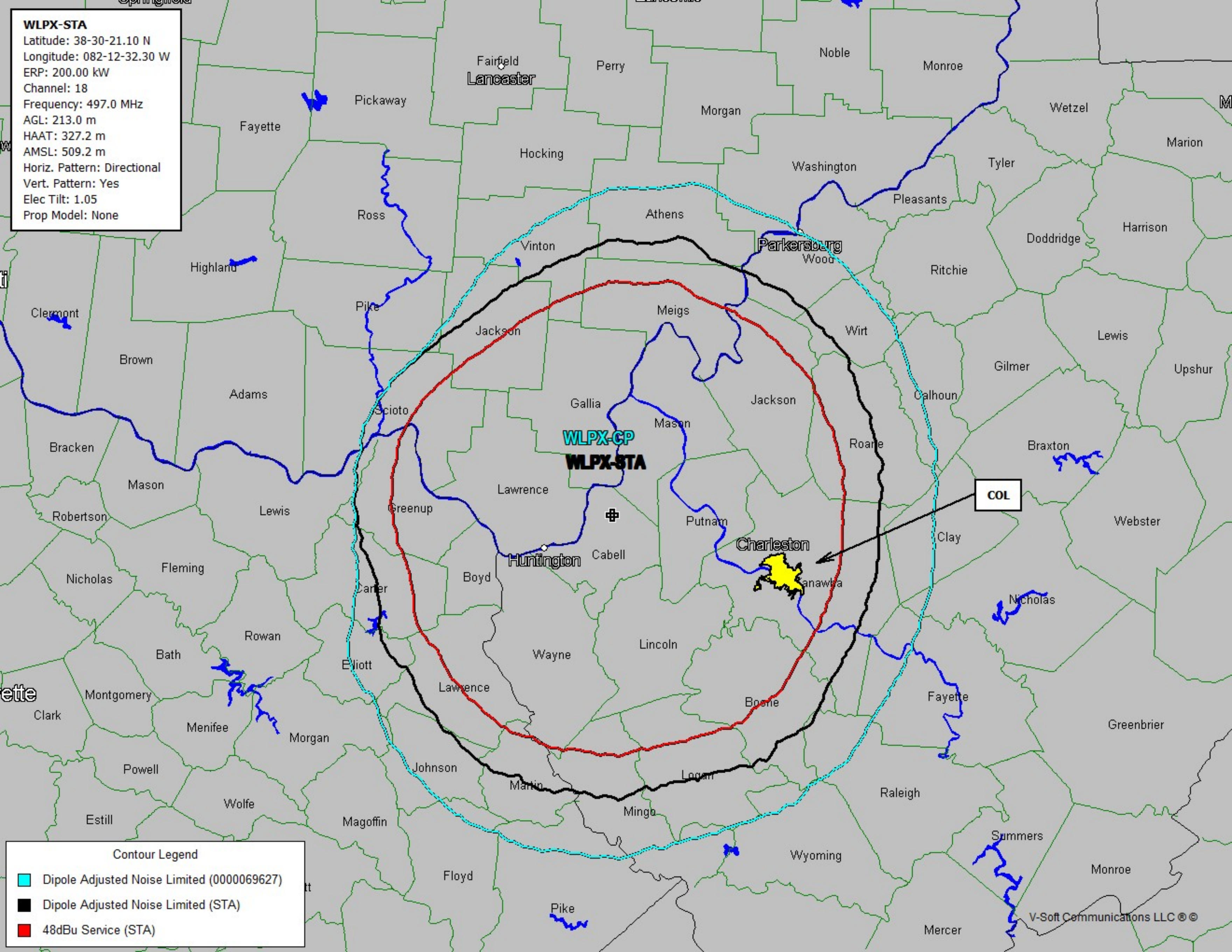


Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.357	10.0	0.263	30.0	0.071	50.0	0.076	70.0	0.042
-9.0	0.327	11.0	0.280	31.0	0.067	51.0	0.077	71.0	0.039
-8.0	0.269	12.0	0.280	32.0	0.054	52.0	0.074	72.0	0.035
-7.0	0.212	13.0	0.255	33.0	0.033	53.0	0.069	73.0	0.031
-6.0	0.225	14.0	0.208	34.0	0.009	54.0	0.061	74.0	0.027
-5.0	0.334	15.0	0.146	35.0	0.018	55.0	0.050	75.0	0.024
-4.0	0.488	16.0	0.081	36.0	0.043	56.0	0.039	76.0	0.020
-3.0	0.649	17.0	0.051	37.0	0.065	57.0	0.028	77.0	0.017
-2.0	0.793	18.0	0.092	38.0	0.082	58.0	0.019	78.0	0.014
-1.0	0.907	19.0	0.139	39.0	0.092	59.0	0.015	79.0	0.011
0.0	0.978	20.0	0.172	40.0	0.096	60.0	0.020	80.0	0.009
1.0	1.000	21.0	0.186	41.0	0.094	61.0	0.027	81.0	0.007
2.0	0.973	22.0	0.182	42.0	0.087	62.0	0.034	82.0	0.005
3.0	0.899	23.0	0.163	43.0	0.077	63.0	0.040	83.0	0.004
4.0	0.789	24.0	0.133	44.0	0.067	64.0	0.044	84.0	0.003
5.0	0.653	25.0	0.098	45.0	0.059	65.0	0.047	85.0	0.002
6.0	0.509	26.0	0.067	46.0	0.057	66.0	0.049	86.0	0.001
7.0	0.378	27.0	0.052	47.0	0.061	67.0	0.048	87.0	0.001
8.0	0.285	28.0	0.057	48.0	0.067	68.0	0.047	88.0	0.000
9.0	0.252	29.0	0.067	49.0	0.072	69.0	0.045	89.0	0.000
								90.0	0.000

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WLPX-STA

Latitude: 38-30-21.10 N
Longitude: 082-12-32.30 W
ERP: 200.00 kW
Channel: 18
Frequency: 497.0 MHz
AGL: 213.0 m
HAAT: 327.2 m
AMSL: 509.2 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.05
Prop Model: None

**Contour Legend**

- Dipole Adjusted Noise Limited (0000069627)
- Dipole Adjusted Noise Limited (STA)
- 48dBu Service (STA)