

Technical Summary
Request for Special Temporary Authority
Engineering Exhibit

WSPX-TV – Syracuse, NY

Facility ID: 64352

Licensee “ION MEDIA SYRACUSE LICENSE, INC” is currently authorized to operate on Post-Repack DTV channel 36. The Antenna Structure Registration Number is 1004101 with a Latitude of 42-56-42.0 N+ and a Longitude of 76-1-27.0 W-.

The purpose of this application is to request special temporary authority to from Antenna Structure Registration Number 1004101 with a Latitude of 42-56-42.0 N+ and a Longitude of 76-1-27.0 W-. The HAAT is 421.06m (AGL 243.99m) with an AMSL of 727.09m. An ERP of 50 kW will be utilized.

Antenna System

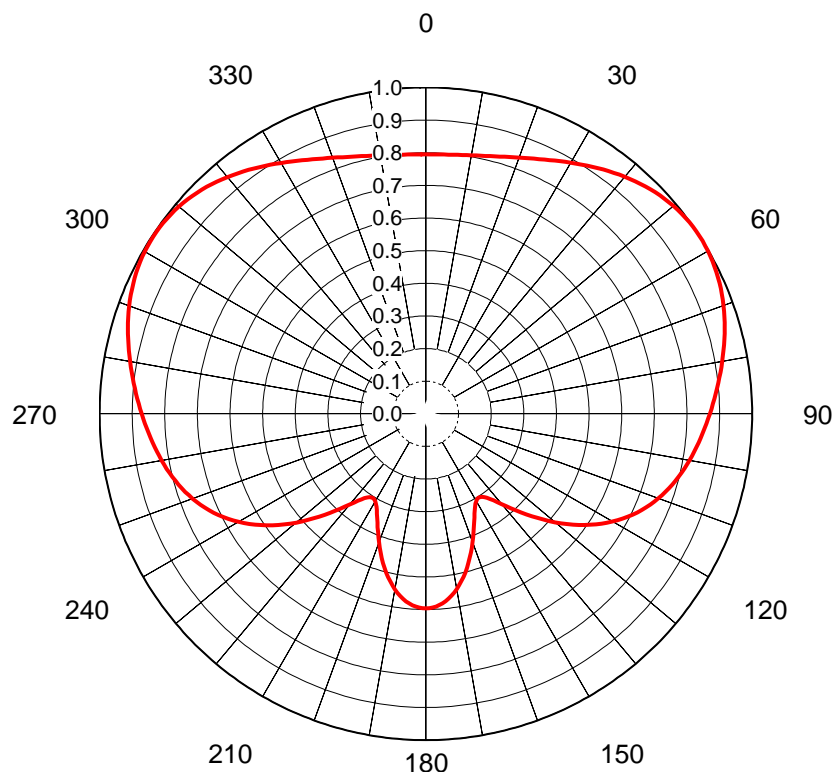
A directional side-mounted antenna will be utilized. It will be affixed to an existing guyed tower structure and will not increase the overall height of the structure. Elevation and Azimuth patterns are attached. Note that the antenna orientation should be rotated 15°. Furthermore, the proposed STA operation will not expand the station’s noise limited contour.

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	
0.403	0.000764	0.19%

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.
Date
Call Letters
Channel
Frequency
Antenna Type
Gain

15-Jul-19
WSPX
36
605 MHz
TFU-8WB-R C160
1.68 (2.26dB)
Calculated

Pattern Number **WB-C160**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.795	36	0.925	72	0.962	108	0.773	144	0.319	180	0.596	216	0.320	252	0.775	288	0.959	324	0.924
1	0.795	37	0.931	73	0.957	109	0.766	145	0.312	181	0.596	217	0.328	253	0.782	289	0.963	325	0.918
2	0.796	38	0.937	74	0.953	110	0.758	146	0.307	182	0.594	218	0.338	254	0.788	290	0.967	326	0.912
3	0.796	39	0.943	75	0.948	111	0.750	147	0.304	183	0.592	219	0.350	255	0.795	291	0.971	327	0.906
4	0.797	40	0.948	76	0.943	112	0.742	148	0.304	184	0.588	220	0.363	256	0.801	292	0.975	328	0.900
5	0.797	41	0.954	77	0.938	113	0.733	149	0.305	185	0.584	221	0.376	257	0.806	293	0.978	329	0.894
6	0.798	42	0.959	78	0.933	114	0.724	150	0.309	186	0.578	222	0.391	258	0.812	294	0.982	330	0.888
7	0.800	43	0.964	79	0.927	115	0.715	151	0.314	187	0.571	223	0.406	259	0.817	295	0.985	331	0.882
8	0.801	44	0.969	80	0.922	116	0.705	152	0.321	188	0.564	224	0.422	260	0.822	296	0.987	332	0.876
9	0.803	45	0.973	81	0.917	117	0.694	153	0.330	189	0.555	225	0.438	261	0.827	297	0.990	333	0.870
10	0.804	46	0.977	82	0.912	118	0.683	154	0.340	190	0.546	226	0.454	262	0.832	298	0.992	334	0.865
11	0.806	47	0.981	83	0.906	119	0.672	155	0.352	191	0.536	227	0.470	263	0.837	299	0.993	335	0.859
12	0.809	48	0.985	84	0.901	120	0.660	156	0.364	192	0.525	228	0.487	264	0.842	300	0.995	336	0.854
13	0.811	49	0.988	85	0.896	121	0.648	157	0.377	193	0.514	229	0.503	265	0.847	301	0.996	337	0.849
14	0.814	50	0.991	86	0.891	122	0.635	158	0.390	194	0.502	230	0.519	266	0.852	302	0.996	338	0.844
15	0.817	51	0.993	87	0.886	123	0.622	159	0.404	195	0.489	231	0.535	267	0.857	303	0.997	339	0.839
16	0.820	52	0.995	88	0.881	124	0.608	160	0.418	196	0.476	232	0.551	268	0.861	304	0.996	340	0.835
17	0.824	53	0.997	89	0.875	125	0.594	161	0.433	197	0.462	233	0.566	269	0.866	305	0.996	341	0.831
18	0.827	54	0.998	90	0.870	126	0.579	162	0.447	198	0.448	234	0.581	270	0.871	306	0.995	342	0.827
19	0.831	55	0.999	91	0.865	127	0.564	163	0.461	199	0.434	235	0.596	271	0.876	307	0.994	343	0.823
20	0.835	56	1.000	92	0.861	128	0.549	164	0.474	200	0.420	236	0.610	272	0.881	308	0.992	344	0.820
21	0.840	57	1.000	93	0.856	129	0.533	165	0.488	201	0.406	237	0.624	273	0.886	309	0.990	345	0.817
22	0.844	58	1.000	94	0.851	130	0.517	166	0.501	202	0.392	238	0.637	274	0.890	310	0.988	346	0.814
23	0.849	59	0.999	95	0.846	131	0.501	167	0.513	203	0.378	239	0.650	275	0.895	311	0.985	347	0.811
24	0.854	60	0.998	96	0.841	132	0.485	168	0.524	204	0.365	240	0.662	276	0.900	312	0.982	348	0.809
25	0.860	61	0.997	97	0.836	133	0.469	169	0.535	205	0.353	241	0.674	277	0.905	313	0.979	349	0.806
26	0.865	62	0.995	98	0.831	134	0.452	170	0.545	206	0.341	242	0.686	278	0.911	314	0.975	350	0.804
27	0.871	63	0.993	99	0.826	135	0.436	171	0.555	207	0.331	243	0.697	279	0.916	315	0.971	351	0.802
28	0.877	64	0.991	100	0.820	136	0.420	172	0.563	208	0.322	244	0.707	280	0.921	316	0.967	352	0.801
29	0.882	65	0.988	101	0.815	137	0.404	173	0.571	209	0.315	245	0.717	281	0.926	317	0.962	353	0.800
30	0.888	66	0.985	102	0.810	138	0.389	174	0.577	210	0.310	246	0.727	282	0.931	318	0.957	354	0.798
31	0.895	67	0.982	103	0.804	139	0.375	175	0.583	211	0.306	247	0.736	283	0.936	319	0.952	355	0.797
32	0.901	68	0.978	104	0.798	140	0.361	176	0.588	212	0.305	248	0.744	284	0.940	320	0.947	356	0.797
33	0.907	69	0.975	105	0.792	141	0.349	177	0.591	213	0.306	249	0.753	285	0.945	321	0.941	357	0.796
34	0.913	70	0.971	106	0.786	142	0.337	178	0.594	214	0.308	250	0.760	286	0.950	322	0.936	358	0.796
35	0.919	71	0.966	107	0.780	143	0.327	179	0.596	215	0.313	251	0.768	287	0.955	323	0.930	359	0.795

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided.
No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

ELEVATION PATTERN

Proposal No.

Date **15-Jul-19**

Call Letters **WSPX**

Channel **36**

Frequency **605 MHz**

Antenna Type **TFU-8WB-R C160**

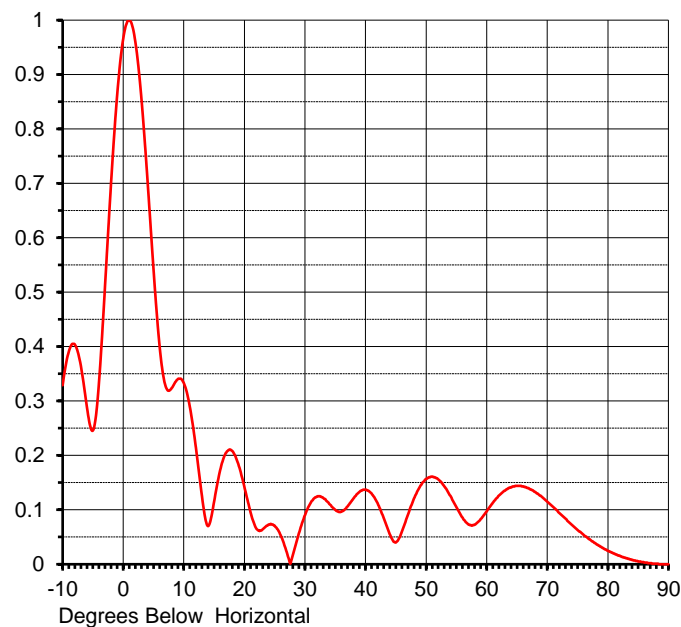
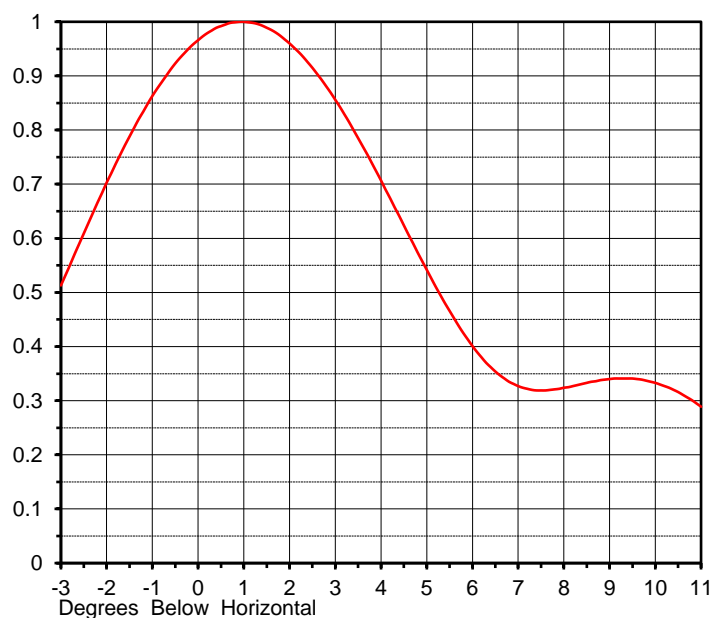
RMS Directivity at Main Lobe **8.0 (9.00 dB)**

RMS Directivity at Horizontal **7.4 (8.69 dB)**

Calculated

Beam Tilt **1.05 deg**

Pattern Number **08W080105**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.329	10.0	0.333	30.0	0.090	50.0	0.157	70.0	0.115
-9.0	0.390	11.0	0.289	31.0	0.114	51.0	0.161	71.0	0.105
-8.0	0.404	12.0	0.214	32.0	0.124	52.0	0.156	72.0	0.094
-7.0	0.365	13.0	0.125	33.0	0.122	53.0	0.143	73.0	0.084
-6.0	0.289	14.0	0.070	34.0	0.111	54.0	0.126	74.0	0.073
-5.0	0.246	15.0	0.115	35.0	0.100	55.0	0.105	75.0	0.063
-4.0	0.335	16.0	0.173	36.0	0.097	56.0	0.086	76.0	0.054
-3.0	0.513	17.0	0.205	37.0	0.106	57.0	0.073	77.0	0.046
-2.0	0.703	18.0	0.208	38.0	0.121	58.0	0.073	78.0	0.038
-1.0	0.863	19.0	0.184	39.0	0.133	59.0	0.083	79.0	0.031
0.0	0.966	20.0	0.142	40.0	0.137	60.0	0.097	80.0	0.025
1.0	1.000	21.0	0.096	41.0	0.130	61.0	0.113	81.0	0.020
2.0	0.960	22.0	0.065	42.0	0.112	62.0	0.126	82.0	0.015
3.0	0.856	23.0	0.064	43.0	0.085	63.0	0.135	83.0	0.011
4.0	0.707	24.0	0.073	44.0	0.055	64.0	0.141	84.0	0.008
5.0	0.542	25.0	0.071	45.0	0.040	65.0	0.144	85.0	0.005
6.0	0.401	26.0	0.053	46.0	0.060	66.0	0.143	86.0	0.003
7.0	0.327	27.0	0.022	47.0	0.091	67.0	0.139	87.0	0.002
8.0	0.324	28.0	0.017	48.0	0.121	68.0	0.133	88.0	0.001
9.0	0.340	29.0	0.057	49.0	0.143	69.0	0.125	89.0	0.000
								90.0	0.000

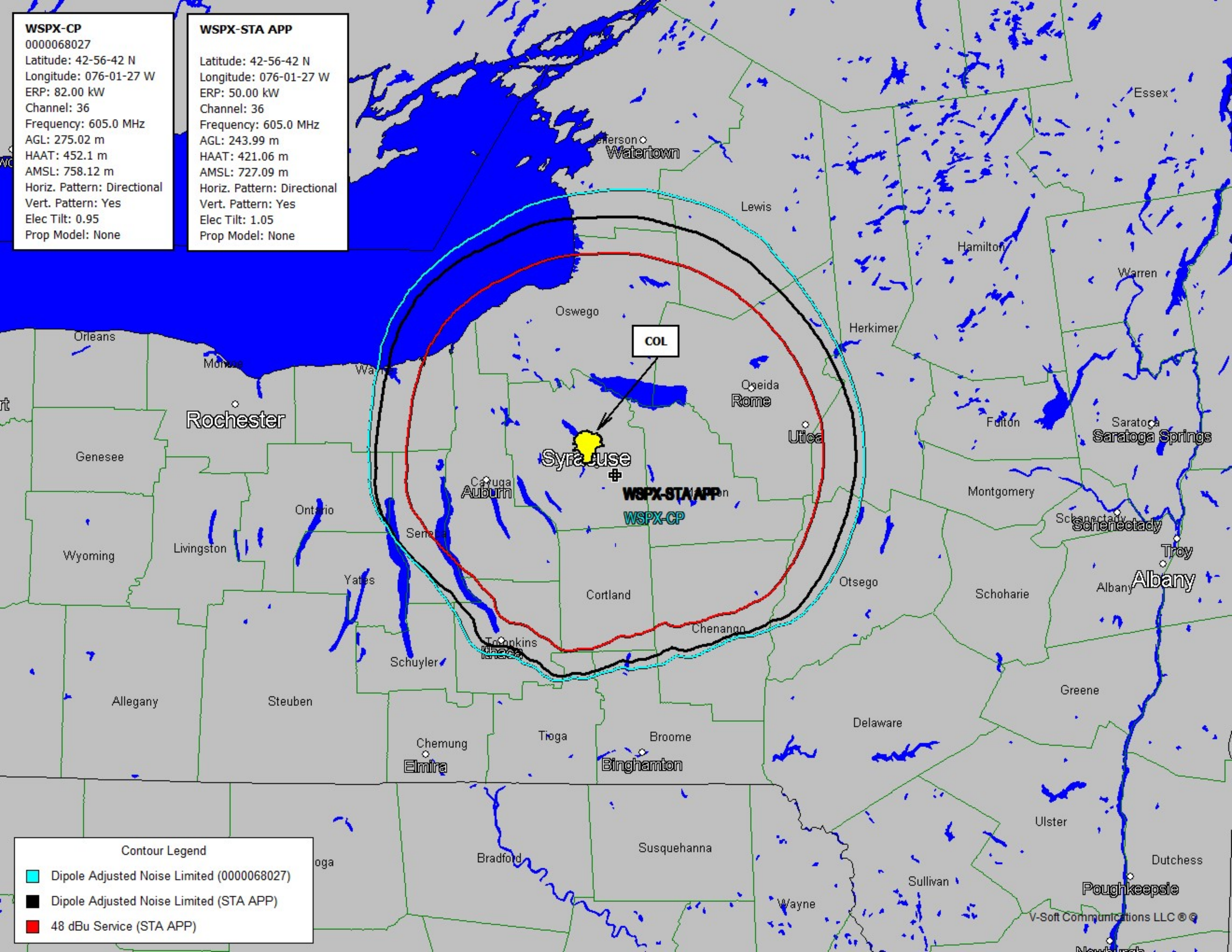
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided.
No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

WSPX-CP

0000068027
Latitude: 42-56-42 N
Longitude: 076-01-27 W
ERP: 82.00 kW
Channel: 36
Frequency: 605.0 MHz
AGL: 275.02 m
HAAT: 452.1 m
AMSL: 758.12 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.95
Prop Model: None

WSPX-STA APP

Latitude: 42-56-42 N
Longitude: 076-01-27 W
ERP: 50.00 kW
Channel: 36
Frequency: 605.0 MHz
AGL: 243.99 m
HAAT: 421.06 m
AMSL: 727.09 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.05
Prop Model: None

**Contour Legend**

- Dipole Adjusted Noise Limited (0000068027)
- Dipole Adjusted Noise Limited (STA APP)
- 48 dBu Service (STA APP)