

Antenna Project

COMMUNICATIONS TECHNOLOGIES, INC.

TX station: *RF Specialties KSIQSTA*

Site Name: *Sweetwater Water Tank V2*

Frequency: *97.00 MHz*

Date: *20.01.2011*

General data of Antenna System

TX station	RF Specialties KSIQSTA
Site Name	Sweetwater Water Tank V2
System of coordinates	Geographic
Longitude	117°00'24.699"
Latitude	32°41'16.714"
Ground level a.s.l. (m)	123.0
Antenna system height (m)	20.0
Transmitter power(Watt)	2800.000
Carrier wave frequency (MHz)	97.000
Antenna system central frequency (MHz)	97.000
Antenna base diagrams type 1	Telecomunicazioni ALDENA-5 el. Log Periodic FM circular pol.
Antenna base diagrams type 2	-
Polarization (H/V/C/X)	C
Transmitting cable attenuation (dB)	0.0
Additional attenuations(dB)	0.0
Base diagrams sectors (T = All, F = Front)	T
Velocity factor of cables to Antennas (0÷1)	1.00
Coordinate System(C = cartesian, P = polar)	P
Mast side / diameter(cm):	10.2
Mast cross section (T/Q/C)	C
Structure rotation w.r.t. North (°)	0.0
Mast rotation w.r.t. North (°)	0.0

Information about antennas used in the System

	<i>Antenna type 1</i>
Manufacturer	Telecomunicazioni A
Antenna model	5 el. Log Periodic F
Band start(MHz)	87
Band stop(MHz)	107
diagrams Frequency(MHz)	97
Polariz (H,V,C,X)	C
Vertical dist (cm)	270
Height (cm)	172
Width (cm)	172
Thickness (cm)	150
Weight (Kg)	10
Maximum power (KW)	3
Gain (dBd)	5.96
North E.C. (cm)	0
East E.C. (cm)	0
Return loss (dB)	-29.06
R.C.Phase (°)	0

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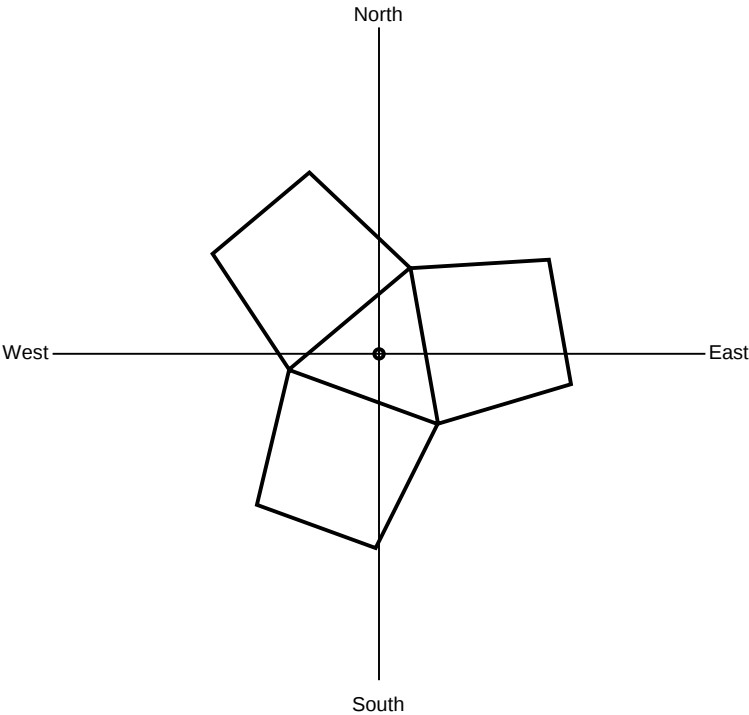
Gain solid integration : enabled

Site Name: Sweetwater Water Tank V2

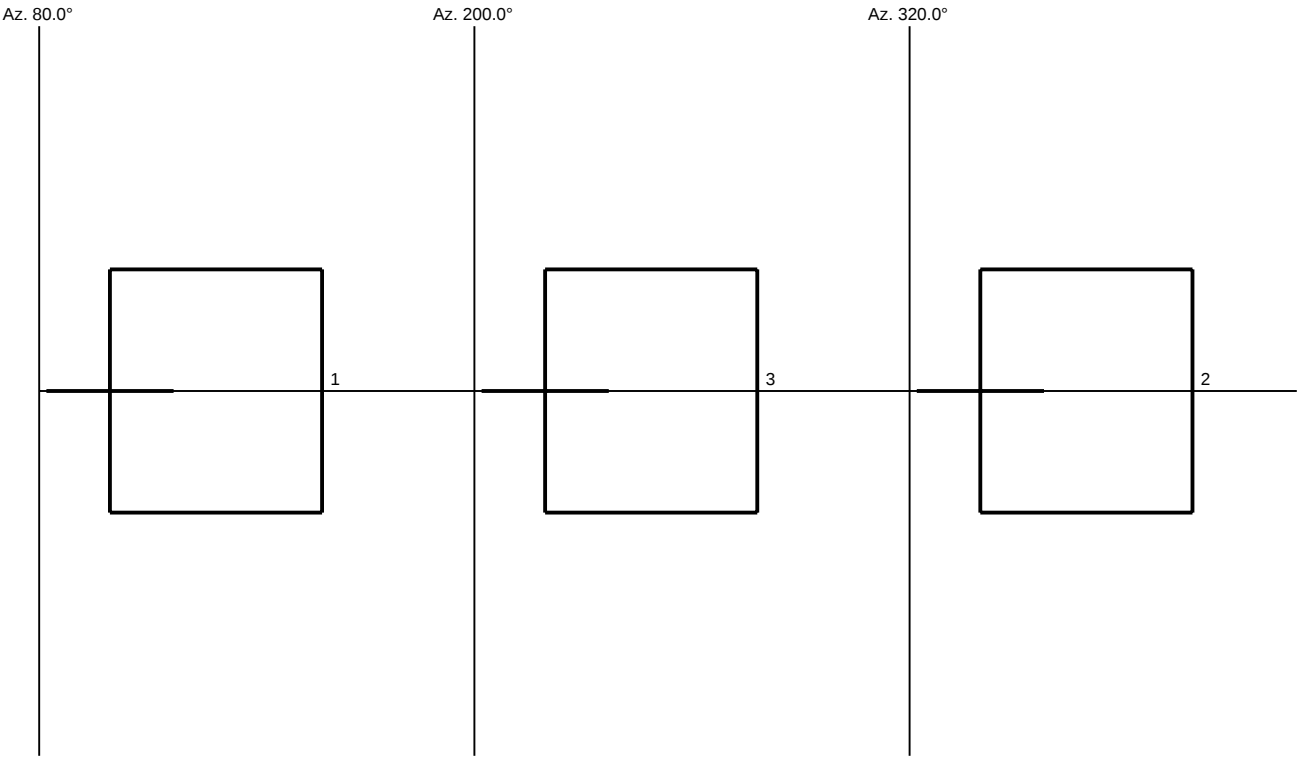
Geometr. and electrical data of Antenna System

	<i>Power</i> (%)	<i>Tilt</i> (°)	<i>Az.</i> (°/N)	<i>Phase</i> (°)		<i>V dist.</i> (m)	<i>Scr-d</i> (cm)	<i>Scr-Az</i> (°/N)	<i>Rot.</i> (1÷4)	<i>Type</i> (1÷2)	<i>L cables</i> (cm)	<i>Car. phase</i> (°)
1	47.500	0	80	0	+0.0	0.00	50.0	80.0	1	1	0.0	0.0
2	5.000	0	320	0	+0.0	0.00	50.0	-40.0	1	1	0.0	0.0
3	47.500	0	200	0	+0.0	0.00	50.0	200.0	1	1	0.0	0.0

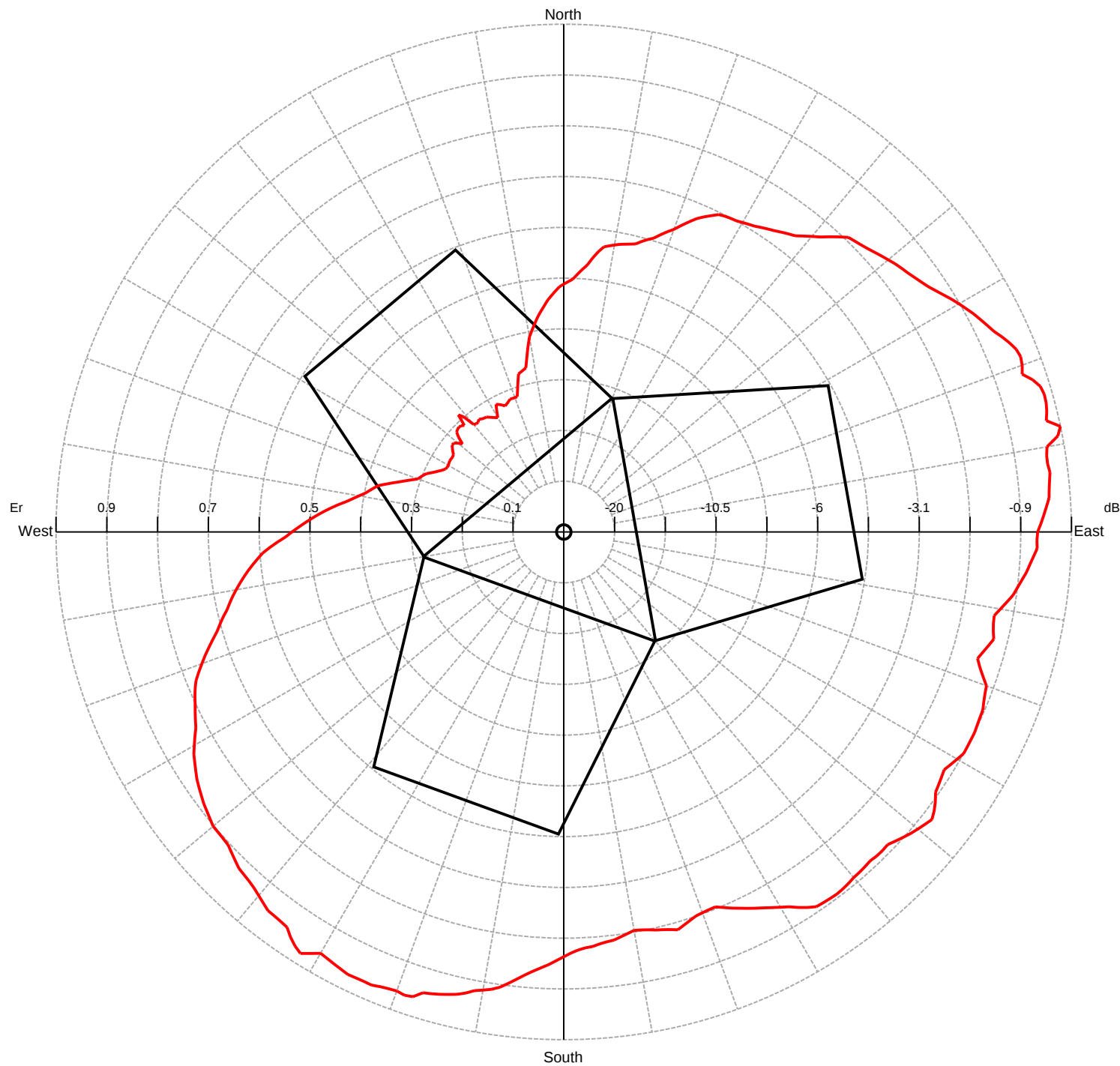
Plan of antenna system



Side of antenna system



Horizontal diagram at 0.0° depres. (Total Antenna)



0.0° depres. (Total Antenna), Gain (dBd): 2.48

ERP T.Max(KW): 4.9608

ERP E.Max(KW): 4.9608

Horizontal diagram at 0.0° depres. (Total Antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
0.0	48.8	1.183	60.0	89.9	4.007	120.0	89.5	3.971
1.0	49.3	1.206	61.0	90.7	4.078	121.0	88.9	3.921
2.0	49.8	1.230	62.0	91.5	4.151	122.0	88.3	3.872
3.0	50.8	1.280	63.0	92.1	4.210	123.0	88.7	3.903
4.0	51.8	1.331	64.0	92.8	4.272	124.0	89.0	3.933
5.0	52.8	1.381	65.0	93.5	4.336	125.0	89.4	3.963
6.0	54.3	1.461	66.0	94.5	4.429	126.0	90.4	4.058
7.0	55.6	1.533	67.0	95.4	4.510	127.0	91.3	4.137
8.0	56.7	1.596	68.0	96.1	4.582	128.0	92.0	4.198
9.0	57.1	1.615	69.0	96.4	4.609	129.0	91.5	4.153
10.0	57.4	1.634	70.0	96.1	4.579	130.0	91.0	4.109
11.0	57.7	1.652	71.0	95.5	4.523	131.0	90.5	4.065
12.0	58.0	1.667	72.0	97.1	4.675	132.0	89.9	4.009
13.0	58.2	1.681	73.0	98.1	4.778	133.0	89.3	3.954
14.0	58.5	1.695	74.0	98.4	4.806	134.0	88.7	3.899
15.0	59.2	1.741	75.0	98.4	4.799	135.0	88.8	3.908
16.0	59.9	1.782	76.0	98.0	4.767	136.0	88.7	3.905
17.0	60.5	1.816	77.0	97.5	4.718	137.0	88.5	3.888
18.0	61.5	1.878	78.0	100.0	4.961	138.0	88.7	3.901
19.0	62.5	1.939	79.0	99.1	4.873	139.0	88.8	3.910
20.0	63.5	1.997	80.0	96.6	4.632	140.0	88.8	3.916
21.0	64.7	2.077	81.0	96.3	4.600	141.0	89.1	3.936
22.0	65.9	2.155	82.0	96.2	4.593	142.0	89.2	3.951
23.0	67.1	2.232	83.0	96.5	4.618	143.0	89.3	3.958
24.0	67.9	2.290	84.0	96.2	4.591	144.0	89.2	3.950
25.0	68.8	2.345	85.0	96.0	4.569	145.0	89.1	3.940
26.0	69.5	2.399	86.0	95.8	4.552	146.0	89.0	3.930
27.0	69.8	2.418	87.0	95.2	4.495	147.0	88.2	3.857
28.0	70.0	2.430	88.0	94.6	4.438	148.0	87.2	3.772
29.0	70.1	2.436	89.0	94.0	4.382	149.0	86.1	3.678
30.0	70.4	2.458	90.0	93.3	4.320	150.0	85.4	3.614
31.0	70.7	2.480	91.0	93.2	4.310	151.0	84.6	3.550
32.0	71.0	2.502	92.0	93.3	4.318	152.0	83.8	3.487
33.0	71.5	2.536	93.0	92.6	4.256	153.0	83.2	3.431
34.0	72.0	2.569	94.0	92.0	4.199	154.0	82.5	3.374
35.0	72.4	2.602	95.0	91.4	4.148	155.0	81.8	3.317
36.0	73.0	2.642	96.0	90.7	4.082	156.0	81.1	3.261
37.0	73.5	2.681	97.0	90.0	4.019	157.0	80.4	3.203
38.0	74.0	2.720	98.0	89.3	3.960	158.0	79.6	3.145
39.0	75.0	2.791	99.0	88.3	3.871	159.0	79.7	3.150
40.0	76.0	2.865	100.0	87.3	3.784	160.0	79.8	3.159
41.0	77.0	2.941	101.0	86.4	3.700	161.0	80.0	3.173
42.0	78.3	3.038	102.0	86.5	3.711	162.0	80.5	3.211
43.0	79.5	3.134	103.0	86.8	3.738	163.0	81.0	3.252
44.0	80.7	3.229	104.0	87.3	3.779	164.0	81.5	3.295
45.0	81.0	3.257	105.0	86.6	3.718	165.0	81.1	3.260
46.0	81.4	3.288	106.0	85.9	3.659	166.0	80.7	3.232
47.0	81.8	3.322	107.0	85.2	3.602	167.0	80.5	3.212
48.0	82.4	3.365	108.0	86.2	3.683	168.0	80.1	3.184
49.0	82.9	3.408	109.0	87.3	3.781	169.0	79.8	3.162
50.0	83.4	3.452	110.0	88.6	3.892	170.0	79.7	3.150
51.0	83.9	3.495	111.0	88.9	3.917	171.0	80.1	3.182
52.0	84.4	3.534	112.0	89.2	3.950	172.0	80.5	3.217
53.0	84.8	3.569	113.0	89.7	3.989	173.0	81.0	3.254
54.0	85.3	3.614	114.0	89.7	3.995	174.0	81.1	3.267
55.0	85.9	3.661	115.0	89.9	4.006	175.0	81.4	3.289
56.0	86.5	3.711	116.0	90.0	4.022	176.0	81.8	3.321
57.0	87.3	3.782	117.0	90.0	4.020	177.0	82.0	3.336
58.0	88.2	3.856	118.0	90.0	4.021	178.0	82.4	3.366
59.0	89.1	3.935	119.0	90.1	4.023	179.0	82.9	3.411

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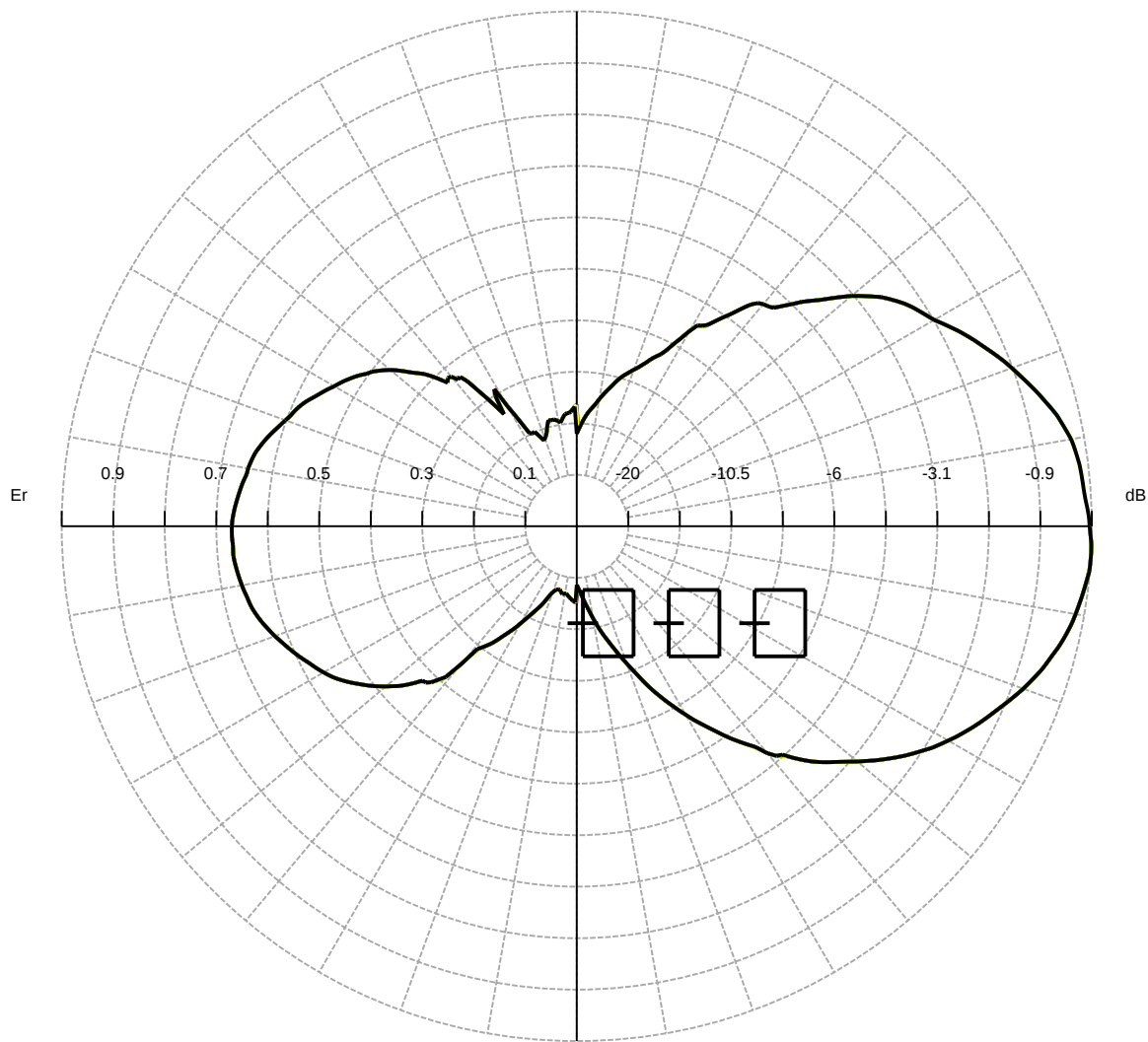
Gain solid integration : enabled

Site Name: Sweetwater Water Tank V2

Horizontal diagram at 0.0° depres. (Total Antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
180.0	83.7	3.472	240.0	84.0	3.503	300.0	26.3	0.343
181.0	84.4	3.537	241.0	83.1	3.422	301.0	26.4	0.345
182.0	85.3	3.605	242.0	82.1	3.342	302.0	26.5	0.348
183.0	86.0	3.665	243.0	81.4	3.290	303.0	26.4	0.346
184.0	86.7	3.731	244.0	80.8	3.237	304.0	26.4	0.346
185.0	87.6	3.803	245.0	80.1	3.183	305.0	26.5	0.349
186.0	88.6	3.890	246.0	79.5	3.137	306.0	27.0	0.362
187.0	89.5	3.978	247.0	78.9	3.086	307.0	27.5	0.375
188.0	90.5	4.067	248.0	78.1	3.029	308.0	27.9	0.386
189.0	91.2	4.124	249.0	77.0	2.942	309.0	27.8	0.385
190.0	91.6	4.165	250.0	75.9	2.855	310.0	27.3	0.369
191.0	92.0	4.200	251.0	74.7	2.769	311.0	26.4	0.347
192.0	92.8	4.274	252.0	73.5	2.679	312.0	27.9	0.386
193.0	93.5	4.334	253.0	72.3	2.591	313.0	28.9	0.413
194.0	93.9	4.370	254.0	71.0	2.504	314.0	29.1	0.420
195.0	94.3	4.410	255.0	70.1	2.439	315.0	29.2	0.424
196.0	94.6	4.441	256.0	69.1	2.370	316.0	29.1	0.419
197.0	94.9	4.467	257.0	68.1	2.299	317.0	28.7	0.409
198.0	96.2	4.595	258.0	67.3	2.246	318.0	31.1	0.478
199.0	96.5	4.617	259.0	66.4	2.189	319.0	30.1	0.449
200.0	96.2	4.591	260.0	65.5	2.129	320.0	27.7	0.380
201.0	96.3	4.604	261.0	64.6	2.070	321.0	27.4	0.372
202.0	96.6	4.627	262.0	63.6	2.009	322.0	27.4	0.373
203.0	96.9	4.662	263.0	62.6	1.947	323.0	27.8	0.383
204.0	96.9	4.656	264.0	61.6	1.883	324.0	27.5	0.376
205.0	96.9	4.657	265.0	60.5	1.818	325.0	27.4	0.371
206.0	97.0	4.665	266.0	59.4	1.753	326.0	27.3	0.370
207.0	96.7	4.635	267.0	58.0	1.667	327.0	27.0	0.360
208.0	96.4	4.606	268.0	56.4	1.579	328.0	26.6	0.351
209.0	96.1	4.578	269.0	54.8	1.488	329.0	26.3	0.343
210.0	95.8	4.553	270.0	53.5	1.422	330.0	26.0	0.336
211.0	96.8	4.650	271.0	52.3	1.357	331.0	27.2	0.367
212.0	97.9	4.752	272.0	51.0	1.292	332.0	28.5	0.402
213.0	97.2	4.687	273.0	49.8	1.231	333.0	28.2	0.395
214.0	96.3	4.597	274.0	48.6	1.170	334.0	27.8	0.384
215.0	95.1	4.482	275.0	47.3	1.109	335.0	27.4	0.372
216.0	94.8	4.460	276.0	46.0	1.048	336.0	27.6	0.378
217.0	94.7	4.448	277.0	44.6	0.986	337.0	27.9	0.386
218.0	94.6	4.443	278.0	43.2	0.925	338.0	28.2	0.395
219.0	94.1	4.388	279.0	42.1	0.878	339.0	28.2	0.394
220.0	93.5	4.336	280.0	41.0	0.833	340.0	28.2	0.394
221.0	92.9	4.285	281.0	39.9	0.789	341.0	28.2	0.394
222.0	92.6	4.254	282.0	39.2	0.761	342.0	29.5	0.430
223.0	92.3	4.228	283.0	38.4	0.733	343.0	30.9	0.473
224.0	92.1	4.209	284.0	37.7	0.705	344.0	32.4	0.520
225.0	91.5	4.156	285.0	36.4	0.656	345.0	32.6	0.528
226.0	91.0	4.104	286.0	35.1	0.610	346.0	32.9	0.537
227.0	90.4	4.054	287.0	33.8	0.568	347.0	33.2	0.546
228.0	90.3	4.041	288.0	32.7	0.531	348.0	35.1	0.611
229.0	90.2	4.035	289.0	31.6	0.496	349.0	37.0	0.681
230.0	90.2	4.032	290.0	30.6	0.464	350.0	39.0	0.756
231.0	89.7	3.990	291.0	30.2	0.453	351.0	40.2	0.801
232.0	89.2	3.950	292.0	29.8	0.441	352.0	41.4	0.849
233.0	88.8	3.914	293.0	29.4	0.429	353.0	42.6	0.900
234.0	88.3	3.864	294.0	28.6	0.407	354.0	43.6	0.944
235.0	87.7	3.816	295.0	28.0	0.388	355.0	44.7	0.990
236.0	87.2	3.769	296.0	27.4	0.373	356.0	45.7	1.038
237.0	86.4	3.706	297.0	26.8	0.357	357.0	46.6	1.078
238.0	85.7	3.645	298.0	26.4	0.347	358.0	47.5	1.118
239.0	85.0	3.584	299.0	26.2	0.342	359.0	48.3	1.159

Vertical diagrams



- 78.0° Az. (Total Antenna), Gain (dBd): 2.52
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Frequency: 97.00 MHz

Gain solid integration : enabled

Site Name: Sweetwater Water Tank V2

Vertical diagrams

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	99.6	4.961	60.0	42.3	0.894	120.0	21.7	0.236
1.0	99.8	4.981	61.0	40.9	0.835	121.0	22.8	0.260
2.0	100.0	5.001	62.0	39.5	0.779	122.0	23.8	0.284
3.0	100.0	5.005	63.0	38.1	0.726	123.0	24.8	0.307
4.0	99.9	5.000	64.0	36.7	0.674	124.0	25.9	0.335
5.0	99.9	4.995	65.0	35.3	0.625	125.0	27.0	0.366
6.0	99.6	4.963	66.0	33.9	0.576	126.0	28.1	0.396
7.0	99.3	4.934	67.0	32.4	0.526	127.0	29.0	0.421
8.0	99.0	4.906	68.0	30.9	0.479	128.0	29.9	0.446
9.0	98.7	4.871	69.0	29.6	0.440	129.0	30.6	0.469
10.0	98.3	4.838	70.0	28.4	0.404	130.0	34.8	0.608
11.0	98.0	4.806	71.0	27.2	0.370	131.0	38.8	0.754
12.0	97.5	4.761	72.0	26.0	0.340	132.0	40.0	0.802
13.0	97.0	4.711	73.0	24.9	0.312	133.0	41.4	0.858
14.0	96.5	4.660	74.0	23.9	0.285	134.0	42.2	0.891
15.0	95.8	4.591	75.0	22.9	0.262	135.0	42.4	0.900
16.0	95.2	4.533	76.0	22.0	0.241	136.0	43.8	0.961
17.0	94.6	4.475	77.0	21.0	0.221	137.0	45.1	1.019
18.0	93.8	4.404	78.0	20.1	0.202	138.0	46.4	1.075
19.0	93.0	4.331	79.0	19.1	0.183	139.0	47.4	1.122
20.0	92.2	4.259	80.0	18.1	0.165	140.0	48.4	1.172
21.0	91.4	4.178	81.0	17.2	0.149	141.0	49.4	1.221
22.0	90.5	4.097	82.0	16.4	0.135	142.0	50.4	1.270
23.0	89.6	4.017	83.0	15.6	0.121	143.0	51.3	1.316
24.0	88.7	3.939	84.0	14.9	0.111	144.0	52.2	1.362
25.0	87.9	3.864	85.0	14.2	0.101	145.0	53.1	1.410
26.0	87.0	3.790	86.0	13.5	0.091	146.0	53.9	1.455
27.0	86.1	3.714	87.0	12.9	0.084	147.0	54.7	1.500
28.0	85.2	3.635	88.0	12.4	0.077	148.0	55.5	1.543
29.0	84.3	3.556	89.0	11.8	0.070	149.0	56.2	1.579
30.0	83.3	3.471	90.0	11.4	0.065	150.0	56.8	1.613
31.0	82.3	3.387	91.0	14.8	0.110	151.0	57.4	1.647
32.0	81.2	3.303	92.0	14.6	0.107	152.0	57.9	1.677
33.0	80.0	3.207	93.0	14.5	0.105	153.0	58.4	1.707
34.0	78.9	3.113	94.0	14.3	0.102	154.0	59.0	1.743
35.0	77.7	3.021	95.0	14.1	0.099	155.0	59.6	1.778
36.0	76.4	2.923	96.0	13.9	0.096	156.0	60.2	1.813
37.0	75.1	2.824	97.0	13.6	0.093	157.0	60.7	1.845
38.0	73.8	2.727	98.0	13.4	0.090	158.0	61.3	1.878
39.0	72.4	2.626	99.0	13.2	0.087	159.0	61.8	1.912
40.0	71.1	2.528	100.0	13.3	0.088	160.0	62.4	1.947
41.0	69.7	2.432	101.0	13.4	0.089	161.0	62.9	1.979
42.0	68.4	2.342	102.0	13.5	0.091	162.0	63.4	2.011
43.0	67.2	2.259	103.0	13.3	0.088	163.0	63.9	2.044
44.0	65.9	2.176	104.0	13.0	0.085	164.0	64.3	2.071
45.0	64.6	2.091	105.0	12.7	0.081	165.0	64.7	2.097
46.0	63.1	1.994	106.0	12.7	0.081	166.0	65.1	2.121
47.0	61.5	1.891	107.0	12.8	0.082	167.0	65.3	2.135
48.0	59.7	1.784	108.0	12.9	0.084	168.0	65.5	2.149
49.0	59.1	1.748	109.0	13.2	0.088	169.0	65.8	2.168
50.0	57.5	1.657	110.0	13.6	0.093	170.0	66.0	2.182
51.0	55.2	1.525	111.0	14.1	0.099	171.0	66.2	2.197
52.0	53.8	1.449	112.0	14.9	0.111	172.0	66.5	2.210
53.0	52.4	1.374	113.0	15.7	0.124	173.0	66.6	2.221
54.0	51.0	1.301	114.0	16.7	0.139	174.0	66.8	2.233
55.0	49.5	1.224	115.0	17.4	0.151	175.0	66.9	2.242
56.0	47.9	1.149	116.0	18.1	0.164	176.0	66.9	2.240
57.0	46.5	1.081	117.0	18.9	0.180	177.0	66.9	2.237
58.0	45.1	1.019	118.0	19.8	0.196	178.0	67.0	2.246
59.0	43.8	0.958	119.0	20.7	0.215	179.0	67.0	2.247

TX station: RF Specialties KSIQSTA

Frequency: 97.00 MHz

Gain solid integration : enabled

Site Name: Sweetwater Water Tank V2

Vertical diagrams

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
180.0	67.0	2.246	240.0	26.9	0.362	300.0	43.8	0.961
181.0	66.9	2.240	241.0	24.5	0.301	301.0	45.5	1.037
182.0	66.7	2.228	242.0	22.3	0.250	302.0	45.9	1.055
183.0	66.5	2.216	243.0	20.3	0.206	303.0	46.7	1.090
184.0	66.3	2.199	244.0	20.0	0.200	304.0	48.0	1.156
185.0	66.1	2.184	245.0	20.0	0.201	305.0	49.6	1.231
186.0	65.8	2.166	246.0	20.1	0.202	306.0	51.0	1.302
187.0	65.5	2.151	247.0	19.3	0.186	307.0	52.8	1.396
188.0	65.2	2.129	248.0	18.6	0.173	308.0	54.6	1.493
189.0	64.9	2.107	249.0	17.8	0.159	309.0	55.8	1.559
190.0	64.8	2.102	250.0	18.1	0.165	310.0	56.3	1.588
191.0	64.6	2.086	251.0	18.5	0.171	311.0	56.6	1.603
192.0	64.3	2.070	252.0	19.0	0.180	312.0	57.1	1.630
193.0	64.0	2.050	253.0	19.8	0.197	313.0	58.5	1.713
194.0	63.5	2.020	254.0	20.6	0.213	314.0	60.0	1.799
195.0	63.1	1.990	255.0	21.3	0.228	315.0	61.6	1.901
196.0	62.5	1.956	256.0	21.2	0.225	316.0	63.0	1.988
197.0	61.9	1.920	257.0	21.2	0.224	317.0	64.4	2.078
198.0	61.3	1.883	258.0	21.2	0.226	318.0	66.1	2.189
199.0	60.8	1.848	259.0	21.0	0.220	319.0	67.9	2.307
200.0	60.2	1.815	260.0	20.7	0.215	320.0	69.6	2.427
201.0	59.6	1.780	261.0	20.4	0.208	321.0	71.1	2.529
202.0	59.3	1.759	262.0	20.9	0.219	322.0	72.5	2.633
203.0	58.9	1.734	263.0	21.4	0.230	323.0	74.0	2.739
204.0	58.3	1.704	264.0	21.9	0.241	324.0	75.1	2.823
205.0	57.7	1.667	265.0	22.0	0.243	325.0	76.1	2.900
206.0	57.0	1.627	266.0	22.1	0.244	326.0	77.1	2.978
207.0	56.3	1.589	267.0	22.3	0.249	327.0	77.9	3.040
208.0	55.7	1.554	268.0	22.8	0.260	328.0	78.7	3.097
209.0	55.1	1.518	269.0	23.2	0.270	329.0	79.4	3.153
210.0	54.4	1.480	270.0	18.0	0.162	330.0	80.1	3.215
211.0	53.8	1.451	271.0	18.8	0.176	331.0	81.2	3.301
212.0	53.3	1.420	272.0	19.5	0.190	332.0	82.3	3.388
213.0	52.6	1.385	273.0	20.3	0.206	333.0	83.4	3.479
214.0	52.0	1.353	274.0	21.0	0.221	334.0	84.3	3.560
215.0	51.2	1.313	275.0	21.8	0.238	335.0	85.3	3.643
216.0	50.4	1.273	276.0	22.4	0.252	336.0	86.2	3.717
217.0	49.9	1.244	277.0	23.0	0.265	337.0	87.2	3.802
218.0	49.1	1.205	278.0	23.6	0.278	338.0	88.1	3.887
219.0	48.2	1.162	279.0	24.2	0.294	339.0	89.0	3.969
220.0	47.3	1.119	280.0	25.0	0.314	340.0	89.9	4.043
221.0	46.2	1.066	281.0	25.8	0.334	341.0	90.7	4.118
222.0	45.0	1.012	282.0	26.6	0.354	342.0	91.6	4.197
223.0	43.8	0.960	283.0	27.4	0.374	343.0	92.4	4.275
224.0	42.8	0.916	284.0	28.1	0.396	344.0	93.3	4.354
225.0	41.8	0.875	285.0	29.0	0.421	345.0	94.1	4.429
226.0	40.5	0.820	286.0	29.8	0.444	346.0	94.9	4.507
227.0	39.1	0.764	287.0	30.5	0.466	347.0	95.7	4.585
228.0	37.5	0.703	288.0	31.1	0.484	348.0	96.3	4.639
229.0	38.2	0.729	289.0	31.7	0.504	349.0	96.9	4.696
230.0	38.0	0.721	290.0	32.4	0.525	350.0	97.5	4.754
231.0	36.6	0.672	291.0	33.0	0.544	351.0	97.8	4.786
232.0	36.8	0.679	292.0	33.8	0.571	352.0	98.1	4.812
233.0	35.3	0.623	293.0	34.6	0.599	353.0	98.3	4.838
234.0	32.5	0.529	294.0	35.6	0.635	354.0	98.5	4.853
235.0	30.3	0.460	295.0	36.4	0.663	355.0	98.6	4.864
236.0	28.0	0.393	296.0	37.2	0.692	356.0	98.7	4.875
237.0	26.0	0.337	297.0	38.4	0.737	357.0	98.9	4.896
238.0	29.9	0.447	298.0	40.1	0.806	358.0	99.2	4.923
239.0	31.1	0.483	299.0	41.8	0.876	359.0	99.5	4.951