

4 Bay Halfwave TFC2KD 94.3MHz (III)

TX station: *WTIX*

Site name: *----*

Frequency: *94.30 MHz*

Date: *08/10/2009*

General data of antenna system

TX station	WTIX
Site name	----
Site longitude (+ddd°pp'ss")	
Site latitude (+dd°pp'ss")	
Ground level a.s.l. (m)	1
Antenna system height a.g.l. (m)	1.0
Transmitter power (Watt)	1.0
Carrier wave frequency (MHz)	94.30
Antenna system central frequency (MHz)	
Filename of antenna base diagrams type 1	TFC2KD
Filename of antenna base diagrams type 2	
Antenna system polarization (H, V, C, X)	C
Transmitting cable attenuation (dB)	0.4
Additional attenuations (dB)	0.2
Base diagrams sectors (A = all, F = front)	A
Velocity factor of cables to antennas (0÷1)	0.89
Coordinate system (C = cartesian, P = polar)	P
Mast side/diameter (cm):	0.0
Mast cross section (Triangular, Square, Circular)	S
Mast rotation w.r.t. North (°)	0
System picture filename (*.bmp *.gif *.jpg)	

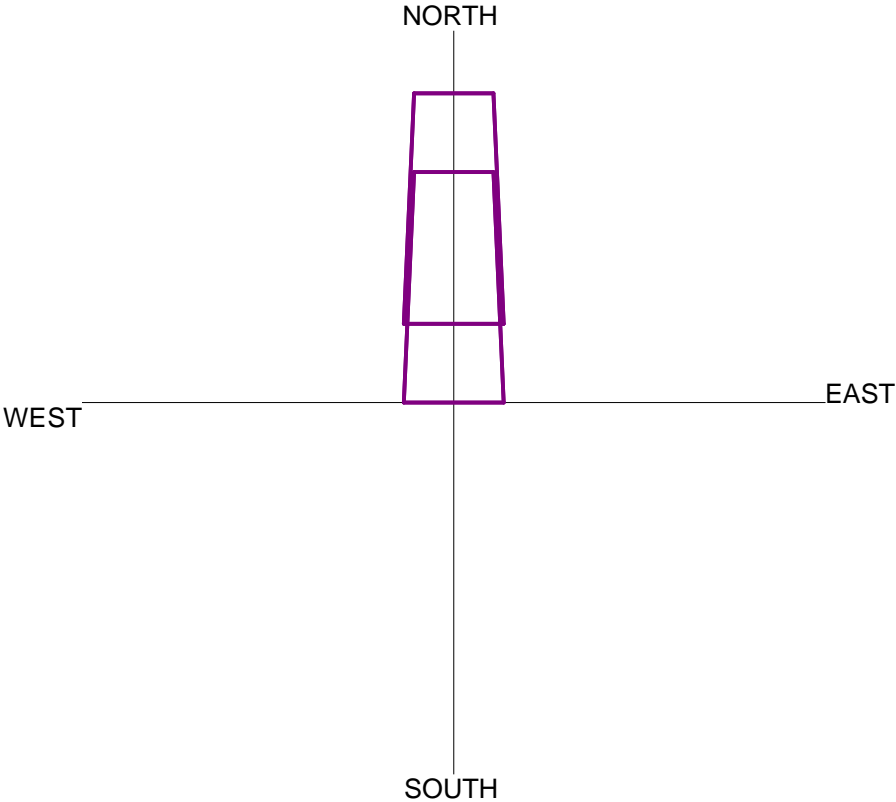
Information about antennas used in the system

Manufacturer	Telecom
Antenna model	TFC2KD
Band start (MHz)	88
Band stop (MHz)	108
Diagrams frequency (MHz)	94
Polariz. (H, V, C, X)	C
Vertical dist. (cm)	260
Height (cm)	95
Width (cm)	95
Thickness (cm)	220
Weight (Kg)	20
Maximum power (KW)	3
Gain (dBd)	-2.05
North E.C. (cm)	0
East E.C. (cm)	0
Return loss (dB)	0
R.C. phase (°)	0

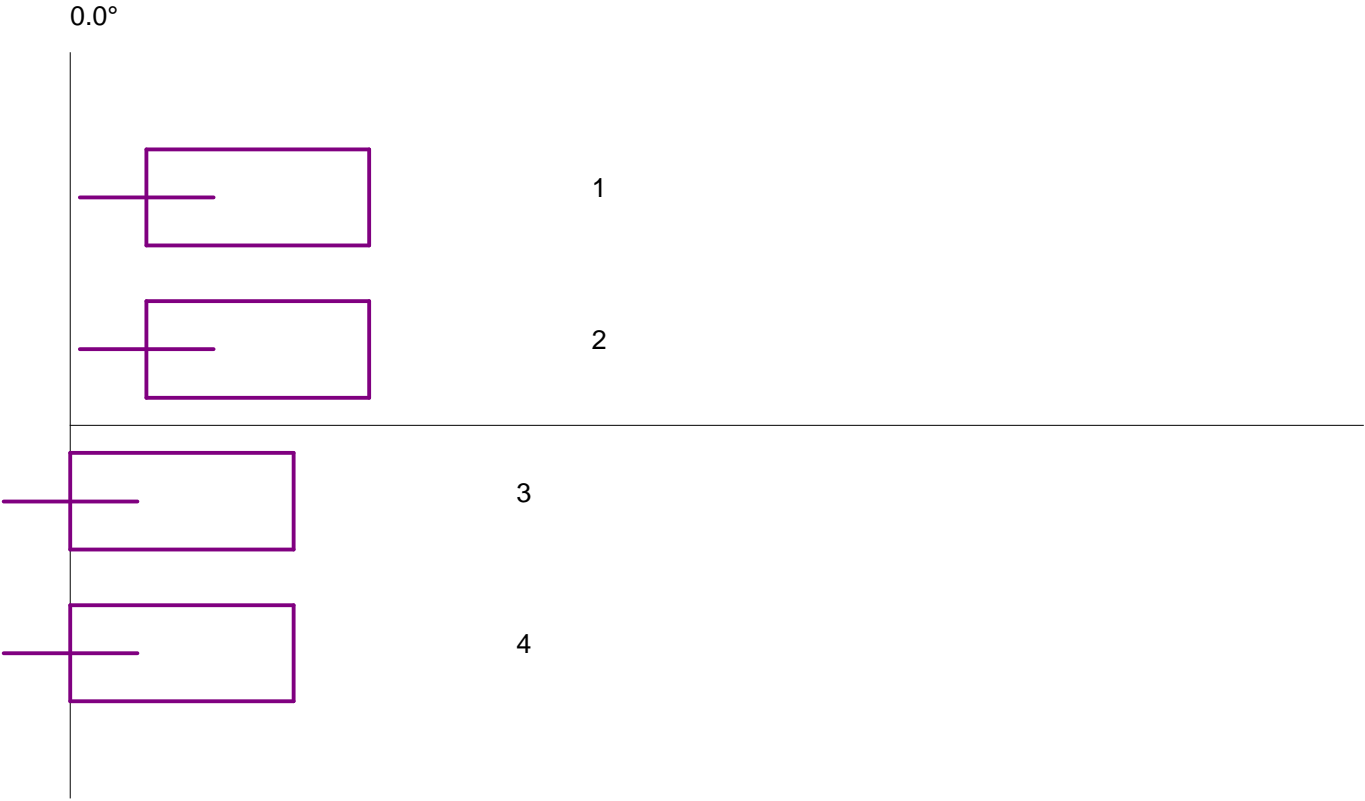
Geometrical and electrical data of antenna system

	<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	25.000	0	0	0	-70.0	2.25	75.0	0.0	1	1	58.3	-74.1
2	25.000	0	0	0	-70.0	0.75	75.0	0.0	1	1	58.3	-74.1
3	25.000	0	0	0	+0.0	-0.75	0.0	0.0	1	1	0.0	0.0
4	25.000	0	0	0	+0.0	-2.25	0.0	0.0	1	1	0.0	0.0

Plan of antenna system



Side of antenna system



Frequency: 94.30 MHz

Antenna arrays data

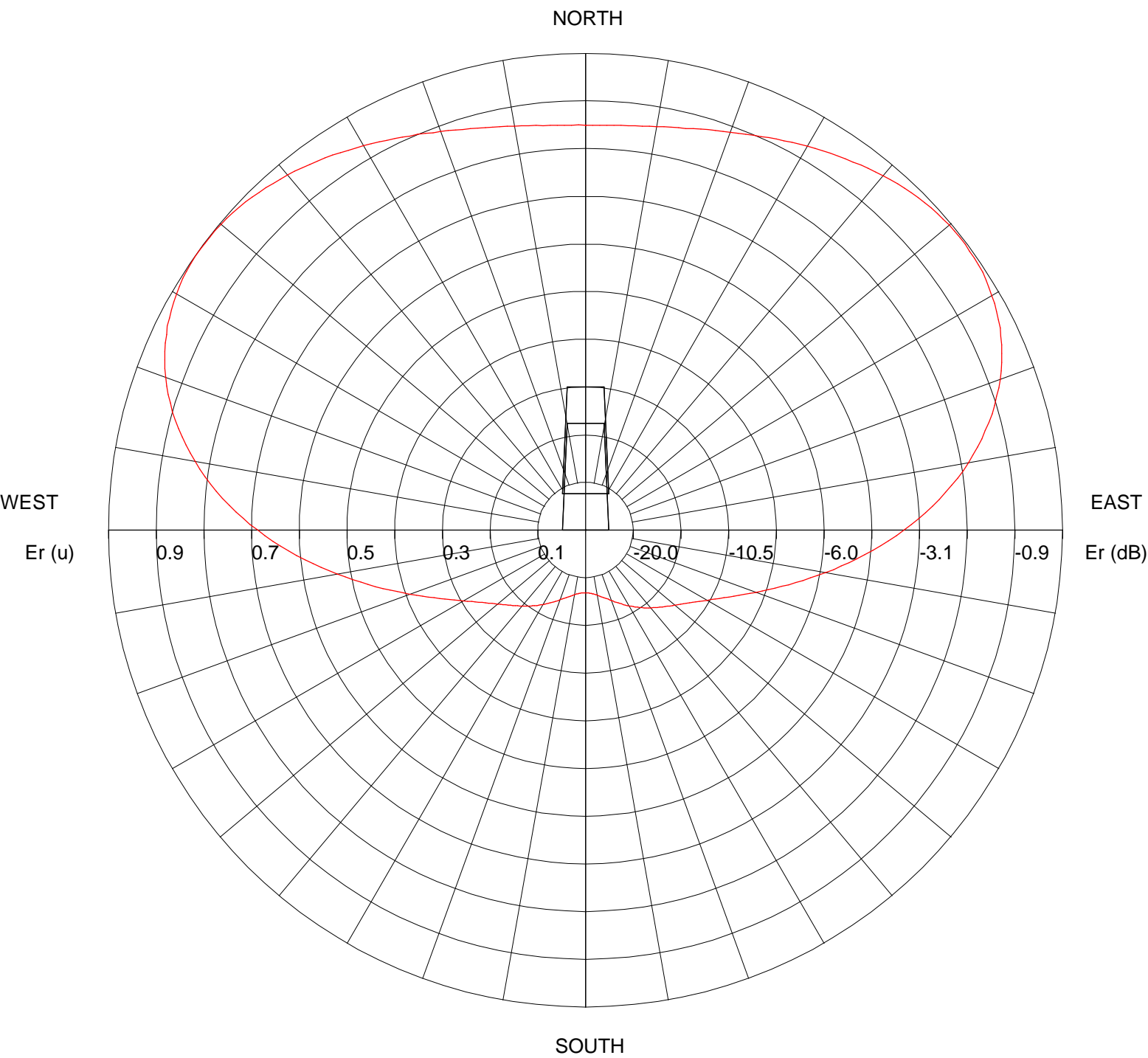
A. Antennas array azimuth (°/N)	0
B. Number of antennas	4
C. Nominal power supply (W)	1.00
D. Losses (addit. + cables) (dB)	0.6
E. Effective power supply (W)	0.87
F. Theor. maximum gain (dBd)	0.97
G. Distribution losses (dB)	0.00
H. Nominal max gain [F - G] (dBd)	0.97
I. Compensation losses (dB)	0.46
J. Effec. max gain [H - I] (dBd)	0.51
K. Effec. max gain (times)	1.12
L. Effec. max power [E * K] (KW)	0.0010
M. Max power depr. angle (°)	-1.0
N. Max power az. angle (°)	305

Diagram in dBK calculated at horizon

Az. (°/N) dBK		Az. (°/N) dBK		Az. (°/N) dBK		Az. (°/N) dBK	
0	-31.5	90	-33.6	180	-47.8	270	-33.4
10	-31.4	100	-35.9	190	-47.4	280	-31.7
20	-31.2	110	-38.5	200	-46.3	290	-30.7
30	-30.7	120	-40.8	210	-45.0	300	-30.2
40	-30.4	130	-42.4	220	-43.8	310	-30.1
50	-30.2	140	-43.6	230	-42.5	320	-30.4
60	-30.3	150	-44.9	240	-40.7	330	-30.7
70	-30.8	160	-46.2	250	-38.3	340	-31.1
80	-31.9	170	-47.3	260	-35.6	350	-31.4

Frequency: 94.30 MHz

Horizontal diagram



0.0° Tilt (Total antenna), Gain (dBd)0.49

Frequency: 94.30 MHz

Horizontal diagram at 0.0° tilt (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
0.0	84.9	0.7	60.0	98.4	0.9	120.0	29.3	0.1
1.0	84.9	0.7	61.0	98.1	0.9	121.0	28.7	0.1
2.0	85.0	0.7	62.0	97.6	0.9	122.0	28.1	0.1
3.0	85.0	0.7	63.0	97.2	0.9	123.0	27.6	0.1
4.0	85.1	0.7	64.0	96.7	0.9	124.0	27.0	0.1
5.0	85.2	0.7	65.0	96.1	0.9	125.0	26.5	0.1
6.0	85.3	0.7	66.0	95.5	0.9	126.0	26.1	0.1
7.0	85.4	0.7	67.0	94.8	0.9	127.0	25.6	0.1
8.0	85.5	0.7	68.0	94.1	0.9	128.0	25.2	0.1
9.0	85.7	0.7	69.0	93.3	0.8	129.0	24.8	0.1
10.0	86.0	0.7	70.0	92.5	0.8	130.0	24.4	0.1
11.0	86.2	0.7	71.0	91.6	0.8	131.0	24.1	0.1
12.0	86.4	0.7	72.0	90.6	0.8	132.0	23.7	0.1
13.0	86.6	0.7	73.0	89.7	0.8	133.0	23.4	0.1
14.0	86.8	0.7	74.0	88.7	0.8	134.0	23.0	0.1
15.0	87.1	0.7	75.0	87.5	0.7	135.0	22.7	0.1
16.0	87.5	0.7	76.0	86.4	0.7	136.0	22.4	0.0
17.0	87.8	0.8	77.0	85.3	0.7	137.0	22.1	0.0
18.0	88.1	0.8	78.0	84.0	0.7	138.0	21.8	0.0
19.0	88.4	0.8	79.0	82.8	0.7	139.0	21.5	0.0
20.0	88.8	0.8	80.0	81.5	0.6	140.0	21.2	0.0
21.0	89.2	0.8	81.0	80.2	0.6	141.0	20.9	0.0
22.0	89.5	0.8	82.0	78.7	0.6	142.0	20.6	0.0
23.0	89.9	0.8	83.0	77.3	0.6	143.0	20.3	0.0
24.0	90.4	0.8	84.0	75.9	0.6	144.0	20.1	0.0
25.0	90.8	0.8	85.0	74.4	0.5	145.0	19.8	0.0
26.0	91.2	0.8	86.0	72.9	0.5	146.0	19.5	0.0
27.0	91.6	0.8	87.0	71.4	0.5	147.0	19.2	0.0
28.0	92.1	0.8	88.0	69.8	0.5	148.0	18.9	0.0
29.0	92.5	0.8	89.0	68.3	0.5	149.0	18.6	0.0
30.0	93.0	0.8	90.0	66.7	0.4	150.0	18.3	0.0
31.0	93.4	0.8	91.0	65.2	0.4	151.0	18.0	0.0
32.0	93.8	0.9	92.0	63.6	0.4	152.0	17.8	0.0
33.0	94.2	0.9	93.0	62.0	0.4	153.0	17.5	0.0
34.0	94.6	0.9	94.0	60.4	0.4	154.0	17.2	0.0
35.0	95.0	0.9	95.0	58.8	0.3	155.0	16.9	0.0
36.0	95.4	0.9	96.0	57.2	0.3	156.0	16.7	0.0
37.0	95.9	0.9	97.0	55.7	0.3	157.0	16.4	0.0
38.0	96.2	0.9	98.0	54.1	0.3	158.0	16.2	0.0
39.0	96.6	0.9	99.0	52.6	0.3	159.0	15.9	0.0
40.0	97.0	0.9	100.0	51.1	0.3	160.0	15.7	0.0
41.0	97.4	0.9	101.0	49.6	0.2	161.0	15.4	0.0
42.0	97.8	0.9	102.0	48.2	0.2	162.0	15.2	0.0
43.0	98.0	0.9	103.0	46.8	0.2	163.0	15.0	0.0
44.0	98.4	0.9	104.0	45.4	0.2	164.0	14.8	0.0
45.0	98.6	0.9	105.0	44.1	0.2	165.0	14.6	0.0
46.0	98.8	1.0	106.0	42.7	0.2	166.0	14.4	0.0
47.0	99.1	1.0	107.0	41.5	0.2	167.0	14.2	0.0
48.0	99.3	1.0	108.0	40.3	0.2	168.0	14.1	0.0
49.0	99.3	1.0	109.0	39.1	0.1	169.0	13.9	0.0
50.0	99.5	1.0	110.0	38.0	0.1	170.0	13.8	0.0
51.0	99.6	1.0	111.0	36.9	0.1	171.0	13.7	0.0
52.0	99.6	1.0	112.0	35.9	0.1	172.0	13.6	0.0
53.0	99.6	1.0	113.0	34.9	0.1	173.0	13.4	0.0
54.0	99.5	1.0	114.0	34.0	0.1	174.0	13.4	0.0
55.0	99.5	1.0	115.0	33.1	0.1	175.0	13.3	0.0
56.0	99.4	1.0	116.0	32.3	0.1	176.0	13.2	0.0
57.0	99.3	1.0	117.0	31.5	0.1	177.0	13.2	0.0
58.0	99.0	1.0	118.0	30.7	0.1	178.0	13.1	0.0
59.0	98.7	0.9	119.0	30.0	0.1	179.0	13.1	0.0

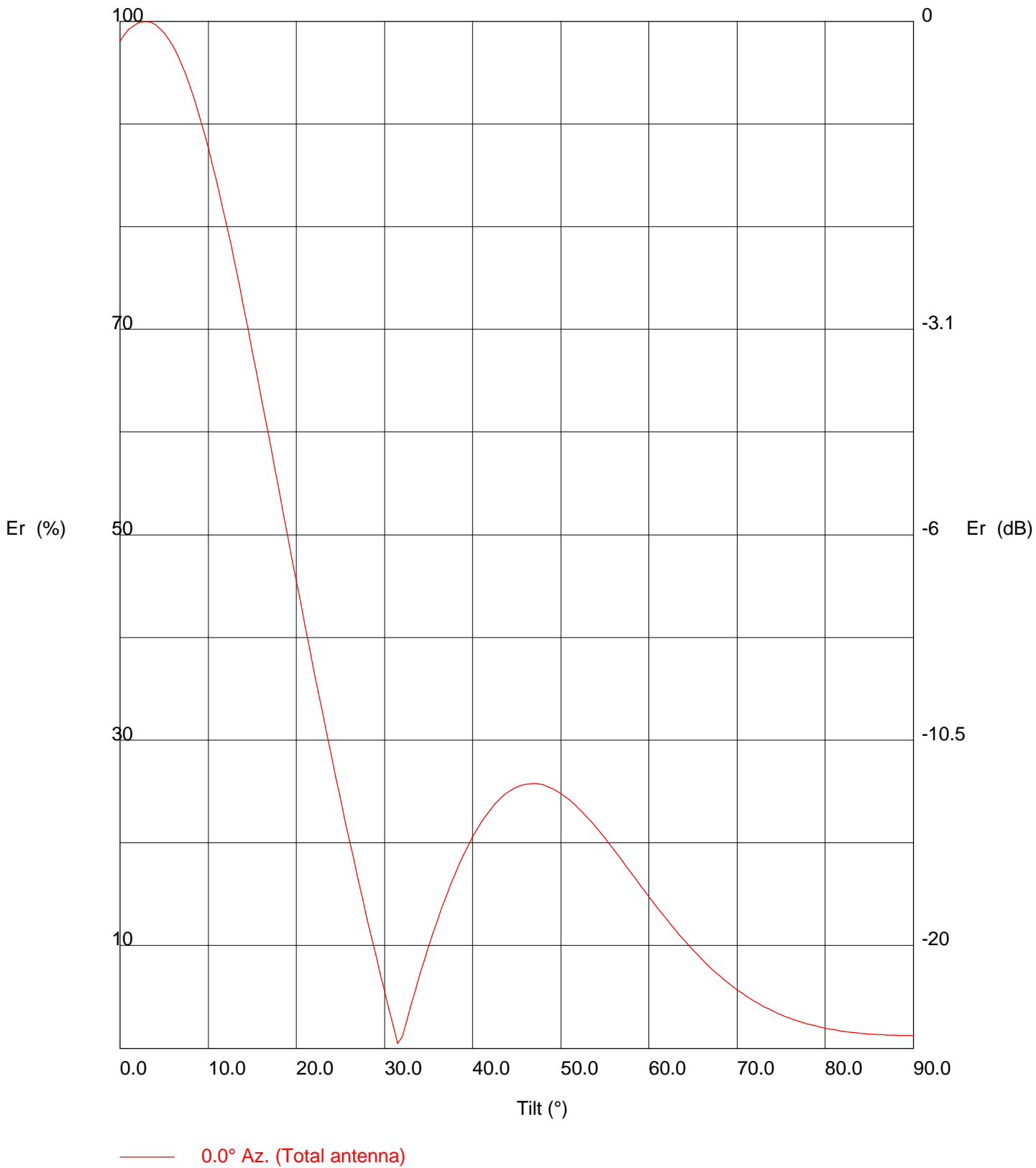
Frequency: 94.30 MHz

Horizontal diagram at 0.0° tilt (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
180.0	13.1	0.0	240.0	29.6	0.1	300.0	99.1	1.0
181.0	13.1	0.0	241.0	30.4	0.1	301.0	99.4	1.0
182.0	13.1	0.0	242.0	31.1	0.1	302.0	99.6	1.0
183.0	13.2	0.0	243.0	32.0	0.1	303.0	99.7	1.0
184.0	13.2	0.0	244.0	32.9	0.1	304.0	99.9	1.0
185.0	13.3	0.0	245.0	33.8	0.1	305.0	100.0	1.0
186.0	13.3	0.0	246.0	34.8	0.1	306.0	100.0	1.0
187.0	13.4	0.0	247.0	35.8	0.1	307.0	100.0	1.0
188.0	13.5	0.0	248.0	36.9	0.1	308.0	100.0	1.0
189.0	13.6	0.0	249.0	38.0	0.1	309.0	99.9	1.0
190.0	13.7	0.0	250.0	39.2	0.1	310.0	99.8	1.0
191.0	13.9	0.0	251.0	40.3	0.2	311.0	99.7	1.0
192.0	14.0	0.0	252.0	41.6	0.2	312.0	99.5	1.0
193.0	14.2	0.0	253.0	42.9	0.2	313.0	99.3	1.0
194.0	14.3	0.0	254.0	44.2	0.2	314.0	99.1	1.0
195.0	14.5	0.0	255.0	45.6	0.2	315.0	98.8	1.0
196.0	14.7	0.0	256.0	47.0	0.2	316.0	98.5	0.9
197.0	14.9	0.0	257.0	48.4	0.2	317.0	98.3	0.9
198.0	15.1	0.0	258.0	49.9	0.2	318.0	97.9	0.9
199.0	15.3	0.0	259.0	51.4	0.3	319.0	97.5	0.9
200.0	15.5	0.0	260.0	52.9	0.3	320.0	97.3	0.9
201.0	15.7	0.0	261.0	54.5	0.3	321.0	96.9	0.9
202.0	16.0	0.0	262.0	56.0	0.3	322.0	96.5	0.9
203.0	16.2	0.0	263.0	57.6	0.3	323.0	96.1	0.9
204.0	16.4	0.0	264.0	59.2	0.3	324.0	95.7	0.9
205.0	16.7	0.0	265.0	60.8	0.4	325.0	95.3	0.9
206.0	16.9	0.0	266.0	62.4	0.4	326.0	94.8	0.9
207.0	17.2	0.0	267.0	64.1	0.4	327.0	94.4	0.9
208.0	17.5	0.0	268.0	65.6	0.4	328.0	93.9	0.9
209.0	17.7	0.0	269.0	67.2	0.4	329.0	93.5	0.9
210.0	18.0	0.0	270.0	68.8	0.5	330.0	93.1	0.8
211.0	18.3	0.0	271.0	70.4	0.5	331.0	92.6	0.8
212.0	18.5	0.0	272.0	71.9	0.5	332.0	92.2	0.8
213.0	18.8	0.0	273.0	73.4	0.5	333.0	91.8	0.8
214.0	19.1	0.0	274.0	74.9	0.5	334.0	91.3	0.8
215.0	19.3	0.0	275.0	76.4	0.6	335.0	90.9	0.8
216.0	19.6	0.0	276.0	77.9	0.6	336.0	90.5	0.8
217.0	19.9	0.0	277.0	79.2	0.6	337.0	90.2	0.8
218.0	20.2	0.0	278.0	80.6	0.6	338.0	89.7	0.8
219.0	20.5	0.0	279.0	81.9	0.7	339.0	89.3	0.8
220.0	20.7	0.0	280.0	83.2	0.7	340.0	89.0	0.8
221.0	21.0	0.0	281.0	84.5	0.7	341.0	88.6	0.8
222.0	21.3	0.0	282.0	85.7	0.7	342.0	88.2	0.8
223.0	21.6	0.0	283.0	86.8	0.7	343.0	87.9	0.8
224.0	21.9	0.0	284.0	88.0	0.8	344.0	87.6	0.7
225.0	22.3	0.0	285.0	89.1	0.8	345.0	87.2	0.7
226.0	22.6	0.0	286.0	90.1	0.8	346.0	87.0	0.7
227.0	22.9	0.1	287.0	91.1	0.8	347.0	86.7	0.7
228.0	23.3	0.1	288.0	92.0	0.8	348.0	86.5	0.7
229.0	23.7	0.1	289.0	92.9	0.8	349.0	86.3	0.7
230.0	24.1	0.1	290.0	93.7	0.9	350.0	86.1	0.7
231.0	24.5	0.1	291.0	94.5	0.9	351.0	85.8	0.7
232.0	24.9	0.1	292.0	95.2	0.9	352.0	85.6	0.7
233.0	25.4	0.1	293.0	95.8	0.9	353.0	85.5	0.7
234.0	25.9	0.1	294.0	96.5	0.9	354.0	85.3	0.7
235.0	26.4	0.1	295.0	97.0	0.9	355.0	85.2	0.7
236.0	27.0	0.1	296.0	97.6	0.9	356.0	85.1	0.7
237.0	27.6	0.1	297.0	98.0	0.9	357.0	85.0	0.7
238.0	28.2	0.1	298.0	98.4	0.9	358.0	85.0	0.7
239.0	28.9	0.1	299.0	98.8	0.9	359.0	85.0	0.7

Frequency: 94.30 MHz

Vertical diagram



Frequency: 94.30 MHz

Vertical diagram at an azimuth of 0°

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	98.1	0.7	30.0	5.5	0.0	60.0	14.8	0.0
0.5	98.7	0.7	30.5	3.8	0.0	60.5	14.2	0.0
1.0	99.2	0.7	31.0	2.1	0.0	61.0	13.7	0.0
1.5	99.5	0.7	31.5	0.5	0.0	61.5	13.1	0.0
2.0	99.8	0.7	32.0	1.1	0.0	62.0	12.6	0.0
2.5	99.9	0.7	32.5	2.7	0.0	62.5	12.0	0.0
3.0	100.0	0.7	33.0	4.2	0.0	63.0	11.5	0.0
3.5	99.9	0.7	33.5	5.7	0.0	63.5	11.0	0.0
4.0	99.6	0.7	34.0	7.1	0.0	64.0	10.5	0.0
4.5	99.3	0.7	34.5	8.5	0.0	64.5	10.0	0.0
5.0	98.8	0.7	35.0	9.9	0.0	65.0	9.6	0.0
5.5	98.3	0.7	35.5	11.2	0.0	65.5	9.1	0.0
6.0	97.6	0.7	36.0	12.5	0.0	66.0	8.7	0.0
6.5	96.7	0.7	36.5	13.7	0.0	66.5	8.2	0.0
7.0	95.8	0.7	37.0	14.8	0.0	67.0	7.8	0.0
7.5	94.7	0.7	37.5	15.9	0.0	67.5	7.4	0.0
8.0	93.5	0.6	38.0	17.0	0.0	68.0	7.1	0.0
8.5	92.2	0.6	38.5	18.0	0.0	68.5	6.7	0.0
9.0	90.8	0.6	39.0	18.9	0.0	69.0	6.4	0.0
9.5	89.3	0.6	39.5	19.8	0.0	69.5	6.0	0.0
10.0	87.7	0.6	40.0	20.6	0.0	70.0	5.7	0.0
10.5	86.0	0.5	40.5	21.3	0.0	70.5	5.4	0.0
11.0	84.2	0.5	41.0	22.1	0.0	71.0	5.1	0.0
11.5	82.4	0.5	41.5	22.7	0.0	71.5	4.8	0.0
12.0	80.5	0.5	42.0	23.3	0.0	72.0	4.6	0.0
12.5	78.5	0.4	42.5	23.8	0.0	72.5	4.3	0.0
13.0	76.5	0.4	43.0	24.2	0.0	73.0	4.1	0.0
13.5	74.4	0.4	43.5	24.6	0.0	73.5	3.9	0.0
14.0	72.3	0.4	44.0	24.9	0.0	74.0	3.7	0.0
14.5	70.1	0.4	44.5	25.2	0.0	74.5	3.5	0.0
15.0	67.9	0.3	45.0	25.4	0.0	75.0	3.3	0.0
15.5	65.7	0.3	45.5	25.6	0.0	75.5	3.1	0.0
16.0	63.5	0.3	46.0	25.7	0.0	76.0	2.9	0.0
16.5	61.2	0.3	46.5	25.8	0.0	76.5	2.8	0.0
17.0	59.0	0.3	47.0	25.8	0.0	77.0	2.6	0.0
17.5	56.7	0.2	47.5	25.7	0.0	77.5	2.5	0.0
18.0	54.5	0.2	48.0	25.6	0.0	78.0	2.4	0.0
18.5	52.2	0.2	48.5	25.5	0.0	78.5	2.3	0.0
19.0	50.0	0.2	49.0	25.3	0.0	79.0	2.2	0.0
19.5	47.7	0.2	49.5	25.1	0.0	79.5	2.1	0.0
20.0	45.5	0.2	50.0	24.8	0.0	80.0	2.0	0.0
20.5	43.3	0.1	50.5	24.5	0.0	80.5	1.9	0.0
21.0	41.1	0.1	51.0	24.2	0.0	81.0	1.8	0.0
21.5	38.9	0.1	51.5	23.8	0.0	81.5	1.7	0.0
22.0	36.7	0.1	52.0	23.4	0.0	82.0	1.7	0.0
22.5	34.6	0.1	52.5	22.9	0.0	82.5	1.6	0.0
23.0	32.5	0.1	53.0	22.5	0.0	83.0	1.6	0.0
23.5	30.4	0.1	53.5	22.0	0.0	83.5	1.5	0.0
24.0	28.4	0.1	54.0	21.5	0.0	84.0	1.5	0.0
24.5	26.3	0.1	54.5	21.0	0.0	84.5	1.4	0.0
25.0	24.3	0.0	55.0	20.5	0.0	85.0	1.4	0.0
25.5	22.3	0.0	55.5	19.9	0.0	85.5	1.4	0.0
26.0	20.3	0.0	56.0	19.4	0.0	86.0	1.3	0.0
26.5	18.4	0.0	56.5	18.8	0.0	86.5	1.3	0.0
27.0	16.5	0.0	57.0	18.2	0.0	87.0	1.3	0.0
27.5	14.6	0.0	57.5	17.6	0.0	87.5	1.3	0.0
28.0	12.7	0.0	58.0	17.1	0.0	88.0	1.3	0.0
28.5	10.9	0.0	58.5	16.5	0.0	88.5	1.3	0.0
29.0	9.1	0.0	59.0	15.9	0.0	89.0	1.3	0.0
29.5	7.3	0.0	59.5	15.3	0.0	89.5	1.2	0.0