

SkyPilot Network Inc.

SkyConnector Parameters Antenna Patterns

**14 April 2005
SkyPilot Network Inc. Confidential**

1.0 SkyConnector Azimuth Pattern

The SkyConnector unit employs a panel antenna structure. The antenna azimuth beam width is approximately 30 degrees with the mean gain across the beam width at 16.5 dBi and a max gain of 17dBi. The data and plot of antenna pattern in the azimuth direction is given in Table 1 and Figure 1 respectively.

Azimuth [Degs]	Gain [dBi]	Azimuth [Degs]	Gain [dBi]	Azimuth [Degs]	Gain [dBi]	Azimuth [Degs]	Gain [dBi]
0	17.0	90	-6.7	180	-25.7	270	-5.4
5	16.7	95	-7.4	185	-25.4	275	-4.5
10	16.3	100	-8.5	190	-30.2	280	-4.1
15	14.9	105	-8.9	195	-40.7	285	-4.7
20	12.1	110	-10.9	200	-27.0	290	-6.7
25	9.6	115	-12.5	205	-23.1	295	-8.2
30	5.5	120	-15.3	210	-18.1	300	-13.2
35	-2.0	125	-18.3	215	-15.0	305	-15.9
40	-10.7	130	-24.7	220	-16.3	310	-10.3
45	-10.4	135	-20.6	225	-18.0	315	-8.9
50	-10.2	140	-16.1	230	-25.6	320	-12.0
55	-16.6	145	-17.7	235	-21.2	325	-6.0
60	-29.6	150	-18.1	240	-13.0	330	2.1
65	-13.7	155	-21.3	245	-12.0	335	6.4
70	-9.2	160	-25.0	250	-11.7	340	10.4
75	-7.2	165	-23.8	255	-11.1	345	13.5
80	-6.7	170	-21.0	260	-8.5	350	15.8
85	-6.7	175	-26.8	265	-6.3	355	16.8

Table 1.- Skyconnector azimuth data

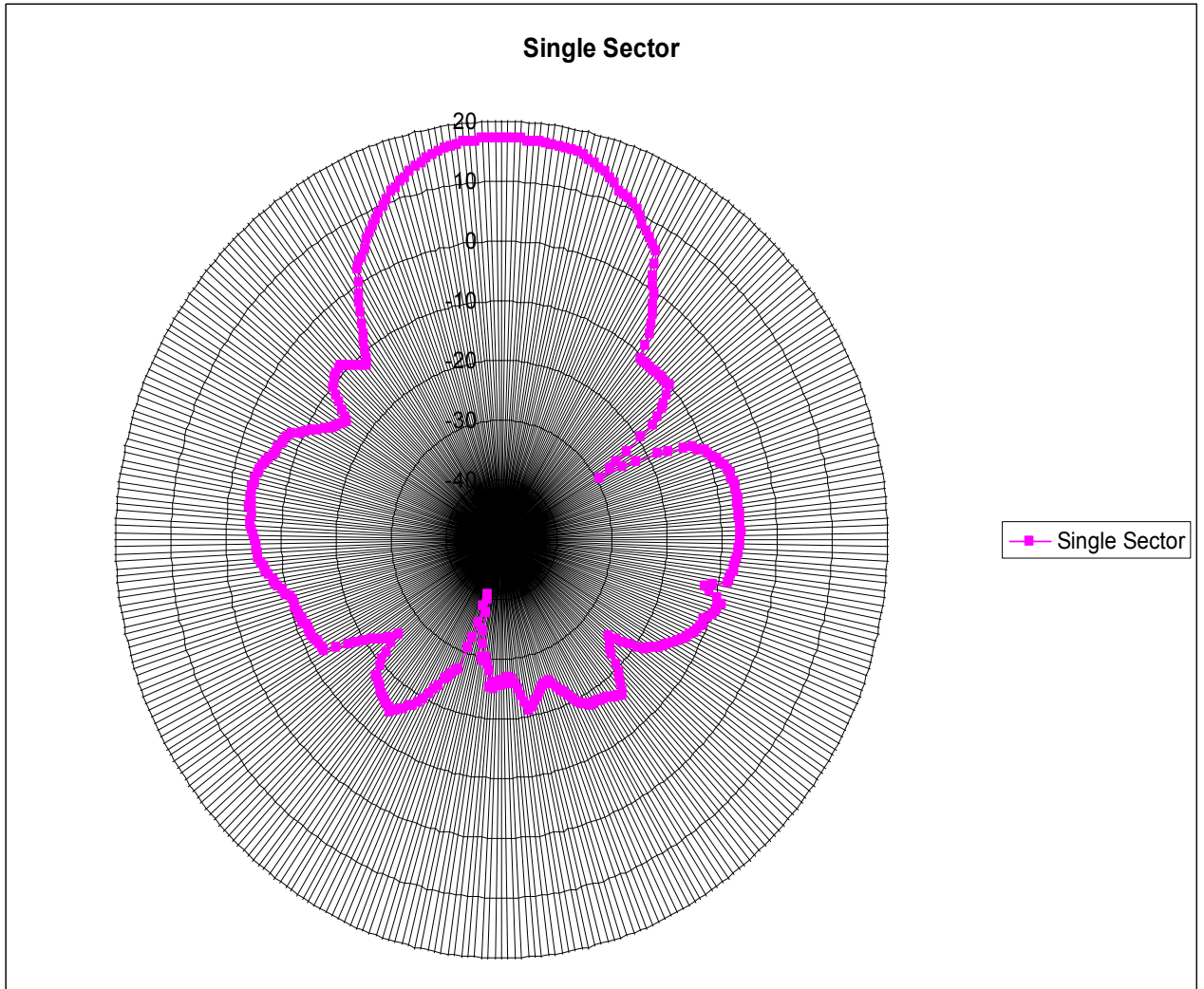


Figure 1.- Skyconnector azimuth pattern

1.4 SkyConnector Elevation Pattern

The elevation beam width of the SkyConnector antenna is approximately 8 degrees total. The data and plot of antenna pattern in the azimuth direction is given in Table 2 and Figure 2 respectively. Note that in Figure 2, the horizon or 0 degrees is in the vertical direction.

Angle, deg	Gain, dBi	Angle, deg	Gain, dBi	Angle, deg	Gain, dBi	Angle, deg	Gain, dBi
0	17.0	90	-15.8	180	-25.7	270	-15.9
5	13.7	95	-16.4	185	-25.3	275	-15.3
10	1.5	100	-17.0	190	-24.8	280	-14.7
15	3.3	105	-17.5	195	-24.4	285	-14.2
20	-1.8	110	-18.1	200	-23.9	290	-13.6
25	-4.4	115	-18.7	205	-23.4	295	-13.0
30	-5.1	120	-19.2	210	-22.9	300	-12.5
35	-19.2	125	-19.8	215	-22.3	305	-11.9
40	-8.2	130	-20.4	220	-21.6	310	-11.3
45	-10.7	135	-20.9	225	-21.0	315	-10.8
50	-11.3	140	-21.6	230	-20.4	320	-7.9
55	-11.9	145	-22.2	235	-19.8	325	-18.5
60	-12.4	150	-22.8	240	-19.3	330	-5.6
65	-13.0	155	-23.4	245	-18.7	335	-4.0
70	-13.6	160	-23.9	250	-18.1	340	-2.3
75	-14.1	165	-24.4	255	-17.6	345	3.5
80	-14.7	170	-24.8	260	-17.0	350	1.4
85	-15.3	175	-25.3	265	-16.4	355	12.6

Table 2.- Skyconnector elevation data

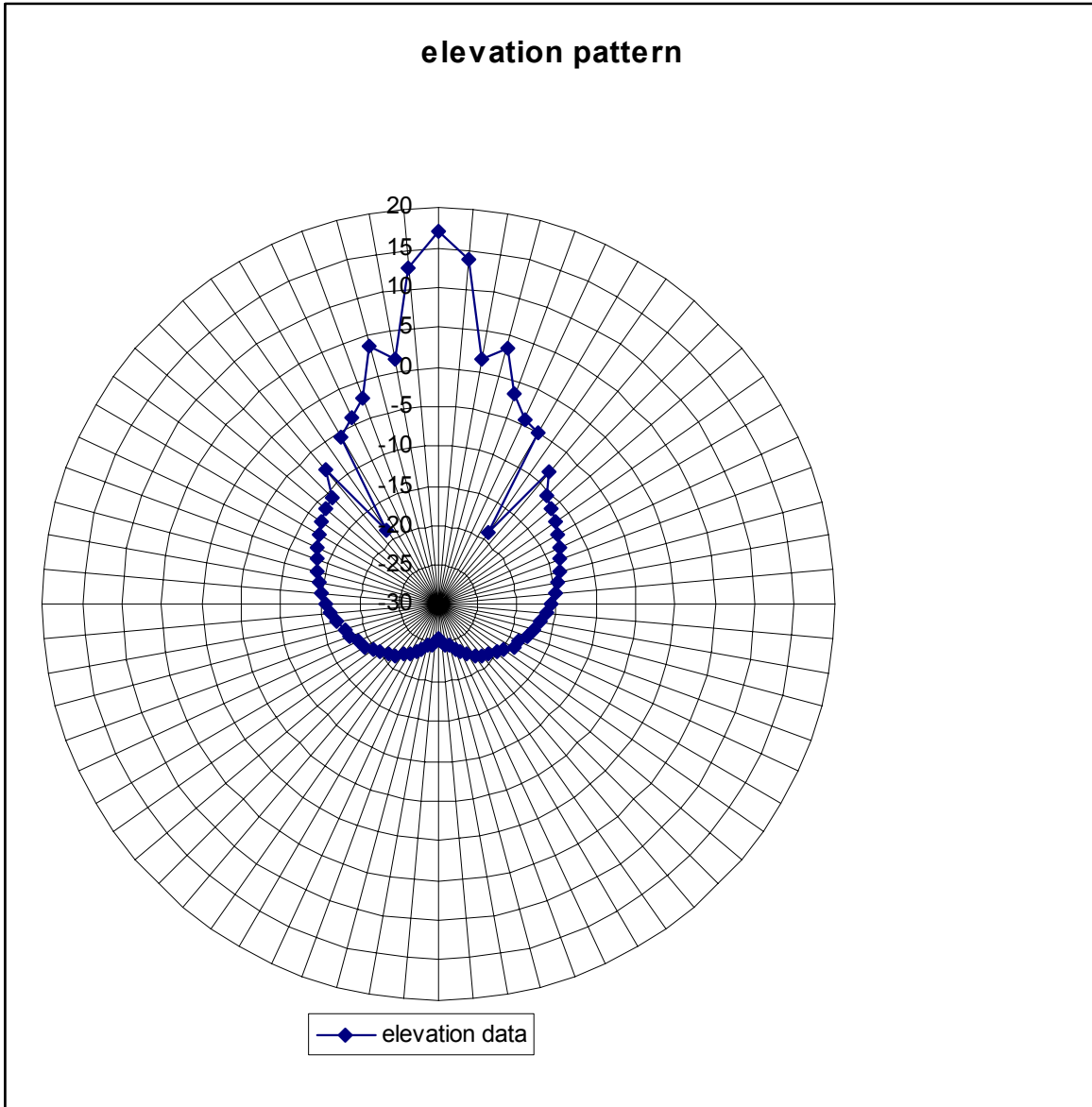


Figure 2.- Skyconnector elevation pattern

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