

Antenna Info

PIFA antenna, Intermec P/N 073360, 3.5 dBi, integral to the unit.

Although the attached electrical specification says up to "5.0 dBi peak (needs to be verified)".
The attached measurement data shows the highest gain to be 3.5 dBi (XY) and 3.5 dBi (YZ).

1.1 *Electrical specification of the Antenna for handheld terminal.*

Frequency Range: 2.4 to 2.5 Ghz
Gain range: (3.5 to 5.0) dBi peak gain (To be verified)
Impedance: 50 ohm
VSWR (nominal): < 2.0 : 1
Efficient (Radiated Power/Input power) : 0.8 min.
BW for VSWR 2.0:1 > 100 Mhz
Power rating (min.): 2.0 Watt
Operating Temperature -40 to 85 ° C
Humidity: Up to 100% at 38 degree C
Connection type: 1 soldering pigtail compatible with Hirose
P/N: U.FL-LP-066
(or 05G-085)
Polarization: E-Vertical (linear)
Radiation pattern: directional see plots
Antenna type: PIFA (Planar Inverter F Antenna.)

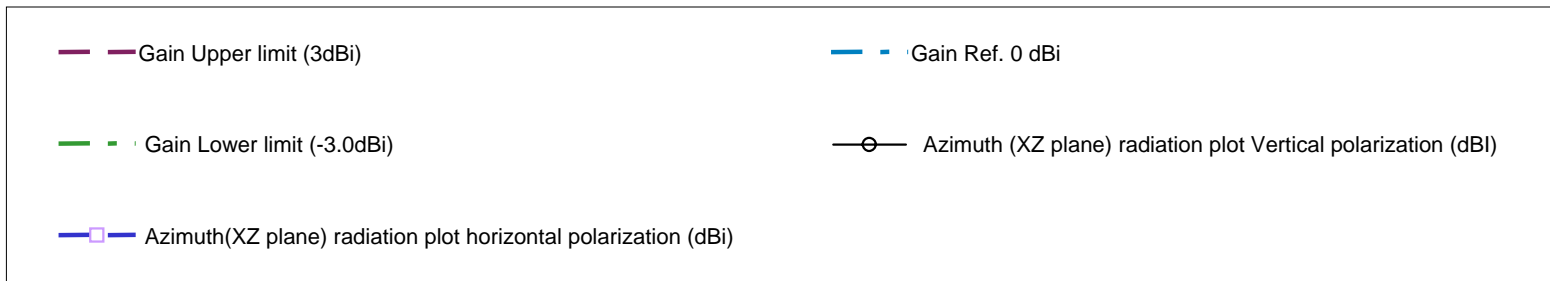
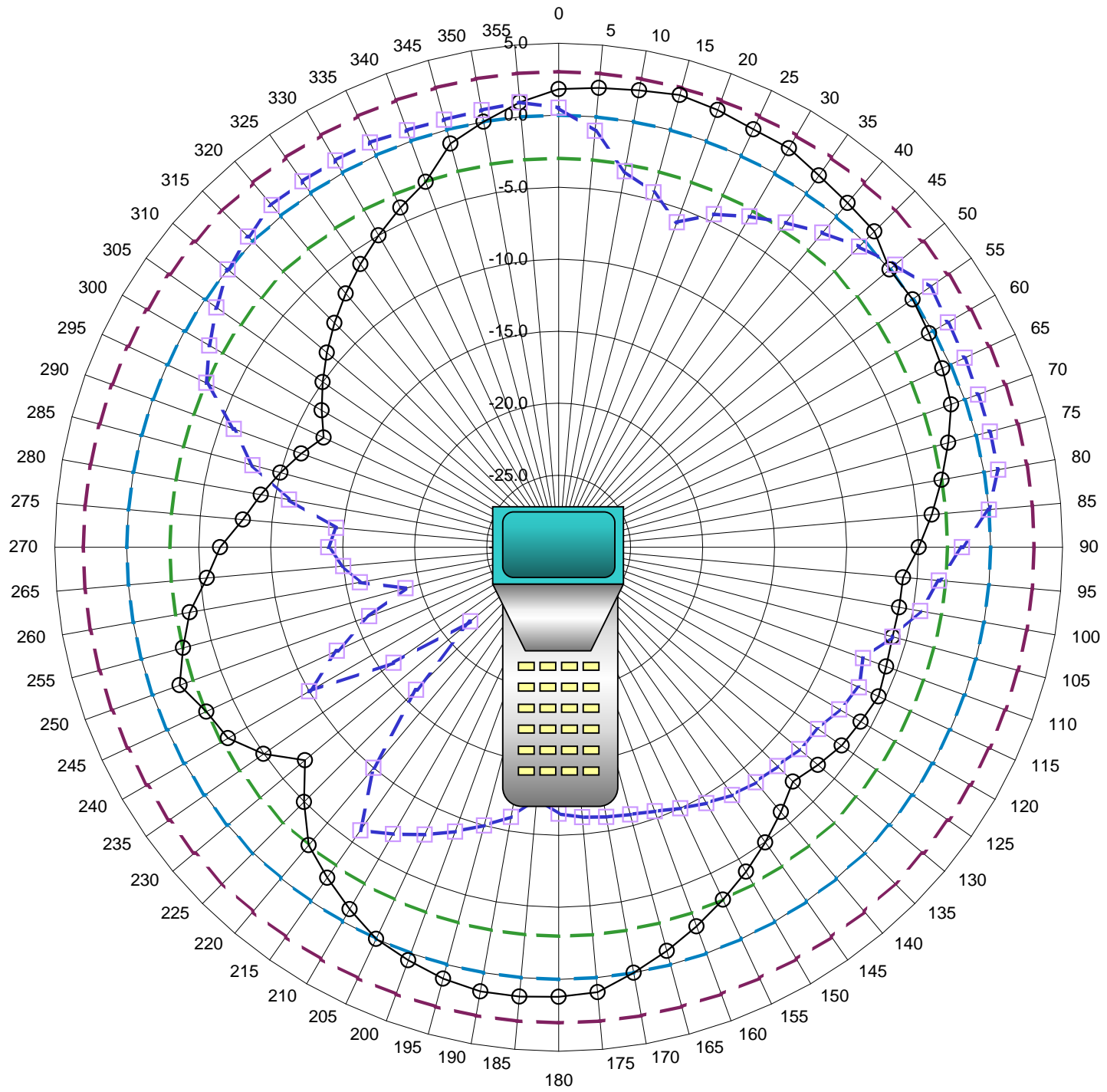
Note:

Antenna assembly Intermec P/N: 073360
Manufacturer/assembler: Centurion Wireless Technologies Inc.

Aquila Antenna Azimuth (XZ plane) pattern

	Gain Upper limit (3dBi)	Gain Ref. 0 dBi	Gain Lower limit (- 3.0dBi)		Azimuth (XZ plane) radiation plot Vertical polarization (dBi)	Azimuth(XZ plane) radiation plot horizontal polarization (dBi)
0	3.00	0.0	-3		1.80	0.50
5	3.00	0.0	-3		2.00	-1.00
10	3.00	0.0	-3		2.20	-3.50
15	3.00	0.0	-3		2.50	-4.50
20	3.00	0.0	-3		2.30	-6.00
25	3.00	0.0	-3		2.00	-4.50
30	3.00	0.0	-3		1.98	-3.50
35	3.00	0.0	-3		1.50	-2.50
40	3.00	0.0	-3		1.20	-1.50
45	3.00	0.0	-3		1.00	-0.50
50	3.00	0.0	-3		0.00	0.50
55	3.00	0.0	-3		0.00	1.50
60	3.00	0.0	-3		-0.30	1.20
65	3.00	0.0	-3		-0.60	1.10
70	3.00	0.0	-3		-1.00	1.00
75	3.00	0.0	-3		-2.00	1.00
80	3.00	0.0	-3		-3.00	1.00
85	3.00	0.0	-3		-4.00	0.00
90	3.00	0.0	-3		-5.00	-2.00
95	3.00	0.0	-3		-6.00	-3.50
100	3.00	0.0	-3		-6.00	-4.50
105	3.00	0.0	-3		-6.00	-6.00
110	3.00	0.0	-3		-5.8	-7.50
115	3.00	0.0	-3		-5.5	-7.00
120	3.00	0.0	-3		-5.8	-7.50
125	3.00	0.0	-3		-6	-8.00
130	3.00	0.0	-3		-6.5	-8.20
135	3.00	0.0	-3		-7	-8.50
140	3.00	0.0	-3		-6	-8.70
145	3.00	0.0	-3		-5	-9.00
150	3.00	0.0	-3		-4	-9.50
155	3.00	0.0	-3		-3	-10.00
160	3.00	0.0	-3		-2	-10.50
165	3.00	0.0	-3		-1	-10.80
170	3.00	0.0	-3		0	-11.00
175	3.00	0.0	-3		1	-11.20
180	3.00	0.0	-3		1.2	-11.50
185	3.00	0.0	-3		1.3	-12.50
190	3.00	0.0	-3		1.3	-11.00
195	3.00	0.0	-3		1	-10.00
200	3.00	0.0	-3		0.5	-9.00
205	3.00	0.0	-3		0	-8.00
210	3.00	0.0	-3		-1	-7.00
215	3.00	0.0	-3		-2	-6.00
220	3.00	0.0	-3		-3	-10.00
225	3.00	0.0	-3		-5	-16.00
230	3.00	0.0	-3		-7	-22.00
235	3.00	0.0	-3		-5	-16.00
240	3.00	0.0	-3		-3.5	-10.00
245	3.00	0.0	-3		-3	-13.00
250	3.00	0.0	-3		-2	-16.00
255	3.00	0.0	-3		-3	-19.00
260	3.00	0.0	-3		-4	-16.00
265	3.00	0.0	-3		-5.5	-15.00
270	3.00	0.0	-3		-6.5	-14.00
275	3.00	0.0	-3		-8	-14.50
280	3.00	0.0	-3		-9	-11.00
285	3.00	0.0	-3		-10	-8.00
290	3.00	0.0	-3		-11	-6.00
295	3.00	0.0	-3		-12	-3.00
300	3.00	0.0	-3		-11	-2.00
305	3.00	0.0	-3		-10	-1.00
310	3.00	0.0	-3		-9	0.00
315	3.00	0.0	-3		-8	0.50
320	3.00	0.0	-3		-7	1.00
325	3.00	0.0	-3		-6	1.00
330	3.00	0.0	-3		-5	1.00
335	3.00	0.0	-3		-4	1.00
340	3.00	0.0	-3		-3	0.80
345	3.00	0.0	-3		-1	0.70
350	3.00	0.0	-3		0	0.80
355	3.00	0.0	-3		1	1.00

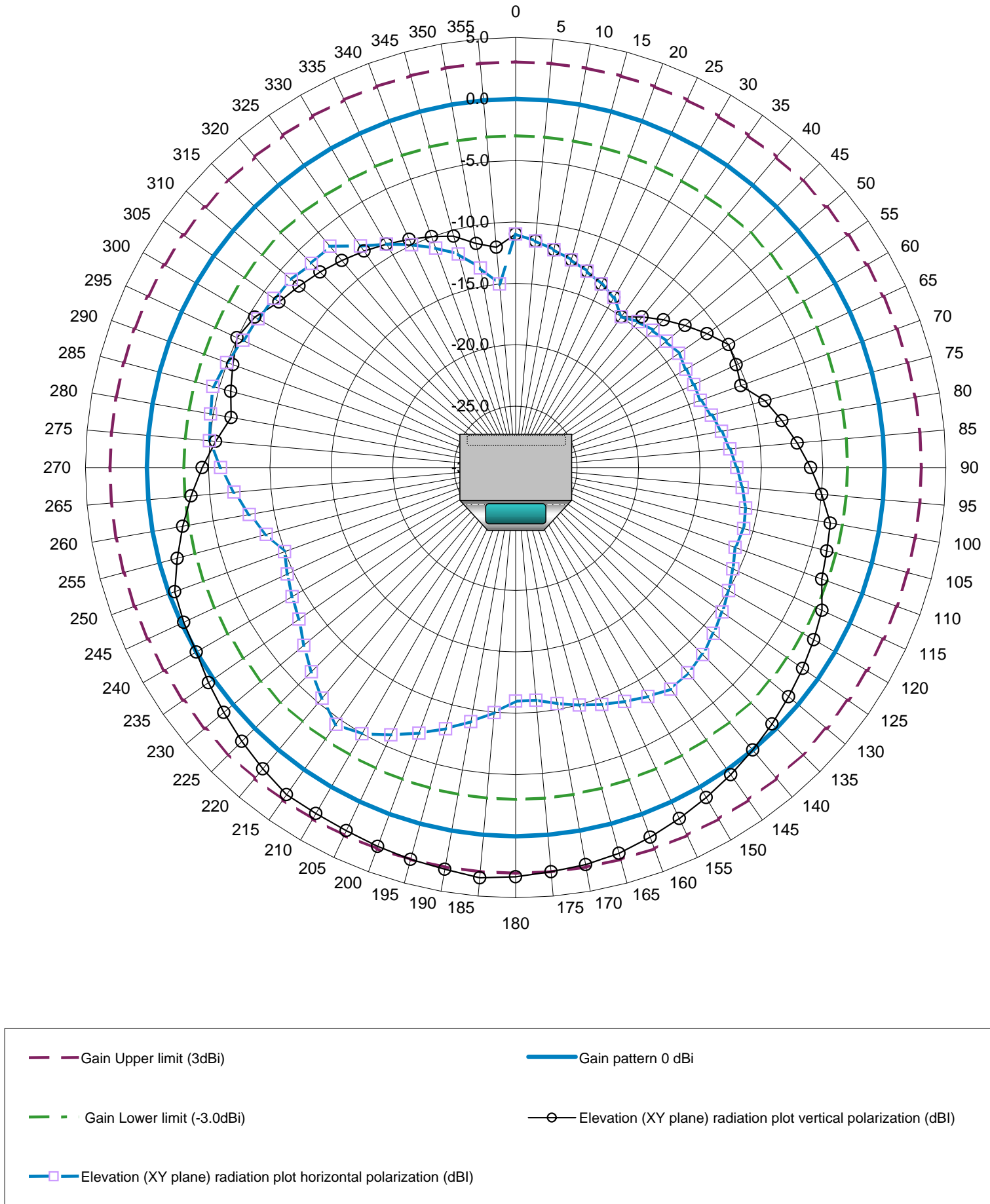
Azimuth radiation pattern



Aquila Antenna Elevation (XY plane) pattern

	Gain Upper limit (3dBi)	Gain pattern 0 dBi	Gain Lower limit (-3.0dBi)		Elevation (XY plane) radiation plot vertical polarization (dBi)	Elevation (XY plane) radiation plot horizontal polarization (dBi)
0	3.00	0.0	-3		-11.00	-11.00
5	3.00	0.0	-3		-11.50	-11.50
10	3.00	0.0	-3		-12.00	-12.00
15	3.00	0.0	-3		-12.50	-12.50
20	3.00	0.0	-3		-13.00	-13.00
25	3.00	0.0	-3		-13.50	-13.50
30	3.00	0.0	-3		-14.00	-14.00
35	3.00	0.0	-3		-15.00	-15.00
40	3.00	0.0	-3		-14.00	-14.50
45	3.00	0.0	-3		-13.00	-14.20
50	3.00	0.0	-3		-12.00	-14.00
55	3.00	0.0	-3		-11.00	-13.80
60	3.00	0.0	-3		-10.00	-14.00
65	3.00	0.0	-3		-10.20	-14.00
70	3.00	0.0	-3		-10.50	-14.00
75	3.00	0.0	-3		-9.00	-13.50
80	3.00	0.0	-3		-8.00	-13.00
85	3.00	0.0	-3		-7.00	-12.50
90	3.00	0.0	-3		-6.00	-12.00
95	3.00	0.0	-3		-5.00	-11.50
100	3.00	0.0	-3		-4.00	-11.00
105	3.00	0.0	-3		-3.80	-10.80
110	3.00	0.0	-3		-3.50	-11.00
115	3.00	0.0	-3		-2.50	-10.50
120	3.00	0.0	-3		-2.00	-10.00
125	3.00	0.0	-3		-1.50	-9.50
130	3.00	0.0	-3		-1.00	-9.00
135	3.00	0.0	-3		-0.50	-8.50
140	3.00	0.0	-3		0.00	-8.20
145	3.00	0.0	-3		0.50	-8.00
150	3.00	0.0	-3		1.00	-8.50
155	3.00	0.0	-3		1.50	-9.00
160	3.00	0.0	-3		2.00	-9.50
165	3.00	0.0	-3		2.50	-10.00
170	3.00	0.0	-3		2.80	-10.50
175	3.00	0.0	-3		3.00	-11.00
180	3.00	0.0	-3		3.30	-11.00
185	3.00	0.0	-3		3.50	-10.00
190	3.00	0.0	-3		3.20	-9.00
195	3.00	0.0	-3		3.00	-8.00
200	3.00	0.0	-3		2.80	-7.00
205	3.00	0.0	-3		2.60	-6.00
210	3.00	0.0	-3		2.50	-5.00
215	3.00	0.0	-3		2.50	-4.50
220	3.00	0.0	-3		2.00	-5.50
225	3.00	0.0	-3		1.50	-6.50
230	3.00	0.0	-3		1.00	-7.50
235	3.00	0.0	-3		0.50	-8.50
240	3.00	0.0	-3		0.00	-9.00
245	3.00	0.0	-3		-0.20	-9.50
250	3.00	0.0	-3		-0.50	-10.00
255	3.00	0.0	-3		-1.50	-9.00
260	3.00	0.0	-3		-2.50	-8.00
265	3.00	0.0	-3		-3.50	-7.00
270	3.00	0.0	-3		-4.50	-6.00
275	3.00	0.0	-3		-5.50	-5.00
280	3.00	0.0	-3		-6.50	-4.80
285	3.00	0.0	-3		-6.00	-4.50
290	3.00	0.0	-3		-5.50	-5.00
295	3.00	0.0	-3		-5.00	-5.50
300	3.00	0.0	-3		-5.50	-5.80
305	3.00	0.0	-3		-6.50	-6.00
310	3.00	0.0	-3		-7.00	-6.20
315	3.00	0.0	-3		-7.50	-6.50
320	3.00	0.0	-3		-8.00	-6.50
325	3.00	0.0	-3		-8.50	-8.00
330	3.00	0.0	-3		-9.00	-9.00
335	3.00	0.0	-3		-9.50	-10.00
340	3.00	0.0	-3		-10.00	-11.00
345	3.00	0.0	-3		-10.50	-12.00
350	3.00	0.0	-3		-11.50	-13.50
355	3.00	0.0	-3		-12.00	-15.00

Elevation radiation pattern



Aquila Antenna Elevation (YZ plane) pattern

	Gain Upper limit (3dBi)	Gain ref. 0 dBi	Gain Lower limit (-3.0dBi)	Antenna in Aquila Elevation (YZ plane) (dBi)	Antenna in Aquila Elevation (YZ plane) (dBi)
0	3.00	0.0	-3	-6.0	-6.0
5	3.00	0.0	-3	-5.8	-6.3
10	3.00	0.0	-3	-5.5	-6.7
15	3.00	0.0	-3	-5.0	-7.0
20	3.00	0.0	-3	-4.8	-7.3
25	3.00	0.0	-3	-4.5	-7.5
30	3.00	0.0	-3	-4.2	-7.7
35	3.00	0.0	-3	-4.0	-8.0
40	3.00	0.0	-3	-4.5	-12.0
45	3.00	0.0	-3	-5.0	-16.0
50	3.00	0.0	-3	-4.5	-20.0
55	3.00	0.0	-3	-4.0	-22.0
60	3.00	0.0	-3	-3.0	-19.0
65	3.00	0.0	-3	-2.8	-16.0
70	3.00	0.0	-3	-2.5	-15.0
75	3.00	0.0	-3	-5.0	-16.0
80	3.00	0.0	-3	-8.0	-15.0
85	3.00	0.0	-3	-12.0	-13.0
90	3.00	0.0	-3	-16.0	-11.0
95	3.00	0.0	-3	-12.0	-9.0
100	3.00	0.0	-3	-8.0	-8.0
105	3.00	0.0	-3	-5.0	-9.0
110	3.00	0.0	-3	-9.0	-10.0
115	3.00	0.0	-3	-13.0	-11.0
120	3.00	0.0	-3	-16.0	-12.0
125	3.00	0.0	-3	-20.0	-13.0
130	3.00	0.0	-3	-16.0	-12.0
135	3.00	0.0	-3	-12.0	-10.0
140	3.00	0.0	-3	-9.0	-9.0
145	3.00	0.0	-3	-6.0	-7.0
150	3.00	0.0	-3	-7.0	-6.8
155	3.00	0.0	-3	-8.0	-6.5
160	3.00	0.0	-3	-7.0	-6.0
165	3.00	0.0	-3	-4.0	-5.8
170	3.00	0.0	-3	-1.0	-5.5
175	3.00	0.0	-3	0.0	-5.2
180	3.00	0.0	-3	0.5	-5.0
185	3.00	0.0	-3	1.0	-6.0
190	3.00	0.0	-3	1.5	-7.0
195	3.00	0.0	-3	2.0	-8.0
200	3.00	0.0	-3	2.5	-9.0
205	3.00	0.0	-3	2.0	-10.0
210	3.00	0.0	-3	1.8	-11.0
215	3.00	0.0	-3	1.5	-11.5
220	3.00	0.0	-3	1.0	-10.5
225	3.00	0.0	-3	0.0	-9.5
230	3.00	0.0	-3	-1.0	-10.5
235	3.00	0.0	-3	-3.0	-11.5
240	3.00	0.0	-3	-4.0	-12.5
245	3.00	0.0	-3	-5.5	-10.5
250	3.00	0.0	-3	-7.0	-7.5
255	3.00	0.0	-3	-5.0	-5.5
260	3.00	0.0	-3	-4.0	-3.5
265	3.00	0.0	-3	-3.0	-1.5
270	3.00	0.0	-3	-1.5	0.5
275	3.00	0.0	-3	0.0	1.0
280	3.00	0.0	-3	0.2	1.0
285	3.00	0.0	-3	0.5	1.5
290	3.00	0.0	-3	1.5	1.0
295	3.00	0.0	-3	1.5	0.5
300	3.00	0.0	-3	3.0	0.0
305	3.00	0.0	-3	3.5	-0.5
310	3.00	0.0	-3	3.0	-1.0
315	3.00	0.0	-3	2.5	-1.5
320	3.00	0.0	-3	1.0	-2.0
325	3.00	0.0	-3	0.0	-2.5
330	3.00	0.0	-3	-1.0	-3.0
335	3.00	0.0	-3	-2.0	-4.0
340	3.00	0.0	-3	-3.0	-4.5
345	3.00	0.0	-3	-4.0	-5.0
350	3.00	0.0	-3	-5.0	-5.5
355	3.00	0.0	-3	-6.0	-6.0

Elevation radiation pattern

