

Request for Routine Processing of Non-Compliant Antenna

The antenna at issue is a Prodelin 98cm Type 1985 Ku-band (“Antenna”). This Antenna does not strictly comply with Section 25.209 of the Regulations. However, according to Section 25.218 of the Regulations, an applicant may request routine processing of an application if it meets the applicable off-axis EIRP envelopes.

Furthermore, an application pursuant to Section 25.218 must file the corresponding tables outlined in Section 25.115(h) of the Regulations. Applicant presents below the tables outlined in Section 25.115(h) and therefore requests routine processing of this application.

EIRP DENSITY TABLE, AZIMUTH - §25.115 (h) (1)				
Antenna Manufacturer	Prodelin		Antenna Diameter	0.98 m
Antenna Model	1985		Antenna Gain	41.5 dBi
Transmit Frequency	14.250	GHz	Max EIRP Density	-18.1 dBW/4KHz

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
1.5	10.6	9.4	-1.1
1.6	9.9	6.9	-2.9
1.7	9.2	4.4	-4.8
1.8	8.6	-0.6	-9.2
1.9	8.0	-8.1	-16.1
2.0	7.5	-10.6	-18.0
2.1	6.9	-13.1	-20.0
2.2	6.4	-6.4	-12.8
2.3	6.0	-4.8	-10.7
2.4	5.5	-3.8	-9.2
2.5	5.1	-3.9	-8.9
2.6	4.6	-4.2	-8.8
2.7	4.2	-5.6	-9.8
2.8	3.8	-7.2	-11.0
2.9	3.4	-9.3	-12.7
3.0	3.1	-12.2	-15.3
3.1	2.7	-13.9	-16.6
3.2	2.4	-13.9	-16.2
3.3	2.0	-12.2	-14.3
3.4	1.7	-11.1	-12.8
3.5	1.4	-10.1	-11.4
3.6	1.1	-9.8	-10.8
3.7	0.8	-9.8	-10.5

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
7.5	-6.0	-20.6	-14.6
7.6	-6.0	-22.3	-16.3
7.7	-6.0	-23.9	-17.9
7.8	-6.0	-25.6	-19.6
7.9	-6.0	-25.6	-19.6
8.0	-6.0	-24.7	-18.7
8.1	-6.0	-23.5	-17.5
8.2	-6.0	-22.6	-16.6
8.3	-6.0	-21.4	-15.4
8.4	-6.0	-21.4	-15.4
8.5	-6.0	-22.3	-16.3
8.6	-6.0	-23.1	-17.1
8.7	-6.0	-24.1	-18.1
8.8	-6.0	-26.4	-20.4
8.9	-6.0	-28.9	-22.9
9.0	-6.0	-30.6	-24.6
9.1	-6.0	-30.9	-24.9
9.2	-6.0	-31.6	-25.6
9.3	-6.2	-28.1	-21.8
9.4	-6.3	-25.9	-19.5
9.5	-6.4	-25.2	-18.7
9.6	-6.6	-25.9	-19.3
9.7	-6.7	-28.1	-21.4

3.8	0.5	-9.8	-10.3
3.9	0.2	-10.1	-10.3
4.0	-0.1	-10.2	-10.1
4.1	-0.3	-11.1	-10.7
4.2	-0.6	-10.8	-10.2
4.3	-0.8	-10.8	-9.9
4.4	-1.1	-10.8	-9.7
4.5	-1.3	-9.8	-8.4
4.6	-1.6	-9.9	-8.3
4.7	-1.8	-10.4	-8.5
4.8	-2.0	-10.6	-8.5
4.9	-2.3	-11.4	-9.1
5.0	-2.5	-12.2	-9.7
5.1	-2.7	-13.2	-10.5
5.2	-2.9	-14.8	-11.9
5.3	-3.1	-16.4	-13.3
5.4	-3.3	-17.2	-13.9
5.5	-3.5	-18.1	-14.5
5.6	-3.7	-18.1	-14.3
5.7	-3.9	-17.7	-13.8
5.8	-4.1	-17.5	-13.4
5.9	-4.3	-17.5	-13.2
6.0	-4.5	-18.1	-13.6
6.1	-4.6	-18.9	-14.2
6.2	-4.8	-20.6	-15.7
6.3	-5.0	-23.1	-18.1
6.4	-5.2	-27.3	-22.1
6.5	-5.3	-30.1	-24.7
6.6	-5.5	-28.9	-23.4
6.7	-5.7	-24.8	-19.1
6.8	-5.8	-22.3	-16.4
6.9	-6.0	-20.1	-14.1
7.0	-6.1	-18.9	-12.8
7.1	-6.0	-18.5	-12.5
7.2	-6.0	-18.5	-12.5
7.3	-6.0	-18.9	-12.9
7.4	-6.0	-19.7	-13.7

9.8	-6.8	-28.1	-21.3
9.9	-6.9	-29.5	-22.6
10.0	-7.0	-41.1	-34.1
15.0	-11.4	-28.1	-16.6
20.0	-14.5	-24.1	-9.5
25.0	-16.9	-28.1	-11.1
30.0	-18.9	-33.1	-14.1
35.0	-20.6	-38.6	-17.9
40.0	-22.1	-33.1	-11.0
45.0	-23.3	-35.6	-12.2
50.0	-24.0	-40.1	-16.1
55.0	-24.0	-35.6	-11.6
60.0	-24.0	-33.1	-9.1
65.0	-24.0	-39.1	-15.1
70.0	-24.0	-43.1	-19.1
75.0	-24.0	-36.1	-12.1
80.0	-24.0	-38.1	-14.1
85.0	-24.0	-35.6	-11.6
90.0	-14.0	-38.1	-24.1
95.0	-14.0	-43.1	-29.1
100.0	-14.0	-28.1	-14.1
105.0	-14.0	-30.1	-16.1
110.0	-14.0	-28.1	-14.1
115.0	-14.0	-30.1	-16.1
120.0	-14.0	-28.1	-14.1
125.0	-14.0	-28.1	-14.1
130.0	-14.0	-30.6	-16.6
135.0	-14.0	-28.1	-14.1
140.0	-14.0	-28.1	-14.1
145.0	-14.0	-23.1	-9.1
150.0	-14.0	-23.1	-9.1
155.0	-14.0	-23.1	-9.1
160.0	-14.0	-23.1	-9.1
165.0	-14.0	-14.1	-0.1
170.0	-14.0	-30.6	-16.6
175.0	-14.0	-19.1	-5.1
180.0	-14.0	-18.1	-4.1

EIRP DENSITY TABLE, ELEVATION - §25.115 (h) (2)				
Antenna Manufacturer	Prodelin		Antenna Diameter	0.98 m
Antenna Model	1985		Antenna Gain	41.5 dBi
Transmit Frequency	14.2500 GHz		Max EIRP Density	-18.1 dBW/4KHz

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
1.5	13.6	7.4	-6.2
1.6	12.9	5.4	-7.5
1.7	12.2	1.9	-10.3
1.8	11.6	-3.1	-14.7
1.9	11.0	-3.8	-14.8
2.0	10.5	-2.3	-12.8
2.1	9.9	-0.2	-10.1
2.2	9.4	-0.1	-9.5
2.3	9.0	0.6	-8.3
2.4	8.5	0.6	-7.8
2.5	8.1	-0.3	-8.3
2.6	7.6	4.4	-3.2
2.7	7.2	5.5	-1.7
2.8	6.8	-3.8	-10.6
2.9	6.4	-6.6	-13.1
3.0	6.1	-8.6	-14.6
3.1	5.7	-10.9	-16.6
3.2	5.4	-12.4	-17.7
3.3	5.0	-10.6	-15.6
3.4	4.7	-9.1	-13.8
3.5	4.4	-8.1	-12.4
3.6	4.1	-7.3	-11.4
3.7	3.8	-7.3	-11.1
3.8	3.5	-7.6	-11.1
3.9	3.2	-8.6	-11.8
4.0	2.9	-9.5	-12.4
4.1	2.7	-11.6	-14.3
4.2	2.4	-15.2	-17.6
4.3	2.2	-20.2	-22.4
4.4	1.9	-27.3	-29.2
4.5	1.7	-27.3	-29.0
4.6	1.4	-23.1	-24.5
4.7	1.2	-18.1	-19.2
4.8	1.0	-15.2	-16.2

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
6.1	-1.6	-19.4	-17.7
6.2	-1.8	-20.9	-19.1
6.3	-2.0	-23.8	-21.8
6.4	-2.2	-25.2	-23.0
6.5	-2.3	-28.1	-25.7
6.6	-2.5	-29.5	-27.0
6.7	-2.7	-25.2	-22.5
6.8	-2.8	-21.6	-18.8
6.9	-3.0	-19.5	-16.5
7.0	-3.1	-18.1	-14.9
7.1	-3.3	-16.6	-13.3
7.2	-3.4	-15.9	-12.5
7.3	-3.6	-15.2	-11.6
7.4	-3.7	-15.2	-11.5
7.5	-3.9	-15.3	-11.4
7.6	-4.0	-16.6	-12.6
7.7	-4.2	-17.3	-13.2
7.8	-4.3	-18.8	-14.5
7.9	-4.4	-20.2	-15.7
8.0	-4.6	-21.6	-17.0
8.1	-4.7	-22.3	-17.6
8.2	-4.8	-22.5	-17.6
8.3	-5.0	-21.6	-16.6
8.4	-5.1	-20.9	-15.8
8.5	-5.2	-20.2	-15.0
8.6	-5.4	-20.2	-14.8
8.7	-5.5	-20.9	-15.4
8.8	-5.6	-21.6	-16.0
8.9	-5.7	-23.1	-17.3
9.0	-5.9	-25.2	-19.3
9.1	-6.0	-23.1	-17.1
9.2	-6.1	-28.1	-22.0
9.3	-6.2	-29.5	-23.3
9.4	-6.3	-33.1	-26.7

4.9	0.7	-14.5	-15.2
5.0	0.5	-14.4	-14.9
5.1	0.3	-13.8	-14.1
5.2	0.1	-14.5	-14.6
5.3	-0.1	-15.2	-15.1
5.4	-0.3	-15.9	-15.6
5.5	-0.5	-16.8	-16.2
5.6	-0.7	-17.3	-16.5
5.7	-0.9	-17.6	-16.7
5.8	-1.1	-18.7	-17.6
5.9	-1.3	-18.8	-17.5
6.0	-1.5	-18.9	-17.4

9.5	-6.4	-38.1	-31.6
9.6	-6.6	-38.1	-31.5
9.7	-6.7	-23.1	-16.4
9.8	-6.8	-22.3	-15.5
9.9	-6.9	-20.2	-13.3
10.0	-7.0	-18.1	-11.1
15.0	-11.4	-24.1	-12.6
20.0	-14.5	-28.1	-13.5
25.0	-16.9	-36.1	-19.1
30.0	-18.9	-23.6	-4.6
35.0	-20.6	-30.8	-10.1
40.0	-22.1	-26.1	-4.0
45.0	-23.3	-30.6	-7.2

EIRP DENSITY TABLE, AZIMUTH - §25.115 (h) (3)				
Antenna Manufacturer	Prodelin		Antenna Diameter	0.98 m
Antenna Model	1985		Antenna Gain	41.5 dBi
Transmit Frequency	14.2500 GHz		Max EIRP Density	-18.1 dBW/4KHz

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
1.5	13.6	5.7	-7.8
1.6	12.9	3.2	-9.6
1.7	12.2	0.7	-11.5
1.8	11.6	-4.3	-15.9
1.9	11.0	-11.8	-22.8
2.0	10.5	-14.3	-24.7
2.1	9.9	-16.8	-26.7
2.2	9.4	-10.1	-19.5
2.3	9.0	-8.5	-17.4
2.4	8.5	-7.5	-15.9
2.5	8.1	-7.6	-15.6
2.6	7.6	-7.9	-15.5
2.7	7.2	-9.3	-16.5
2.8	6.8	-10.9	-17.7
2.9	6.4	-13.0	-19.4
3.0	6.1	-15.9	-22.0
3.1	5.7	-17.6	-23.3
3.2	5.4	-17.6	-22.9
3.3	5.0	-15.9	-21.0
3.4	4.7	-14.8	-19.5
3.5	4.4	-13.8	-18.1
3.6	4.1	-13.5	-17.5
3.7	3.8	-13.5	-17.2
3.8	3.5	-13.5	-17.0
3.9	3.2	-13.8	-17.0
4.0	2.9	-13.9	-16.8
4.1	2.7	-14.8	-17.4
4.2	2.4	-14.5	-16.9
4.3	2.2	-14.5	-16.6
4.4	1.9	-14.5	-16.4
4.5	1.7	-13.5	-15.1
4.6	1.4	-13.6	-15.0
4.7	1.2	-14.1	-15.2
4.8	1.0	-14.3	-15.2

Off-Axis degrees	§25.218 SD (dBW/4KHz)	Actual SD (dBW/4KHz)	Margin (dB)
7.5	-3.9	-24.3	-20.4
7.6	-4.0	-26.0	-21.9
7.7	-4.2	-27.6	-23.4
7.8	-4.3	-29.3	-24.9
7.9	-4.4	-29.3	-24.8
8.0	-4.6	-28.4	-23.8
8.1	-4.7	-27.2	-22.4
8.2	-4.8	-26.3	-21.4
8.3	-5.0	-25.1	-20.1
8.4	-5.1	-25.1	-19.9
8.5	-5.2	-26.0	-20.7
8.6	-5.4	-26.8	-21.4
8.7	-5.5	-27.8	-22.3
8.8	-5.6	-30.1	-24.4
8.9	-5.7	-32.6	-26.8
9.0	-5.9	-34.3	-28.4
9.1	-6.0	-34.6	-28.6
9.2	-6.1	-35.3	-29.2
9.3	-6.2	-31.8	-25.5
9.4	-6.3	-29.6	-23.2
9.5	-6.4	-28.9	-22.4
9.6	-6.6	-29.6	-23.0
9.7	-6.7	-31.8	-25.1
9.8	-6.8	-31.8	-25.0
9.9	-6.9	-33.2	-26.3
10.0	-7.0	-44.8	-37.8
15.0	-11.4	-31.8	-20.3
20.0	-14.5	-27.8	-13.2
25.0	-16.9	-31.8	-14.8
30.0	-18.9	-36.8	-17.8
35.0	-20.6	-42.3	-21.6
40.0	-22.1	-36.8	-14.7
45.0	-23.3	-39.3	-15.9
50.0	-24.0	-43.8	-19.8

4.9	0.7	-15.1	-15.8
5.0	0.5	-15.9	-16.4
5.1	0.3	-16.9	-17.2
5.2	0.1	-18.5	-18.6
5.3	-0.1	-20.1	-20.0
5.4	-0.3	-20.9	-20.6
5.5	-0.5	-21.8	-21.2
5.6	-0.7	-21.8	-21.0
5.7	-0.9	-21.4	-20.5
5.8	-1.1	-21.2	-20.1
5.9	-1.3	-21.2	-19.9
6.0	-1.5	-21.8	-20.3
6.1	-1.6	-22.6	-20.9
6.2	-1.8	-24.3	-22.4
6.3	-2.0	-26.8	-24.8
6.4	-2.2	-31.0	-28.8
6.5	-2.3	-33.8	-31.4
6.6	-2.5	-32.6	-30.1
6.7	-2.7	-28.5	-25.8
6.8	-2.8	-26.0	-23.1
6.9	-3.0	-23.8	-20.8
7.0	-3.1	-22.6	-19.5
7.1	-3.3	-22.2	-18.9
7.2	-3.4	-22.2	-18.7
7.3	-3.6	-22.6	-19.0
7.4	-3.7	-23.4	-19.7

55.0	-24.0	-39.3	-15.3
60.0	-24.0	-36.8	-12.8
65.0	-24.0	-42.8	-18.8
70.0	-24.0	-46.8	-22.8
75.0	-24.0	-39.8	-15.8
80.0	-24.0	-41.8	-17.8
85.0	-24.0	-39.3	-15.3
90.0	-14.0	-41.8	-27.8
95.0	-14.0	-46.8	-32.8
100.0	-14.0	-31.8	-17.8
105.0	-14.0	-33.8	-19.8
110.0	-14.0	-31.8	-17.8
115.0	-14.0	-33.8	-19.8
120.0	-14.0	-31.8	-17.8
125.0	-14.0	-31.8	-17.8
130.0	-14.0	-34.3	-20.3
135.0	-14.0	-31.8	-17.8
140.0	-14.0	-31.8	-17.8
145.0	-14.0	-26.8	-12.8
150.0	-14.0	-26.8	-12.8
155.0	-14.0	-26.8	-12.8
160.0	-14.0	-26.8	-12.8
165.0	-14.0	-17.8	-3.8
170.0	-14.0	-34.3	-20.3
175.0	-14.0	-22.8	-8.8
180.0	-14.0	-21.8	-7.8