

EXHIBIT 4

**Tables Required by 25.221(b)(1)(i) to Demonstrate Compliance
of Orbit Model OrBand AL-7108-C Antenna with
25.221(a)(1)(i)**

and

**Tables Required by 25.222(b)(1)(i) to Demonstrate Compliance
of Intellian Model "V150" Antenna with 25.222(a)(1)(i)**

25.221(a)(1)(i)(A) Tables

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Azimuth, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az				6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az			
Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB	Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-10.0	-8.1	4.3	-12.4	0.0	30.0		
-9.9	-6.8	4.4	-11.2	0.1	30.1		
-9.8	-5.6	4.5	-10.1	0.2	30.1		
-9.7	-4.3	4.6	-8.9	0.3	30.0		
-9.6	-3.1	4.7	-7.8	0.4	29.7		
-9.5	-1.9	4.9	-6.8	0.5	29.4		
-9.4	-0.9	5.0	-5.8	0.6	29.0		
-9.3	0.1	5.1	-5.0	0.7	28.5		
-9.2	0.9	5.2	-4.3	0.8	27.9		
-9.1	1.5	5.3	-3.8	0.9	27.1		
-9.0	2.0	5.3	-3.3	1.0	26.3		
-8.9	2.3	5.3	-3.0	1.1	25.4		
-8.8	2.5	5.3	-2.8	1.2	24.4		
-8.7	2.4	5.3	-2.9	1.3	23.3		
-8.6	2.2	5.3	-3.1	1.4	22.1		
-8.5	1.8	5.3	-3.5	1.5	20.8	21.9	-1.1
-8.4	1.2	5.3	-4.1	1.6	19.4	21.2	-1.8
-8.3	0.4	5.3	-4.9	1.7	18.1	20.5	-2.4
-8.2	-0.6	5.3	-5.9	1.8	16.8	19.9	-3.2
-8.1	-2.0	5.3	-7.3	1.9	15.3	19.3	-4.0
-8.0	-3.6	5.3	-8.9	2.0	13.8	18.8	-5.0
-7.9	-5.5	5.3	-10.8	2.1	12.4	18.2	-5.9
-7.8	-7.7	5.3	-13.0	2.2	10.9	17.7	-6.8
-7.7	-10.4	5.3	-15.7	2.3	9.4	17.3	-7.9
-7.6	-13.5	5.3	-18.8	2.4	7.8	16.8	-9.0
-7.5	-16.9	5.3	-22.2	2.5	6.1	16.4	-10.3
-7.4	-20.5	5.3	-25.8	2.6	4.1	15.9	-11.8
-7.3	-25.0	5.3	-30.3	2.7	2.0	15.5	-13.5
-7.2	-32.5	5.3	-37.8	2.8	-0.3	15.1	-15.5
-7.1	-30.4	5.3	-35.7	2.9	-2.9	14.7	-17.6
-7.0	-22.7	5.3	-28.0	3.0	-5.7	14.4	-20.1
-6.9	-18.0	5.3	-23.4	3.1	-8.8	14.0	-22.8
-6.8	-15.0	5.5	-20.5	3.2	-11.8	13.7	-25.5
-6.7	-12.9	5.6	-18.5	3.3	-15.0	13.3	-28.3
-6.6	-11.6	5.8	-17.4	3.4	-19.0	13.0	-32.0
-6.5	-10.9	6.0	-16.9	3.5	-22.8	12.7	-35.5
-6.4	-11.0	6.1	-17.1	3.6	-19.9	12.4	-32.3
-6.3	-11.9	6.3	-18.2	3.7	-15.3	12.1	-27.4
-6.2	-13.8	6.5	-20.3	3.8	-11.8	11.8	-23.6
-6.1	-17.9	6.7	-24.6	3.9	-9.3	11.5	-20.8
-6.0	-25.5	6.8	-32.3	4.0	-7.5	11.2	-18.7
-5.9	-17.7	7.0	-24.7	4.1	-6.2	11.0	-17.1
-5.8	-11.6	7.2	-18.8	4.2	-5.2	10.7	-15.9
-5.7	-7.9	7.4	-15.3	4.3	-4.5	10.5	-15.0
-5.6	-5.2	7.6	-12.8	4.4	-4.1	10.2	-14.3
-5.5	-3.3	7.8	-11.1	4.5	-3.7	10.0	-13.7
-5.4	-1.9	8.0	-9.9	4.6	-3.6	9.7	-13.3
-5.3	-0.9	8.2	-9.1	4.7	-3.5	9.5	-13.0
-5.2	-0.3	8.4	-8.7	4.8	-3.5	9.3	-12.8
-5.1	0.0	8.6	-8.6	4.9	-3.6	9.0	-12.6
-5.0	-0.1	8.8	-8.9	5.0	-3.8	8.8	-12.7
-4.9	-0.4	9.0	-9.4	5.1	-4.3	8.6	-12.9
-4.8	-1.0	9.3	-10.3	5.2	-4.9	8.4	-13.3
-4.7	-1.9	9.5	-11.3	5.3	-5.7	8.2	-13.9
-4.6	-2.9	9.7	-12.7	5.4	-6.9	8.0	-14.9
-4.5	-4.1	10.0	-14.1	5.5	-8.5	7.8	-16.3
-4.4	-5.2	10.2	-15.4	5.6	-10.3	7.6	-17.9
-4.3	-5.8	10.5	-16.2	5.7	-11.8	7.4	-19.2
-4.2	-5.7	10.7	-16.4	5.8	-12.6	7.2	-19.9
-4.1	-5.3	11.0	-16.3	5.9	-11.9	7.0	-18.9
-4.0	-4.8	11.2	-16.1	6.0	-10.6	6.8	-17.4
-3.9	-4.5	11.5	-16.0	6.1	-9.3	6.7	-15.9
-3.8	-4.4	11.8	-16.2	6.2	-8.2	6.5	-14.7
-3.7	-4.7	12.1	-16.8	6.3	-7.5	6.3	-13.8
-3.6	-5.1	12.4	-17.5	6.4	-7.2	6.1	-13.3

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Azimuth, -10° to +10° @ 0.1° increment

-3.5	-5.9	12.7	-18.6		6.5	-7.2	6.0	-13.2
-3.4	-6.7	13.0	-19.8		6.6	-7.5	5.8	-13.3
-3.3	-7.7	13.3	-21.0		6.7	-8.0	5.6	-13.6
-3.2	-8.4	13.7	-22.1		6.8	-8.7	5.5	-14.2
-3.1	-8.9	14.0	-23.0		6.9	-9.5	5.3	-14.9
-3.0	-9.0	14.4	-23.4		7.0	-10.5	5.3	-15.8
-2.9	-8.3	14.7	-23.1		7.1	-11.6	5.3	-16.9
-2.8	-6.6	15.1	-21.8		7.2	-12.8	5.3	-18.1
-2.7	-4.3	15.5	-19.8		7.3	-14.2	5.3	-19.5
-2.6	-1.9	15.9	-17.8		7.4	-16.4	5.3	-21.7
-2.5	0.6	16.4	-15.8		7.5	-20.2	5.3	-25.5
-2.4	2.8	16.8	-14.0		7.6	-26.2	5.3	-31.5
-2.3	4.8	17.3	-12.5		7.7	-21.6	5.3	-26.9
-2.2	6.5	17.7	-11.2		7.8	-14.9	5.3	-20.2
-2.1	8.2	18.2	-10.0		7.9	-10.6	5.3	-15.9
-2.0	9.8	18.8	-9.0		8.0	-7.5	5.3	-12.8
-1.9	11.3	19.3	-8.1		8.1	-5.3	5.3	-10.6
-1.8	12.7	19.9	-7.2		8.2	-3.4	5.3	-8.7
-1.7	14.2	20.5	-6.4		8.3	-1.9	5.3	-7.2
-1.6	15.6	21.2	-5.6		8.4	-0.9	5.3	-6.2
-1.5	17.0	21.9	-4.9		8.5	-0.1	5.3	-5.4
-1.4	18.5				8.6	0.5	5.3	-4.8
-1.3	19.9				8.7	0.9	5.3	-4.4
-1.2	21.2				8.8	1.0	5.3	-4.3
-1.1	22.5				8.9	1.0	5.3	-4.3
-1.0	23.7				9.0	0.8	5.3	-4.5
-0.9	24.8				9.1	0.3	5.3	-5.0
-0.8	25.8				9.2	-0.2	5.2	-5.5
-0.7	26.6				9.3	-1.0	5.1	-6.1
-0.6	27.4				9.4	-2.0	5.0	-6.9
-0.5	28.1				9.5	-3.1	4.9	-7.9
-0.4	28.7				9.6	-4.3	4.7	-9.1
-0.3	29.2				9.7	-5.8	4.6	-10.4
-0.2	29.6				9.8	-7.3	4.5	-11.8
-0.1	29.8				9.9	-8.9	4.4	-13.4
0.0	30.0				10.0	-10.4	4.3	-14.7

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-179.0	-33.0	-12.7	-20.3
-178.0	-31.6	-12.7	-18.9
-177.0	-28.9	-12.7	-16.2
-176.0	-36.8	-12.7	-24.1
-175.0	-29.5	-12.7	-16.8
-174.0	-30.7	-12.7	-18.0
-173.0	-35.6	-12.7	-22.9
-172.0	-31.2	-12.7	-18.5
-171.0	-34.6	-12.7	-21.9
-170.0	-41.4	-12.7	-28.7
-169.0	-33.3	-12.7	-20.6
-168.0	-31.5	-12.7	-18.8
-167.0	-29.9	-12.7	-17.2
-166.0	-39.2	-12.7	-26.5
-165.0	-37.6	-12.7	-24.9
-164.0	-35.3	-12.7	-22.6
-163.0	-36.9	-12.7	-24.2
-162.0	-43.1	-12.7	-30.4
-161.0	-38.9	-12.7	-26.2
-160.0	-43.3	-12.7	-30.6
-159.0	-34.9	-12.7	-22.2
-158.0	-41.4	-12.7	-28.7
-157.0	-34.6	-12.7	-21.9
-156.0	-39.4	-12.7	-26.7
-155.0	-48.8	-12.7	-36.1
-154.0	-45.1	-12.7	-32.4
-153.0	-50.7	-12.7	-38.0
-152.0	-36.6	-12.7	-23.9
-151.0	-41.3	-12.7	-28.6
-150.0	-50.2	-12.7	-37.5
-149.0	-44.7	-12.7	-32.0
-148.0	-40.3	-12.7	-27.6
-147.0	-44.5	-12.7	-31.8
-146.0	-45.0	-12.7	-32.3
-145.0	-39.2	-12.7	-26.5
-144.0	-42.9	-12.7	-30.2
-143.0	-35.7	-12.7	-23.0
-142.0	-52.3	-12.7	-39.6
-141.0	-44.0	-12.7	-31.3
-140.0	-37.5	-12.7	-24.8
-139.0	-39.5	-12.7	-26.8
-138.0	-40.6	-12.7	-27.9
-137.0	-36.4	-12.7	-23.7
-136.0	-44.8	-12.7	-32.1
-135.0	-44.4	-12.7	-31.7
-134.0	-46.3	-12.7	-33.6
-133.0	-37.5	-12.7	-24.8
-132.0	-38.7	-12.7	-26.0
-131.0	-39.6	-12.7	-26.9
-130.0	-37.4	-12.7	-24.7
-129.0	-53.7	-12.7	-41.0
-128.0	-35.9	-12.7	-23.2
-127.0	-31.9	-12.7	-19.2
-126.0	-33.7	-12.7	-21.0
-125.0	-51.1	-12.7	-38.4
-124.0	-40.2	-12.7	-27.5
-123.0	-36.1	-12.7	-23.4
-122.0	-34.8	-12.7	-22.1
-121.0	-34.4	-12.7	-21.7
-120.0	-33.5	-12.7	-20.8
-119.0	-36.2	-12.7	-23.5
-118.0	-33.2	-12.7	-20.5

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
0.0	30.0		
1.0	26.3		
2.0	13.8	18.8	-5.0
3.0	-5.7	14.4	-20.1
4.0	-7.5	11.2	-18.7
5.0	-3.8	8.8	-12.7
6.0	-10.6	6.8	-17.4
7.0	-10.5	5.3	-15.8
8.0	-7.5	5.3	-12.8
9.0	0.8	5.3	-4.5
10.0	-10.4	4.3	-14.7
11.0	-9.4	3.3	-12.7
12.0	-16.8	2.3	-19.2
13.0	-16.5	1.5	-18.0
14.0	-5.3	0.6	-5.9
15.0	-5.1	-0.1	-5.0
16.0	-6.1	-0.8	-5.3
17.0	-10.0	-1.5	-8.5
18.0	-10.8	-2.1	-8.7
19.0	-12.6	-2.7	-9.9
20.0	-13.6	-3.2	-10.4
21.0	-10.8	-3.8	-7.0
22.0	-9.2	-4.3	-4.9
23.0	-10.4	-4.7	-5.6
24.0	-15.3	-5.2	-10.1
25.0	-12.5	-5.6	-6.8
26.0	-18.5	-6.1	-12.4
27.0	-19.5	-6.5	-13.0
28.0	-32.3	-6.9	-25.5
29.0	-26.0	-7.3	-18.7
30.0	-16.7	-7.6	-9.1
31.0	-13.7	-8.0	-5.7
32.0	-12.5	-8.3	-4.2
33.0	-13.1	-8.7	-4.5
34.0	-12.8	-9.0	-3.8
35.0	-14.6	-9.3	-5.3
36.0	-18.4	-9.6	-8.8
37.0	-24.3	-9.9	-14.4
38.0	-23.1	-10.2	-12.9
39.0	-22.2	-10.5	-11.7
40.0	-18.7	-10.8	-7.9
41.0	-23.4	-11.0	-12.3
42.0	-19.5	-11.3	-8.3
43.0	-23.0	-11.5	-11.5
44.0	-24.5	-11.8	-12.7
45.0	-22.9	-12.0	-10.9
46.0	-20.5	-12.3	-8.2
47.0	-17.0	-12.5	-4.5
48.0	-20.4	-12.7	-7.7
49.0	-19.5	-12.7	-6.8
50.0	-26.6	-12.7	-13.9
51.0	-31.0	-12.7	-18.3
52.0	-32.7	-12.7	-20.0
53.0	-24.5	-12.7	-11.8
54.0	-25.5	-12.7	-12.8
55.0	-22.5	-12.7	-9.8
56.0	-36.6	-12.7	-23.9
57.0	-28.2	-12.7	-15.5
58.0	-25.5	-12.7	-12.8
59.0	-22.2	-12.7	-9.5
60.0	-25.4	-12.7	-12.7
61.0	-23.5	-12.7	-10.8

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-117.0	-31.6	-12.7	-18.9	62.0	-23.8	-12.7	-11.1
-116.0	-28.7	-12.7	-16.0	63.0	-20.8	-12.7	-8.1
-115.0	-27.0	-12.7	-14.3	64.0	-18.8	-12.7	-6.1
-114.0	-25.1	-12.7	-12.4	65.0	-17.2	-12.7	-4.5
-113.0	-25.7	-12.7	-13.0	66.0	-18.2	-12.7	-5.5
-112.0	-23.3	-12.7	-10.6	67.0	-17.7	-12.7	-5.0
-111.0	-22.2	-12.7	-9.5	68.0	-22.7	-12.7	-10.0
-110.0	-20.7	-12.7	-8.0	69.0	-22.4	-12.7	-9.7
-109.0	-21.8	-12.7	-9.1	70.0	-22.5	-12.7	-9.8
-108.0	-23.2	-12.7	-10.5	71.0	-19.0	-12.7	-6.3
-107.0	-22.9	-12.7	-10.2	72.0	-20.6	-12.7	-7.9
-106.0	-23.6	-12.7	-10.9	73.0	-25.2	-12.7	-12.5
-105.0	-22.6	-12.7	-9.9	74.0	-31.6	-12.7	-18.9
-104.0	-22.6	-12.7	-9.9	75.0	-30.1	-12.7	-17.4
-103.0	-22.6	-12.7	-9.9	76.0	-22.8	-12.7	-10.1
-102.0	-23.8	-12.7	-11.1	77.0	-23.0	-12.7	-10.3
-101.0	-24.8	-12.7	-12.1	78.0	-22.1	-12.7	-9.4
-100.0	-35.2	-12.7	-22.5	79.0	-21.8	-12.7	-9.1
-99.0	-35.4	-12.7	-22.7	80.0	-31.2	-12.7	-18.5
-98.0	-28.1	-12.7	-15.4	81.0	-26.6	-12.7	-13.9
-97.0	-26.0	-12.7	-13.3	82.0	-22.3	-12.7	-9.6
-96.0	-23.4	-12.7	-10.7	83.0	-20.5	-12.7	-7.8
-95.0	-22.2	-12.7	-9.5	84.0	-18.3	-12.7	-5.6
-94.0	-20.7	-12.7	-8.0	85.0	-18.7	-12.7	-6.0
-93.0	-20.5	-12.7	-7.8	86.0	-18.7	-12.7	-6.0
-92.0	-21.1	-12.7	-8.4	87.0	-20.7	-12.7	-8.0
-91.0	-22.5	-12.7	-9.8	88.0	-22.9	-12.7	-10.2
-90.0	-24.4	-12.7	-11.7	89.0	-25.8	-12.7	-13.1
-89.0	-20.5	-12.7	-7.8	90.0	-31.3	-12.7	-18.6
-88.0	-20.6	-12.7	-7.9	91.0	-38.3	-12.7	-25.6
-87.0	-17.9	-12.7	-5.2	92.0	-27.1	-12.7	-14.4
-86.0	-16.9	-12.7	-4.2	93.0	-25.4	-12.7	-12.7
-85.0	-17.3	-12.7	-4.6	94.0	-25.2	-12.7	-12.5
-84.0	-18.4	-12.7	-5.7	95.0	-28.6	-12.7	-15.9
-83.0	-18.8	-12.7	-6.1	96.0	-30.5	-12.7	-17.8
-82.0	-20.2	-12.7	-7.5	97.0	-25.6	-12.7	-12.9
-81.0	-23.7	-12.7	-11.0	98.0	-19.2	-12.7	-6.5
-80.0	-26.6	-12.7	-13.9	99.0	-16.5	-12.7	-3.8
-79.0	-29.7	-12.7	-17.0	100.0	-14.8	-12.7	-2.1
-78.0	-40.6	-12.7	-27.9	101.0	-16.0	-12.7	-3.3
-77.0	-32.2	-12.7	-19.5	102.0	-17.6	-12.7	-4.9
-76.0	-27.3	-12.7	-14.6	103.0	-24.5	-12.7	-11.8
-75.0	-26.7	-12.7	-14.0	104.0	-25.3	-12.7	-12.6
-74.0	-24.7	-12.7	-12.0	105.0	-22.9	-12.7	-10.2
-73.0	-23.4	-12.7	-10.7	106.0	-20.1	-12.7	-7.4
-72.0	-20.8	-12.7	-8.1	107.0	-21.8	-12.7	-9.1
-71.0	-16.8	-12.7	-4.1	108.0	-25.6	-12.7	-12.9
-70.0	-18.5	-12.7	-5.8	109.0	-26.4	-12.7	-13.7
-69.0	-17.4	-12.7	-4.7	110.0	-26.7	-12.7	-14.0
-68.0	-19.6	-12.7	-6.9	111.0	-21.9	-12.7	-9.2
-67.0	-19.5	-12.7	-6.8	112.0	-18.0	-12.7	-5.3
-66.0	-21.8	-12.7	-9.1	113.0	-16.5	-12.7	-3.8
-65.0	-24.3	-12.7	-11.6	114.0	-16.7	-12.7	-4.0
-64.0	-23.4	-12.7	-10.7	115.0	-16.7	-12.7	-4.0
-63.0	-29.1	-12.7	-16.4	116.0	-19.1	-12.7	-6.4
-62.0	-27.7	-12.7	-15.0	117.0	-19.5	-12.7	-6.8
-61.0	-39.0	-12.7	-26.3	118.0	-20.6	-12.7	-7.9
-60.0	-40.6	-12.7	-27.9	119.0	-23.0	-12.7	-10.3
-59.0	-32.2	-12.7	-19.5	120.0	-22.8	-12.7	-10.1
-58.0	-30.1	-12.7	-17.4	121.0	-29.5	-12.7	-16.8
-57.0	-27.3	-12.7	-14.6	122.0	-28.3	-12.7	-15.6
-56.0	-24.1	-12.7	-11.4	123.0	-27.4	-12.7	-14.7
-55.0	-26.2	-12.7	-13.5	124.0	-39.0	-12.7	-26.3
-54.0	-26.7	-12.7	-14.0	125.0	-33.0	-12.7	-20.3
-53.0	-30.6	-12.7	-17.9	126.0	-33.1	-12.7	-20.4

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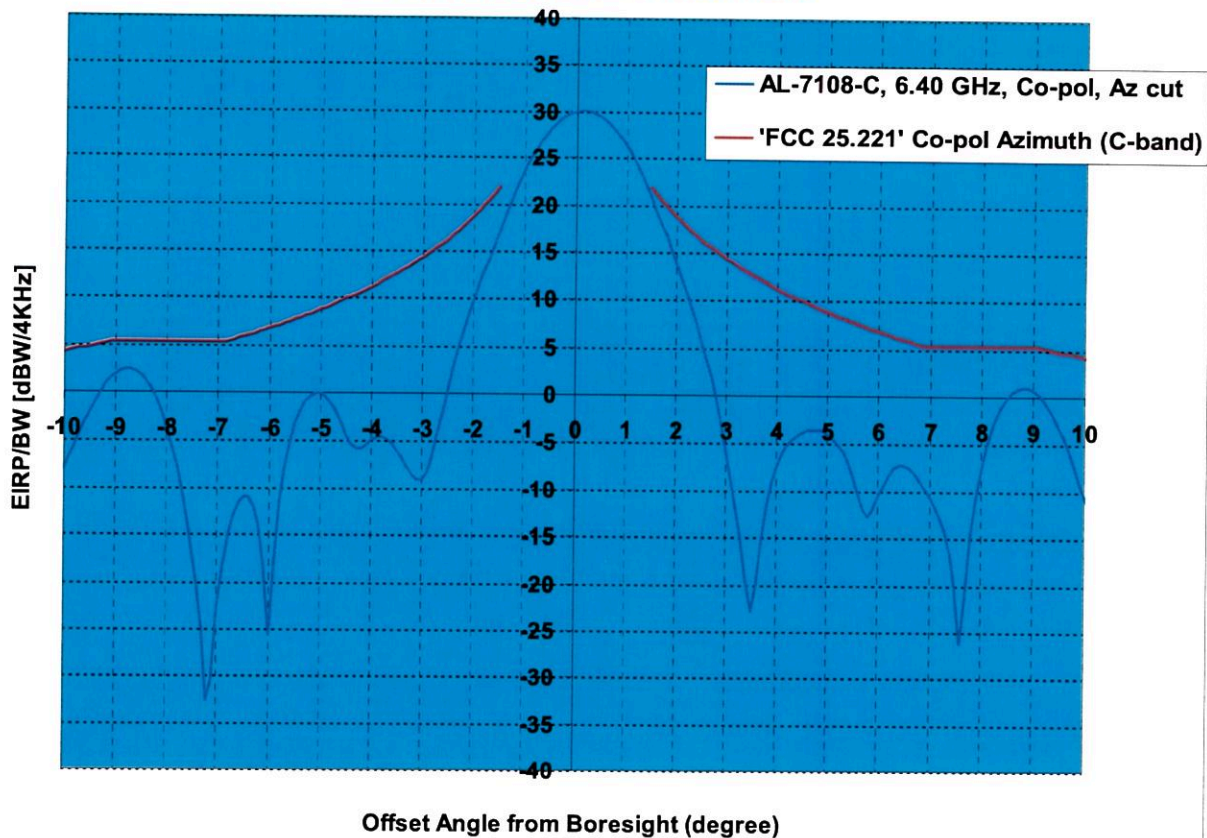
AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-52.0	-34.3	-12.7	-21.6	127.0	-34.4	-12.7	-21.7
-51.0	-29.8	-12.7	-17.1	128.0	-31.6	-12.7	-18.9
-50.0	-26.5	-12.7	-13.8	129.0	-48.6	-12.7	-35.9
-49.0	-23.0	-12.7	-10.3	130.0	-37.2	-12.7	-24.5
-48.0	-22.3	-12.7	-9.6	131.0	-34.7	-12.7	-22.0
-47.0	-22.8	-12.5	-10.3	132.0	-40.8	-12.7	-28.1
-46.0	-25.7	-12.3	-13.4	133.0	-35.1	-12.7	-22.4
-45.0	-25.1	-12.0	-13.0	134.0	-36.9	-12.7	-24.2
-44.0	-36.3	-11.8	-24.5	135.0	-37.6	-12.7	-24.9
-43.0	-30.9	-11.5	-19.3	136.0	-36.9	-12.7	-24.2
-42.0	-32.2	-11.3	-20.9	137.0	-38.5	-12.7	-25.8
-41.0	-44.5	-11.0	-33.5	138.0	-44.0	-12.7	-31.3
-40.0	-28.0	-10.8	-17.2	139.0	-51.0	-12.7	-38.3
-39.0	-27.6	-10.5	-17.1	140.0	-32.7	-12.7	-20.0
-38.0	-41.6	-10.2	-31.4	141.0	-44.1	-12.7	-31.4
-37.0	-30.8	-9.9	-20.9	142.0	-51.2	-12.7	-38.5
-36.0	-27.7	-9.6	-18.1	143.0	-34.8	-12.7	-22.1
-35.0	-24.9	-9.3	-15.6	144.0	-40.1	-12.7	-27.4
-34.0	-22.2	-9.0	-13.2	145.0	-47.0	-12.7	-34.3
-33.0	-23.4	-8.7	-14.7	146.0	-45.7	-12.7	-33.0
-32.0	-17.5	-8.3	-9.2	147.0	-40.2	-12.7	-27.5
-31.0	-21.0	-8.0	-13.0	148.0	-41.0	-12.7	-28.3
-30.0	-18.3	-7.6	-10.7	149.0	-36.4	-12.7	-23.7
-29.0	-19.1	-7.3	-11.8	150.0	-37.8	-12.7	-25.1
-28.0	-16.8	-6.9	-9.9	151.0	-33.4	-12.7	-20.7
-27.0	-22.2	-6.5	-15.7	152.0	-48.7	-12.7	-36.0
-26.0	-19.3	-6.1	-13.2	153.0	-44.9	-12.7	-32.2
-25.0	-16.6	-5.6	-10.9	154.0	-36.3	-12.7	-23.6
-24.0	-27.7	-5.2	-22.5	155.0	-42.1	-12.7	-29.4
-23.0	-15.4	-4.7	-10.7	156.0	-36.4	-12.7	-23.7
-22.0	-14.8	-4.3	-10.5	157.0	-39.5	-12.7	-26.8
-21.0	-11.8	-3.8	-8.0	158.0	-41.4	-12.7	-28.7
-20.0	-16.7	-3.2	-13.5	159.0	-38.3	-12.7	-25.6
-19.0	-17.3	-2.7	-14.7	160.0	-40.0	-12.7	-27.3
-18.0	-20.9	-2.1	-18.8	161.0	-37.2	-12.7	-24.5
-17.0	-12.3	-1.5	-10.9	162.0	-49.4	-12.7	-36.7
-16.0	-7.9	-0.8	-7.1	163.0	-40.6	-12.7	-27.9
-15.0	-5.5	-0.1	-5.4	164.0	-35.5	-12.7	-22.8
-14.0	-5.7	0.6	-6.4	165.0	-32.4	-12.7	-19.7
-13.0	-14.9	1.5	-16.4	166.0	-48.8	-12.7	-36.1
-12.0	-13.9	2.3	-16.2	167.0	-35.3	-12.7	-22.6
-11.0	-12.3	3.3	-15.5	168.0	-38.8	-12.7	-26.1
-10.0	-8.1	4.3	-12.4	169.0	-42.6	-12.7	-29.9
-9.0	2.0	5.3	-3.3	170.0	-33.5	-12.7	-20.8
-8.0	-3.6	5.3	-8.9	171.0	-39.2	-12.7	-26.5
-7.0	-22.7	5.3	-28.0	172.0	-53.9	-12.7	-41.2
-6.0	-25.5	6.8	-32.3	173.0	-41.3	-12.7	-28.6
-5.0	-0.1	8.8	-8.9	174.0	-29.5	-12.7	-16.8
-4.0	-4.8	11.2	-16.1	175.0	-48.0	-12.7	-35.3
-3.0	-9.0	14.4	-23.4	176.0	-51.7	-12.7	-39.0
-2.0	9.8	18.8	-9.0	177.0	-40.1	-12.7	-27.4
-1.0	23.7			178.0	-40.6	-12.7	-27.9
0.0	30.0			179.0	-32.2	-12.7	-19.5

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AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

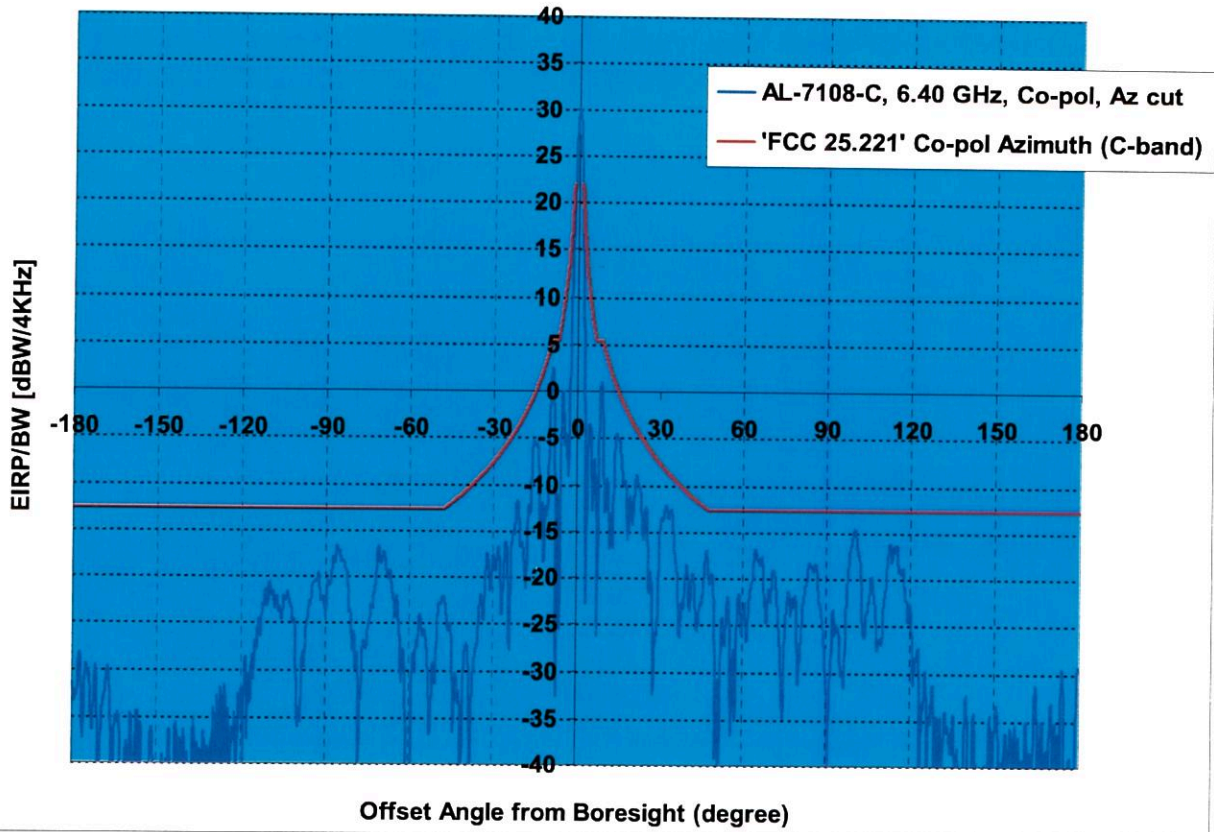
'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
 Min BW of 554 KHz in case of 20W BUC



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (1.5° to 7°)	± (7° to 180°)	
AL-7108-C, 6.40 GHz, Co-pol, Az cut	-9.90	39.93	-1.09	-1.90	0.00

Orbit Communication - Satcom Products
 AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
 and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
 Min BW of 554 KHz in case of 20W BUC**



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (1.5° to 7°)	± (7° to 180°)	
AL-7108-C, 6.40 GHz, Co-pol, Az cut	-9.90	39.93	-1.09	-1.90	0.00

25.221(a)(1)(i)(B) Table 5

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
 Co-pol Elevation, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-10.0	-10.4	4.3	-14.7
-9.9	-8.9	4.4	-13.3
-9.8	-7.3	4.5	-11.8
-9.7	-5.8	4.6	-10.4
-9.6	-4.3	4.7	-9.1
-9.5	-3.0	4.9	-7.9
-9.4	-1.9	5.0	-6.9
-9.3	-1.0	5.1	-6.1
-9.2	-0.2	5.2	-5.4
-9.1	0.3	5.3	-5.0
-9.0	0.8	5.4	-4.7
-8.9	1.0	5.6	-4.6
-8.8	1.1	5.7	-4.6
-8.7	0.9	5.8	-4.9
-8.6	0.5	5.9	-5.4
-8.5	-0.1	6.1	-6.1
-8.4	-0.9	6.2	-7.1
-8.3	-1.9	6.3	-8.3
-8.2	-3.4	6.5	-9.9
-8.1	-5.3	6.6	-11.9
-8.0	-7.5	6.7	-14.2
-7.9	-10.6	6.9	-17.5
-7.8	-14.9	7.0	-21.9
-7.7	-21.6	7.1	-28.7
-7.6	-26.2	7.3	-33.4
-7.5	-20.2	7.4	-27.6
-7.4	-16.4	7.6	-23.9
-7.3	-14.2	7.7	-21.9
-7.2	-12.8	7.9	-20.6
-7.1	-11.6	8.0	-19.6
-7.0	-10.5	8.2	-18.7
-6.9	-9.5	8.3	-17.9
-6.8	-8.7	8.5	-17.2
-6.7	-8.0	8.6	-16.6
-6.6	-7.5	8.8	-16.3
-6.5	-7.2	9.0	-16.1
-6.4	-7.2	9.1	-16.3
-6.3	-7.5	9.3	-16.8
-6.2	-8.2	9.5	-17.7
-6.1	-9.3	9.7	-18.9
-6.0	-10.6	9.8	-20.4
-5.9	-11.9	10.0	-21.9
-5.8	-12.6	10.2	-22.8
-5.7	-11.8	10.4	-22.2
-5.6	-10.3	10.6	-20.9
-5.5	-8.5	10.8	-19.3
-5.4	-6.9	11.0	-17.9
-5.3	-5.7	11.2	-16.9
-5.2	-4.9	11.4	-16.3
-5.1	-4.3	11.6	-15.9
-5.0	-3.8	11.8	-15.7
-4.9	-3.6	12.0	-15.6
-4.8	-3.5	12.3	-15.7
-4.7	-3.5	12.5	-16.0
-4.6	-3.5	12.7	-16.3
-4.5	-3.7	13.0	-16.7
-4.4	-4.0	13.2	-17.3
-4.3	-4.5	13.5	-18.0
-4.2	-5.2	13.7	-18.9
-4.1	-6.2	14.0	-20.1
-4.0	-7.5	14.2	-21.7
-3.9	-9.3	14.5	-23.8

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
0.0	30.0		
0.1	29.9		
0.2	29.6		
0.3	29.2		
0.4	28.7		
0.5	28.1		
0.6	27.4		
0.7	26.6		
0.8	25.8		
0.9	24.8		
1.0	23.7		
1.1	22.5		
1.2	21.2		
1.3	19.9		
1.4	18.5		
1.5	17.0		
1.6	15.6		
1.7	14.2		
1.8	12.7		
1.9	11.3		
2.0	9.8		
2.1	8.2		
2.2	6.5		
2.3	4.8		
2.4	2.8		
2.5	0.6		
2.6	-1.9		
2.7	-4.3		
2.8	-6.6		
2.9	-8.3		
3.0	-9.0	17.4	-26.3
3.1	-8.9	17.0	-25.9
3.2	-8.4	16.7	-25.1
3.3	-7.7	16.3	-24.0
3.4	-6.7	16.0	-22.8
3.5	-5.9	15.7	-21.6
3.6	-5.1	15.4	-20.5
3.7	-4.7	15.1	-19.7
3.8	-4.4	14.8	-19.2
3.9	-4.5	14.5	-19.0
4.0	-4.8	14.2	-19.1
4.1	-5.3	14.0	-19.3
4.2	-5.7	13.7	-19.4
4.3	-5.8	13.5	-19.2
4.4	-5.2	13.2	-18.4
4.5	-4.1	13.0	-17.1
4.6	-2.9	12.7	-15.7
4.7	-1.8	12.5	-14.3
4.8	-1.0	12.3	-13.3
4.9	-0.4	12.0	-12.4
5.0	-0.1	11.8	-11.9
5.1	0.0	11.6	-11.6
5.2	-0.3	11.4	-11.7
5.3	-0.9	11.2	-12.1
5.4	-1.9	11.0	-12.9
5.5	-3.3	10.8	-14.1
5.6	-5.2	10.6	-15.7
5.7	-7.9	10.4	-18.3
5.8	-11.6	10.2	-21.8
5.9	-17.7	10.0	-27.7
6.0	-25.5	9.8	-35.3
6.1	-17.9	9.7	-27.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Elevation, -30° to +30° @ 0.5° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

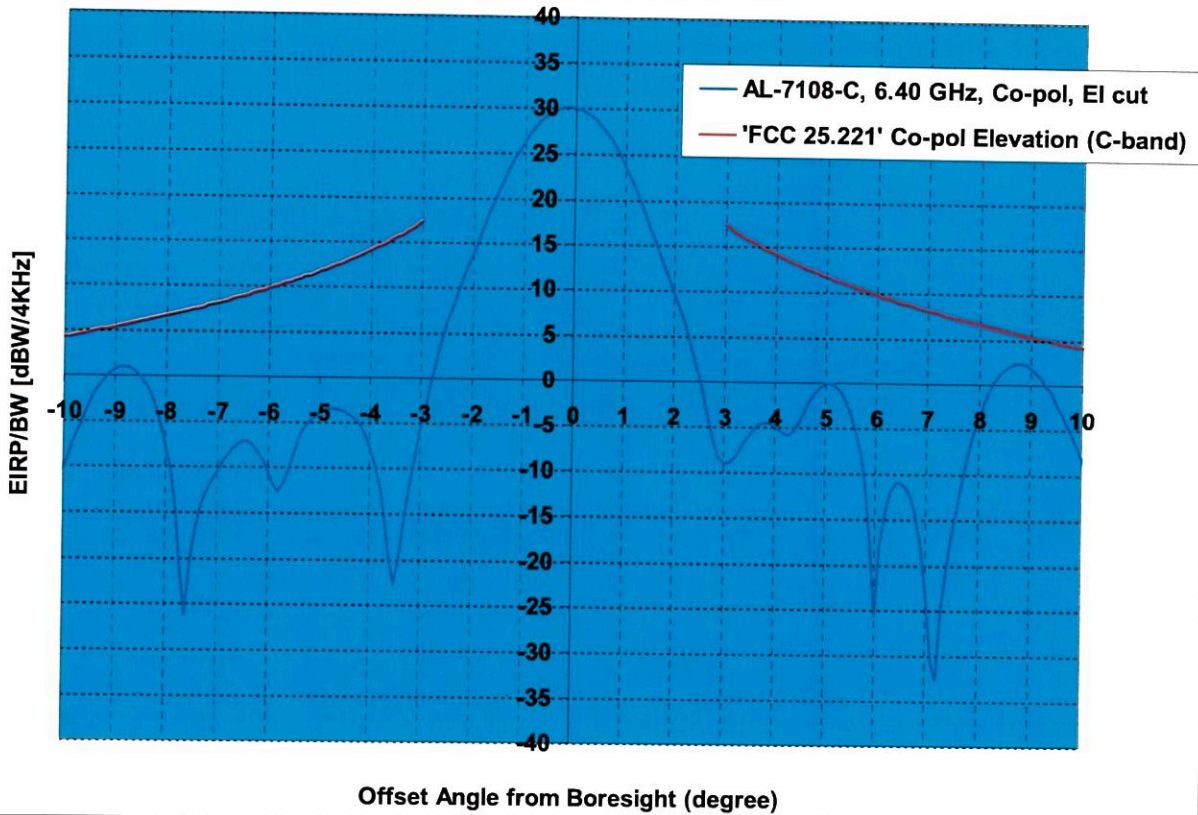
Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-30.0	-16.7	-7.6	-9.1
-29.5	-22.7	-7.4	-15.3
-29.0	-26.0	-7.3	-18.7
-28.5	-26.6	-7.1	-19.6
-28.0	-32.3	-6.9	-25.5
-27.5	-24.2	-6.7	-17.5
-27.0	-19.5	-6.5	-13.0
-26.5	-21.1	-6.3	-14.9
-26.0	-18.5	-6.1	-12.4
-25.5	-13.3	-5.9	-7.4
-25.0	-12.5	-5.6	-6.8
-24.5	-14.8	-5.4	-9.4
-24.0	-15.3	-5.2	-10.1
-23.5	-12.1	-5.0	-7.2
-23.0	-10.4	-4.7	-5.6
-22.5	-10.0	-4.5	-5.5
-22.0	-9.2	-4.3	-4.9
-21.5	-9.0	-4.0	-5.0
-21.0	-10.8	-3.8	-7.0
-20.5	-13.7	-3.5	-10.2
-20.0	-13.6	-3.2	-10.4
-19.5	-11.2	-3.0	-8.2
-19.0	-12.6	-2.7	-9.9
-18.5	-15.5	-2.4	-13.1
-18.0	-10.8	-2.1	-8.7
-17.5	-9.7	-1.8	-7.9
-17.0	-10.0	-1.5	-8.5
-16.5	-8.2	-1.1	-7.1
-16.0	-6.1	-0.8	-5.3
-15.5	-5.2	-0.5	-4.7
-15.0	-5.1	-0.1	-5.0
-14.5	-4.5	0.3	-4.8
-14.0	-5.3	0.6	-5.9
-13.5	-10.1	1.0	-11.1
-13.0	-16.5	1.5	-18.0
-12.5	-13.0	1.9	-14.9
-12.0	-16.8	2.3	-19.1
-11.5	-11.5	2.8	-14.3
-11.0	-9.4	3.3	-12.7
-10.5	-12.3	3.8	-16.0
-10.0	-10.4	4.3	-14.7
-9.5	-3.0	4.9	-7.9
-9.0	0.8	5.4	-4.7
-8.5	-0.1	6.1	-6.1
-8.0	-7.5	6.7	-14.2
-7.5	-20.2	7.4	-27.6
-7.0	-10.5	8.2	-18.7
-6.5	-7.2	9.0	-16.1
-6.0	-10.6	9.8	-20.4
-5.5	-8.5	10.8	-19.3
-5.0	-3.8	11.8	-15.7
-4.5	-3.7	13.0	-16.7
-4.0	-7.5	14.2	-21.7
-3.5	-22.7	15.7	-38.4
-3.0	-5.7	17.4	-23.1
-2.5	6.1		
-2.0	13.8		
-1.5	20.8		
-1.0	26.3		
-0.5	29.4		
0.0	30.0		

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
0.0	30.0		
0.5	28.1		
1.0	23.7		
1.5	17.0		
2.0	9.8		
2.5	0.6		
3.0	-9.0	17.4	-26.3
3.5	-5.9	15.7	-21.6
4.0	-4.8	14.2	-19.1
4.5	-4.1	13.0	-17.1
5.0	-0.1	11.8	-11.9
5.5	-3.3	10.8	-14.1
6.0	-25.5	9.8	-35.3
6.5	-10.9	9.0	-19.9
7.0	-22.7	8.2	-30.9
7.5	-16.9	7.4	-24.3
8.0	-3.6	6.7	-10.4
8.5	1.8	6.1	-4.2
9.0	2.0	5.4	-3.4
9.5	-1.9	4.9	-6.8
10.0	-8.1	4.3	-12.4
10.5	-13.3	3.8	-17.1
11.0	-12.3	3.3	-15.5
11.5	-17.0	2.8	-19.8
12.0	-13.9	2.3	-16.2
12.5	-12.5	1.9	-14.4
13.0	-14.9	1.5	-16.4
13.5	-7.9	1.0	-9.0
14.0	-5.7	0.6	-6.4
14.5	-5.7	0.3	-6.0
15.0	-5.5	-0.1	-5.4
15.5	-5.5	-0.5	-5.0
16.0	-7.9	-0.8	-7.1
16.5	-12.7	-1.1	-11.6
17.0	-12.3	-1.5	-10.9
17.5	-14.1	-1.8	-12.3
18.0	-20.9	-2.1	-18.8
18.5	-19.1	-2.4	-16.8
19.0	-17.3	-2.7	-14.7
19.5	-16.3	-3.0	-13.3
20.0	-16.7	-3.2	-13.5
20.5	-14.3	-3.5	-10.8
21.0	-11.8	-3.8	-8.0
21.5	-12.4	-4.0	-8.4
22.0	-14.8	-4.3	-10.5
22.5	-15.2	-4.5	-10.7
23.0	-15.4	-4.7	-10.7
23.5	-19.5	-5.0	-14.5
24.0	-27.7	-5.2	-22.5
24.5	-19.9	-5.4	-14.5
25.0	-16.6	-5.6	-10.9
25.5	-16.6	-5.9	-10.8
26.0	-19.3	-6.1	-13.2
26.5	-23.4	-6.3	-17.2
27.0	-22.2	-6.5	-15.7
27.5	-18.0	-6.7	-11.3
28.0	-16.8	-6.9	-9.9
28.5	-18.3	-7.1	-11.3
29.0	-19.1	-7.3	-11.8
29.5	-17.7	-7.4	-10.3
30.0	-18.3	-7.6	-10.6

Orbit Communication - Satcom Products
 AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

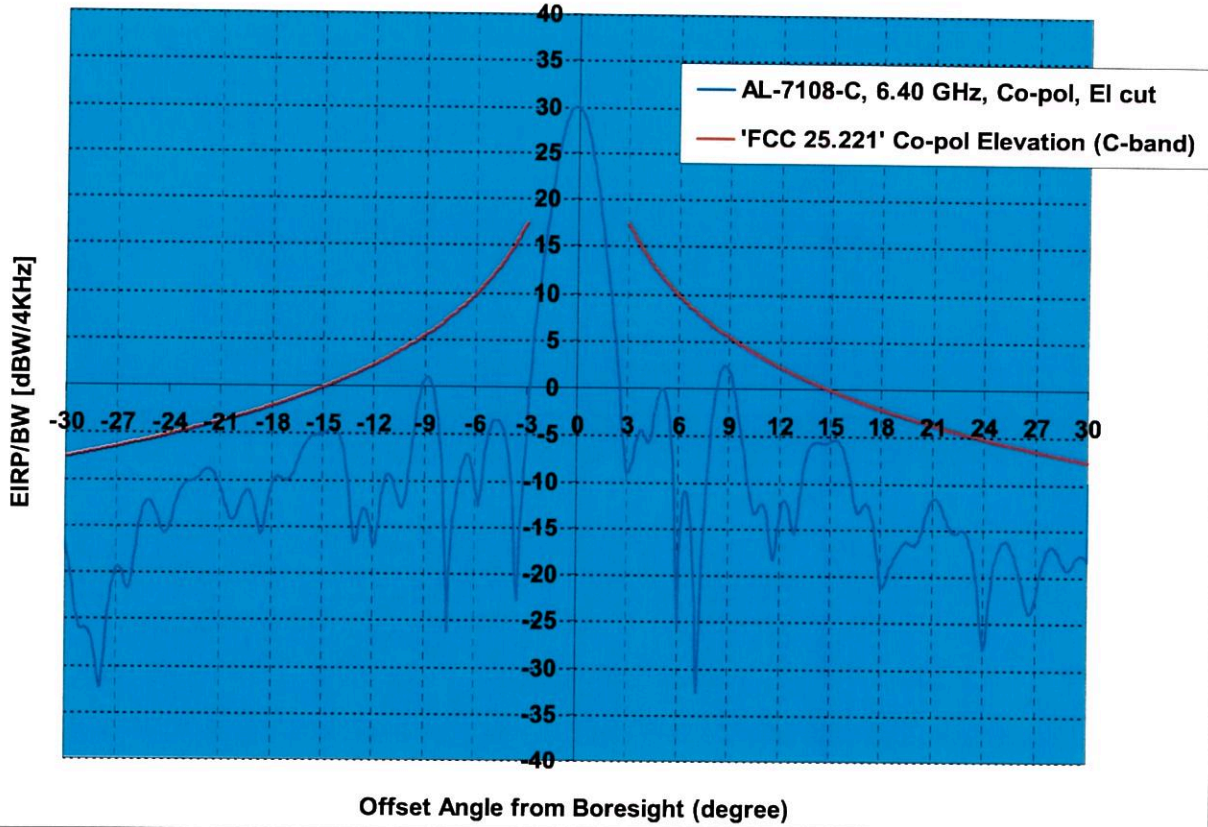
**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
 and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in EL cut
 Min BW of 554 KHz in case of 20W BUC**



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (3° to 7°)	± (3° to 30°)	
AL-7108-C, 6.40 GHz, Co-pol, EI cut	-9.90	39.93	-11.64	-3.21	0.00

Orbit Communication - Satcom Products
 AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
 and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in El cut
 Min BW of 554 KHz in case of 20W BUC**



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (3° to 7°)	± (3° to 30°)	
AL-7108-C, 6.40 GHz, Co-pol, El cut	-9.90	39.93	-11.64	-3.21	0.00

25.22(a)(1)(i)(c) Tables

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

X-pol Azimuth, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in X-pol Az

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-10.0	-15.7	-4.7	-11.0
-9.9	-16.1	-4.7	-11.4
-9.8	-16.6	-4.7	-11.9
-9.7	-17.2	-4.7	-12.5
-9.6	-17.9	-4.7	-13.2
-9.5	-18.3	-4.7	-13.6
-9.4	-17.9	-4.7	-13.2
-9.3	-16.7	-4.7	-12.0
-9.2	-15.2	-4.7	-10.5
-9.1	-13.7	-4.7	-9.0
-9.0	-12.3	-4.7	-7.6
-8.9	-11.3	-4.7	-6.6
-8.8	-10.5	-4.7	-5.8
-8.7	-9.9	-4.7	-5.2
-8.6	-9.4	-4.7	-4.7
-8.5	-9.1	-4.7	-4.4
-8.4	-8.8	-4.7	-4.1
-8.3	-8.5	-4.7	-3.8
-8.2	-8.1	-4.7	-3.4
-8.1	-7.6	-4.7	-2.9
-8.0	-7.1	-4.7	-2.4
-7.9	-6.6	-4.7	-1.9
-7.8	-6.1	-4.7	-1.4
-7.7	-5.7	-4.7	-1.0
-7.6	-5.4	-4.7	-0.7
-7.5	-5.4	-4.7	-0.7
-7.4	-5.4	-4.7	-0.7
-7.3	-5.7	-4.7	-1.0
-7.2	-6.1	-4.7	-1.4
-7.1	-6.5	-4.7	-1.8
-7.0	-7.1	-4.7	-2.4
-6.9	-7.5	-4.7	-2.9
-6.8	-7.7	-4.5	-3.2
-6.7	-7.5	-4.4	-3.1
-6.6	-7.0	-4.2	-2.8
-6.5	-6.3	-4.0	-2.2
-6.4	-5.5	-3.9	-1.6
-6.3	-4.8	-3.7	-1.1
-6.2	-4.2	-3.5	-0.7
-6.1	-3.7	-3.3	-0.4
-6.0	-3.3	-3.2	-0.2
-5.9	-3.0	-3.0	0.0
-5.8	-2.8	-2.8	0.0
-5.7	-2.6	-2.6	0.0
-5.6	-2.5	-2.4	-0.1
-5.5	-2.4	-2.2	-0.2
-5.4	-2.3	-2.0	-0.3
-5.3	-2.2	-1.8	-0.4
-5.2	-2.1	-1.6	-0.5
-5.1	-2.1	-1.4	-0.7
-5.0	-2.2	-1.2	-1.1
-4.9	-2.4	-1.0	-1.5
-4.8	-2.8	-0.7	-2.1
-4.7	-3.3	-0.5	-2.8
-4.6	-4.1	-0.3	-3.8
-4.5	-5.1	0.0	-5.0
-4.4	-6.4	0.2	-6.6
-4.3	-8.0	0.5	-8.4
-4.2	-10.1	0.7	-10.8
-4.1	-13.0	1.0	-13.9
-4.0	-16.8	1.2	-18.0
-3.9	-19.9	1.5	-21.4

6.40 GHz @ -9.90 dBW / 4 kHz in X-pol Az

Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
0.0	-7.4		
0.1	-12.5		
0.2	-10.8		
0.3	-5.8		
0.4	-2.6		
0.5	-0.4		
0.6	1.2		
0.7	2.4		
0.8	3.2		
0.9	3.7		
1.0	4.0		
1.1	4.1		
1.2	4.0		
1.3	3.7		
1.4	3.2		
1.5	2.5		
1.6	1.6		
1.7	0.5		
1.8	-0.9	9.9	-10.8
1.9	-2.7	9.3	-12.0
2.0	-4.8	8.8	-13.6
2.1	-7.4	8.2	-15.6
2.2	-10.4	7.7	-18.1
2.3	-13.3	7.3	-20.5
2.4	-13.8	6.8	-20.6
2.5	-12.4	6.4	-18.7
2.6	-10.8	5.9	-16.7
2.7	-9.6	5.5	-15.1
2.8	-9.0	5.1	-14.1
2.9	-8.9	4.7	-13.6
3.0	-9.1	4.4	-13.4
3.1	-9.7	4.0	-13.7
3.2	-10.6	3.7	-14.3
3.3	-11.9	3.3	-15.3
3.4	-13.8	3.0	-16.8
3.5	-16.2	2.7	-18.9
3.6	-19.4	2.4	-21.8
3.7	-23.6	2.1	-25.7
3.8	-28.9	1.8	-30.7
3.9	-28.2	1.5	-29.7
4.0	-24.0	1.2	-25.2
4.1	-21.2	1.0	-22.2
4.2	-19.4	0.7	-20.1
4.3	-18.0	0.5	-18.5
4.4	-17.0	0.2	-17.3
4.5	-16.1	0.0	-16.1
4.6	-15.4	-0.3	-15.1
4.7	-14.7	-0.5	-14.2
4.8	-13.9	-0.7	-13.2
4.9	-13.1	-1.0	-12.2
5.0	-12.5	-1.2	-11.3
5.1	-11.9	-1.4	-10.5
5.2	-11.2	-1.6	-9.6
5.3	-10.5	-1.8	-8.7
5.4	-10.0	-2.0	-8.0
5.5	-9.5	-2.2	-7.3
5.6	-9.0	-2.4	-6.6
5.7	-8.6	-2.6	-6.0
5.8	-8.2	-2.8	-5.5
5.9	-8.0	-3.0	-5.0
6.0	-7.8	-3.2	-4.7
6.1	-7.8	-3.3	-4.5

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

X-pol Azimuth, -10° to +10° @ 0.1° increment

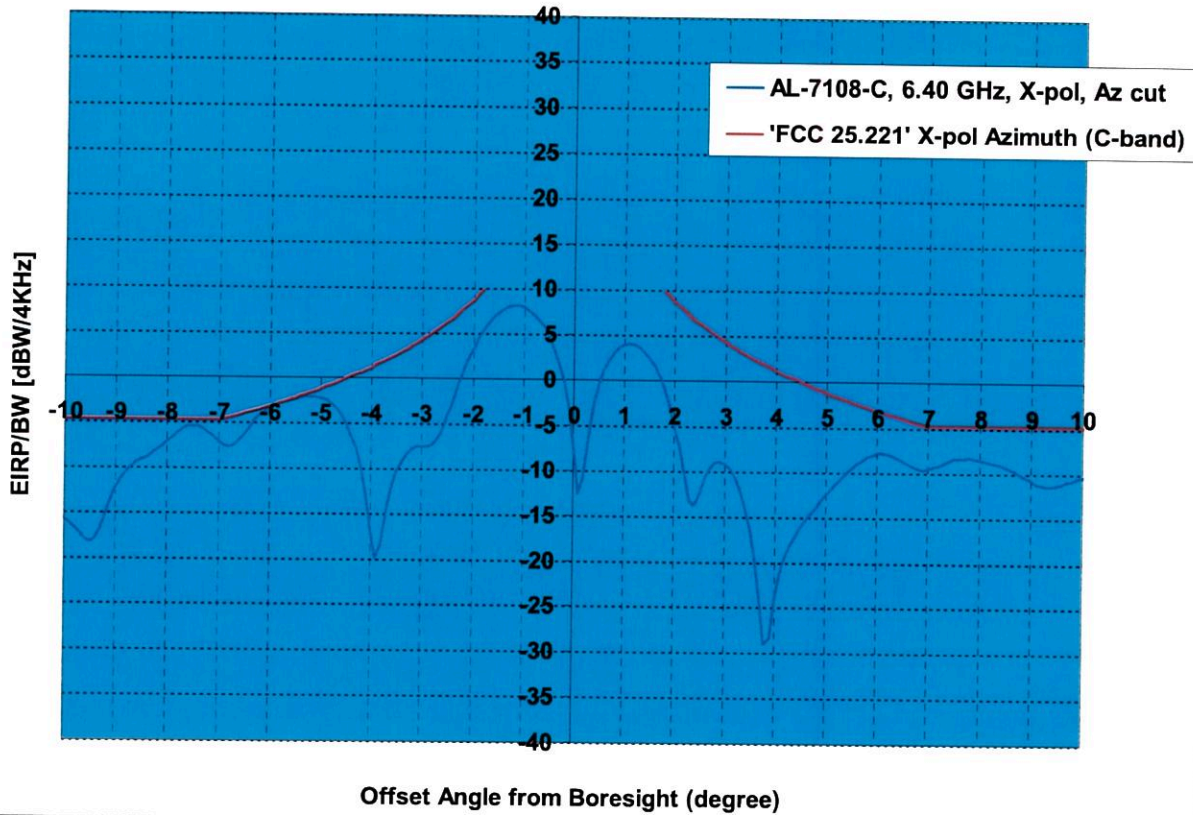
-3.8	-18.1	1.8	-19.9
-3.7	-14.7	2.1	-16.8
-3.6	-12.2	2.4	-14.6
-3.5	-10.3	2.7	-13.0
-3.4	-9.1	3.0	-12.1
-3.3	-8.3	3.3	-11.7
-3.2	-7.8	3.7	-11.5
-3.1	-7.6	4.0	-11.6
-3.0	-7.5	4.4	-11.9
-2.9	-7.5	4.7	-12.2
-2.8	-7.3	5.1	-12.4
-2.7	-6.7	5.5	-12.2
-2.6	-5.6	5.9	-11.5
-2.5	-4.2	6.4	-10.5
-2.4	-2.5	6.8	-9.3
-2.3	-0.9	7.3	-8.1
-2.2	0.6	7.7	-7.1
-2.1	2.1	8.2	-6.2
-2.0	3.3	8.8	-5.4
-1.9	4.4	9.3	-4.9
-1.8	5.4	9.9	-4.5
-1.7	6.2		
-1.6	6.8		
-1.5	7.4		
-1.4	7.7		
-1.3	8.0		
-1.2	8.1		
-1.1	8.1		
-1.0	8.0		
-0.9	7.7		
-0.8	7.3		
-0.7	6.7		
-0.6	5.9		
-0.5	4.9		
-0.4	3.6		
-0.3	2.0		
-0.2	-0.1		
-0.1	-3.0		
0.0	-7.4		

6.2	-7.9	-3.5	-4.4
6.3	-8.1	-3.7	-4.4
6.4	-8.3	-3.9	-4.4
6.5	-8.6	-4.0	-4.6
6.6	-9.0	-4.2	-4.8
6.7	-9.3	-4.4	-4.9
6.8	-9.5	-4.5	-5.0
6.9	-9.6	-4.7	-5.0
7.0	-9.5	-4.7	-4.8
7.1	-9.3	-4.7	-4.6
7.2	-9.1	-4.7	-4.4
7.3	-8.9	-4.7	-4.2
7.4	-8.6	-4.7	-3.9
7.5	-8.3	-4.7	-3.6
7.6	-8.3	-4.7	-3.6
7.7	-8.3	-4.7	-3.6
7.8	-8.2	-4.7	-3.5
7.9	-8.3	-4.7	-3.6
8.0	-8.4	-4.7	-3.7
8.1	-8.5	-4.7	-3.8
8.2	-8.7	-4.7	-4.0
8.3	-8.9	-4.7	-4.2
8.4	-9.0	-4.7	-4.3
8.5	-9.2	-4.7	-4.5
8.6	-9.5	-4.7	-4.8
8.7	-9.8	-4.7	-5.1
8.8	-10.1	-4.7	-5.4
8.9	-10.4	-4.7	-5.7
9.0	-10.7	-4.7	-6.0
9.1	-11.0	-4.7	-6.3
9.2	-11.2	-4.7	-6.5
9.3	-11.3	-4.7	-6.6
9.4	-11.4	-4.7	-6.7
9.5	-11.2	-4.7	-6.5
9.6	-11.1	-4.7	-6.4
9.7	-10.9	-4.7	-6.2
9.8	-10.7	-4.7	-6.0
9.9	-10.5	-4.7	-5.8
10.0	-10.4	-4.7	-5.7

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, X-pol, Azimuth

'FCC 25.221' X-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
Min BW of 554 KHz in case of 20W BUC



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (1.8° to 7°)	± (1.8° to 180°)	
AL-7108-C, 6.40 GHz, X-pol, Az cut	-9.90	39.93	0.00	0.00	0.00

2. EIRP Spectral Density Data

2.1. Azimuth Pattern for Co-pol (-10°~10°)

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-10.00	-21.98	-7.00
-9.90	-17.74	-6.89
-9.80	-14.90	-6.78
-9.70	-13.07	-6.67
-9.60	-12.00	-6.56
-9.50	-11.59	-6.44
-9.40	-11.84	-6.33
-9.30	-12.77	-6.21
-9.20	-14.56	-6.00
-9.10	-17.56	-6.00
-9.00	-22.90	-6.00
-8.90	-37.80	-6.00
-8.80	-27.33	-6.00
-8.70	-21.58	-6.00
-8.60	-19.39	-6.00
-8.50	-18.88	-6.00
-8.40	-19.56	-6.00
-8.30	-20.90	-6.00
-8.20	-21.26	-6.00
-8.10	-19.33	-6.00
-8.00	-16.76	-6.00
-7.90	-14.72	-6.00
-7.80	-13.39	-6.00
-7.70	-12.68	-6.00
-7.60	-12.52	-6.00
-7.50	-12.83	-6.00
-7.40	-13.53	-6.00
-7.30	-14.52	-6.00
-7.20	-15.63	-6.00
-7.10	-16.56	-6.00
-7.00	-16.81	-6.13
-6.90	-16.00	-5.97
-6.80	-14.36	-5.81
-6.70	-12.45	-5.65
-6.60	-10.66	-5.49
-6.50	-9.20	-5.32
-6.40	-8.13	-5.15
-6.30	-7.49	-4.98
-6.20	-7.30	-4.81
-6.10	-7.59	-4.63
-6.00	-8.44	-4.45
-5.90	-9.94	-4.27
-5.80	-12.32	-4.09
-5.70	-16.01	-3.90
-5.60	-21.10	-3.70
-5.50	-20.17	-3.51
-5.40	-15.23	-3.31
-5.30	-11.75	-3.11
-5.20	-9.28	-2.90
-5.10	-7.41	-2.69

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-5.00	-5.95	-2.47
-4.90	-4.84	-2.25
-4.80	-4.06	-2.03
-4.70	-3.62	-1.80
-4.60	-3.53	-1.57
-4.50	-3.82	-1.33
-4.40	-4.48	-1.09
-4.30	-5.52	-0.84
-4.20	-6.87	-0.58
-4.10	-8.38	-0.32
-4.00	-9.75	-0.05
-3.90	-10.70	0.22
-3.80	-11.17	0.51
-3.70	-11.29	0.79
-3.60	-11.06	1.09
-3.50	-10.34	1.40
-3.40	-9.23	1.71
-3.30	-8.08	2.04
-3.20	-7.22	2.37
-3.10	-6.80	2.72
-3.00	-6.85	3.07
-2.90	-7.20	3.44
-2.80	-7.41	3.82
-2.70	-7.03	4.22
-2.60	-6.18	4.63
-2.50	-5.48	5.05
-2.40	-5.39	5.49
-2.30	-5.96	5.96
-2.20	-5.93	6.44
-2.10	-3.18	6.94
-2.00	0.73	7.47
-1.90	4.07	8.03
-1.80	6.57	8.62
-1.70	8.26	9.24
-1.60	9.13	9.90
-1.50	9.04	10.60
-1.40	7.56	
-1.30	3.08	
-1.20	-6.60	
-1.10	6.90	
-1.00	13.80	
-0.90	18.21	
-0.80	21.47	
-0.70	24.02	
-0.60	26.06	
-0.50	27.69	
-0.40	28.98	
-0.30	29.98	
-0.20	30.71	
-0.10	31.19	

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.00	31.22	
0.10	31.19	
0.20	30.71	
0.30	29.98	
0.40	28.98	
0.50	27.69	
0.60	26.06	
0.70	24.02	
0.80	21.47	
0.90	18.21	
1.00	13.80	
1.10	6.90	
1.20	-1.60	
1.30	3.84	
1.40	8.32	
1.50	9.81	10.60
1.60	9.90	9.90
1.70	9.03	9.24
1.80	7.34	8.62
1.90	4.84	8.03
2.00	1.49	7.47
2.10	-2.41	6.94
2.20	-5.16	6.44
2.30	-5.20	5.96
2.40	-4.63	5.49
2.50	-4.72	5.05
2.60	-5.42	4.63
2.70	-6.26	4.22
2.80	-6.64	3.82
2.90	-6.43	3.44
3.00	-6.09	3.07
3.10	-6.04	2.72
3.20	-6.45	2.37
3.30	-7.32	2.04
3.40	-8.47	1.71
3.50	-9.58	1.40
3.60	-10.30	1.09
3.70	-10.53	0.79
3.80	-10.40	0.51
3.90	-10.70	0.22
4.00	-9.75	-0.05
4.10	-8.38	-0.32
4.20	-6.87	-0.58
4.30	-5.52	-0.84
4.40	-4.48	-1.09
4.50	-3.82	-1.33
4.60	-3.53	-1.57
4.70	-3.62	-1.80
4.80	-4.06	-2.03
4.90	-4.84	-2.25

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
5.00	-5.62	-2.47
5.10	-6.40	-2.69
5.20	-7.18	-2.90
5.30	-6.49	-3.11
5.40	-5.77	-3.31
5.50	-5.26	-3.51
5.60	-5.04	-3.70
5.70	-5.18	-3.90
5.80	-5.71	-4.09
5.90	-6.66	-4.27
6.00	-8.04	-4.45
6.10	-9.79	-4.63
6.20	-11.63	-4.81
6.30	-12.89	-4.98
6.40	-12.98	-5.15
6.50	-10.20	-5.32
6.60	-9.64	-5.49
6.70	-9.53	-5.65
6.80	-10.01	-5.81
6.90	-11.14	-5.97
7.00	-12.97	-6.13
7.10	-16.38	-6.00
7.20	-19.20	-6.00
7.30	-18.53	-6.00
7.40	-16.56	-6.00
7.50	-14.90	-6.00
7.60	-13.86	-6.00
7.70	-13.36	-6.00
7.80	-13.20	-6.00
7.90	-13.09	-6.00
8.00	-12.71	-6.00
8.10	-11.93	-6.00
8.20	-10.90	-6.00
8.30	-9.87	-6.00
8.40	-9.02	-6.00
8.50	-8.47	-6.00
8.60	-8.26	-6.00
8.70	-8.42	-6.00
8.80	-8.97	-6.00
8.90	-9.96	-6.00
9.00	-11.45	-6.00
9.10	-13.54	-6.00
9.20	-16.46	-6.00
9.30	-20.71	-6.21
9.40	-27.66	-6.33
9.50	-37.49	-6.44
9.60	-29.44	-6.56
9.70	-26.43	-6.67
9.80	-26.35	-6.78
9.90	-26.83	-6.89
10.00	-34.88	-7.00

2.2. Azimuth Pattern for Co-pol (-180°~180°)

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-180.00	-36.73	-14.00
-179.00	-39.45	-14.00
-178.00	-45.13	-14.00
-177.00	-38.60	-14.00
-176.00	-41.30	-14.00
-175.00	-41.95	-14.00
-174.00	-46.75	-14.00
-173.00	-46.09	-14.00
-172.00	-48.50	-14.00
-171.00	-40.39	-14.00
-170.00	-44.76	-14.00
-169.00	-39.93	-14.00
-168.00	-45.65	-14.00
-167.00	-50.80	-14.00
-166.00	-45.68	-14.00
-165.00	-42.39	-14.00
-164.00	-55.15	-14.00
-163.00	-59.59	-14.00
-162.00	-43.18	-14.00
-161.00	-36.45	-14.00
-160.00	-37.61	-14.00
-159.00	-43.89	-14.00
-158.00	-54.08	-14.00
-157.00	-37.90	-14.00
-156.00	-43.68	-14.00
-155.00	-44.20	-14.00
-154.00	-42.64	-14.00
-153.00	-40.15	-14.00
-152.00	-37.57	-14.00
-151.00	-54.82	-14.00
-150.00	-38.55	-14.00
-149.00	-46.83	-14.00
-148.00	-34.52	-14.00
-147.00	-44.32	-14.00
-146.00	-38.08	-14.00
-145.00	-39.51	-14.00
-144.00	-38.47	-14.00
-143.00	-44.32	-14.00
-142.00	-41.92	-14.00
-141.00	-39.80	-14.00
-140.00	-40.73	-14.00
-139.00	-41.08	-14.00
-138.00	-42.84	-14.00
-137.00	-44.31	-14.00
-136.00	-46.64	-14.00
-135.00	-37.35	-14.00
-134.00	-42.59	-14.00
-133.00	-45.49	-14.00
-132.00	-44.16	-14.00
-131.00	-42.54	-14.00
-130.00	-43.18	-14.00
-129.00	-41.21	-14.00
-128.00	-40.80	-14.00
-127.00	-46.69	-14.00
-126.00	-41.42	-14.00
-125.00	-39.77	-14.00
-124.00	-37.21	-14.00
-123.00	-40.09	-14.00
-122.00	-39.13	-14.00
-121.00	-36.25	-14.00

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-120.00	-36.82	-14.00
-119.00	-35.97	-14.00
-118.00	-38.70	-14.00
-117.00	-38.77	-14.00
-116.00	-33.50	-14.00
-115.00	-36.06	-14.00
-114.00	-35.54	-14.00
-113.00	-34.22	-14.00
-112.00	-38.37	-14.00
-111.00	-34.19	-14.00
-110.00	-30.95	-14.00
-109.00	-34.01	-14.00
-108.00	-35.48	-14.00
-107.00	-37.66	-14.00
-106.00	-38.24	-14.00
-105.00	-34.31	-14.00
-104.00	-31.80	-14.00
-103.00	-34.96	-14.00
-102.00	-47.92	-14.00
-101.00	-42.15	-14.00
-100.00	-34.85	-14.00
-99.00	-29.65	-14.00
-98.00	-28.55	-14.00
-97.00	-29.54	-14.00
-96.00	-32.40	-14.00
-95.00	-34.73	-14.00
-94.00	-29.73	-14.00
-93.00	-28.77	-14.00
-92.00	-25.64	-14.00
-91.00	-26.70	-14.00
-90.00	-25.67	-14.00
-89.00	-28.53	-14.00
-88.00	-32.42	-14.00
-87.00	-35.42	-14.00
-86.00	-39.19	-14.00
-85.00	-37.07	-24.00
-84.00	-35.71	-24.00
-83.00	-35.04	-24.00
-82.00	-34.57	-24.00
-81.00	-32.96	-24.00
-80.00	-30.32	-24.00
-79.00	-28.32	-24.00
-78.00	-27.94	-24.00
-77.00	-29.41	-24.00
-76.00	-30.27	-24.00
-75.00	-28.04	-24.00
-74.00	-27.24	-24.00
-73.00	-28.56	-24.00
-72.00	-27.99	-24.00
-71.00	-26.99	-24.00
-70.00	-28.83	-24.00
-69.00	-31.89	-24.00
-68.00	-37.07	-24.00
-67.00	-35.78	-24.00
-66.00	-35.97	-24.00
-65.00	-54.06	-24.00
-64.00	-44.36	-24.00
-63.00	-38.62	-24.00
-62.00	-35.27	-24.00
-61.00	-48.75	-24.00

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-60.00	-34.38	-24.00
-59.00	-33.19	-24.00
-58.00	-34.63	-24.00
-57.00	-33.75	-24.00
-56.00	-35.52	-24.00
-55.00	-38.24	-24.00
-54.00	-35.54	-24.00
-53.00	-33.94	-24.00
-52.00	-33.84	-24.00
-51.00	-38.19	-24.00
-50.00	-37.24	-24.00
-49.00	-34.03	-24.00
-48.00	-31.87	-24.03
-47.00	-46.30	-23.80
-46.00	-40.45	-23.57
-45.00	-33.77	-23.33
-44.00	-35.46	-23.09
-43.00	-33.69	-22.84
-42.00	-31.56	-22.58
-41.00	-33.90	-22.32
-40.00	-36.46	-22.05
-39.00	-35.33	-21.78
-38.00	-41.01	-21.49
-37.00	-41.87	-21.21
-36.00	-31.78	-20.91
-35.00	-33.20	-20.60
-34.00	-33.66	-20.29
-33.00	-45.66	-19.96
-32.00	-31.24	-19.63
-31.00	-39.08	-19.28
-30.00	-27.46	-18.93
-29.00	-38.16	-18.56
-28.00	-30.10	-18.18
-27.00	-30.22	-17.78
-26.00	-43.12	-17.37
-25.00	-40.34	-16.95
-24.00	-27.49	-16.51
-23.00	-35.79	-16.04
-22.00	-27.92	-15.56
-21.00	-28.36	-15.06
-20.00	-28.49	-14.53
-19.00	-33.37	-13.97
-18.00	-22.03	-13.38
-17.00	-35.30	-12.76
-16.00	-20.26	-12.10
-15.00	-36.60	-11.40
-14.00	-22.65	-10.65
-13.00	-24.40	-9.85
-12.00	-16.38	-8.98
-11.00	-23.58	-8.03
-10.00	-21.98	-7.00
-9.00	-22.90	-6.00
-8.00	-16.76	-6.00
-7.00	-16.81	-6.13
-6.00	-8.44	-4.45
-5.00	-5.95	-2.47
-4.00	-9.75	-0.05
-3.00	-6.85	3.07
-2.00	0.73	7.47
-1.00	13.80	
0.00	31.22	
1.00	13.80	

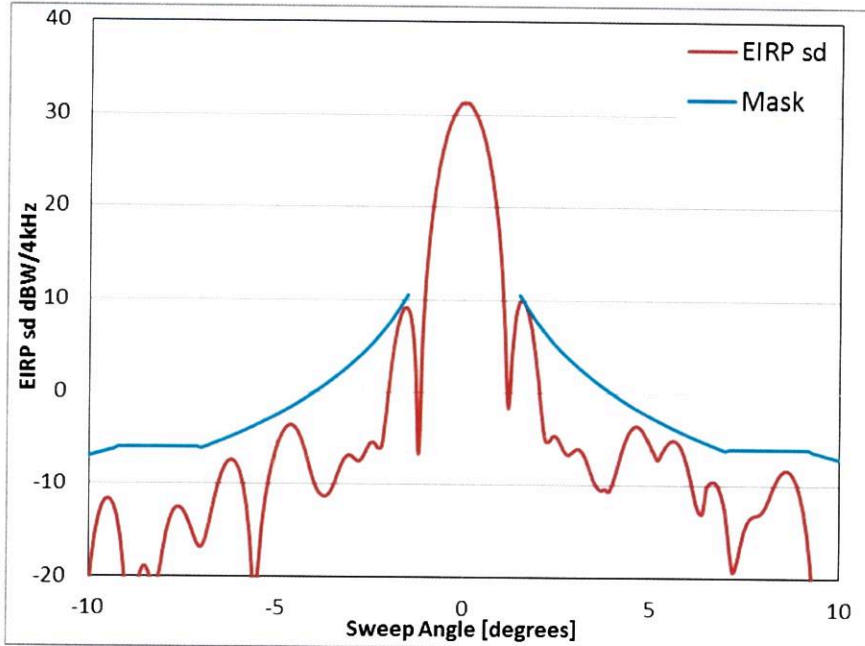
Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
2.00	1.49	7.47
3.00	-6.09	3.07
4.00	-9.75	-0.05
5.00	-5.62	-2.47
6.00	-8.04	-4.45
7.00	-12.97	-6.13
8.00	-12.71	-6.00
9.00	-11.45	-6.00
10.00	-34.88	-7.00
11.00	-16.14	-8.03
12.00	-30.09	-8.98
13.00	-18.58	-9.85
14.00	-20.71	-10.65
15.00	-24.64	-11.40
16.00	-28.18	-12.10
17.00	-24.68	-12.76
18.00	-25.02	-13.38
19.00	-30.70	-13.97
20.00	-26.95	-14.53
21.00	-30.00	-15.06
22.00	-25.95	-15.56
23.00	-47.79	-16.04
24.00	-28.94	-16.51
25.00	-50.68	-16.95
26.00	-28.08	-17.37
27.00	-34.01	-17.78
28.00	-31.46	-18.18
29.00	-28.82	-18.56
30.00	-45.47	-18.93
31.00	-28.82	-19.28
32.00	-31.61	-19.63
33.00	-28.39	-19.96
34.00	-30.36	-20.29
35.00	-40.85	-20.60
36.00	-40.75	-20.91
37.00	-43.85	-21.21
38.00	-36.39	-21.49
39.00	-30.46	-21.78
40.00	-31.39	-22.05
41.00	-35.18	-22.32
42.00	-37.25	-22.58
43.00	-35.44	-22.84
44.00	-39.49	-23.09
45.00	-36.57	-23.33
46.00	-34.60	-23.57
47.00	-30.50	-23.80
48.00	-41.32	-24.03
49.00	-35.60	-24.00
50.00	-33.96	-24.00
51.00	-34.32	-24.00
52.00	-31.40	-24.00
53.00	-29.28	-24.00
54.00	-29.85	-24.00
55.00	-32.09	-24.00
56.00	-30.28	-24.00
57.00	-32.07	-24.00
58.00	-34.64	-24.00
59.00	-32.45	-24.00
60.00	-30.81	-24.00
61.00	-32.89	-24.00

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
62.00	-37.06	-24.00
63.00	-34.38	-24.00
64.00	-32.07	-24.00
65.00	-32.13	-24.00
66.00	-32.68	-24.00
67.00	-31.11	-24.00
68.00	-28.71	-24.00
69.00	-26.89	-24.00
70.00	-25.76	-24.00
71.00	-25.62	-24.00
72.00	-26.68	-24.00
73.00	-28.83	-24.00
74.00	-32.15	-24.00
75.00	-37.32	-24.00
76.00	-47.02	-24.00
77.00	-45.20	-24.00
78.00	-35.21	-24.00
79.00	-32.10	-24.00
80.00	-30.61	-24.00
81.00	-30.09	-24.00
82.00	-30.30	-24.00
83.00	-31.12	-24.00
84.00	-32.47	-24.00
85.00	-37.28	-24.00
86.00	-35.32	-14.00
87.00	-33.41	-14.00
88.00	-31.41	-14.00
89.00	-28.53	-14.00
90.00	-29.82	-14.00
91.00	-27.45	-14.00
92.00	-25.40	-14.00
93.00	-26.17	-14.00
94.00	-29.18	-14.00
95.00	-28.88	-14.00
96.00	-46.52	-14.00
97.00	-40.76	-14.00
98.00	-31.58	-14.00
99.00	-29.94	-14.00
100.00	-28.27	-14.00
101.00	-29.05	-14.00
102.00	-30.30	-14.00
103.00	-32.58	-14.00
104.00	-30.41	-14.00
105.00	-27.63	-14.00
106.00	-29.70	-14.00
107.00	-31.79	-14.00
108.00	-30.03	-14.00
109.00	-31.97	-14.00
110.00	-34.31	-14.00
111.00	-36.02	-14.00
112.00	-37.72	-14.00
113.00	-41.16	-14.00
114.00	-33.20	-14.00
115.00	-33.55	-14.00
116.00	-31.86	-14.00
117.00	-34.10	-14.00
118.00	-39.56	-14.00
119.00	-37.15	-14.00
120.00	-36.65	-14.00
121.00	-36.18	-14.00

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
122.00	-36.99	-14.00
123.00	-42.65	-14.00
124.00	-37.07	-14.00
125.00	-34.86	-14.00
126.00	-34.61	-14.00
127.00	-36.51	-14.00
128.00	-36.96	-14.00
129.00	-35.01	-14.00
130.00	-35.68	-14.00
131.00	-48.01	-14.00
132.00	-50.14	-14.00
133.00	-43.71	-14.00
134.00	-47.20	-14.00
135.00	-42.05	-14.00
136.00	-38.84	-14.00
137.00	-41.55	-14.00
138.00	-42.23	-14.00
139.00	-48.35	-14.00
140.00	-37.23	-14.00
141.00	-53.28	-14.00
142.00	-42.49	-14.00
143.00	-38.71	-14.00
144.00	-36.74	-14.00
145.00	-45.33	-14.00
146.00	-50.80	-14.00
147.00	-46.22	-14.00
148.00	-49.31	-14.00
149.00	-50.62	-14.00
150.00	-39.25	-14.00
151.00	-45.18	-14.00
152.00	-43.61	-14.00
153.00	-47.74	-14.00
154.00	-40.16	-14.00
155.00	-46.64	-14.00
156.00	-46.78	-14.00
157.00	-55.36	-14.00
158.00	-39.28	-14.00
159.00	-37.91	-14.00
160.00	-45.31	-14.00
161.00	-45.96	-14.00
162.00	-45.13	-14.00
163.00	-37.45	-14.00
164.00	-66.25	-14.00
165.00	-36.35	-14.00
166.00	-38.86	-14.00
167.00	-40.79	-14.00
168.00	-42.25	-14.00
169.00	-42.32	-14.00
170.00	-39.08	-14.00
171.00	-33.40	-14.00
172.00	-43.41	-14.00
173.00	-35.45	-14.00
174.00	-47.10	-14.00
175.00	-42.34	-14.00
176.00	-43.54	-14.00
177.00	-44.44	-14.00
178.00	-47.54	-14.00
179.00	-45.54	-14.00
180.00	-43.54	-14.00

1. EIRP Spectral Density of v150

1.1. Azimuth Pattern for Co-pol, Narrow Angle (-10°~10°)



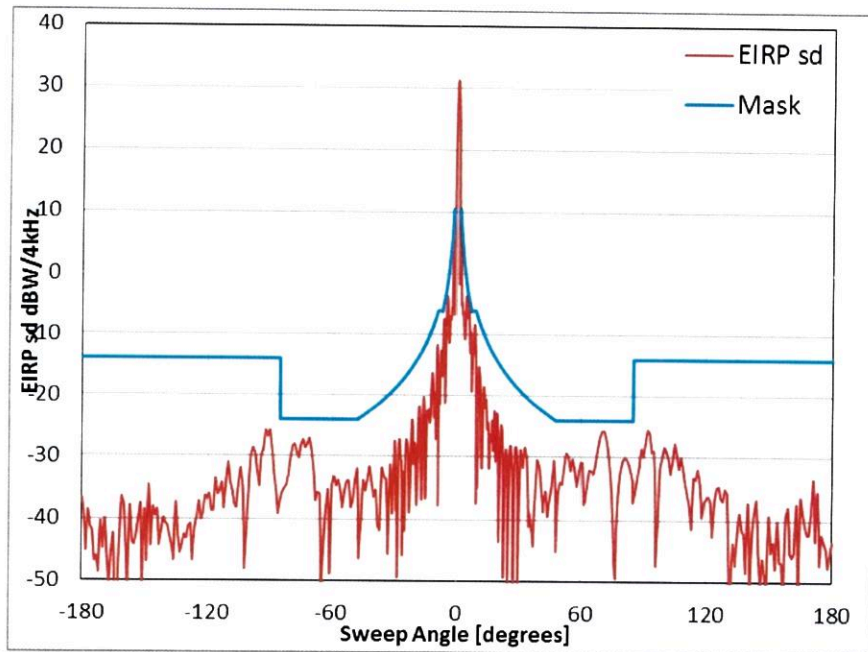
14.25GHz EIRP spectral density @ -13.87 dBW/4kHz Input power spectral density

- **FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	1.5° ≤ θ ≤ 7.0°
-6	dBW/4kHz	for	7.0° < θ ≤ 9.2°
18-25log(θ)	dBW/4kHz	for	9.2° < θ ≤ 48°
-24	dBW/4kHz	for	48° < θ ≤ 85°
-14	dBW/4kHz	for	85° < θ ≤ 180°

The v150's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -13.87 dBW/4kHz

1.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



14.25GHz EIRP spectral density @ -13.87 dBW/4kHz Input power spectral density

▪ **FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
18-25log(θ)	dBW/4kHz	for	$9.2^\circ < \theta \leq 48^\circ$
-24	dBW/4kHz	for	$48^\circ < \theta \leq 85^\circ$
-14	dBW/4kHz	for	$85^\circ < \theta \leq 180^\circ$

The v150's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -13.87 dBW/4kHz

2.4. Elevation Pattern for Co-pol (0°~30°)

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.00	31.22	
0.10	31.19	
0.20	30.70	
0.30	29.97	
0.40	28.96	
0.50	27.65	
0.60	25.99	
0.70	23.93	
0.80	21.33	
0.90	18.01	
1.00	13.49	
1.10	6.43	
1.20	-0.12	
1.30	5.50	
1.40	9.23	
1.50	10.52	
1.60	10.56	
1.70	9.72	
1.80	8.16	
1.90	5.95	
2.00	3.17	
2.10	0.12	
2.20	-2.34	
2.30	-3.30	
2.40	-4.05	
2.50	-3.30	
2.60	-2.31	
2.70	-1.23	
2.80	-0.29	
2.90	0.35	
3.00	0.59	3.07
3.10	0.40	2.72
3.20	-0.24	2.37
3.30	-1.33	2.04
3.40	-2.84	1.71
3.50	-4.71	1.40
3.60	-6.78	1.09
3.70	-8.81	0.79
3.80	-10.59	0.51
3.90	-12.10	0.22
4.00	-13.28	-0.05
4.10	-13.57	-0.32
4.20	-12.49	-0.58
4.30	-10.68	-0.84
4.40	-9.01	-1.09
4.50	-7.79	-1.33
4.60	-7.08	-1.57
4.70	-6.84	-1.80
4.80	-7.02	-2.03
4.90	-7.56	-2.25

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
5.00	-8.37	-2.47
5.10	-9.33	-2.69
5.20	-10.28	-2.90
5.30	-11.02	-3.11
5.40	-11.37	-3.31
5.50	-11.26	-3.51
5.60	-10.77	-3.70
5.70	-10.09	-3.90
5.80	-9.42	-4.09
5.90	-8.95	-4.27
6.00	-8.78	-4.45
6.10	-9.00	-4.63
6.20	-9.68	-4.81
6.30	-10.89	-4.98
6.40	-12.74	-5.15
6.50	-15.29	-5.32
6.60	-18.34	-5.49
6.70	-20.28	-5.65
6.80	-19.33	-5.81
6.90	-17.47	-5.97
7.00	-16.02	-6.13
7.10	-15.01	-6.00
7.20	-14.25	-6.00
7.30	-13.60	-6.00
7.40	-13.04	-6.00
7.50	-12.65	-6.00
7.60	-12.60	-6.00
7.70	-13.02	-6.00
7.80	-14.07	-6.00
7.90	-16.03	-6.00
8.00	-19.44	-6.00
8.10	-26.18	-6.00
8.20	-36.12	-6.00
8.30	-23.74	-6.00
8.40	-19.51	-6.00
8.50	-17.70	-6.00
8.60	-17.32	-6.00
8.70	-18.12	-6.00
8.80	-20.02	-6.00
8.90	-22.06	-6.00
9.00	-20.93	-6.00
9.10	-17.63	-6.00
9.20	-14.87	-6.00
9.30	-12.99	-6.21
9.40	-11.83	-6.33
9.50	-11.25	-6.44
9.60	-11.18	-6.56
9.70	-11.51	-6.67
9.80	-12.16	-6.78
9.90	-13.00	-6.89

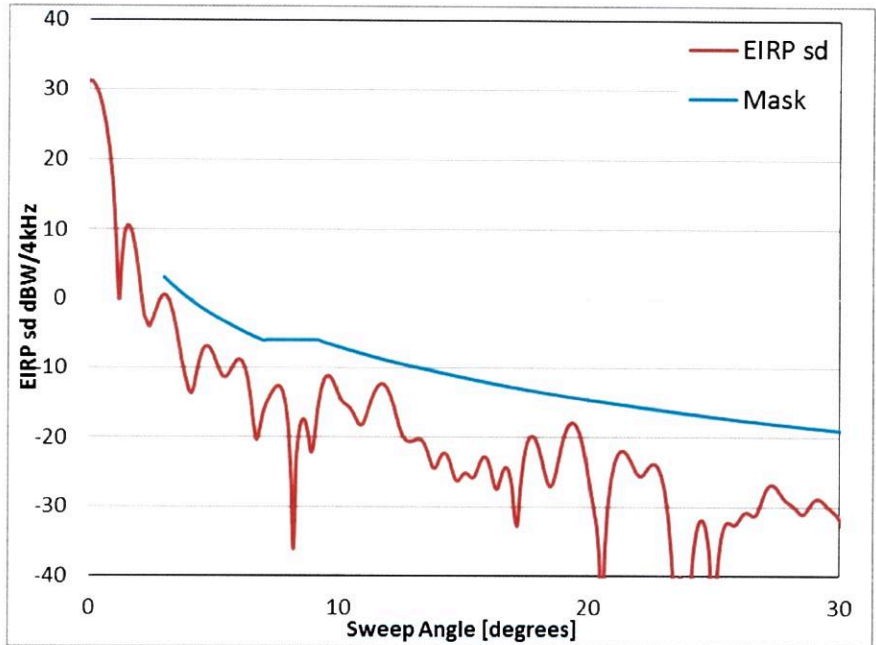
Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
10.00	-13.86	-7.00
10.10	-14.56	-7.11
10.20	-15.01	-7.22
10.30	-15.29	-7.32
10.40	-15.59	-7.43
10.50	-16.01	-7.53
10.60	-16.62	-7.63
10.70	-17.34	-7.73
10.80	-17.97	-7.84
10.90	-18.18	-7.94
11.00	-17.79	-8.03
11.10	-16.88	-8.13
11.20	-15.76	-8.23
11.30	-14.66	-8.33
11.40	-13.72	-8.42
11.50	-12.99	-8.52
11.60	-12.51	-8.61
11.70	-12.30	-8.70
11.80	-12.37	-8.80
11.90	-12.72	-8.89
12.00	-13.35	-8.98
12.10	-14.25	-9.07
12.20	-15.39	-9.16
12.30	-16.69	-9.25
12.40	-17.99	-9.34
12.50	-19.11	-9.42
12.60	-19.91	-9.51
12.70	-20.36	-9.60
12.80	-20.55	-9.68
12.90	-20.56	-9.76
13.00	-20.46	-9.85
13.10	-20.31	-9.93
13.20	-20.22	-10.01
13.30	-20.29	-10.10
13.40	-20.63	-10.18
13.50	-21.30	-10.26
13.60	-22.32	-10.34
13.70	-23.48	-10.42
13.80	-24.33	-10.50
13.90	-24.33	-10.58
14.00	-23.60	-10.65
14.10	-22.75	-10.73
14.20	-22.22	-10.81
14.30	-22.18	-10.88
14.40	-22.66	-10.96
14.50	-23.63	-11.03
14.60	-24.88	-11.11
14.70	-25.97	-11.18
14.80	-26.28	-11.26
14.90	-25.86	-11.33

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
15.00	-25.30	-11.40
15.10	-25.05	-11.47
15.20	-25.20	-11.55
15.30	-25.59	-11.62
15.40	-25.80	-11.69
15.50	-25.39	-11.76
15.60	-24.46	-11.83
15.70	-23.48	-11.90
15.80	-22.83	-11.97
15.90	-22.69	-12.03
16.00	-23.13	-12.10
16.10	-24.19	-12.17
16.20	-25.74	-12.24
16.30	-27.20	-12.30
16.40	-27.39	-12.37
16.50	-26.24	-12.44
16.60	-24.96	-12.50
16.70	-24.26	-12.57
16.80	-24.38	-12.63
16.90	-25.48	-12.70
17.00	-27.84	-12.76
17.10	-31.66	-12.82
17.20	-32.63	-12.89
17.30	-28.05	-12.95
17.40	-24.40	-13.01
17.50	-22.05	-13.08
17.60	-20.63	-13.14
17.70	-19.91	-13.20
17.80	-19.76	-13.26
17.90	-20.12	-13.32
18.00	-20.91	-13.38
18.10	-22.09	-13.44
18.20	-23.56	-13.50
18.30	-25.10	-13.56
18.40	-26.40	-13.62
18.50	-27.04	-13.68
18.60	-26.73	-13.74
18.70	-25.55	-13.80
18.80	-23.91	-13.85
18.90	-22.19	-13.91
19.00	-20.65	-13.97
19.10	-19.40	-14.03
19.20	-18.50	-14.08
19.30	-17.96	-14.14
19.40	-17.80	-14.20
19.50	-18.02	-14.25
19.60	-18.61	-14.31
19.70	-19.60	-14.36
19.80	-20.98	-14.42
19.90	-22.72	-14.47

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
20.00	-24.75	-14.53
20.10	-26.89	-14.58
20.20	-28.96	-14.63
20.30	-31.02	-14.69
20.40	-33.67	-14.74
20.50	-38.58	-14.79
20.60	-52.90	-14.85
20.70	-37.49	-14.90
20.80	-31.12	-14.95
20.90	-27.47	-15.00
21.00	-25.09	-15.06
21.10	-23.52	-15.11
21.20	-22.52	-15.16
21.30	-21.98	-15.21
21.40	-21.83	-15.26
21.50	-21.99	-15.31
21.60	-22.43	-15.36
21.70	-23.07	-15.41
21.80	-23.84	-15.46
21.90	-24.61	-15.51
22.00	-25.23	-15.56
22.10	-25.51	-15.61
22.20	-25.41	-15.66
22.30	-25.00	-15.71
22.40	-24.48	-15.76
22.50	-24.02	-15.80
22.60	-23.76	-15.85
22.70	-23.78	-15.90
22.80	-24.15	-15.95
22.90	-24.91	-16.00
23.00	-26.14	-16.04
23.10	-27.96	-16.09
23.20	-30.52	-16.14
23.30	-34.09	-16.18
23.40	-38.95	-16.23
23.50	-42.94	-16.28
23.60	-41.56	-16.32
23.70	-40.11	-16.37
23.80	-40.65	-16.41
23.90	-43.91	-16.46
24.00	-52.88	-16.51
24.10	-45.10	-16.55
24.20	-38.44	-16.60
24.30	-34.91	-16.64
24.40	-32.91	-16.68
24.50	-31.96	-16.73
24.60	-31.89	-16.77
24.70	-32.72	-16.82
24.80	-34.65	-16.86
24.90	-38.32	-16.90

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
25.00	-46.53	-16.95
25.10	-49.43	-16.99
25.20	-39.53	-17.04
25.30	-35.58	-17.08
25.40	-33.53	-17.12
25.50	-32.53	-17.16
25.60	-32.22	-17.21
25.70	-32.31	-17.25
25.80	-32.52	-17.29
25.90	-32.51	-17.33
26.00	-32.14	-17.37
26.10	-31.57	-17.42
26.20	-31.05	-17.46
26.30	-30.77	-17.50
26.40	-30.79	-17.54
26.50	-31.03	-17.58
26.60	-31.27	-17.62
26.70	-31.18	-17.66
26.80	-30.56	-17.70
26.90	-29.56	-17.74
27.00	-28.51	-17.78
27.10	-27.64	-17.82
27.20	-27.06	-17.86
27.30	-26.79	-17.90
27.40	-26.82	-17.94
27.50	-27.11	-17.98
27.60	-27.58	-18.02
27.70	-28.12	-18.06
27.80	-28.63	-18.10
27.90	-29.03	-18.14
28.00	-29.31	-18.18
28.10	-29.55	-18.22
28.20	-29.85	-18.26
28.30	-30.23	-18.29
28.40	-30.65	-18.33
28.50	-30.96	-18.37
28.60	-30.98	-18.41
28.70	-30.65	-18.45
28.80	-30.08	-18.48
28.90	-29.49	-18.52
29.00	-29.04	-18.56
29.10	-28.79	-18.60
29.20	-28.78	-18.63
29.30	-28.97	-18.67
29.40	-29.31	-18.71
29.50	-29.71	-18.75
29.60	-30.09	-18.78
29.70	-30.42	-18.82
29.80	-30.72	-18.86
29.90	-31.10	-18.89
30.00	-31.67	-18.93

1.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



14.25GHz EIRP spectral density @ -13.87 dBW/4kHz Input power spectral density

▪ **FCC EIRP spectral density regulation**

18-25log(θ)	dBW/4kHz	for	3.0° ≤ θ ≤ 48°
-24	dBW/4kHz	for	48° < θ ≤ 85°
-14	dBW/4kHz	for	85° < θ ≤ 180°

The v150's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -13.87 dBW/4kHz

2.3. Azimuth Pattern for Cross-pol (-10°~10°)

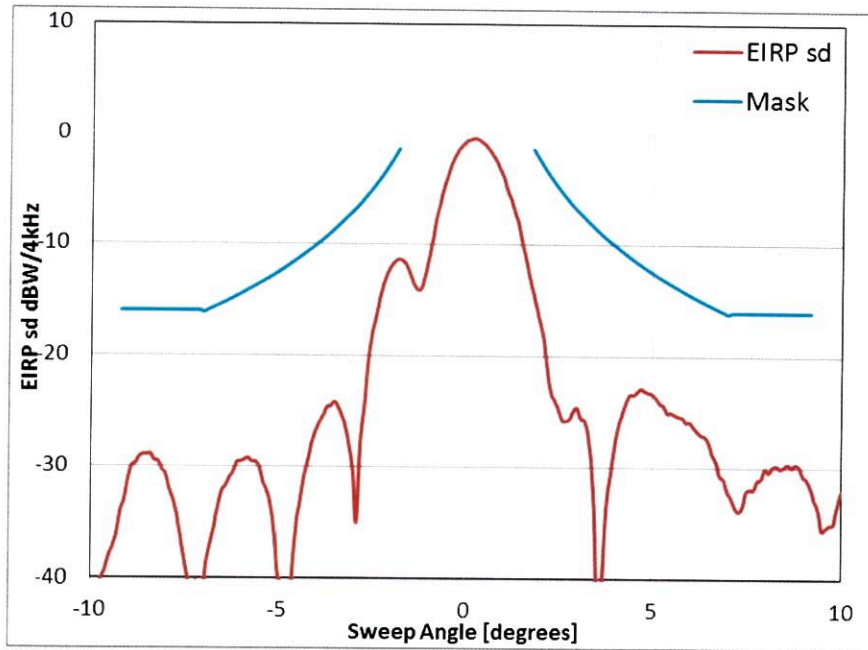
Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-10.00	-40.17	
-9.90	-40.53	
-9.80	-40.62	
-9.70	-39.95	
-9.60	-39.22	
-9.50	-37.97	
-9.40	-37.18	
-9.30	-36.01	
-9.20	-33.98	-16.00
-9.10	-32.94	-16.00
-9.00	-31.15	-16.00
-8.90	-29.89	-16.00
-8.80	-29.65	-16.00
-8.70	-29.07	-16.00
-8.60	-28.86	-16.00
-8.50	-28.85	-16.00
-8.40	-28.83	-16.00
-8.30	-29.39	-16.00
-8.20	-29.47	-16.00
-8.10	-30.21	-16.00
-8.00	-30.69	-16.00
-7.90	-32.00	-16.00
-7.80	-32.85	-16.00
-7.70	-34.20	-16.00
-7.60	-36.18	-16.00
-7.50	-38.15	-16.00
-7.40	-39.97	-16.00
-7.30	-41.33	-16.00
-7.20	-40.20	-16.00
-7.10	-40.46	-16.00
-7.00	-41.00	-16.13
-6.90	-38.43	-15.97
-6.80	-36.88	-15.81
-6.70	-35.37	-15.65
-6.60	-33.55	-15.49
-6.50	-32.15	-15.32
-6.40	-31.71	-15.15
-6.30	-30.99	-14.98
-6.20	-30.45	-14.81
-6.10	-29.54	-14.63
-6.00	-29.47	-14.45
-5.90	-29.30	-14.27
-5.80	-29.15	-14.09
-5.70	-29.48	-13.90
-5.60	-29.49	-13.70
-5.50	-29.98	-13.51
-5.40	-31.34	-13.31
-5.30	-32.11	-13.11
-5.20	-33.29	-12.90
-5.10	-35.73	-12.69

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-5.00	-39.47	-12.47
-4.90	-41.75	-12.25
-4.80	-62.45	-12.03
-4.70	-45.00	-11.80
-4.60	-39.11	-11.57
-4.50	-35.13	-11.33
-4.40	-32.92	-11.09
-4.30	-30.82	-10.84
-4.20	-29.36	-10.58
-4.10	-27.82	-10.32
-4.00	-26.71	-10.05
-3.90	-25.92	-9.78
-3.80	-25.31	-9.49
-3.70	-24.59	-9.21
-3.60	-24.48	-8.91
-3.50	-24.12	-8.60
-3.40	-24.58	-8.29
-3.30	-25.34	-7.96
-3.20	-26.42	-7.63
-3.10	-28.12	-7.28
-3.00	-30.31	-6.93
-2.90	-34.94	-6.56
-2.80	-27.61	-6.18
-2.70	-24.42	-5.78
-2.60	-20.35	-5.37
-2.50	-18.02	-4.95
-2.40	-16.47	-4.51
-2.30	-14.79	-4.04
-2.20	-13.46	-3.56
-2.10	-12.54	-3.06
-2.00	-11.89	-2.53
-1.90	-11.51	-1.97
-1.80	-11.31	-1.38
-1.70	-11.44	
-1.60	-11.81	
-1.50	-12.58	
-1.40	-13.49	
-1.30	-14.02	
-1.20	-13.98	
-1.10	-12.80	
-1.00	-11.27	
-0.90	-9.55	
-0.80	-7.56	
-0.70	-6.21	
-0.60	-4.77	
-0.50	-3.74	
-0.40	-2.69	
-0.30	-1.98	
-0.20	-1.37	
-0.10	-1.01	

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.00	-0.66	
0.10	-0.51	
0.20	-0.41	
0.30	-0.48	
0.40	-0.71	
0.50	-1.01	
0.60	-1.40	
0.70	-1.92	
0.80	-2.44	
0.90	-3.21	
1.00	-3.96	
1.10	-5.09	
1.20	-5.91	
1.30	-7.01	
1.40	-8.09	
1.50	-9.72	
1.60	-11.14	
1.70	-12.71	
1.80	-14.13	-1.38
1.90	-15.49	-1.97
2.00	-16.96	-2.53
2.10	-18.51	-3.06
2.20	-21.24	-3.56
2.30	-23.24	-4.04
2.40	-23.95	-4.51
2.50	-24.72	-4.95
2.60	-25.68	-5.37
2.70	-25.74	-5.78
2.80	-25.56	-6.18
2.90	-24.83	-6.56
3.00	-24.60	-6.93
3.10	-25.55	-7.28
3.20	-25.70	-7.63
3.30	-27.07	-7.96
3.40	-30.11	-8.29
3.50	-36.31	-8.60
3.60	-48.68	-8.91
3.70	-39.96	-9.21
3.80	-33.22	-9.49
3.90	-30.72	-9.78
4.00	-28.17	-10.05
4.10	-26.29	-10.32
4.20	-25.13	-10.58
4.30	-24.14	-10.84
4.40	-23.40	-11.09
4.50	-23.41	-11.33
4.60	-23.12	-11.57
4.70	-22.81	-11.80
4.80	-23.05	-12.03
4.90	-23.20	-12.25

Angle	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
5.00	-23.31	-12.47
5.10	-23.68	-12.69
5.20	-24.17	-12.90
5.30	-24.38	-13.11
5.40	-25.00	-13.31
5.50	-24.97	-13.51
5.60	-25.18	-13.70
5.70	-25.32	-13.90
5.80	-25.42	-14.09
5.90	-25.85	-14.27
6.00	-25.84	-14.45
6.10	-26.28	-14.63
6.20	-26.68	-14.81
6.30	-27.01	-14.98
6.40	-27.14	-15.15
6.50	-27.66	-15.32
6.60	-28.72	-15.49
6.70	-29.38	-15.65
6.80	-30.70	-15.81
6.90	-30.98	-15.97
7.00	-32.03	-16.13
7.10	-32.58	-16.00
7.20	-33.44	-16.00
7.30	-33.92	-16.00
7.40	-33.51	-16.00
7.50	-32.10	-16.00
7.60	-31.86	-16.00
7.70	-31.87	-16.00
7.80	-31.11	-16.00
7.90	-30.93	-16.00
8.00	-30.06	-16.00
8.10	-30.38	-16.00
8.20	-29.86	-16.00
8.30	-29.75	-16.00
8.40	-30.00	-16.00
8.50	-29.85	-16.00
8.60	-29.60	-16.00
8.70	-29.91	-16.00
8.80	-29.62	-16.00
8.90	-29.85	-16.00
9.00	-30.70	-16.00
9.10	-31.00	-16.00
9.20	-31.68	-16.00
9.30	-32.78	
9.40	-33.67	
9.50	-35.56	
9.60	-35.31	
9.70	-35.05	
9.80	-34.96	
9.90	-33.43	
10.00	-32.09	

1.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



14.25GHz EIRP spectral density @ -13.87 dBW/4kHz Input power spectral density

▪ **FCC EIRP spectral density regulation**

$5-25\log(\theta)$	dBW/4kHz	for	$1.8^\circ \leq \theta \leq 7.0^\circ$
-16	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$

The v150's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -13.87 dBW/4kHz