

2. EIRP Spectral Density Data

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

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-10.0	-19.81	-7.00	-5.0	-12.46	-2.47
-9.9	-19.72	-6.89	-4.9	-11.71	-2.25
-9.8	-19.56	-6.78	-4.8	-10.81	-2.03
-9.7	-19.44	-6.67	-4.7	-9.89	-1.80
-9.6	-19.39	-6.56	-4.6	-8.94	-1.57
-9.5	-19.40	-6.44	-4.5	-8.07	-1.33
-9.4	-19.48	-6.33	-4.4	-7.33	-1.09
-9.3	-19.65	-6.21	-4.3	-6.70	-0.84
-9.2	-19.69	-6.00	-4.2	-6.20	-0.58
-9.1	-19.53	-6.00	-4.1	-5.86	-0.32
-9.0	-19.21	-6.00	-4.0	-5.64	-0.05
-8.9	-18.68	-6.00	-3.9	-5.54	0.22
-8.8	-17.92	-6.00	-3.8	-5.56	0.51
-8.7	-17.14	-6.00	-3.7	-5.67	0.79
-8.6	-16.45	-6.00	-3.6	-5.86	1.09
-8.5	-15.79	-6.00	-3.5	-6.13	1.40
-8.4	-15.30	-6.00	-3.4	-6.46	1.71
-8.3	-14.98	-6.00	-3.3	-6.86	2.04
-8.2	-14.77	-6.00	-3.2	-7.34	2.37
-8.1	-14.61	-6.00	-3.1	-8.00	2.72
-8.0	-14.49	-6.00	-3.0	-8.90	3.07
-7.9	-14.31	-6.00	-2.9	-10.12	3.44
-7.8	-14.02	-6.00	-2.8	-11.70	3.82
-7.7	-13.63	-6.00	-2.7	-13.27	4.22
-7.6	-13.21	-6.00	-2.6	-13.09	4.63
-7.5	-12.79	-6.00	-2.5	-10.49	5.05
-7.4	-12.39	-6.00	-2.4	-7.17	5.49
-7.3	-12.07	-6.00	-2.3	-4.05	5.96
-7.2	-11.81	-6.00	-2.2	-1.36	6.44
-7.1	-11.60	-6.00	-2.1	1.03	6.94
-7.0	-11.41	-6.00	-2.0	3.19	7.47
-6.9	-11.26	-5.97	-1.9	4.87	8.03
-6.8	-11.14	-5.81	-1.8	6.13	8.62
-6.7	-11.07	-5.65	-1.7	7.87	9.24
-6.6	-11.06	-5.49	-1.6	9.45	9.90
-6.5	-11.15	-5.32	-1.5	10.59	10.60
-6.4	-11.35	-5.15	-1.4	11.98	
-6.3	-11.63	-4.98	-1.3	13.23	
-6.2	-12.02	-4.81	-1.2	14.35	
-6.1	-12.49	-4.63	-1.1	15.18	
-6.0	-12.93	-4.45	-1.0	15.92	
-5.9	-13.37	-4.27	-0.9	16.59	
-5.8	-13.75	-4.09	-0.8	17.18	
-5.7	-13.98	-3.90	-0.7	17.71	
-5.6	-14.08	-3.70	-0.6	18.18	
-5.5	-14.09	-3.51	-0.5	18.57	
-5.4	-13.98	-3.31	-0.4	18.90	
-5.3	-13.76	-3.11	-0.3	19.16	
-5.2	-13.47	-2.90	-0.2	19.34	
-5.1	-13.05	-2.69	-0.1	19.44	

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.0	19.47		5.0	-11.28	-2.47
0.1	19.41		5.1	-11.56	-2.69
0.2	19.27		5.2	-11.66	-2.90
0.3	19.07		5.3	-11.65	-3.11
0.4	18.79		5.4	-11.62	-3.31
0.5	18.44		5.5	-11.54	-3.51
0.6	18.04		5.6	-11.40	-3.70
0.7	17.58		5.7	-11.25	-3.90
0.8	17.05		5.8	-11.03	-4.09
0.9	16.46		5.9	-10.75	-4.27
1.0	15.79		6.0	-10.44	-4.45
1.1	15.05		6.1	-10.15	-4.63
1.2	13.92		6.2	-9.85	-4.81
1.3	12.94		6.3	-9.62	-4.98
1.4	11.89		6.4	-9.45	-5.15
1.5	10.43	10.60	6.5	-9.35	-5.32
1.6	9.05	9.90	6.6	-9.31	-5.49
1.7	7.65	9.24	6.7	-9.32	-5.65
1.8	6.14	8.62	6.8	-9.39	-5.81
1.9	4.12	8.03	6.9	-9.49	-5.97
2.0	3.06	7.47	7.0	-9.64	-6.00
2.1	0.93	6.94	7.1	-9.87	-6.00
2.2	-1.46	6.44	7.2	-10.17	-6.00
2.3	-4.18	5.96	7.3	-10.56	-6.00
2.4	-7.38	5.49	7.4	-11.06	-6.00
2.5	-10.91	5.05	7.5	-11.68	-6.00
2.6	-13.56	4.63	7.6	-12.36	-6.00
2.7	-13.20	4.22	7.7	-13.07	-6.00
2.8	-11.21	3.82	7.8	-13.80	-6.00
2.9	-9.46	3.44	7.9	-14.44	-6.00
3.0	-8.16	3.07	8.0	-14.96	-6.00
3.1	-7.20	2.72	8.1	-15.40	-6.00
3.2	-6.47	2.37	8.2	-15.77	-6.00
3.3	-5.92	2.04	8.3	-16.13	-6.00
3.4	-5.49	1.71	8.4	-16.51	-6.00
3.5	-5.14	1.40	8.5	-16.95	-6.00
3.6	-4.90	1.09	8.6	-17.47	-6.00
3.7	-4.75	0.79	8.7	-17.98	-6.00
3.8	-4.70	0.51	8.8	-18.53	-6.00
3.9	-4.75	0.22	8.9	-19.05	-6.00
4.0	-4.92	-0.05	9.0	-19.44	-6.00
4.1	-5.22	-0.32	9.1	-19.69	-6.00
4.2	-5.63	-0.58	9.2	-19.81	-6.00
4.3	-6.17	-0.84	9.3	-19.75	-6.21
4.4	-6.84	-1.09	9.4	-19.57	-6.33
4.5	-7.59	-1.33	9.5	-19.42	-6.44
4.6	-8.44	-1.57	9.6	-19.29	-6.56
4.7	-9.32	-1.80	9.7	-19.21	-6.67
4.8	-10.13	-2.03	9.8	-19.22	-6.78
4.9	-10.80	-2.25	9.9	-19.29	-6.89
			10.0	-19.37	-7.00

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

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-180.0	-53.44	-14.00	-135.0	-54.29	-14.00
-179.0	-50.55	-14.00	-134.0	-52.77	-14.00
-178.0	-48.34	-14.00	-133.0	-50.87	-14.00
-177.0	-46.55	-14.00	-132.0	-52.70	-14.00
-176.0	-44.63	-14.00	-131.0	-49.45	-14.00
-175.0	-42.52	-14.00	-130.0	-44.76	-14.00
-174.0	-42.62	-14.00	-129.0	-51.22	-14.00
-173.0	-42.73	-14.00	-128.0	-51.37	-14.00
-172.0	-48.94	-14.00	-127.0	-50.44	-14.00
-171.0	-48.00	-14.00	-126.0	-53.73	-14.00
-170.0	-48.78	-14.00	-125.0	-58.80	-14.00
-169.0	-49.93	-14.00	-124.0	-55.06	-14.00
-168.0	-51.44	-14.00	-123.0	-52.74	-14.00
-167.0	-46.88	-14.00	-122.0	-60.30	-14.00
-166.0	-68.21	-14.00	-121.0	-50.44	-14.00
-165.0	-48.49	-14.00	-120.0	-57.30	-14.00
-164.0	-72.77	-14.00	-119.0	-57.53	-14.00
-163.0	-65.48	-14.00	-118.0	-51.97	-14.00
-162.0	-53.83	-14.00	-117.0	-52.31	-14.00
-161.0	-54.40	-14.00	-116.0	-47.34	-14.00
-160.0	-49.91	-14.00	-115.0	-52.70	-14.00
-159.0	-49.82	-14.00	-114.0	-50.21	-14.00
-158.0	-56.07	-14.00	-113.0	-50.99	-14.00
-157.0	-48.74	-14.00	-112.0	-48.16	-14.00
-156.0	-58.47	-14.00	-111.0	-48.41	-14.00
-155.0	-53.88	-14.00	-110.0	-49.23	-14.00
-154.0	-46.49	-14.00	-109.0	-53.50	-14.00
-153.0	-43.61	-14.00	-108.0	-49.71	-14.00
-152.0	-55.30	-14.00	-107.0	-48.53	-14.00
-151.0	-64.42	-14.00	-106.0	-61.78	-14.00
-150.0	-47.96	-14.00	-105.0	-43.94	-14.00
-149.0	-53.68	-14.00	-104.0	-47.30	-14.00
-148.0	-47.85	-14.00	-103.0	-44.83	-14.00
-147.0	-50.28	-14.00	-102.0	-40.69	-14.00
-146.0	-44.58	-14.00	-101.0	-39.78	-14.00
-145.0	-51.21	-14.00	-100.0	-36.66	-14.00
-144.0	-50.48	-14.00	-99.0	-36.41	-14.00
-143.0	-61.52	-14.00	-98.0	-35.37	-14.00
-142.0	-47.29	-14.00	-97.0	-35.75	-14.00
-141.0	-50.19	-14.00	-96.0	-38.63	-14.00
-140.0	-57.40	-14.00	-95.0	-42.68	-14.00
-139.0	-60.32	-14.00	-94.0	-48.11	-14.00
-138.0	-59.52	-14.00	-93.0	-48.56	-14.00
-137.0	-49.87	-14.00	-92.0	-40.06	-14.00
-136.0	-71.58	-14.00	-91.0	-35.41	-14.00

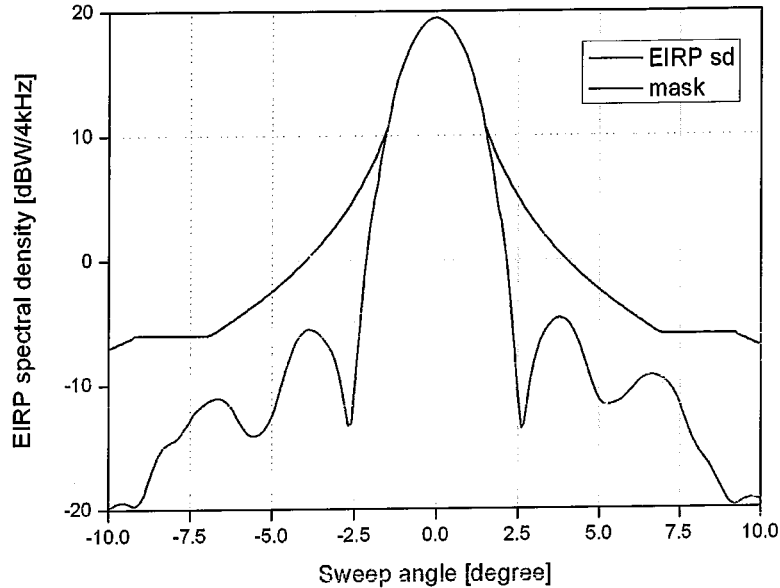
14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-90.0	-33.12	-14.00	-45.0	-52.23	-23.33
-89.0	-35.12	-14.00	-44.0	-31.85	-23.09
-88.0	-37.51	-14.00	-43.0	-31.37	-22.84
-87.0	-31.69	-14.00	-42.0	-31.88	-22.58
-86.0	-33.03	-14.00	-41.0	-38.37	-22.32
-85.0	-30.37	-24.00	-40.0	-34.68	-22.05
-84.0	-30.30	-24.00	-39.0	-36.69	-21.78
-83.0	-34.04	-24.00	-38.0	-38.93	-21.49
-82.0	-35.57	-24.00	-37.0	-35.29	-21.21
-81.0	-38.06	-24.00	-36.0	-43.90	-20.91
-80.0	-35.76	-24.00	-35.0	-34.06	-20.60
-79.0	-34.22	-24.00	-34.0	-31.27	-20.29
-78.0	-39.20	-24.00	-33.0	-41.02	-19.96
-77.0	-40.09	-24.00	-32.0	-35.91	-19.63
-76.0	-36.04	-24.00	-31.0	-42.49	-19.28
-75.0	-40.49	-24.00	-30.0	-37.57	-18.93
-74.0	-38.79	-24.00	-29.0	-41.40	-18.56
-73.0	-38.72	-24.00	-28.0	-42.25	-18.18
-72.0	-39.92	-24.00	-27.0	-41.98	-17.78
-71.0	-41.06	-24.00	-26.0	-41.58	-17.37
-70.0	-40.09	-24.00	-25.0	-37.93	-16.95
-69.0	-31.45	-24.00	-24.0	-41.38	-16.51
-68.0	-36.25	-24.00	-23.0	-30.00	-16.04
-67.0	-35.03	-24.00	-22.0	-39.70	-15.56
-66.0	-32.09	-24.00	-21.0	-32.06	-15.06
-65.0	-28.73	-24.00	-20.0	-32.11	-14.53
-64.0	-31.37	-24.00	-19.0	-27.39	-13.97
-63.0	-43.80	-24.00	-18.0	-29.78	-13.38
-62.0	-32.66	-24.00	-17.0	-43.68	-12.76
-61.0	-34.19	-24.00	-16.0	-26.46	-12.10
-60.0	-35.66	-24.00	-15.0	-30.42	-11.40
-59.0	-37.56	-24.00	-14.0	-36.83	-10.65
-58.0	-31.07	-24.00	-13.0	-29.67	-9.85
-57.0	-41.55	-24.00	-12.0	-26.59	-8.98
-56.0	-31.74	-24.00	-11.0	-18.14	-8.03
-55.0	-38.70	-24.00	-10.0	-19.81	-7.00
-54.0	-36.66	-24.00	-9.0	-19.21	-6.00
-53.0	-29.68	-24.00	-8.0	-14.49	-6.00
-52.0	-37.44	-24.00	-7.0	-11.41	-6.13
-51.0	-37.18	-24.00	-6.0	-12.93	-4.45
-50.0	-33.12	-24.00	-5.0	-12.46	-2.47
-49.0	-34.62	-24.00	-4.0	-5.64	-0.05
-48.0	-30.69	-24.03	-3.0	-8.90	3.07
-47.0	-44.07	-23.80	-2.0	3.19	7.47
-46.0	-34.48	-23.57	-1.0	15.92	

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.0	19.47		45.0	-43.09	-23.33
1.0	15.79		46.0	-33.56	-23.57
2.0	3.06	7.47	47.0	-47.13	-23.80
3.0	-8.16	3.07	48.0	-29.77	-24.03
4.0	-4.92	-0.05	49.0	-33.59	-24.00
5.0	-11.28	-2.47	50.0	-33.58	-24.00
6.0	-10.44	-4.45	51.0	-30.53	-24.00
7.0	-9.64	-6.13	52.0	-45.97	-24.00
8.0	-14.96	-6.00	53.0	-39.93	-24.00
9.0	-19.44	-6.00	54.0	-37.40	-24.00
10.0	-19.37	-7.00	55.0	-37.58	-24.00
11.0	-20.82	-8.03	56.0	-34.72	-24.00
12.0	-36.31	-8.98	57.0	-35.06	-24.00
13.0	-30.24	-9.85	58.0	-48.14	-24.00
14.0	-39.55	-10.65	59.0	-35.51	-24.00
15.0	-30.17	-11.40	60.0	-42.33	-24.00
16.0	-26.04	-12.10	61.0	-34.56	-24.00
17.0	-32.02	-12.76	62.0	-37.78	-24.00
18.0	-26.29	-13.38	63.0	-48.65	-24.00
19.0	-30.39	-13.97	64.0	-35.39	-24.00
20.0	-33.86	-14.53	65.0	-31.91	-24.00
21.0	-36.89	-15.06	66.0	-36.38	-24.00
22.0	-36.22	-15.56	67.0	-33.85	-24.00
23.0	-32.82	-16.04	68.0	-34.59	-24.00
24.0	-29.80	-16.51	69.0	-41.23	-24.00
25.0	-33.16	-16.95	70.0	-34.10	-24.00
26.0	-28.49	-17.37	71.0	-34.73	-24.00
27.0	-31.85	-17.78	72.0	-36.56	-24.00
28.0	-38.74	-18.18	73.0	-33.01	-24.00
29.0	-30.83	-18.56	74.0	-29.32	-24.00
30.0	-37.67	-18.93	75.0	-28.71	-24.00
31.0	-35.05	-19.28	76.0	-28.69	-24.00
32.0	-32.20	-19.63	77.0	-30.40	-24.00
33.0	-42.19	-19.96	78.0	-33.53	-24.00
34.0	-31.92	-20.29	79.0	-37.35	-24.00
35.0	-31.97	-20.60	80.0	-44.30	-24.00
36.0	-40.80	-20.91	81.0	-37.49	-24.00
37.0	-36.81	-21.21	82.0	-32.90	-24.00
38.0	-38.02	-21.49	83.0	-32.01	-24.00
39.0	-30.56	-21.78	84.0	-32.91	-24.00
40.0	-46.87	-22.05	85.0	-34.60	-24.00
41.0	-40.48	-22.32	86.0	-37.81	-14.00
42.0	-34.10	-22.58	87.0	-42.55	-14.00
43.0	-35.22	-22.84	88.0	-48.27	-14.00
44.0	-34.30	-23.09	89.0	-53.83	-14.00

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
90.0	-56.45	-14.00	135.0	-47.46	-14.00
91.0	-44.27	-14.00	136.0	-63.66	-14.00
92.0	-34.60	-14.00	137.0	-50.13	-14.00
93.0	-31.96	-14.00	138.0	-49.62	-14.00
94.0	-30.44	-14.00	139.0	-51.22	-14.00
95.0	-31.09	-14.00	140.0	-56.59	-14.00
96.0	-33.39	-14.00	141.0	-44.36	-14.00
97.0	-36.01	-14.00	142.0	-49.86	-14.00
98.0	-37.96	-14.00	143.0	-51.21	-14.00
99.0	-36.26	-14.00	144.0	-38.93	-14.00
100.0	-41.98	-14.00	145.0	-51.32	-14.00
101.0	-40.83	-14.00	146.0	-51.67	-14.00
102.0	-40.07	-14.00	147.0	-45.21	-14.00
103.0	-37.20	-14.00	148.0	-47.47	-14.00
104.0	-39.80	-14.00	149.0	-42.53	-14.00
105.0	-37.94	-14.00	150.0	-51.73	-14.00
106.0	-35.20	-14.00	151.0	-38.84	-14.00
107.0	-37.42	-14.00	152.0	-43.98	-14.00
108.0	-36.79	-14.00	153.0	-47.54	-14.00
109.0	-37.39	-14.00	154.0	-52.36	-14.00
110.0	-42.29	-14.00	155.0	-41.24	-14.00
111.0	-38.96	-14.00	156.0	-40.59	-14.00
112.0	-49.98	-14.00	157.0	-45.00	-14.00
113.0	-54.43	-14.00	158.0	-43.21	-14.00
114.0	-41.81	-14.00	159.0	-45.45	-14.00
115.0	-42.68	-14.00	160.0	-46.87	-14.00
116.0	-55.22	-14.00	161.0	-46.16	-14.00
117.0	-45.78	-14.00	162.0	-49.06	-14.00
118.0	-43.26	-14.00	163.0	-46.36	-14.00
119.0	-41.13	-14.00	164.0	-44.20	-14.00
120.0	-50.87	-14.00	165.0	-51.18	-14.00
121.0	-50.16	-14.00	166.0	-44.61	-14.00
122.0	-46.89	-14.00	167.0	-43.59	-14.00
123.0	-48.04	-14.00	168.0	-44.03	-14.00
124.0	-49.70	-14.00	169.0	-46.29	-14.00
125.0	-52.32	-14.00	170.0	-39.02	-14.00
126.0	-55.46	-14.00	171.0	-35.96	-14.00
127.0	-48.56	-14.00	172.0	-49.97	-14.00
128.0	-54.46	-14.00	173.0	-40.43	-14.00
129.0	-43.75	-14.00	174.0	-35.47	-14.00
130.0	-45.68	-14.00	175.0	-43.52	-14.00
131.0	-42.08	-14.00	176.0	-41.42	-14.00
132.0	-44.57	-14.00	177.0	-43.03	-14.00
133.0	-54.39	-14.00	178.0	-44.63	-14.00
134.0	-52.55	-14.00	179.0	-46.85	-14.00
			180.0	-49.52	-14.00

1. EIRP Spectral Density of V80G

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



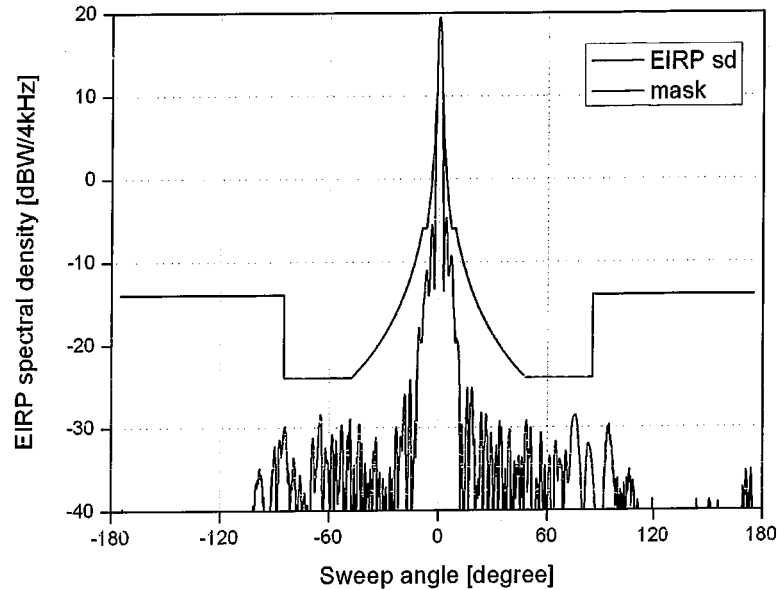
14.25GHz EIRP spectral density @ -20.13dBW/4kHz Input power spectral density

▪ FCC EIRP spectral density regulation

$15-25\log(\theta)$	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$18-25\log(\theta)$	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 v80G's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -20.13 dBW/ 4kHz

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



14.25GHz EIRP spectral density @ -20.13dBW/4kHz Input power spectral density

▪ FCC EIRP spectral density regulation

$15-25\log(\theta)$	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$18-25\log(\theta)$	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 v80G's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -20.13 dBW/ 4kHz

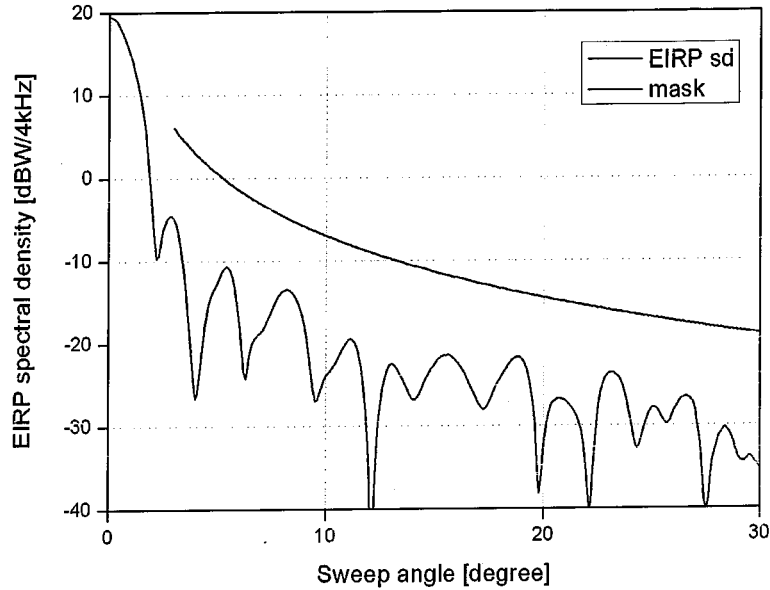
2.4. Elevation Pattern for Co-pol (0°~30°)

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.0	19.47		5.0	-12.62	0.53
0.1	19.44		5.1	-11.94	0.31
0.2	19.31		5.2	-11.33	0.10
0.3	19.07		5.3	-10.96	-0.11
0.4	18.69		5.4	-10.75	-0.31
0.5	18.22		5.5	-10.81	-0.51
0.6	17.68		5.6	-11.29	-0.70
0.7	17.03		5.7	-12.12	-0.90
0.8	16.34		5.8	-13.28	-1.09
0.9	15.59		5.9	-15.10	-1.27
1.0	14.78		6.0	-17.55	-1.45
1.1	13.90		6.1	-20.42	-1.63
1.2	12.92		6.2	-23.41	-1.81
1.3	11.83		6.3	-24.22	-1.98
1.4	10.55		6.4	-22.77	-2.15
1.5	9.05		6.5	-21.06	-2.32
1.6	7.33		6.6	-19.95	-2.49
1.7	5.23		6.7	-19.42	-2.65
1.8	2.74		6.8	-19.11	-2.81
1.9	-0.15		6.9	-18.82	-2.97
2.0	-3.65		7.0	-18.59	-3.13
2.1	-7.41		7.1	-18.31	-3.28
2.2	-9.66		7.2	-17.79	-3.43
2.3	-9.31		7.3	-17.17	-3.58
2.4	-7.70		7.4	-16.60	-3.73
2.5	-6.40		7.5	-15.93	-3.88
2.6	-5.54		7.6	-15.29	-4.02
2.7	-4.92		7.7	-14.79	-4.16
2.8	-4.58		7.8	-14.33	-4.30
2.9	-4.56		7.9	-13.95	-4.44
3.0	-4.89	6.07	8.0	-13.70	-4.58
3.1	-5.52	5.72	8.1	-13.56	-4.71
3.2	-6.50	5.37	8.2	-13.50	-4.85
3.3	-8.04	5.04	8.3	-13.58	-4.98
3.4	-9.95	4.71	8.4	-13.76	-5.11
3.5	-12.27	4.40	8.5	-14.05	-5.24
3.6	-15.31	4.09	8.6	-14.47	-5.36
3.7	-18.62	3.79	8.7	-15.04	-5.49
3.8	-21.72	3.51	8.8	-15.81	-5.61
3.9	-24.52	3.22	8.9	-16.77	-5.73
4.0	-26.58	2.95	9.0	-17.95	-5.86
4.1	-25.67	2.68	9.1	-19.53	-5.98
4.2	-23.33	2.42	9.2	-21.36	-6.09
4.3	-20.57	2.16	9.3	-23.43	-6.21
4.4	-18.06	1.91	9.4	-25.60	-6.33
4.5	-16.38	1.67	9.5	-26.94	-6.44
4.6	-15.23	1.43	9.6	-26.77	-6.56
4.7	-14.36	1.20	9.7	-25.88	-6.67
4.8	-13.71	0.97	9.8	-25.14	-6.78
4.9	-13.19	0.75	9.9	-24.44	-6.89

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
10.0	-23.91	-7.00	15.0	-22.43	-11.40
10.1	-23.58	-7.11	15.1	-22.11	-11.47
10.2	-23.25	-7.22	15.2	-21.84	-11.55
10.3	-22.85	-7.32	15.3	-21.62	-11.62
10.4	-22.46	-7.43	15.4	-21.50	-11.69
10.5	-22.02	-7.53	15.5	-21.44	-11.76
10.6	-21.49	-7.63	15.6	-21.44	-11.83
10.7	-20.92	-7.73	15.7	-21.51	-11.90
10.8	-20.43	-7.84	15.8	-21.67	-11.97
10.9	-19.96	-7.94	15.9	-21.90	-12.03
11.0	-19.56	-8.03	16.0	-22.19	-12.10
11.1	-19.42	-8.13	16.1	-22.57	-12.17
11.2	-19.49	-8.23	16.2	-22.98	-12.24
11.3	-19.78	-8.33	16.3	-23.42	-12.30
11.4	-20.42	-8.42	16.4	-23.90	-12.37
11.5	-21.49	-8.52	16.5	-24.43	-12.44
11.6	-22.88	-8.61	16.6	-25.00	-12.50
11.7	-24.80	-8.70	16.7	-25.57	-12.57
11.8	-27.51	-8.80	16.8	-26.16	-12.63
11.9	-31.13	-8.89	16.9	-26.75	-12.70
12.0	-37.02	-8.98	17.0	-27.26	-12.76
12.1	-58.99	-9.07	17.1	-27.68	-12.82
12.2	-39.18	-9.16	17.2	-27.97	-12.89
12.3	-32.97	-9.25	17.3	-27.96	-12.95
12.4	-29.58	-9.34	17.4	-27.60	-13.01
12.5	-27.14	-9.42	17.5	-27.04	-13.08
12.6	-25.32	-9.51	17.6	-26.48	-13.14
12.7	-24.11	-9.60	17.7	-25.86	-13.20
12.8	-23.20	-9.68	17.8	-25.28	-13.26
12.9	-22.61	-9.76	17.9	-24.78	-13.32
13.0	-22.46	-9.85	18.0	-24.31	-13.38
13.1	-22.58	-9.93	18.1	-23.83	-13.44
13.2	-22.83	-10.01	18.2	-23.40	-13.50
13.3	-23.31	-10.10	18.3	-23.01	-13.56
13.4	-23.89	-10.18	18.4	-22.65	-13.62
13.5	-24.35	-10.26	18.5	-22.27	-13.68
13.6	-24.94	-10.34	18.6	-21.97	-13.74
13.7	-25.56	-10.42	18.7	-21.79	-13.80
13.8	-26.02	-10.50	18.8	-21.67	-13.85
13.9	-26.52	-10.58	18.9	-21.69	-13.91
14.0	-26.83	-10.65	19.0	-21.94	-13.97
14.1	-26.77	-10.73	19.1	-22.36	-14.03
14.2	-26.42	-10.81	19.2	-22.96	-14.08
14.3	-25.94	-10.88	19.3	-23.97	-14.14
14.4	-25.35	-10.96	19.4	-25.42	-14.20
14.5	-24.73	-11.03	19.5	-27.23	-14.25
14.6	-24.18	-11.11	19.6	-30.05	-14.31
14.7	-23.68	-11.18	19.7	-34.29	-14.36
14.8	-23.22	-11.26	19.8	-38.09	-14.42
14.9	-22.81	-11.33	19.9	-35.88	-14.47

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
20.0	-32.21	-14.53	25.0	-27.88	-16.95
20.1	-30.10	-14.58	25.1	-27.84	-16.99
20.2	-28.63	-14.63	25.2	-28.01	-17.04
20.3	-27.67	-14.69	25.3	-28.46	-17.08
20.4	-27.23	-14.74	25.4	-28.97	-17.12
20.5	-26.99	-14.79	25.5	-29.42	-17.16
20.6	-26.80	-14.85	25.6	-29.73	-17.21
20.7	-26.75	-14.90	25.7	-29.73	-17.25
20.8	-26.78	-14.95	25.8	-29.39	-17.29
20.9	-26.85	-15.00	25.9	-28.74	-17.33
21.0	-27.00	-15.06	26.0	-28.11	-17.37
21.1	-27.24	-15.11	26.1	-27.61	-17.42
21.2	-27.55	-15.16	26.2	-27.13	-17.46
21.3	-27.93	-15.21	26.3	-26.80	-17.50
21.4	-28.35	-15.26	26.4	-26.69	-17.54
21.5	-28.90	-15.31	26.5	-26.56	-17.58
21.6	-29.60	-15.36	26.6	-26.48	-17.62
21.7	-30.44	-15.41	26.7	-26.64	-17.66
21.8	-31.81	-15.46	26.8	-26.86	-17.70
21.9	-34.12	-15.51	26.9	-27.25	-17.74
22.0	-37.29	-15.56	27.0	-28.24	-17.78
22.1	-40.53	-15.61	27.1	-29.75	-17.82
22.2	-37.49	-15.66	27.2	-31.57	-17.86
22.3	-33.26	-15.71	27.3	-34.64	-17.90
22.4	-29.96	-15.76	27.4	-38.82	-17.94
22.5	-27.55	-15.80	27.5	-40.30	-17.98
22.6	-26.10	-15.85	27.6	-38.70	-18.02
22.7	-25.05	-15.90	27.7	-35.86	-18.06
22.8	-24.28	-15.95	27.8	-34.00	-18.10
22.9	-23.88	-16.00	27.9	-33.03	-18.14
23.0	-23.70	-16.04	28.0	-32.08	-18.18
23.1	-23.59	-16.09	28.1	-31.28	-18.22
23.2	-23.63	-16.14	28.2	-30.81	-18.26
23.3	-23.82	-16.18	28.3	-30.45	-18.29
23.4	-24.06	-16.23	28.4	-30.25	-18.33
23.5	-24.47	-16.28	28.5	-30.45	-18.37
23.6	-25.09	-16.32	28.6	-30.92	-18.41
23.7	-25.86	-16.37	28.7	-31.46	-18.45
23.8	-26.89	-16.41	28.8	-32.20	-18.48
23.9	-28.22	-16.46	28.9	-33.08	-18.52
24.0	-29.65	-16.51	29.0	-33.82	-18.56
24.1	-31.19	-16.55	29.1	-34.19	-18.60
24.2	-32.38	-16.60	29.2	-34.28	-18.63
24.3	-32.67	-16.64	29.3	-34.27	-18.67
24.4	-32.24	-16.68	29.4	-34.01	-18.71
24.5	-31.19	-16.73	29.5	-33.70	-18.75
24.6	-30.15	-16.77	29.6	-33.73	-18.78
24.7	-29.31	-16.82	29.7	-34.08	-18.82
24.8	-28.56	-16.86	29.8	-34.46	-18.86
24.9	-28.08	-16.90	29.9	-34.80	-18.89
			30.0	-35.21	-18.93

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



14.25GHz EIRP spectral density @ -20.13dBW/4kHz Input power spectral density

▪ FCC EIRP spectral density regulation

$18-25\log(\theta)$	dBW/4kHz	for	$3.0^\circ \leq \theta \leq 48^\circ$
-24	dBW/4kHz	for	$48^\circ < \theta \leq 85^\circ$
-14	dBW/4kHz	for	$85^\circ < \theta \leq 180^\circ$

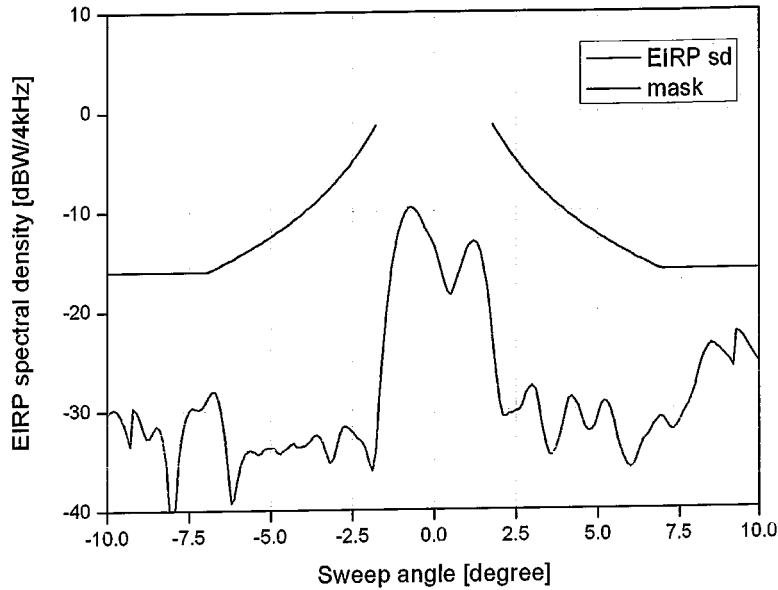
The v80G's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -20.13 dBW/ 4kHz

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

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
-10.0	-30.25	-16.00	-5.0	-33.69	-12.47
-9.9	-29.95	-16.00	-4.9	-33.73	-12.25
-9.8	-29.80	-16.00	-4.8	-34.13	-12.03
-9.7	-29.94	-16.00	-4.7	-34.23	-11.80
-9.6	-30.45	-16.00	-4.6	-33.97	-11.57
-9.5	-31.24	-16.00	-4.5	-33.73	-11.33
-9.4	-32.26	-16.00	-4.4	-33.39	-11.09
-9.3	-33.50	-16.00	-4.3	-33.31	-10.84
-9.2	-29.67	-16.00	-4.2	-33.58	-10.58
-9.1	-30.03	-16.00	-4.1	-33.62	-10.32
-9.0	-30.82	-16.00	-4.0	-33.55	-10.05
-8.9	-31.94	-16.00	-3.9	-33.43	-9.78
-8.8	-32.64	-16.00	-3.8	-33.08	-9.49
-8.7	-32.65	-16.00	-3.7	-32.59	-9.21
-8.6	-31.98	-16.00	-3.6	-32.47	-8.91
-8.5	-31.49	-16.00	-3.5	-32.74	-8.60
-8.4	-31.78	-16.00	-3.4	-33.33	-8.29
-8.3	-32.84	-16.00	-3.3	-34.38	-7.96
-8.2	-35.02	-16.00	-3.2	-35.24	-7.63
-8.1	-39.57	-16.00	-3.1	-34.87	-7.28
-8.0	-43.01	-16.00	-3.0	-33.81	-6.93
-7.9	-33.51	-16.00	-2.9	-32.46	-6.56
-7.8	-34.46	-16.00	-2.8	-31.67	-6.18
-7.7	-32.13	-16.00	-2.7	-31.64	-5.78
-7.6	-30.73	-16.00	-2.6	-31.84	-5.37
-7.5	-29.94	-16.00	-2.5	-32.12	-4.95
-7.4	-29.67	-16.00	-2.4	-32.59	-4.51
-7.3	-29.74	-16.00	-2.3	-32.96	-4.04
-7.2	-29.85	-16.00	-2.2	-33.16	-3.56
-7.1	-29.65	-16.00	-2.1	-33.77	-3.06
-7.0	-29.09	-16.00	-2.0	-35.17	-2.53
-6.9	-28.56	-15.97	-1.9	-35.99	-1.97
-6.8	-28.08	-15.81	-1.8	-34.30	-1.38
-6.7	-28.06	-15.65	-1.7	-29.69	
-6.6	-28.87	-15.49	-1.6	-25.22	
-6.5	-30.43	-15.32	-1.5	-21.47	
-6.4	-32.59	-15.15	-1.4	-18.28	
-6.3	-36.05	-14.98	-1.3	-15.80	
-6.2	-39.19	-14.81	-1.2	-13.79	
-6.1	-38.66	-14.63	-1.1	-12.12	
-6.0	-36.68	-14.45	-1.0	-10.98	
-5.9	-35.17	-14.27	-0.9	-10.16	
-5.8	-34.34	-14.09	-0.8	-9.67	
-5.7	-34.00	-13.90	-0.7	-9.59	
-5.6	-33.94	-13.70	-0.6	-9.82	
-5.5	-34.06	-13.51	-0.5	-10.24	
-5.4	-34.29	-13.31	-0.4	-10.89	
-5.3	-34.25	-13.11	-0.3	-11.57	
-5.2	-33.84	-12.90	-0.2	-12.19	
-5.1	-33.72	-12.69	-0.1	-12.85	

14.25GHz @ -20.13 dBW/4kHz			14.25GHz @ -20.13 dBW/4kHz		
Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP SD (dBW/4kHz)	Mask (dBW/4kHz)
0.0	-13.51		5.0	-30.63	-12.47
0.1	-14.48		5.1	-29.56	-12.69
0.2	-15.79		5.2	-29.22	-12.90
0.3	-17.01		5.3	-29.45	-13.11
0.4	-18.09		5.4	-30.10	-13.31
0.5	-18.43		5.5	-31.38	-13.51
0.6	-17.81		5.6	-32.99	-13.70
0.7	-16.71		5.7	-34.05	-13.90
0.8	-15.76		5.8	-34.92	-14.09
0.9	-14.70		5.9	-35.58	-14.27
1.0	-13.76		6.0	-35.82	-14.45
1.1	-13.29		6.1	-35.53	-14.63
1.2	-13.07		6.2	-34.84	-14.81
1.3	-13.24		6.3	-33.88	-14.98
1.4	-14.10		6.4	-33.09	-15.15
1.5	-15.49		6.5	-32.78	-15.32
1.6	-17.26		6.6	-32.24	-15.49
1.7	-19.97		6.7	-31.63	-15.65
1.8	-23.20	-1.38	6.8	-31.27	-15.81
1.9	-26.24	-1.97	6.9	-30.89	-15.97
2.0	-29.09	-2.53	7.0	-30.94	-16.00
2.1	-30.64	-3.06	7.1	-31.50	-16.00
2.2	-30.63	-3.56	7.2	-31.97	-16.00
2.3	-30.42	-4.04	7.3	-32.13	-16.00
2.4	-30.34	-4.51	7.4	-31.84	-16.00
2.5	-30.12	-4.95	7.5	-31.25	-16.00
2.6	-30.07	-5.37	7.6	-30.63	-16.00
2.7	-29.52	-5.78	7.7	-30.07	-16.00
2.8	-28.42	-6.18	7.8	-29.52	-16.00
2.9	-27.86	-6.56	7.9	-28.73	-16.00
3.0	-27.66	-6.93	8.0	-27.76	-16.00
3.1	-27.99	-7.28	8.1	-26.55	-16.00
3.2	-29.54	-7.63	8.2	-25.28	-16.00
3.3	-31.79	-7.96	8.3	-24.44	-16.00
3.4	-33.35	-8.29	8.4	-23.85	-16.00
3.5	-34.49	-8.60	8.5	-23.52	-16.00
3.6	-34.55	-8.91	8.6	-23.62	-16.00
3.7	-34.01	-9.21	8.7	-23.91	-16.00
3.8	-33.02	-9.49	8.8	-24.16	-16.00
3.9	-31.72	-9.78	8.9	-24.50	-16.00
4.0	-30.13	-10.05	9.0	-24.79	-16.00
4.1	-28.99	-10.32	9.1	-25.14	-16.00
4.2	-28.79	-10.58	9.2	-25.85	-16.00
4.3	-29.16	-10.84	9.3	-22.33	-16.00
4.4	-29.74	-11.09	9.4	-22.46	-16.00
4.5	-30.75	-11.33	9.5	-22.79	-16.00
4.6	-31.75	-11.57	9.6	-23.41	-16.00
4.7	-32.16	-11.80	9.7	-23.99	-16.00
4.8	-32.10	-12.03	9.8	-24.45	-16.00
4.9	-31.65	-12.25	9.9	-24.95	-16.00
			10.0	-25.49	-16.00

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



14.25GHz EIRP spectral density @ -20.13dBW/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 v80G's Radiation pattern meets the FCC EIRP spectral density mask when the Input powers spectral density is @ -20.13 dBW/ 4kHz

FCC Declaration of Conformity

Intellian Technologies, manufactures of stabilized maritime VSAT antenna systems for satellite communication at sea, supplies stabilized maritime VSAT antenna systems to the satellite communication service providers for their ESV (Earth Station on Vessels) networks.

FCC §25.222 defines the provisions for blanket licensing of ESV antennas operation in the Ku-band. It defines the antennas radiation, and each article regulates the followings;

- §25.222 (a)(1)(i)(A): Regulation for Azimuth Direction & Co Polarization
- §25.222 (a)(2)(i)(B): Regulation for Other Direction & Co Polarization
- §25.222 (a)(1)(i)(C): Regulation for Cross Polarization

Intellian Technologies, Inc. declares that v80G complies with the threshold level as defined in §25.222(a)(1)(i)(A):, and declares that v80G is in accordance with all defined regulations from §25.222(a)(1)(i)(B) to §25.222(a)(1)(i)(C) at the below stated input power spectral density, with an N value of 1.

Product description	Intellian v80G, 83cm Ku-band maritime VSAT antenna system
EIRP spectral density limit	-20.13 dBW/ 4KHz

Intellian Technologies, Inc. declares that the above antenna will maintain a pointing error of less than or equal to 0.2 degree under specified ship motion conditions in accordance with the requirements of §25.222 (a)(1)(ii).

Intellian Technologies, Inc. declares that the above antennas will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.222 (a)(1)(iii)

Radiation pattern data is available upon request to verify the conformance.

Authority: **Steve Cha**
Director, Research & Development

Signature: _____



Date: August 24, 2011