

Data in support of claim that proposed operation meets off-axis criteria of 1986 Declaratory Order

ID Applicant: IWL dba CapRock

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HEADING

a1	Antenna Manufacturer:	SeaTel	c	main bore gain	41.40	dBi
a2	Antenna Model:	2.4m	d	frequency at which gain was measured	5.93	GHz
a3	Antenna ID:	Ant1	e	maximum input power density (dBw/4KHz)	-17.90	dBw/4KHz
b	Transmit band (b):	5.925 GHz				

1.0 to 7 degrees calculated maximum difference in off-axis eirp density: -7.77 dBw/4KHz

1.0 to 180 degrees calculated maximum difference in off-axis eirp density: -7.77

TABLE

EIRP for Antenna Conforming to 25.209(a) operating at 25.212 power density limits

Gain and EIRP for Antenna Not Conforming to 25.209(a) operating at stated maximum power density

1	2	3	4	5	6	7
Angle (degrees)	25.209 Gain (dBi)	Off-Axis EIRP Density for -2.70 dBw/4Kz	Gain relative to main bore gain (dB)	Actual Gain in dBi	Off-Axis EIRP Density for input of -17.90	Difference in Off-Axis EIRP Density (6) minus (3)
1.00	29.00	26.30	-5.00	36.40	18.50	-7.80
1.10	27.97	25.27	-6.00	35.40	17.50	-7.77
1.20	27.02	24.32	-7.00	34.40	16.50	-7.82
1.25	26.58	23.88	-7.50	33.90	16.00	-7.88
1.30	26.15	23.45	-8.00	33.40	15.50	-7.95
1.40	25.35	22.65	-9.05	32.35	14.45	-8.20
1.50	24.60	21.90	-10.10	31.30	13.40	-8.50
1.60	23.90	21.20	-11.15	30.25	12.35	-8.85
1.70	23.24	20.54	-12.20	29.20	11.30	-9.24
1.80	22.62	19.92	-15.47	25.93	8.03	-11.88
1.90	22.03	19.33	-18.73	22.67	4.77	-14.56
2.00	21.47	18.77	-22.00	19.40	1.50	-17.27
2.10	20.94	18.24	-23.53	17.87	-0.03	-18.28
2.20	20.44	17.74	-25.07	16.33	-1.57	-19.31
2.30	19.96	17.26	-26.60	14.80	-3.10	-20.36
2.40	19.49	16.79	-26.73	14.68	-3.23	-20.02
2.50	19.05	16.35	-26.85	14.55	-3.35	-19.70
2.60	18.63	15.93	-26.98	14.43	-3.48	-19.40
2.70	18.22	15.52	-27.10	14.30	-3.60	-19.12
2.80	17.82	15.12	-29.07	12.33	-5.57	-20.69
2.90	17.44	14.74	-31.03	10.37	-7.53	-22.27
3.00	17.07	14.37	-33.00	8.40	-9.50	-23.87
3.33	15.94	13.24	-34.00	7.40	-10.50	-23.74
3.67	14.88	12.18	-31.00	10.40	-7.50	-19.68
4.00	13.95	11.25	-31.50	9.90	-8.00	-19.25
4.33	13.09	10.39	-38.00	3.40	-14.50	-24.89
4.67	12.27	9.57	-34.50	6.90	-11.00	-20.57
5.00	11.53	8.83	-31.70	9.70	-8.20	-17.03
5.33	10.83	8.13	-30.30	11.10	-6.80	-14.93
5.67	10.16	7.46	-32.00	9.40	-8.50	-15.96
6.00	8.00	5.30	-38.00	3.40	-14.50	-19.80
7.00	8.00	5.30	-34.00	7.40	-10.50	-15.80

