

**Off-Axis Spectral Density Azimuth Plane
Values for AvL 2.4M Offset Antenna
with 68.4dBW peak EIRP and 36MHz occupied bandwidth**

Value of Theta (degrees)	25 209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (1)	Antenna Off-Axis Gain (dBi) Azimuth Plane Measured Data	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin	Value of Theta (degrees)	25 209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (1)	Antenna Off-Axis Gain (dBi) Azimuth Plane Measured Data	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin
0.00			41.80	28.79		6.10	9.37	6.67	0.74	-12.27	18.94
0.10			41.69	28.68		6.20	9.19	6.49	1.46	-11.55	18.04
0.20			41.56	28.55		6.30	9.02	6.32	2.30	-10.71	17.03
0.30			41.25	28.24		6.40	8.85	6.15	3.02	-9.99	16.14
0.40			40.80	27.79		6.50	8.68	5.98	3.20	-9.81	15.79
0.50			40.26	27.25		6.60	8.51	5.81	3.03	-9.98	15.79
0.60			39.47	26.46		6.70	8.35	5.65	2.40	-10.61	16.26
0.70			38.56	25.55		6.80	8.19	5.49	1.23	-11.78	17.27
0.80			37.56	24.55		6.90	8.03	5.33	-0.67	-13.68	19.01
0.90			36.28	23.27		7.00	8.00	5.30	-3.49	-16.50	21.80
1.00			34.94	21.93		7.10	8.00	5.30	-7.39	-20.40	25.70
1.10			33.22	20.21		7.20	8.00	5.30	-8.81	-21.82	27.12
1.20			31.08	18.07		7.30	8.00	5.30	-6.13	-19.14	24.44
1.30			28.74	15.73		7.40	8.00	5.30	-3.35	-16.36	21.66
1.40			26.00	12.99		7.50	8.00	5.30	-0.99	-14.00	19.30
1.50	24.60	21.90	22.50	9.49	12.41	7.60	8.00	5.30	0.50	-12.51	17.81
1.60	23.90	21.20	17.86	4.85	16.35	7.70	8.00	5.30	0.96	-12.05	17.35
1.70	23.24	20.54	10.91	-2.10	22.64	7.80	8.00	5.30	1.29	-11.72	17.02
1.80	22.62	19.92	2.84	-10.17	30.09	7.90	8.00	5.30	0.94	-12.07	17.37
1.90	22.03	19.33	9.49	-3.52	22.85	8.00	8.00	5.30	0.22	-12.79	18.09
2.00	21.47	18.77	12.37	-0.64	19.41	8.10	8.00	5.30	-0.91	-13.92	19.22
2.10	20.94	18.24	13.48	0.47	17.77	8.20	8.00	5.30	-2.73	-15.74	21.04
2.20	20.44	17.74	13.78	0.77	16.97	8.30	8.00	5.30	-4.88	-17.89	23.19
2.30	19.96	17.26	12.92	-0.09	17.35	8.40	8.00	5.30	-7.08	-20.09	25.39
2.40	19.49	16.79	11.62	-1.39	18.19	8.50	8.00	5.30	-8.39	-21.40	26.70
2.50	19.05	16.35	9.20	-3.81	20.16	8.60	8.00	5.30	-7.87	-20.88	26.18
2.60	18.63	15.93	6.80	-6.21	22.14	8.70	8.00	5.30	-6.48	-19.49	24.79
2.70	18.22	15.52	5.31	-7.70	23.22	8.80	8.00	5.30	-5.93	-18.94	24.24
2.80	17.82	15.12	6.47	-6.54	21.66	8.90	8.00	5.30	-5.55	-18.56	23.86
2.90	17.44	14.74	8.36	-4.65	19.39	9.00	8.00	5.30	-5.59	-18.60	23.90
3.00	17.07	14.37	9.52	-3.49	17.86	9.50	7.56	4.86	-4.41	-17.42	22.28
3.10	16.72	14.02	10.10	-2.91	16.93	10.00	7.00	4.30	-1.86	-14.87	19.17
3.20	16.37	13.67	10.29	-2.72	16.39	15.00	2.60	-0.10	-9.40	-22.41	22.31
3.30	16.04	13.34	9.73	-3.28	16.62	20.00	-0.53	-3.23	-16.50	-29.51	26.28
3.40	15.71	13.01	8.69	-4.32	17.33	25.00	-2.95	-5.65	-18.95	-31.96	26.31
3.50	15.40	12.70	6.86	-6.15	18.85	30.00	-4.93	-7.63	-18.80	-31.81	24.18
3.60	15.09	12.39	4.31	-8.70	21.09	35.00	-6.60	-9.30	-19.09	-32.10	22.80
3.70	14.79	12.09	-0.34	-13.35	25.45	40.00	-8.05	-10.75	-18.98	-31.99	21.24
3.80	14.51	11.81	-9.08	-22.09	33.90	45.00	-9.33	-12.03	-23.19	-36.20	24.17
3.90	14.22	11.52	-8.27	-21.28	32.80	50.00	-10.00	-12.70	-18.11	-31.12	18.42
4.00	13.95	11.25	-1.76	-14.77	26.02	55.00	-10.00	-12.70	-20.91	-33.92	21.22
4.10	13.68	10.98	1.42	-11.59	22.57	60.00	-10.00	-12.70	-22.54	-35.55	22.85
4.20	13.42	10.72	2.93	-10.08	20.80	65.00	-10.00	-12.70	-22.63	-35.64	22.94
4.30	13.16	10.46	3.44	-9.57	20.03	70.00	-10.00	-12.70	-16.18	-29.19	16.49
4.40	12.91	10.21	3.03	-9.98	20.19	75.00	-10.00	-12.70	-9.67	-22.68	9.98
4.50	12.67	9.97	1.94	-11.07	21.04	80.00	-10.00	-12.70	-14.80	-27.81	15.11
4.60	12.43	9.73	-0.42	-13.43	23.16	85.00	-10.00	-12.70	-17.58	-30.59	17.89
4.70	12.20	9.50	-4.31	-17.32	26.82	90.00	-10.00	-12.70	-36.97	-49.98	37.28
4.80	11.97	9.27	-14.25	-27.26	36.53	95.00	-10.00	-12.70	-16.18	-29.19	16.49
4.90	11.75	9.05	-11.20	-24.21	33.26	100.00	-10.00	-12.70	-13.30	-26.31	13.61
5.00	11.53	8.83	-3.97	-16.98	25.81	105.00	-10.00	-12.70	-15.97	-28.98	16.28
5.10	11.31	8.61	-0.09	-13.10	21.71	110.00	-10.00	-12.70	-14.87	-27.88	15.18
5.20	11.10	8.40	1.97	-11.04	19.44	115.00	-10.00	-12.70	-10.81	-23.82	11.12
5.30	10.89	8.19	3.16	-9.85	18.04	120.00	-10.00	-12.70	-13.42	-26.43	13.73
5.40	10.69	7.99	3.76	-9.25	17.24	125.00	-10.00	-12.70	-11.64	-24.65	11.95
5.50	10.49	7.79	3.68	-9.33	17.12	130.00	-10.00	-12.70	-9.35	-22.36	9.66
5.60	10.30	7.60	3.29	-9.72	17.32	135.00	-10.00	-12.70	-6.12	-19.13	6.43
5.70	10.10	7.40	2.51	-10.50	17.90	140.00	-10.00	-12.70	-3.89	-16.90	4.20
5.80	9.91	7.21	1.37	-11.64	18.85	145.00	-10.00	-12.70	-5.53	-18.54	5.84
5.90	9.73	7.03	0.34	-12.67	19.70	150.00	-10.00	-12.70	-0.69	-13.70	1.00
6.00	9.55	6.85	0.14	-12.87	19.72	155.00	-10.00	-12.70	-3.21	-16.22	3.52
						160.00	-10.00	-12.70	-1.53	-14.54	1.84
						165.00	-10.00	-12.70	-0.25	-13.26	0.56
						170.00	-10.00	-12.70	-0.08	-13.09	0.39
						175.00	-10.00	-12.70	-4.84	-17.85	5.15
						180.00	-10.00	-12.70	-3.02	-16.03	3.33

**Off-Axis Spectral Density Elevation Plane
Values for AvL 2.4M Offset Antenna
with 68.4dBW peak EIRP and 36MHz occupied bandwidth**

Value of Theta (degrees)	25.209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (2)	Antenna Off-Axis Gain (dBi) Elevation Plane Measured Data	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin	Value of Theta (degrees)	25.209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (2)	Antenna Off-Axis Gain (dBi) Elevation Plane Measured Data	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin
0.00			41.80	28.79		6.10	12.37	9.67	6.68	-6.33	16.00
0.10			41.71	28.70		6.20	12.19	9.49	8.56	-4.45	13.94
0.20			41.50	28.49		6.30	12.02	9.32	9.82	-3.19	12.51
0.30			41.22	28.21		6.40	11.85	9.15	10.65	-2.36	11.51
0.40			40.82	27.81		6.50	11.68	8.98	11.09	-1.92	10.90
0.50			40.37	27.36		6.60	11.51	8.81	11.12	-1.89	10.70
0.60			39.83	26.82		6.70	11.35	8.65	10.87	-2.14	10.79
0.70			39.20	26.19		6.80	11.19	8.49	10.52	-2.49	10.98
0.80			38.39	25.38		6.90	11.03	8.33	9.77	-3.24	11.57
0.90			37.56	24.55		7.00	10.87	8.17	8.84	-4.17	12.34
1.00			36.52	23.51		7.10	10.72	8.02	7.20	-5.81	13.83
1.10			35.17	22.16		7.20	10.57	7.87	5.29	-7.72	15.59
1.20			33.82	20.81		7.30	10.42	7.72	3.11	-9.90	17.62
1.30			31.97	18.96		7.40	10.27	7.57	1.00	-12.01	19.58
1.40			30.03	17.02		7.50	10.12	7.42	0.36	-12.65	20.07
1.50			27.64	14.63		7.60	9.98	7.28	1.08	-11.93	19.21
1.60			25.17	12.16		7.70	9.84	7.14	2.86	-10.15	17.29
1.70			22.49	9.48		7.80	9.70	7.00	4.05	-8.96	15.96
1.80			19.99	6.98		7.90	9.56	6.86	5.34	-7.67	14.53
1.90			18.86	5.85		8.00	9.42	6.72	5.74	-7.27	13.99
2.00			19.01	6.00		8.10	9.29	6.59	6.17	-6.84	13.43
2.10			19.80	6.79		8.20	9.15	6.45	6.06	-6.95	13.40
2.20			20.46	7.45		8.30	9.02	6.32	5.42	-7.59	13.91
2.30			20.61	7.60		8.40	8.89	6.19	4.47	-8.54	14.73
2.40			20.48	7.47		8.50	8.76	6.06	3.37	-9.64	15.70
2.50			19.87	6.86		8.60	8.64	5.94	1.79	-11.22	17.16
2.60			18.66	5.65		8.70	8.51	5.81	-0.04	-13.05	18.86
2.70			17.07	4.06		8.80	8.39	5.69	-1.79	-14.80	20.49
2.80			14.69	1.68		8.90	8.27	5.57	-3.54	-16.55	22.12
2.90			11.27	-1.74		9.00	8.14	5.44	-4.13	-17.14	22.58
3.00	20.07	17.37	6.37	-6.64	24.01	9.50	7.56	4.86	-0.77	-13.78	18.64
3.10	19.72	17.02	3.07	-9.94	26.96	10.00	7.00	4.30	-8.71	-21.72	26.02
3.20	19.37	16.67	7.59	-5.42	22.09	15.00	2.60	-0.10	-2.80	-15.81	15.71
3.30	19.04	16.34	11.15	-1.86	18.20	20.00	-0.53	-3.23	-5.92	-18.93	15.70
3.40	18.71	16.01	13.86	0.85	15.16	25.00	-2.95	-5.65	-6.54	-19.55	13.90
3.50	18.40	15.70	15.27	2.26	13.44	30.00	-4.93	-7.63	-11.92	-24.93	17.30
3.60	18.09	15.39	16.25	3.24	12.15	35.00	-6.60	-9.30	-13.55	-26.56	17.26
3.70	17.79	15.09	16.76	3.75	11.35	40.00	-8.05	-10.75	-14.51	-27.52	16.77
3.80	17.51	14.81	16.71	3.70	11.11	45.00	-9.33	-12.03	-9.33	-22.34	10.31
3.90	17.22	14.52	16.36	3.35	11.17	50.00	-10.00	-12.70	-10.00	-23.01	10.31
4.00	16.95	14.25	15.36	2.35	11.90	55.00	-10.00	-12.70	-10.00	-23.01	10.31
4.10	16.68	13.98	13.98	0.97	13.01	60.00	-10.00	-12.70	-10.00	-23.01	10.31
4.20	16.42	13.72	12.17	-0.84	14.56	65.00	-10.00	-12.70	-10.00	-23.01	10.31
4.30	16.16	13.46	9.72	-3.29	16.75	70.00	-10.00	-12.70	-10.00	-23.01	10.31
4.40	15.91	13.21	6.80	-6.21	19.42	75.00	-10.00	-12.70	-10.00	-23.01	10.31
4.50	15.67	12.97	4.26	-8.75	21.72	80.00	-10.00	-12.70	-10.00	-23.01	10.31
4.60	15.43	12.73	4.81	-8.20	20.93	85.00	-10.00	-12.70	-10.00	-23.01	10.31
4.70	15.20	12.50	7.08	-5.93	18.43	90.00	-10.00	-12.70	-10.00	-23.01	10.31
4.80	14.97	12.27	8.71	-4.30	16.57	95.00	-10.00	-12.70	-10.00	-23.01	10.31
4.90	14.75	12.05	10.14	-2.87	14.92	100.00	-10.00	-12.70	-10.00	-23.01	10.31
5.00	14.53	11.83	11.09	-1.92	13.75	105.00	-10.00	-12.70	-10.00	-23.01	10.31
5.10	14.31	11.61	11.45	-1.56	13.17	110.00	-10.00	-12.70	-10.00	-23.01	10.31
5.20	14.10	11.40	11.41	-1.60	13.00	115.00	-10.00	-12.70	-10.00	-23.01	10.31
5.30	13.89	11.19	11.05	-1.96	13.15	120.00	-10.00	-12.70	-10.00	-23.01	10.31
5.40	13.69	10.99	10.23	-2.78	13.77	125.00	-10.00	-12.70	-10.00	-23.01	10.31
5.50	13.49	10.79	9.29	-3.72	14.51	130.00	-10.00	-12.70	-10.00	-23.01	10.31
5.60	13.30	10.60	8.10	-4.91	15.51	135.00	-10.00	-12.70	-10.00	-23.01	10.31
5.70	13.10	10.40	6.52	-6.49	16.89	140.00	-10.00	-12.70	-10.00	-23.01	10.31
5.80	12.91	10.21	5.05	-7.96	18.17	145.00	-10.00	-12.70	-10.00	-23.01	10.31
5.90	12.73	10.03	4.47	-8.54	18.57	150.00	-10.00	-12.70	-10.00	-23.01	10.31
6.00	12.55	9.85	5.23	-7.78	17.63	155.00	-10.00	-12.70	-10.00	-23.01	10.31
						160.00	-10.00	-12.70	-10.00	-23.01	10.31
						165.00	-10.00	-12.70	-10.00	-23.01	10.31
						170.00	-10.00	-12.70	-10.00	-23.01	10.31
						175.00	-10.00	-12.70	-10.00	-23.01	10.31
						180.00	-10.00	-12.70	-10.00	-23.01	10.31

**Off-Axis Spectral Density Horizon Plane
Values for AvL 2.4M Offset Antenna
with 68.4dBW peak EIRP and 36MHz occupied bandwidth**

Value of Theta (degrees)	25.209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (2)	Antenna Off-Axis Gain (dBi) Horizon Plane	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin	Value of Theta (degrees)	25.209(a)(1) Co-Pol Gain	Off-Axis EIRP Density allowed under 25.218 (d) (2)	Antenna Off-Axis Gain (dBi) Horizon Plane	Max off-axis EIRP Density of antenna (dBW/4kHz)	Margin
0.00			14.53	1.52		6.10	12.37	9.67	9.59	-3.43	13.09
0.10			14.52	1.51		6.20	12.19	9.49	9.48	-3.53	13.02
0.20			14.52	1.51		6.30	12.02	9.32	9.37	-3.64	12.95
0.30			14.51	1.50		6.40	11.85	9.15	9.27	-3.74	12.89
0.40			14.49	1.48		6.50	11.68	8.98	9.16	-3.85	12.82
0.50			14.47	1.46		6.60	11.51	8.81	9.06	-3.95	12.76
0.60			14.45	1.44		6.70	11.35	8.65	8.95	-4.06	12.70
0.70			14.42	1.41		6.80	11.19	8.49	8.85	-4.16	12.65
0.80			14.39	1.38		6.90	11.03	8.33	8.75	-4.26	12.59
0.90			14.35	1.34		7.00	10.87	8.17	8.64	-4.37	12.54
1.00			14.31	1.30		7.10	10.72	8.02	8.54	-4.47	12.49
1.10			14.27	1.26		7.20	10.57	7.87	8.44	-4.57	12.44
1.20			14.22	1.21		7.30	10.42	7.72	8.34	-4.67	12.39
1.30			14.17	1.16		7.40	10.27	7.57	8.24	-4.77	12.34
1.40			14.12	1.11		7.50	10.12	7.42	8.14	-4.87	12.30
1.50			14.06	1.05		7.60	9.98	7.28	8.04	-4.97	12.25
1.60			14.00	0.99		7.70	9.84	7.14	7.94	-5.07	12.21
1.70			13.93	0.92		7.80	9.70	7.00	7.84	-5.17	12.17
1.80			13.87	0.86		7.90	9.56	6.86	7.74	-5.27	12.13
1.90			13.80	0.78		8.00	9.42	6.72	7.64	-5.37	12.09
2.00			13.72	0.71		8.10	9.29	6.59	7.55	-5.46	12.05
2.10			13.65	0.64		8.20	9.15	6.45	7.45	-5.56	12.02
2.20			13.57	0.56		8.30	9.02	6.32	7.35	-5.66	11.98
2.30			13.49	0.48		8.40	8.89	6.19	7.26	-5.75	11.95
2.40			13.40	0.39		8.50	8.76	6.06	7.16	-5.85	11.91
2.50			13.32	0.31		8.60	8.64	5.94	7.07	-5.94	11.88
2.60			13.23	0.22		8.70	8.51	5.81	6.97	-6.04	11.85
2.70			13.14	0.13		8.80	8.39	5.69	6.88	-6.13	11.82
2.80			13.05	0.04		8.90	8.27	5.57	6.79	-6.22	11.79
2.90			12.96	-0.06		9.00	8.14	5.44	6.69	-6.32	11.76
3.00	20.07	17.37	12.86	-0.15	17.52	9.50	7.56	4.86	6.24	-6.77	11.63
3.10	19.72	17.02	12.76	-0.25	17.26	10.00	7.00	4.30	5.80	-7.21	11.51
3.20	19.37	16.67	12.67	-0.34	17.02	15.00	2.60	-0.10	2.04	-10.97	10.87
3.30	19.04	16.34	12.57	-0.44	16.78	20.00	-0.53	-3.23	-0.84	-13.85	10.63
3.40	18.71	16.01	12.47	-0.54	16.56	25.00	-2.95	-5.65	-3.15	-16.16	10.51
3.50	18.40	15.70	12.37	-0.64	16.34	30.00	-4.93	-7.63	-5.06	-18.07	10.45
3.60	18.09	15.39	12.26	-0.75	16.14	35.00	-6.60	-9.30	-6.70	-19.71	10.41
3.70	17.79	15.09	12.16	-0.85	15.95	40.00	-8.05	-10.75	-8.12	-21.13	10.38
3.80	17.51	14.81	12.06	-0.95	15.76	45.00	-9.33	-12.03	-9.38	-22.39	10.36
3.90	17.22	14.52	11.95	-1.06	15.58	50.00	-10.00	-12.70	-10.00	-23.01	10.31
4.00	16.95	14.25	11.85	-1.16	15.41	55.00	-10.00	-12.70	-10.00	-23.01	10.31
4.10	16.68	13.98	11.74	-1.27	15.25	60.00	-10.00	-12.70	-10.00	-23.01	10.31
4.20	16.42	13.72	11.63	-1.38	15.10	65.00	-10.00	-12.70	-10.00	-23.01	10.31
4.30	16.16	13.46	11.53	-1.48	14.95	70.00	-10.00	-12.70	-10.00	-23.01	10.31
4.40	15.91	13.21	11.42	-1.59	14.81	75.00	-10.00	-12.70	-10.00	-23.01	10.31
4.50	15.67	12.97	11.31	-1.70	14.67	80.00	-10.00	-12.70	-10.00	-23.01	10.31
4.60	15.43	12.73	11.20	-1.81	14.54	85.00	-10.00	-12.70	-10.00	-23.01	10.31
4.70	15.20	12.50	11.09	-1.92	14.41	90.00	-10.00	-12.70	-10.00	-23.01	10.31
4.80	14.97	12.27	10.99	-2.02	14.29	95.00	-10.00	-12.70	-10.00	-23.01	10.31
4.90	14.75	12.05	10.88	-2.13	14.18	100.00	-10.00	-12.70	-10.00	-23.01	10.31
5.00	14.53	11.83	10.77	-2.24	14.07	105.00	-10.00	-12.70	-10.00	-23.01	10.31
5.10	14.31	11.61	10.66	-2.35	13.96	110.00	-10.00	-12.70	-10.00	-23.01	10.31
5.20	14.10	11.40	10.55	-2.46	13.86	115.00	-10.00	-12.70	-10.00	-23.01	10.31
5.30	13.89	11.19	10.44	-2.57	13.76	120.00	-10.00	-12.70	-10.00	-23.01	10.31
5.40	13.69	10.99	10.34	-2.67	13.66	125.00	-10.00	-12.70	-10.00	-23.01	10.31
5.50	13.49	10.79	10.23	-2.78	13.57	130.00	-10.00	-12.70	-10.00	-23.01	10.31
5.60	13.30	10.60	10.12	-2.89	13.49	135.00	-10.00	-12.70	-10.00	-23.01	10.31
5.70	13.10	10.40	10.01	-3.00	13.40	140.00	-10.00	-12.70	-10.00	-23.01	10.31
5.80	12.91	10.21	9.91	-3.10	13.32	145.00	-10.00	-12.70	-10.00	-23.01	10.31
5.90	12.73	10.03	9.80	-3.21	13.24	150.00	-10.00	-12.70	-10.00	-23.01	10.31
6.00	12.55	9.85	9.69	-3.32	13.16	155.00	-10.00	-12.70	-10.00	-23.01	10.31
						160.00	-10.00	-12.70	-10.00	-23.01	10.31
						165.00	-10.00	-12.70	-10.00	-23.01	10.31
						170.00	-10.00	-12.70	-10.00	-23.01	10.31
						175.00	-10.00	-12.70	-10.00	-23.01	10.31
						180.00	-10.00	-12.70	-10.00	-23.01	10.31