File Name: Broadcom_Antenna1_2437_Left.raw
Test Method: Two-Axis Dual-Polarization Pattern Measurement
Test Start Time: 04/25/2006 07:09:48
Test End Time: 04/25/2006 07:27:27
Comments:
Free Space
Frequency 2437 MHz
Full 3D Scan
Broadcom
Antenna1
Left Antenna

Polarization								
Theta	Theta Angle (°)	0	15	30	45	60	75	90
	Phi Angle (°)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
	0	-26.79	-20.33	-19.74	-22.24	-15.01	-14.22	-22.83
	15	-25.49	-15.86	-16.36	-17.12	-12.54	-16.16	-29.08
	30	-16.57	-11.98	-12.50	-13.42	-11.54	-17.70	-18.21
	45	-12.63	-10.32	-9.94	-10.04	-10.91	-15.99	-13.38
	60	-10.37	-8.55	-8.32	-8.61	-10.28	-14.82	-11.34
	75	-9.08	-7.51	-7.31	-7.92	-10.45	-14.25	-10.30
	90	-8.49	-7.05	-6.72	-7.61	-10.81	-13.55	-9.83
	105	-8.51	-7.20	-6.61	-7.60	-11.51	-13.93	-9.54
	120	-9.15	-7.83	-6.95	-8.15	-12.55	-15.14	-9.87
	135	-10.50	-9.08	-7.78	-8.99	-13.93	-17.63	-10.67
	150	-12.85	-10.86	-9.08	-9.99	-14.68	-22.54	-12.20
	165	-16.98	-13.86	-11.06	-10.86	-14.13	-33.91	-14.53
	180	-26.79	-18.65	-13.26	-11.53	-13.63	-21.22	-18.11
	195	-25.49	-25.41	-15.64	-12.28	-13.27	-17.13	-17.85
	210	-16.57	-21.17	-17.96	-12.73	-13.44	-15.59	-14.74
	225	-12.63	-16.31	-18.57	-12.75	-14.86	-15.38	-12.24
	240	-10.37	-11.88	-17.80	-12.23	-15.50	-15.71	-11.41
	255	-9.08	-12.02	-18.07	-13.66	-15.61	-15.39	-11.38
	270	-8.49	-11.27	-17.65	-15.15	-16.46	-13.85	-10.95
	285	-8.51	-11.53	-17.67	-15.65	-17.18	-13.89	-10.82
	300	-9.15	-12.34	-15.29	-16.50	-19.53	-13.58	-10.08
	315	-10.50	-13.82	-16.59	-16.82	-22.16	-13.30	-10.49
	330	-12.85	-15.20	-19.36	-18.05	-18.98	-12.75	-12.19
	345	-16.98	-20.28	-21.57	-21.35	-17.23	-12.45	-14.44
	360	-26.79	-20.33	-19.74	-22.24	-15.01	-14.22	-22.83
Phi	Theta Angle (°)	0	15	30	45	60	75	90
	Phi Angle (°)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
	0	-8.49	-8.68	-8.73	-8.32	-8.38	-9.86	-11.98
	15	-8.51	-8.62	-9.28	-7.73	-8.69	-9.70	-11.26
	30	-9.15	-9.21	-9.51	-8.03	-8.76	-10.40	-10.47
	45	-10.50	-12.11	-10.58	-9.88	-10.18	-10.85	-11.71
	60	-12.85	-14.41	-12.43	-11.86	-12.73	-13.74	-14.37

	75	-16.98	-19.28	-15.66	-15.64	-17.20	-18.78	-19.04
	90	-26.79	-32.86	-21.94	-23.33	-23.69	-32.97	-32.05
	105	-25.49	-22.92	-24.39	-22.48	-18.35	-19.95	-22.02
	120	-16.57	-16.33	-17.07	-15.48	-13.29	-14.12	-15.57
	135	-12.63	-13.02	-13.14	-12.00	-10.57	-11.36	-12.24
	150	-10.37	-11.10	-11.12	-10.28	-9.05	-9.86	-10.49
	165	-9.08	-10.15	-10.34	-9.61	-8.38	-9.31	-9.99
	180	-8.49	-10.05	-10.44	-9.98	-8.76	-9.38	-10.22
	195	-8.51	-10.57	-11.14	-11.13	-10.14	-10.42	-11.08
	210	-9.15	-11.55	-12.53	-13.42	-12.61	-12.24	-12.89
	225	-10.50	-13.51	-13.95	-17.28	-15.67	-14.16	-16.23
	240	-12.85	-15.99	-16.97	-23.99	-19.23	-18.49	-19.15
	255	-16.98	-21.63	-19.78	-30.14	-23.32	-23.99	-23.62
	270	-26.79	-27.54	-25.51	-24.77	-33.52	-32.11	-29.83
	285	-25.49	-22.34	-25.19	-20.00	-27.03	-28.75	-32.29
	300	-16.57	-17.37	-18.55	-16.79	-18.74	-20.94	-23.51
	315	-12.63	-14.53	-14.97	-14.50	-14.96	-16.43	-18.90
	330	-10.37	-11.34	-13.34	-11.05	-12.39	-12.60	-13.89
	345	-9.08	-11.27	-11.19	-10.38	-9.88	-9.84	-11.72
	360	-8.49	-8.68	-8.73	-8.32	-8.38	-9.86	-11.98
Total	Theta Angle (°)	0	15	30	45	60	75	90
	Phi Angle (°)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)
	0	-8.43	-8.39	-8.40	-8.15	-7.52	-8.51	-11.64
	15	-8.43	-7.87	-8.51	-7.26	-7.19	-8.81	-11.18
	30	-8.43	-7.37	-7.74	-6.92	-6.92	-9.66	-9.80
	45	-8.43	-8.11	-7.24	-6.95	-7.51	-9.69	-9.45
	60	-8.43	-7.55	-6.90	-6.93	-8.32	-11.24	-9.58
	75	-8.43	-7.23	-6.71	-7.24	-9.61	-12.94	-9.75
	90	-8.43	-7.03	-6.59	-7.49	-10.59	-13.50	-9.80
	105	-8.43	-7.08	-6.54	-7.46	-10.69	-12.96	-9.30
	120	-8.43	-7.26	-6.55	-7.41	-9.89	-11.59	-8.83
	135	-8.43	-7.61	-6.67	-7.23	-8.92	-10.44	-8.37
	150	-8.43	-7.97	-6.97	-7.12	-8.00	-9.64	-8.25
	165	-8.43	-8.61	-7.67	-7.18	-7.36	-9.29	-8.68
	180	-8.43	-9.49	-8.61	-7.67	-7.53	-9.11	-9.56
	195	-8.43	-10.43	-9.82	-8.66	-8.42	-9.58	-10.25
	210	-8.43	-11.10	-11.44	-10.05	-9.99	-10.59	-10.71
	225	-8.43	-11.67	-12.66	-11.44	-12.24	-11.72	-10.78
	240	-8.43	-10.46	-14.36	-11.95	-13.96	-13.87	-10.74
	255	-8.43	-11.57	-15.83	-13.57	-14.93	-14.83	-11.13
	270	-8.43	-11.17	-16.99	-14.70	-16.38	-13.79	-10.89
	285	-8.43	-11.18	-16.96	-14.29	-16.76	-13.75	-10.79
	300	-8.43	-11.16	-13.61	-13.63	-16.11	-12.85	-9.89
	315	-8.43	-11.15	-12.69	-12.50	-14.20	-11.58	-9.91
	330	-8.43	-9.84	-12.37	-10.26	-11.53	-9.66	-9.94
	345	-8.43	-10.75	-10.81	-10.04	-9.15	-7.94	-9.86

	360	-8.43	-8.39	-8.40	-8.15	-7.52	-8.51	-11.64
Total	Point Values							
	Ant. Port Input Pwr. (dBm)	0						
	Tot. Rad. Pwr. (dBm)	-7.66799						
	Peak EIRP (dBm)	-1.63183						
	Directivity (dBi)	6.03616						
	Efficiency (dB)	-7.66799						
	Efficiency (%)	17.1081						
	Gain (dBi)	-1.63183						
	NHPRP ±Pi/4 (dBm)	-9.82797						
	NHPRP ±Pi/6 (dBm)	-12.0733						
	NHPRP ±Pi/8 (dBm)	-13.532						
	Upper Hem. PRP (dBm)	-12.6257						
	Lower Hem. PRP (dBm)	-9.33858						
	NHPRP4 / TRP Ratio (dB)	-2.15998						
	NHPRP4 / TRP Ratio (%)	60.8138						
	NHPRP6 / TRP Ratio (dB)	-4.40526						
	NHPRP6 / TRP Ratio (%)	36.2638						
	NHPRP8 / TRP Ratio (dB)	-5.86404						
	NHPRP8 / TRP Ratio (%)	25.9177						
	UHPRP / TRP Ratio (dB)	-4.9577						
	UHPRP / TRP Ratio (%)	31.9323						
	LHPRP / TRP Ratio (dB)	-1.67059						
	LHPRP / TRP Ratio (%)	68.0677						

	Front/Back Ratio (dB)	5.45156						
	Phi BW (°)	80						
	+ Phi BW (°)	23						
	- Phi BW (°)	57						
	Theta BW (°)	39						
	+ Th. BW (°)	24						
	- Th. BW (°)	15						
	Boresight Phi (°)	285						
	Boresight Th. (°)	165						
	Maximum Power (dBm)	-1.63183						
	Minimum Power (dBm)	-19.2093						
	Average Power (dBm)	-6.61553						
	Max/Min Ratio (dB)	17.5774						
	Max/Avg Ratio (dB)	4.9837						
	Min/Avg Ratio (dB)	-12.5938						
	Average Gain (dB)	-7.66799						
	E-Plane BW (°)	58						
	+ E-Plane BW (°)	24						
	- E-Plane BW (°)	34						
	H-Plane BW (°)	85						
	+ H-Plane BW (°)	21						
	- H-Plane BW (°)	64						

105	120	135	150	165	180	
Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	
-13.18	-7.20	-7.44	-10.70	-11.00	-10.99	-1.65
-11.42	-7.60	-9.29	-12.95	-17.46	-20.48	
-10.05	-8.01	-12.15	-16.18	-22.39	-20.05	
-8.72	-8.83	-16.19	-18.92	-13.32	-10.85	
-8.12	-9.38	-17.26	-18.87	-9.81	-6.85	
-7.82	-9.71	-21.38	-17.51	-7.92	-4.57	
-7.83	-9.76	-24.67	-16.51	-7.15	-3.25	
-7.85	-9.51	-23.40	-16.58	-7.28	-2.65	
-7.95	-9.02	-19.27	-17.38	-8.15	-2.65	
-8.44	-8.26	-14.97	-17.89	-10.31	-3.28	
-9.30	-7.56	-11.38	-16.03	-14.32	-4.61	
-10.28	-7.10	-8.74	-13.11	-19.01	-6.92	
-10.94	-6.77	-6.94	-9.99	-14.27	-10.99	
-11.41	-6.91	-5.56	-7.65	-9.26	-20.48	
-11.31	-7.35	-4.83	-6.06	-6.29	-20.05	
-10.26	-7.97	-4.38	-5.05	-4.33	-10.85	
-9.21	-8.05	-4.32	-4.59	-2.77	-6.85	
-9.39	-7.76	-4.18	-4.58	-1.96	-4.57	
-9.79	-7.91	-4.05	-4.55	-1.65	-3.25	
-10.14	-8.04	-4.12	-4.68	-1.83	-2.65	
-10.90	-8.76	-4.13	-5.15	-2.35	-2.65	
-12.83	-8.63	-4.34	-5.91	-3.48	-3.28	
-15.17	-7.98	-4.65	-6.64	-5.12	-4.61	
-17.23	-7.90	-5.06	-7.90	-7.76	-6.92	
-13.18	-7.20	-7.44	-10.70	-11.00	-10.99	
105	120	135	150	165	180	
Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	
-11.53	-9.39	-3.91	-8.31	-3.11	-3.25	-3.11
-10.61	-8.94	-4.02	-7.79	-3.25	-2.65	
-10.50	-9.84	-4.69	-8.50	-3.94	-2.65	
-11.58	-11.61	-6.19	-10.29	-5.75	-3.28	
-14.03	-14.40	-9.24	-13.08	-7.97	-4.61	

-18.84	-19.69	-13.54	-17.88	-11.77	-6.92	
-30.04	-31.38	-20.66	-21.66	-19.83	-10.99	
-20.79	-19.13	-16.91	-15.78	-22.77	-20.48	
-14.84	-13.55	-11.41	-11.46	-12.93	-20.05	
-11.60	-10.34	-8.19	-8.81	-8.66	-10.85	
-9.88	-8.56	-6.35	-7.27	-6.28	-6.85	
-9.14	-7.55	-5.37	-6.14	-5.05	-4.57	
-9.55	-7.52	-5.17	-5.90	-4.69	-3.25	
-10.54	-8.42	-5.77	-6.26	-4.99	-2.65	
-12.62	-10.01	-7.17	-7.17	-6.00	-2.65	
-15.43	-12.34	-9.23	-8.75	-7.81	-3.28	
-18.23	-15.92	-13.59	-11.48	-11.55	-4.61	
-23.96	-21.23	-21.33	-14.96	-18.73	-6.92	
-27.59	-34.09	-27.33	-22.07	-30.77	-10.99	
-24.67	-24.80	-16.10	-27.19	-15.07	-20.48	
-20.35	-18.65	-11.44	-18.15	-9.90	-20.05	
-16.10	-14.61	-8.36	-13.52	-6.59	-10.85	
-14.25	-11.94	-6.35	-10.82	-5.47	-6.85	
-11.61	-10.16	-5.36	-9.38	-4.29	-4.57	
-11.53	-9.39	-3.91	-8.31	-3.11	-3.25	
105	120	135	150	165	180	
Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	Power (dBm)	
-9.26	-5.15	-2.31	-6.33	-2.45	-2.58	
-7.98	-5.21	-2.89	-6.63	-3.09	-2.58	
-7.26	-5.82	-3.97	-7.82	-3.87	-2.58	
-6.91	-6.99	-5.77	-9.73	-5.05	-2.58	
-7.13	-8.19	-8.60	-12.06	-5.78	-2.58	
-7.49	-9.29	-12.88	-14.68	-6.42	-2.58	
-7.80	-9.73	-19.21	-15.36	-6.93	-2.58	
-7.63	-9.06	-16.03	-13.15	-7.16	-2.58	
-7.14	-7.71	-10.76	-10.47	-6.91	-2.58	
-6.73	-6.16	-7.36	-8.31	-6.40	-2.58	
-6.57	-5.02	-5.16	-6.73	-5.64	-2.58	
-6.66	-4.31	-3.72	-5.35	-4.88	-2.58	
-7.18	-4.12	-2.96	-4.47	-4.24	-2.58	
-7.94	-4.59	-2.65	-3.89	-3.61	-2.58	
-8.91	-5.47	-2.84	-3.57	-3.13	-2.58	
-9.11	-6.61	-3.15	-3.51	-2.72	-2.58	
-8.70	-7.39	-3.84	-3.78	-2.23	-2.58	
-9.25	-7.57	-4.10	-4.20	-1.87	-2.58	
-9.72	-7.90	-4.03	-4.48	-1.65	-2.58	
-9.99	-7.95	-3.86	-4.65	-1.63	-2.58	
-10.43	-8.33	-3.39	-4.94	-1.65	-2.58	
-11.15	-7.65	-2.89	-5.21	-1.75	-2.58	
-11.68	-6.51	-2.40	-5.24	-2.28	-2.58	
-10.56	-5.87	-2.20	-5.57	-2.68	-2.58	

-9.26	-5.15	-2.31	-6.33	-2.45	-2.58	
