

Test Date	2012/12/25											
Antenna Designation	Quarter-Wave Monopole Antenna											
Modulation Technique	GFSK											
Antenna Model Name	TDANT70											
Test Mode Free Space & Talking Position	Free Space			Free Space			Free Space		Free Space			
Communication System												
Frequency	902	915	928									
OTA-02 Note												
Ant. Port Input Pwr. (dBm)	0	0	0									
Tot. Rad. Pwr. (dBm)	-7.2323	-6.5546	-6.0056									
Peak EIRP (dBm)	-4.0517	-3.3216	-2.7502									
Directivity (dBi)	3.18063	3.23303	3.2554									
Efficiency (dB)	-7.2323	-6.5546	-6.0056									
Efficiency (%)	18.9135	22.1073	25.0866									
Gain (dBi)	-4.0517	-3.3216	-2.7502									
NHPRP ±Pi/4 (dBm)	-8.0999	-7.4016	-6.8365									
NHPRP ±Pi/6 (dBm)	-9.2627	-8.5519	-7.9755									
NHPRP ±Pi/8 (dBm)	-10.259	-9.5479	-8.9708									
Upper Hem. PRP (dBm)	-9.1487	-8.4744	-7.9332									
Lower Hem. PRP (dBm)	-11.708	-11.025	-10.462									
NHPRP4 / TRP Ratio (dB)	-0.8676	-0.8469	-0.831									
NHPRP4 / TRP Ratio (%)	81.8911	82.2822	82.5857									
Near Horz. TRP for ±Pi/4 (dBm)	-6.5948	-5.8964	-5.3314									
NHPRP6 / TRP Ratio (dB)	-2.0304	-1.9972	-1.9699									
NHPRP6 / TRP Ratio (%)	62.656	63.136	63.5339									
Near Horz. TRP for ±Pi/6 (dBm)	-6.2524	-5.5416	-4.9652									
NHPRP8 / TRP Ratio (dB)	-3.0269	-2.9932	-2.9653									
NHPRP8 / TRP Ratio (%)	49.8095	50.197	50.5212									
Near Horz. TRP for ±Pi/8 (dBm)	-6.0876	-5.3763	-4.7992									
UHPRP / TRP Ratio (dB)	-1.9165	-1.9198	-1.9276									
UHPRP / TRP Ratio (%)	64.3213	64.2718	64.1563									
Upper Hem.Total Radiated Pwr (dBm)	-6.1384	-5.4641	-4.9229									
LHPRP / TRP Ratio (dB)	-4.4759	-4.4699	-4.4559									
LHPRP / TRP Ratio (%)	35.6787	35.7282	35.8437									
Lower Hem. Total Radiated Pwr(dBm)	-8.6979	-8.0142	-7.4512									
Front/Back Ratio (dB)	4.28526	4.34403	4.31406									

Phi BW (°)	267	260	257								
+ Phi BW (°)	127	123	123								
- Phi BW (°)	140	137	134								
Theta BW (°)	82	82	82								
+ Th. BW (°)	37	37	38								
- Th. BW (°)	45	45	44								
Boresight Phi (°)	165	165	165								
Boresight Th. (°)	75	75	75								
Maximum Power (dBm)	-4.0517	-3.3216	-2.7502								
Minimum Power (dBm)	-18.328	-18.112	-18.156								
Average Power (dBm)	-8.1877	-7.539	-7.0079								
Max/Min Ratio (dB)	14.2766	14.7899	15.4056								
Max/Avg Ratio (dB)	4.13602	4.21743	4.25768								
Min/Avg Ratio (dB)	-10.141	-10.573	-11.148								
Average Gain (dB)	-7.2323	-6.5546	-6.0056								
E-Plane BW (°)	82	82	82								
+ E-Plane BW (°)	45	45	44								
- E-Plane BW (°)	37	37	38								
H-Plane BW (°)	269	261	257								
+ H-Plane BW (°)	133	129	126								
- H-Plane BW (°)	136	132	131								

File Name: 3G Gain_902-915MHz.pat
Test Method: Two-Axis Dual-Polarization Pattern
Measurement
Test Start Time: 2012/12/25 12:09:14
Test End Time: 2012/12/25 12:25:34
Comments:
3D Gain

Polarization

Theta	Frequency (MHz)														
	902	Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
		Phi Angle	Response	Response	Response	Response (dE	Response	Response	Response	Response	Response	Response	Response	Response	Response (dB)
		0	-10.59	-9.97	-8.3	-6.81	-6.11	-6.09	-6.31	-8.34	-12.1	-17.52	-20.66	-15.85	-15.56
		15	-11.77	-11.01	-9.19	-7.49	-6.7	-6.53	-6.59	-8.61	-12.5	-17.47	-22.96	-17.73	-15.56
		30	-13.85	-12.79	-10.54	-8.6	-7.57	-7.25	-7.16	-9.05	-12.98	-17.24	-25.56	-21.06	-15.56
		45	-17.45	-15.2	-12.1	-9.79	-8.54	-8.08	-7.87	-9.56	-13.43	-16.77	-24.84	-27.93	-15.56
		60	-25.01	-17.45	-13.14	-10.56	-9.14	-8.61	-8.4	-9.91	-13.7	-16.04	-21.12	-33.85	-15.56
		75	-31.83	-17.1	-12.73	-10.22	-8.88	-8.44	-8.39	-9.75	-13.44	-15.15	-18.08	-23.26	-15.56
		90	-19.52	-14.72	-11.32	-9.11	-7.9	-7.5	-7.67	-9.03	-12.77	-14.27	-15.95	-18.6	-15.56
		105	-14.96	-12.42	-9.78	-7.83	-6.72	-6.34	-6.66	-8	-11.8	-13.48	-14.47	-15.86	-15.56
		120	-12.42	-10.73	-8.57	-6.79	-5.7	-5.36	-5.72	-7.11	-10.84	-12.97	-13.5	-14.17	-15.56
		135	-10.94	-9.66	-7.73	-6.05	-4.98	-4.67	-5.05	-6.43	-10.04	-12.57	-12.94	-13	-15.56
		150	-10.21	-9	-7.24	-5.61	-4.54	-4.22	-4.67	-6.06	-9.5	-12.35	-12.6	-12.29	-15.56
		165	-10.1	-8.76	-7.08	-5.45	-4.41	-4.07	-4.6	-6.02	-9.33	-12.43	-12.57	-11.91	-15.56
		180	-10.59	-8.93	-7.18	-5.53	-4.45	-4.09	-4.7	-6.22	-9.33	-12.51	-12.68	-11.89	-15.56
		195	-11.77	-9.55	-7.64	-5.88	-4.75	-4.36	-5.08	-6.71	-9.65	-12.72	-13.06	-12.25	-15.56
		210	-13.85	-10.72	-8.52	-6.53	-5.39	-4.93	-5.78	-7.52	-10.22	-13.09	-13.62	-13.04	-15.56
		225	-17.45	-12.62	-9.91	-7.61	-6.4	-5.85	-6.82	-8.64	-11.04	-13.6	-14.6	-14.4	-15.56
		240	-25.01	-15.67	-11.82	-9.06	-7.76	-7.13	-8.14	-9.91	-11.81	-14.27	-16.07	-16.41	-15.56
		255	-31.83	-19.86	-13.89	-10.61	-9.11	-8.44	-9.35	-10.97	-12.36	-15.07	-18.04	-19.3	-15.56
		270	-19.52	-20.25	-14.39	-11.25	-9.62	-9.09	-9.71	-11.17	-12.47	-15.89	-20.49	-21.77	-15.56
		285	-14.96	-15.93	-12.51	-10.3	-8.79	-8.62	-8.92	-10.61	-12.14	-16.68	-21.89	-20.78	-15.56
		300	-12.42	-12.78	-10.49	-8.78	-7.61	-7.56	-7.97	-9.7	-11.9	-17.04	-21.64	-18.24	-15.56
		315	-10.94	-10.8	-9.02	-7.54	-6.64	-6.7	-7.12	-9.01	-11.73	-17.43	-20.34	-16.19	-15.56
		330	-10.21	-9.8	-8.2	-6.78	-6.09	-6.16	-6.57	-8.56	-11.75	-17.55	-19.58	-15.16	-15.56
		345	-10.1	-9.51	-7.97	-6.54	-5.92	-5.96	-6.32	-8.34	-11.89	-17.51	-19.62	-15.02	-15.56
		360	-10.59	-9.86	-8.27	-6.78	-6.11	-6.06	-6.31	-8.36	-12.15	-17.53	-20.62	-15.71	-15.56

915 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
Phi Angle	Response	Response	Response	Response (dE	Response	Response	Response	Response	Response	Response	Response	Response	Response (dB)
0	-10.13	-9.4	-7.77	-6.22	-5.35	-5.38	-5.68	-7.64	-11.39	-17.06	-20.52	-14.96	-14.89
15	-11.3	-10.42	-8.6	-6.91	-5.92	-5.82	-5.98	-7.9	-11.74	-17.08	-22.83	-16.7	-14.89
30	-13.37	-12.13	-9.93	-8	-6.8	-6.51	-6.53	-8.33	-12.22	-16.9	-25.9	-20.05	-14.89
45	-16.94	-14.56	-11.45	-9.17	-7.77	-7.3	-7.24	-8.82	-12.61	-16.35	-24.68	-26.78	-14.89
60	-24.4	-16.69	-12.37	-9.89	-8.39	-7.85	-7.76	-9.14	-12.82	-15.51	-20.66	-33.78	-14.89
75	-31.73	-16.4	-11.95	-9.55	-8.16	-7.61	-7.72	-8.91	-12.52	-14.56	-17.51	-22.7	-14.89
90	-19.15	-14.12	-10.54	-8.38	-7.19	-6.66	-6.99	-8.19	-11.77	-13.62	-15.33	-17.91	-14.89
105	-14.56	-11.86	-9.06	-7.11	-6.01	-5.54	-5.95	-7.2	-10.8	-12.85	-13.78	-15.23	-14.89
120	-12	-10.19	-7.87	-6.07	-5.03	-4.58	-5.01	-6.3	-9.84	-12.22	-12.83	-13.46	-14.89
135	-10.51	-9.12	-7.05	-5.36	-4.33	-3.9	-4.33	-5.61	-9.07	-11.81	-12.21	-12.31	-14.89
150	-9.76	-8.45	-6.58	-4.91	-3.89	-3.48	-3.93	-5.25	-8.53	-11.54	-11.88	-11.62	-14.89
165	-9.64	-8.19	-6.41	-4.79	-3.74	-3.33	-3.85	-5.21	-8.43	-11.61	-11.87	-11.25	-14.89
180	-10.13	-8.35	-6.52	-4.84	-3.77	-3.35	-3.94	-5.39	-8.47	-11.66	-11.98	-11.25	-14.89
195	-11.3	-8.92	-6.94	-5.15	-4.06	-3.6	-4.29	-5.86	-8.78	-11.9	-12.35	-11.63	-14.89
210	-13.37	-10.04	-7.78	-5.78	-4.64	-4.14	-4.94	-6.63	-9.39	-12.25	-12.99	-12.43	-14.89
225	-16.94	-11.83	-9.07	-6.8	-5.61	-5.03	-5.95	-7.69	-10.22	-12.8	-13.97	-13.84	-14.89
240	-24.4	-14.64	-10.93	-8.23	-6.93	-6.26	-7.24	-8.95	-11.08	-13.48	-15.55	-15.97	-14.89
255	-31.73	-18.41	-12.9	-9.75	-8.25	-7.56	-8.44	-10.05	-11.74	-14.3	-17.63	-19.07	-14.89
270	-19.15	-19.34	-13.52	-10.53	-8.79	-8.2	-8.89	-10.4	-11.93	-15.25	-20.27	-21.98	-14.89
285	-14.56	-15.47	-11.91	-9.69	-8.02	-7.85	-8.21	-9.95	-11.61	-16.12	-22.15	-20.51	-14.89
300	-12	-12.27	-9.97	-8.23	-6.89	-6.84	-7.29	-9.05	-11.35	-16.53	-22.01	-17.7	-14.89
315	-10.51	-10.31	-8.49	-6.98	-5.91	-6	-6.5	-8.36	-11.19	-16.98	-20.5	-15.57	-14.89
330	-9.76	-9.28	-7.66	-6.22	-5.33	-5.46	-5.95	-7.91	-11.11	-17.07	-19.51	-14.42	-14.89
345	-9.64	-8.94	-7.43	-5.95	-5.15	-5.25	-5.69	-7.67	-11.22	-17.07	-19.47	-14.17	-14.89
360	-10.13	-9.3	-7.69	-6.17	-5.34	-5.37	-5.69	-7.67	-11.43	-17.17	-20.37	-14.87	-14.89

928 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
Phi Angle	Response	Response	Response	Response (dE	Response	Response	Response	Response	Response	Response	Response	Response	Response (dB)
0	-9.62	-8.86	-7.25	-5.81	-4.79	-4.8	-5.17	-7.06	-10.74	-16.64	-20.66	-14.33	-14.33
15	-10.73	-9.87	-8.1	-6.49	-5.37	-5.23	-5.47	-7.3	-11.06	-16.66	-23.16	-15.94	-14.33
30	-12.73	-11.59	-9.4	-7.56	-6.24	-5.91	-6.04	-7.72	-11.45	-16.46	-26.52	-19.14	-14.33
45	-16.15	-13.98	-10.9	-8.71	-7.22	-6.71	-6.74	-8.23	-11.85	-15.94	-24.88	-25.49	-14.33
60	-23.13	-16.16	-11.77	-9.32	-7.86	-7.21	-7.25	-8.49	-11.96	-15.09	-20.25	-33.24	-14.33

75	-33.55	-15.93	-11.3	-8.88	-7.58	-6.97	-7.17	-8.3	-11.66	-14.12	-17.05	-22.16	-14.33
90	-19.15	-13.67	-9.94	-7.7	-6.61	-6.04	-6.42	-7.56	-10.92	-13.15	-14.81	-17.5	-14.33
105	-14.33	-11.42	-8.49	-6.46	-5.46	-4.92	-5.39	-6.57	-9.95	-12.32	-13.27	-14.67	-14.33
120	-11.67	-9.79	-7.34	-5.45	-4.49	-3.98	-4.46	-5.66	-9.03	-11.7	-12.22	-12.88	-14.33
135	-10.13	-8.69	-6.54	-4.75	-3.79	-3.31	-3.77	-4.97	-8.26	-11.22	-11.6	-11.74	-14.33
150	-9.34	-8.03	-6.07	-4.34	-3.36	-2.89	-3.38	-4.58	-7.79	-10.95	-11.24	-11.06	-14.33
165	-9.17	-7.77	-5.91	-4.2	-3.2	-2.76	-3.28	-4.57	-7.69	-10.96	-11.19	-10.64	-14.33
180	-9.62	-7.87	-6.01	-4.26	-3.21	-2.76	-3.35	-4.72	-7.73	-11.05	-11.32	-10.64	-14.33
195	-10.73	-8.41	-6.42	-4.57	-3.47	-2.99	-3.67	-5.15	-8.05	-11.23	-11.71	-11.05	-14.33
210	-12.73	-9.47	-7.19	-5.17	-4.04	-3.49	-4.28	-5.88	-8.64	-11.58	-12.36	-11.88	-14.33
225	-16.15	-11.13	-8.42	-6.14	-4.97	-4.33	-5.22	-6.89	-9.46	-12.12	-13.42	-13.3	-14.33
240	-23.13	-13.75	-10.17	-7.51	-6.24	-5.51	-6.47	-8.11	-10.37	-12.76	-14.92	-15.58	-14.33
255	-33.55	-17.18	-12.03	-9.03	-7.55	-6.75	-7.67	-9.17	-11.1	-13.59	-17.11	-18.82	-14.33
270	-19.15	-18.15	-12.68	-9.84	-8.11	-7.45	-8.15	-9.6	-11.35	-14.5	-20.04	-22.01	-14.33
285	-14.33	-14.82	-11.24	-9.14	-7.38	-7.15	-7.56	-9.22	-11.11	-15.47	-22.27	-20.54	-14.33
300	-11.67	-11.75	-9.39	-7.73	-6.3	-6.16	-6.7	-8.4	-10.88	-15.93	-22.63	-17.46	-14.33
315	-10.13	-9.82	-7.95	-6.54	-5.35	-5.36	-5.93	-7.74	-10.65	-16.31	-20.97	-15.11	-14.33
330	-9.34	-8.73	-7.13	-5.78	-4.76	-4.86	-5.42	-7.3	-10.53	-16.6	-19.77	-13.88	-14.33
345	-9.17	-8.41	-6.91	-5.52	-4.59	-4.66	-5.17	-7.07	-10.59	-16.68	-19.55	-13.62	-14.33
360	-9.62	-8.76	-7.19	-5.75	-4.77	-4.77	-5.2	-7.07	-10.79	-16.66	-20.61	-14.21	-14.33

Phi	Frequency (MHz)															
	902	Theta	Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
	Phi	Angle	Response	Response	Response	Response	(dE	Response	Response	Response	Response	Response	Response	Response	Response	Response (dB)
	0		-19.52	-19.27	-18.46	-17.11	-17.77	-19.84	-20.8	-21.37	-18.87	-18.09	-19.16	-20.9	-15.69	
	15		-14.96	-14.81	-14.14	-13.13	-13.46	-15.08	-15.22	-15.41	-14.55	-14.55	-15.81	-17.23	-15.69	
	30		-12.42	-12.3	-11.77	-10.84	-11.07	-12.32	-12.25	-12.41	-12.22	-12.52	-13.77	-14.94	-15.69	
	45		-10.94	-10.96	-10.49	-9.58	-9.76	-10.83	-10.59	-10.74	-10.93	-11.44	-12.65	-13.62	-15.69	
	60		-10.21	-10.31	-9.93	-9.07	-9.23	-10.1	-9.8	-10.02	-10.46	-11.04	-12.19	-12.88	-15.69	
	75		-10.1	-10.3	-9.97	-9.21	-9.36	-10.18	-9.72	-10.04	-10.68	-11.24	-12.25	-12.74	-15.69	
	90		-10.59	-10.85	-10.59	-9.9	-10.07	-10.84	-10.36	-10.84	-11.52	-12	-12.8	-13.05	-15.69	
	105		-11.77	-11.93	-11.82	-11.22	-11.42	-12.13	-11.59	-12.32	-13.11	-13.37	-13.8	-13.81	-15.69	
	120		-13.85	-13.67	-13.81	-13.32	-13.46	-14.06	-13.58	-14.59	-15.45	-15.46	-15.44	-15.12	-15.69	
	135		-17.45	-16.47	-16.81	-16.47	-16.42	-16.75	-16.44	-17.92	-19.19	-18.54	-17.82	-17.21	-15.69	
	150		-25.01	-21.41	-22.1	-21.76	-20.89	-20.79	-20.79	-23.09	-26.2	-23.42	-21.48	-20.46	-15.69	
	165		-31.83	-34.86	-38.82	-34.61	-29.15	-28.83	-29.45	-31.74	-39.06	-29.82	-26.02	-24.88	-15.69	

180	-19.52	-25.59	-24.92	-23.74	-26.57	-32.07	-29.6	-25.35	-23.09	-23.77	-24.39	-25.13	-15.69
195	-14.96	-18.2	-18.09	-17.32	-19.03	-20.99	-20.35	-19.49	-17.91	-18.6	-19.57	-20.38	-15.69
210	-12.42	-14.58	-14.57	-13.81	-14.77	-16.08	-15.59	-15.8	-14.84	-15.37	-16.18	-16.86	-15.69
225	-10.94	-12.3	-12.31	-11.54	-12.05	-13.02	-12.62	-13.25	-12.75	-13.22	-14	-14.6	-15.69
240	-10.21	-10.95	-10.94	-10.08	-10.26	-10.93	-10.62	-11.44	-11.43	-11.92	-12.63	-13.26	-15.69
255	-10.1	-10.26	-10.24	-9.39	-9.37	-9.81	-9.53	-10.35	-10.78	-11.29	-12.03	-12.62	-15.69
270	-10.59	-10.23	-10.28	-9.42	-9.26	-9.52	-9.25	-9.99	-10.86	-11.37	-12.16	-12.67	-15.69
285	-11.77	-10.97	-11.16	-10.36	-10.13	-10.15	-9.95	-10.45	-11.86	-12.27	-13.16	-13.43	-15.69
300	-13.85	-12.68	-13	-12.29	-12.02	-11.79	-11.58	-11.95	-13.83	-14.31	-15.01	-15.17	-15.69
315	-17.45	-15.68	-16.25	-15.83	-15.54	-14.74	-14.46	-14.58	-17.47	-17.87	-18.18	-17.82	-15.69
330	-25.01	-21.54	-22.74	-23.74	-22.66	-20.04	-19.67	-19.72	-25.29	-24.69	-23.13	-22.25	-15.69
345	-31.83	-30.55	-27.5	-28.91	-27.97	-28.82	-29.75	-36.48	-30.37	-25.51	-24.21	-25.57	-15.69
360	-19.52	-19.85	-18.78	-17.56	-18.05	-20.38	-21.2	-21.85	-19.26	-18.4	-19.31	-21.1	-15.69

915 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
Phi Angle	Response	Response	Response	Response	(dEResponse	Response	Response	Response	Response	Response	Response	Response	Response (dB)
0	-19.15	-19.03	-18.72	-16.97	-17.12	-19.07	-20.2	-20.89	-18.5	-17.64	-18.64	-20.25	-15.13
15	-14.56	-14.44	-14.08	-12.91	-12.82	-14.4	-14.74	-15.05	-14.16	-14.18	-15.19	-16.68	-15.13
30	-12	-11.9	-11.6	-10.55	-10.45	-11.68	-11.78	-11.94	-11.77	-12.08	-13.17	-14.34	-15.13
45	-10.51	-10.52	-10.25	-9.29	-9.19	-10.21	-10.11	-10.28	-10.5	-10.96	-12.08	-13.07	-15.13
60	-9.76	-9.89	-9.67	-8.77	-8.66	-9.53	-9.31	-9.54	-10	-10.6	-11.61	-12.37	-15.13
75	-9.64	-9.88	-9.71	-8.9	-8.79	-9.57	-9.25	-9.59	-10.18	-10.76	-11.68	-12.24	-15.13
90	-10.13	-10.39	-10.35	-9.62	-9.54	-10.29	-9.88	-10.33	-10.99	-11.51	-12.23	-12.56	-15.13
105	-11.3	-11.48	-11.59	-11	-10.93	-11.6	-11.17	-11.82	-12.51	-12.9	-13.27	-13.36	-15.13
120	-13.37	-13.23	-13.52	-13.11	-12.98	-13.56	-13.16	-14.01	-14.82	-14.93	-14.91	-14.69	-15.13
135	-16.94	-16.02	-16.47	-16.29	-15.91	-16.29	-16.05	-17.26	-18.42	-18.09	-17.4	-16.8	-15.13
150	-24.4	-20.83	-21.6	-21.7	-20.4	-20.38	-20.59	-22.31	-25.2	-23.13	-21.13	-19.95	-15.13
165	-31.73	-33.72	-35.92	-35.63	-28.35	-28.49	-29.37	-30.82	-42.27	-30.85	-26.11	-24.19	-15.13
180	-19.15	-25.3	-25.37	-23.27	-25.52	-31.63	-28.67	-25.4	-23.02	-23.6	-24.31	-24.36	-15.13
195	-14.56	-17.81	-18.16	-16.94	-18.28	-20.51	-19.66	-19.23	-17.59	-18.18	-19.01	-19.61	-15.13
210	-12	-14.11	-14.41	-13.41	-14.11	-15.53	-15	-15.45	-14.43	-14.88	-15.58	-16.21	-15.13
225	-10.51	-11.76	-12.02	-11.17	-11.42	-12.43	-11.98	-12.79	-12.27	-12.73	-13.38	-13.96	-15.13
240	-9.76	-10.37	-10.52	-9.68	-9.67	-10.35	-10	-10.95	-10.92	-11.38	-12.04	-12.64	-15.13
255	-9.64	-9.64	-9.75	-8.97	-8.74	-9.22	-8.9	-9.84	-10.22	-10.76	-11.47	-11.99	-15.13
270	-10.13	-9.59	-9.7	-8.95	-8.69	-8.92	-8.63	-9.44	-10.3	-10.82	-11.57	-12.05	-15.13
285	-11.3	-10.29	-10.5	-9.87	-9.57	-9.53	-9.34	-9.91	-11.28	-11.75	-12.65	-12.83	-15.13

300	-13.37	-11.93	-12.2	-11.72	-11.51	-11.21	-10.98	-11.37	-13.21	-13.77	-14.54	-14.57	-15.13
315	-16.94	-14.86	-15.37	-15.19	-15.11	-14.16	-13.88	-14.03	-16.87	-17.38	-17.82	-17.29	-15.13
330	-24.4	-20.62	-21.35	-22.69	-22.51	-19.67	-19.17	-19.26	-24.58	-24.2	-22.89	-21.77	-15.13
345	-31.73	-31.26	-28.34	-29.39	-27.46	-27.67	-29.22	-35.52	-30.07	-25.26	-23.83	-25.29	-15.13
360	-19.15	-19.71	-18.98	-17.51	-17.34	-19.49	-20.7	-21.39	-18.87	-18.03	-18.8	-20.56	-15.13

928 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
Phi Angle	Response	Response	Response	Response (dE	Response	Response	Response	Response	Response	Response	Response	Response	Response (dB)
0	-19.15	-18.81	-18.8	-17.14	-16.63	-18.38	-19.95	-20.52	-18.2	-17.43	-18.23	-20.06	-14.71
15	-14.33	-14.02	-13.91	-12.85	-12.43	-13.8	-14.47	-14.65	-13.83	-13.85	-14.79	-16.22	-14.71
30	-11.67	-11.53	-11.42	-10.44	-10.09	-11.2	-11.51	-11.56	-11.43	-11.79	-12.74	-13.9	-14.71
45	-10.13	-10.13	-10.04	-9.16	-8.8	-9.73	-9.84	-9.9	-10.12	-10.67	-11.66	-12.6	-14.71
60	-9.34	-9.49	-9.5	-8.63	-8.27	-9.06	-9.04	-9.16	-9.62	-10.24	-11.16	-11.92	-14.71
75	-9.17	-9.47	-9.55	-8.73	-8.42	-9.12	-8.99	-9.19	-9.78	-10.43	-11.25	-11.83	-14.71
90	-9.62	-10.02	-10.19	-9.47	-9.2	-9.8	-9.59	-9.92	-10.57	-11.18	-11.81	-12.19	-14.71
105	-10.73	-11.13	-11.44	-10.83	-10.58	-11.13	-10.87	-11.31	-12.04	-12.58	-12.86	-12.99	-14.71
120	-12.73	-12.96	-13.36	-12.95	-12.66	-13.08	-12.89	-13.51	-14.31	-14.59	-14.52	-14.39	-14.71
135	-16.15	-15.72	-16.3	-16.16	-15.68	-15.79	-15.81	-16.6	-17.85	-17.65	-16.98	-16.48	-14.71
150	-23.13	-20.62	-21.28	-21.66	-20.31	-19.88	-20.29	-21.47	-23.96	-22.97	-20.82	-19.72	-14.71
165	-33.55	-33.14	-34.28	-37.13	-28.41	-27.72	-28.91	-29.29	-40.58	-31.67	-26.25	-24	-14.71
180	-19.15	-24.54	-25.75	-23.25	-24.62	-31.75	-28.12	-25.36	-23.15	-23.85	-24.32	-23.7	-14.71
195	-14.33	-17.34	-18.23	-16.8	-17.61	-20.22	-19.28	-19.07	-17.44	-17.99	-18.79	-19.06	-14.71
210	-11.67	-13.61	-14.28	-13.28	-13.58	-15.08	-14.58	-15.14	-14.13	-14.57	-15.23	-15.67	-14.71
225	-10.13	-11.34	-11.8	-10.94	-10.91	-11.93	-11.58	-12.44	-11.93	-12.39	-13.03	-13.44	-14.71
240	-9.34	-9.88	-10.22	-9.45	-9.2	-9.83	-9.58	-10.54	-10.53	-11.03	-11.67	-12.13	-14.71
255	-9.17	-9.2	-9.4	-8.67	-8.32	-8.73	-8.46	-9.39	-9.86	-10.4	-11.09	-11.52	-14.71
270	-9.62	-9.12	-9.28	-8.62	-8.25	-8.44	-8.22	-9.01	-9.91	-10.47	-11.22	-11.59	-14.71
285	-10.73	-9.76	-10.01	-9.46	-9.15	-9.07	-8.94	-9.49	-10.89	-11.39	-12.3	-12.37	-14.71
300	-12.73	-11.43	-11.65	-11.27	-11.13	-10.83	-10.58	-11	-12.84	-13.47	-14.22	-14.14	-14.71
315	-16.15	-14.3	-14.77	-14.64	-14.76	-13.91	-13.51	-13.69	-16.42	-17.03	-17.58	-16.92	-14.71
330	-23.13	-20.04	-20.71	-21.67	-22.47	-19.5	-18.71	-18.94	-24.26	-24.1	-23.04	-21.65	-14.71
345	-33.55	-31.69	-29.78	-30.27	-27.36	-26.96	-28.23	-35.89	-29.7	-25.2	-23.77	-25.1	-14.71
360	-19.15	-19.49	-19.03	-17.56	-16.9	-18.68	-20.39	-20.98	-18.54	-17.75	-18.5	-20.3	-14.71

Total	Frequency (MHz)												
	902 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	180

105	-9.62	-8.65	-7.13	-5.63	-4.8	-4.58	-4.81	-5.91	-8.56	-9.86	-10.5	-11.18	-12
120	-9.62	-8.44	-6.82	-5.29	-4.38	-4.06	-4.39	-5.62	-8.64	-10.36	-10.74	-11.02	-12
135	-9.62	-8.31	-6.58	-5.02	-4.04	-3.65	-4.05	-5.33	-8.59	-10.89	-11.06	-10.98	-12
150	-9.62	-8.2	-6.44	-4.82	-3.79	-3.39	-3.84	-5.16	-8.44	-11.25	-11.39	-11.03	-12
165	-9.62	-8.18	-6.41	-4.79	-3.72	-3.32	-3.83	-5.2	-8.43	-11.56	-11.71	-11.03	-12
180	-9.62	-8.27	-6.47	-4.77	-3.74	-3.34	-3.93	-5.35	-8.32	-11.39	-11.73	-11.04	-12
195	-9.62	-8.4	-6.62	-4.87	-3.9	-3.51	-4.17	-5.66	-8.24	-10.98	-11.5	-10.99	-12
210	-9.62	-8.61	-6.93	-5.09	-4.18	-3.84	-4.53	-6.09	-8.21	-10.36	-11.09	-10.91	-12
225	-9.62	-8.78	-7.29	-5.44	-4.6	-4.3	-4.98	-6.52	-8.11	-9.75	-10.65	-10.89	-12
240	-9.62	-8.99	-7.71	-5.89	-5.08	-4.83	-5.4	-6.82	-7.99	-9.29	-10.44	-10.99	-12
255	-9.62	-9.09	-8.03	-6.33	-5.48	-5.3	-5.66	-6.94	-7.91	-9.17	-10.53	-11.22	-12
270	-9.62	-9.15	-8.19	-6.66	-5.73	-5.53	-5.75	-6.88	-8.03	-9.49	-11.02	-11.63	-12
285	-9.62	-9.14	-8.14	-6.77	-5.72	-5.6	-5.73	-6.92	-8.43	-10.4	-12.19	-12.14	-12
300	-9.62	-9.08	-7.93	-6.62	-5.61	-5.48	-5.75	-7.05	-9.17	-11.92	-13.82	-12.85	-12
315	-9.62	-9	-7.68	-6.37	-5.41	-5.38	-5.77	-7.32	-10.15	-14.16	-15.94	-13.34	-12
330	-9.62	-8.97	-7.48	-6.12	-5.25	-5.3	-5.75	-7.61	-10.92	-16.3	-17.87	-13.69	-12
345	-9.62	-8.92	-7.4	-5.93	-5.12	-5.22	-5.67	-7.67	-11.17	-16.46	-18.11	-13.85	-12
360	-9.62	-8.92	-7.38	-5.87	-5.07	-5.21	-5.56	-7.49	-10.71	-14.57	-16.51	-13.83	-12

928 Theta Ang	0	15	30	45	60	75	90	105	120	135	150	165	180
Phi Angle	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)	Response (dB)
0	-9.16	-8.44	-6.95	-5.5	-4.51	-4.61	-5.03	-6.87	-10.02	-14.01	-16.27	-13.3	-11.5
15	-9.16	-8.46	-7.09	-5.59	-4.59	-4.66	-4.96	-6.57	-9.22	-12.02	-14.2	-13.07	-11.5
30	-9.16	-8.55	-7.28	-5.76	-4.74	-4.78	-4.96	-6.22	-8.43	-10.51	-12.56	-12.76	-11.5
45	-9.16	-8.63	-7.44	-5.92	-4.93	-4.95	-5.01	-5.98	-7.89	-9.54	-11.45	-12.39	-11.5
60	-9.16	-8.65	-7.48	-5.95	-5.05	-5.03	-5.04	-5.81	-7.62	-9.01	-10.65	-11.89	-11.5
75	-9.16	-8.58	-7.33	-5.79	-4.97	-4.91	-4.98	-5.71	-7.61	-8.89	-10.23	-11.45	-11.5
90	-9.16	-8.46	-7.06	-5.48	-4.71	-4.52	-4.71	-5.57	-7.73	-9.04	-10.05	-11.07	-11.5
105	-9.16	-8.26	-6.71	-5.1	-4.29	-3.99	-4.3	-5.31	-7.86	-9.44	-10.05	-10.74	-11.5
120	-9.16	-8.08	-6.37	-4.74	-3.87	-3.48	-3.88	-5	-7.91	-9.9	-10.21	-10.56	-11.5
135	-9.16	-7.91	-6.1	-4.44	-3.51	-3.07	-3.51	-4.68	-7.81	-10.33	-10.5	-10.49	-11.5
150	-9.16	-7.8	-5.94	-4.26	-3.27	-2.81	-3.29	-4.5	-7.69	-10.68	-10.79	-10.51	-11.5
165	-9.16	-7.76	-5.91	-4.2	-3.19	-2.75	-3.26	-4.56	-7.69	-10.92	-11.05	-10.44	-11.5
180	-9.16	-7.77	-5.96	-4.21	-3.18	-2.76	-3.33	-4.68	-7.61	-10.83	-11.11	-10.43	-11.5
195	-9.16	-7.89	-6.14	-4.31	-3.31	-2.91	-3.55	-4.98	-7.58	-10.4	-10.94	-10.41	-11.5
210	-9.16	-8.05	-6.41	-4.55	-3.58	-3.2	-3.9	-5.39	-7.56	-9.81	-10.55	-10.36	-11.5

225	-9.16	-8.22	-6.78	-4.9	-3.99	-3.64	-4.31	-5.82	-7.51	-9.24	-10.21	-10.36	-11.5
240	-9.16	-8.39	-7.18	-5.36	-4.46	-4.14	-4.74	-6.15	-7.44	-8.8	-9.99	-10.51	-11.5
255	-9.16	-8.56	-7.51	-5.84	-4.91	-4.62	-5.03	-6.26	-7.43	-8.7	-10.12	-10.77	-11.5
270	-9.16	-8.6	-7.64	-6.18	-5.17	-4.91	-5.18	-6.29	-7.56	-9.02	-10.69	-11.21	-11.5
285	-9.16	-8.58	-7.57	-6.29	-5.16	-5	-5.18	-6.34	-7.99	-9.95	-11.88	-11.75	-11.5
300	-9.16	-8.58	-7.36	-6.14	-5.07	-4.88	-5.21	-6.5	-8.74	-11.52	-13.64	-12.48	-11.5
315	-9.16	-8.49	-7.13	-5.91	-4.88	-4.8	-5.23	-6.76	-9.63	-13.65	-15.94	-12.91	-11.5
330	-9.16	-8.42	-6.95	-5.67	-4.68	-4.71	-5.22	-7.01	-10.35	-15.89	-18.09	-13.2	-11.5
345	-9.16	-8.39	-6.89	-5.51	-4.57	-4.63	-5.15	-7.06	-10.53	-16.11	-18.16	-13.32	-11.5
360	-9.16	-8.41	-6.92	-5.47	-4.52	-4.59	-5.07	-6.9	-10.12	-14.16	-16.41	-13.26	-11.5

All	Polarization			
Theta	Frequency	902	915	928
	Point Values			
Ant. Port I	0	0	0	
Tot. Rad. I	-8.47128	-7.73824	-7.13386	
Peak EIRF	-4.06613	-3.33484	-2.76347	
Directivity	4.40516	4.4034	4.37039	
Efficiency	-8.47128	-7.73824	-7.13386	
Efficiency	14.2191	16.8336	19.347	
Gain (dBi)	-4.06613	-3.33484	-2.76347	
NHPRP 厶	-9.19887	-8.45217	-7.83889	
NHPRP 厶	-10.2725	-9.51876	-8.90027	
NHPRP 厶	-11.2326	-10.4797	-9.86186	
Upper Her	-10.2058	-9.48431	-8.89697	
Lower He1	-13.2957	-12.5393	-11.9007	
NHPRP4 /	-0.72759	-0.71393	-0.70503	
NHPRP4 /	84.5748	84.8413	85.0152	
Near Horz	-7.69372	-6.94702	-6.33374	
NHPRP6 /	-1.8012	-1.78052	-1.76642	
NHPRP6 /	66.0511	66.3664	66.5822	
Near Horz	-7.26219	-6.50846	-5.88997	
NHPRP8 /	-2.76128	-2.74142	-2.728	
NHPRP8 /	52.9508	53.1934	53.358	
Near Horz	-7.06096	-6.30806	-5.69025	
UHPRP / 厶	-1.73455	-1.74607	-1.76311	

UHPRP / °	67.0726	66.8949	66.6329
Upper Her	-7.19553	-6.47401	-5.88667
LHPRP / °	-4.82442	-4.80105	-4.76682
LHPRP / °	32.9274	33.1051	33.3671
Lower Her	-10.2854	-9.52899	-8.89037
Front/Back	4.27747	4.33793	4.30791
Phi BW (°)	136	137	140
+ Phi BW	68	69	58
- Phi BW (°)	68	68	82
Theta BW	83	82	81
+ Th. BW	37	37	37
- Th. BW (°)	46	45	44
Boresight °	165	165	180
Boresight °	75	75	75
Maximum	-4.06613	-3.33484	-2.76347
Minimum	-33.8531	-33.7825	-33.5529
Average P	-9.59045	-8.88495	-8.29821
Max/Min l	29.787	30.4477	30.7895
Max/Avg l	5.52432	5.55011	5.53475
Min/Avg F	-24.2627	-24.8976	-25.2547
Average G	-8.47128	-7.73824	-7.13386
E-Plane B'	81	82	81
+ E-Plane	45	45	44
- E-Plane l	36	37	37
H-Plane B	137	139	140
+ H-Plane	68	68	81
- H-Plane °	69	71	59

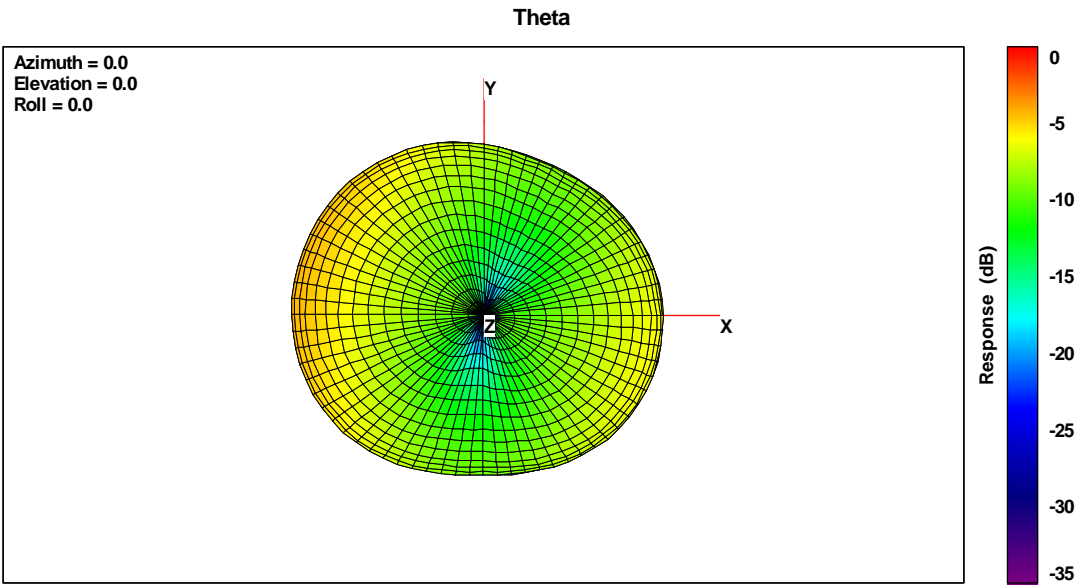
Phi	Frequency	902	915	928
	Point Values			
	Ant. Port I	0	0	0
	Tot. Rad. l	-13.2842	-12.7788	-12.4112
	Peak EIRF	-9.0655	-8.63219	-8.21847
	Directivity	4.21872	4.14659	4.19275
	Efficiency	-13.2842	-12.7788	-12.4112
	Efficiency	4.69438	5.27377	5.73956

Gain (dBi)	-9.0655	-8.63219	-8.21847
NHPRP 厖	-14.6059	-14.0798	-13.6957
NHPRP 厖	-16.0932	-15.5504	-15.1473
NHPRP 厖	-17.2318	-16.69	-16.2877
Upper Her	-15.8033	-15.3047	-14.9443
Lower Her	-16.8485	-16.3343	-15.9578
NHPRP4 /	-1.32164	-1.30101	-1.28449
NHPRP4 /	73.7626	74.1137	74.3963
Near Horz	-13.1007	-12.5746	-12.1906
NHPRP6 /	-2.80895	-2.77163	-2.7361
NHPRP6 /	52.3727	52.8246	53.2586
Near Horz	-13.0829	-12.5401	-12.137
NHPRP8 /	-3.94753	-3.91126	-3.87653
NHPRP8 /	40.2946	40.6325	40.9588
Near Horz	-13.0602	-12.5184	-12.1161
UHPRP / 厖	-2.51908	-2.52596	-2.53304
UHPRP / 厖	55.9877	55.899	55.808
Upper Her	-12.793	-12.2944	-11.934
LHPRP / 厖	-3.56426	-3.55552	-3.54656
LHPRP / 厖	44.0123	44.101	44.192
Lower Her	-13.8382	-13.324	-12.9475
Front/Back	2.8572	1.25011	1.37089
Phi BW (厖	71	78	78
+ Phi BW	41	35	35
- Phi BW (厖	30	43	43
Theta BW	288	291	288
+ Th. BW	104	63	61
- Th. BW (厖	184	228	227
Boresight 厖	60	270	270
Boresight 厖	45	90	90
Maximum	-9.0655	-8.63219	-8.21847
Minimum	-39.0595	-42.2677	-40.5762
Average P	-13.7782	-13.2823	-12.9078
Max/Min I	29.994	33.6355	32.3577
Max/Avg I	4.71268	4.65009	4.68935
Min/Avg F	-25.2813	-28.9854	-27.6684

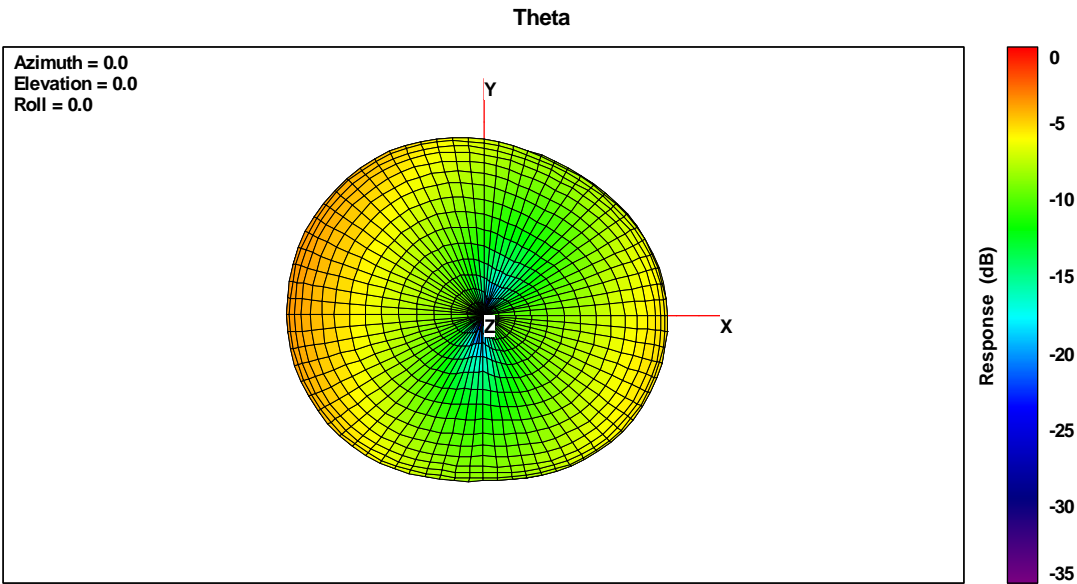
	Average G	-13.2842	-12.7788	-12.4112
	E-Plane B'	145	144	143
	+ E-Plane	41	88	88
	- E-Plane l	104	56	55
	H-Plane B	71	78	78
	+ H-Plane	31	43	43
	- H-Plane l	40	35	35
Total	Frequency	902	915	928
	Point Values			
	Ant. Port I	0	0	0
	Tot. Rad. l	-7.23229	-6.55464	-6.00558
	Peak EIRF	-4.05166	-3.32161	-2.75018
	Directivity	3.18063	3.23303	3.2554
	Efficiency	-7.23229	-6.55464	-6.00558
	Efficiency	18.9135	22.1073	25.0866
	Gain (dBi)	-4.05166	-3.32161	-2.75018
	NHPRP 雁	-8.09992	-7.40158	-6.83653
	NHPRP 雁	-9.26266	-8.55187	-7.97553
	NHPRP 雁	-10.2592	-9.54786	-8.97084
	Upper Her	-9.14874	-8.47443	-7.93319
	Lower Her	-11.7082	-11.0245	-10.4615
	NHPRP4 /	-0.86763	-0.84694	-0.83095
	NHPRP4 /	81.8911	82.2822	82.5857
	Near Horz	-6.59477	-5.89643	-5.33138
	NHPRP6 /	-2.03037	-1.99723	-1.96994
	NHPRP6 /	62.656	63.136	63.5339
	Near Horz	-6.25236	-5.54157	-4.96523
	NHPRP8 /	-3.02688	-2.99322	-2.96526
	NHPRP8 /	49.8095	50.197	50.5212
	Near Horz	-6.08757	-5.37626	-4.79924
	UHPRP / 雁	-1.91645	-1.9198	-1.92761
	UHPRP / 雁	64.3213	64.2718	64.1563
	Upper Her	-6.13844	-5.46413	-4.92289
	LHPRP / 雁	-4.47591	-4.46989	-4.45587
	LHPRP / 雁	35.6787	35.7282	35.8437

Lower Height	-8.6979	-8.01422	-7.45115
Front/Back	4.28526	4.34403	4.31406
Phi BW (°)	267	260	257
+ Phi BW	127	123	123
- Phi BW (°)	140	137	134
Theta BW	82	82	82
+ Th. BW	37	37	38
- Th. BW (°)	45	45	44
Boresight (°)	165	165	165
Boresight (°)	75	75	75
Maximum	-4.05166	-3.32161	-2.75018
Minimum	-18.3283	-18.1115	-18.1558
Average P	-8.18768	-7.53903	-7.00786
Max/Min I	14.2766	14.7899	15.4056
Max/Avg I	4.13602	4.21743	4.25768
Min/Avg F	-10.1406	-10.5725	-11.1479
Average G	-7.23229	-6.55464	-6.00558
E-Plane B'	82	82	82
+ E-Plane	45	45	44
- E-Plane I	37	37	38
H-Plane B	269	261	257
+ H-Plane	133	129	126
- H-Plane (°)	136	132	131

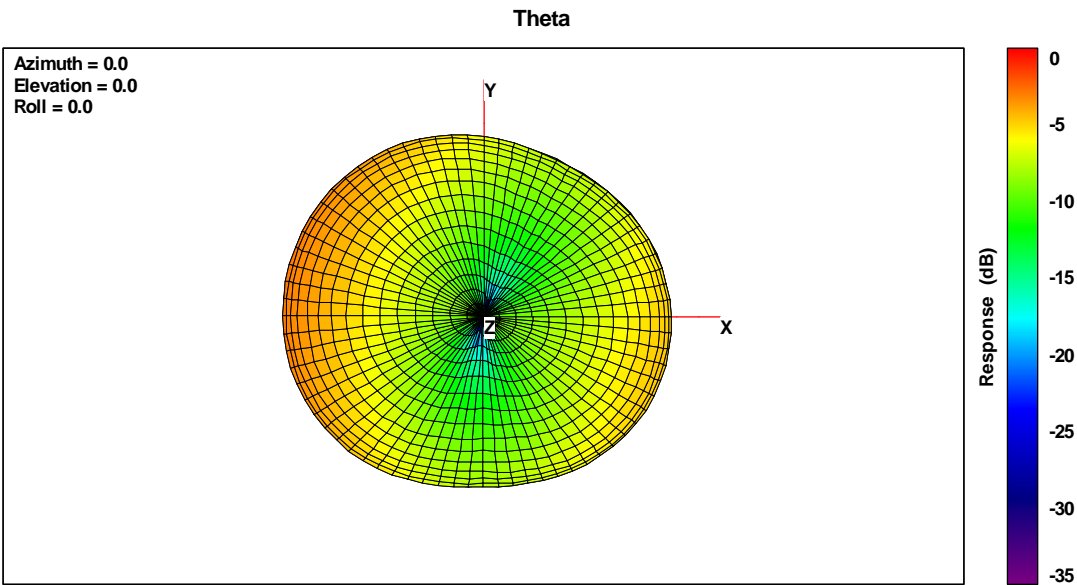
902MHz_Theta



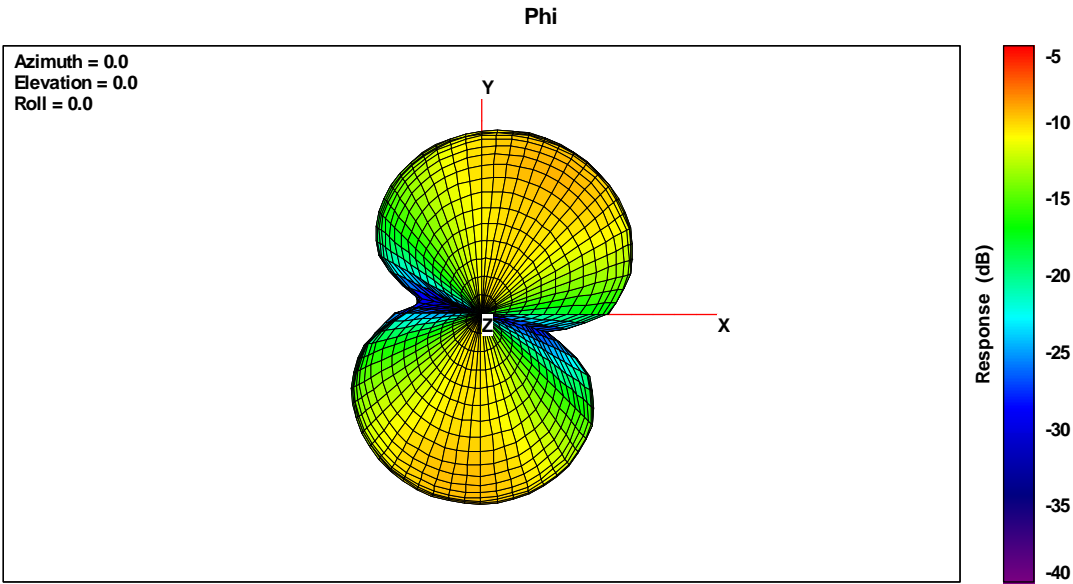
915MHz_Theta



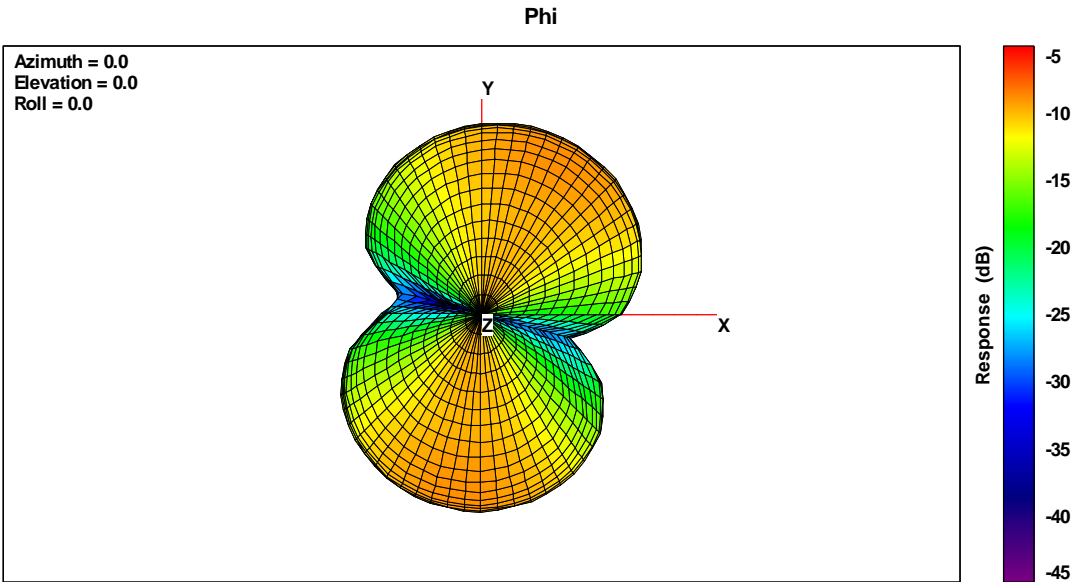
928MHz_Theta



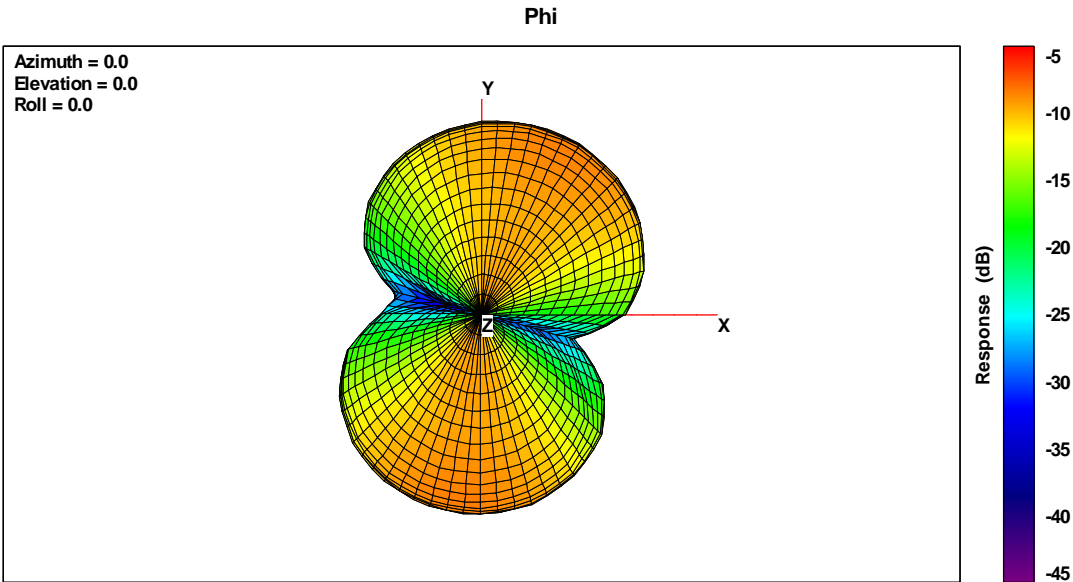
902MHz_Phi



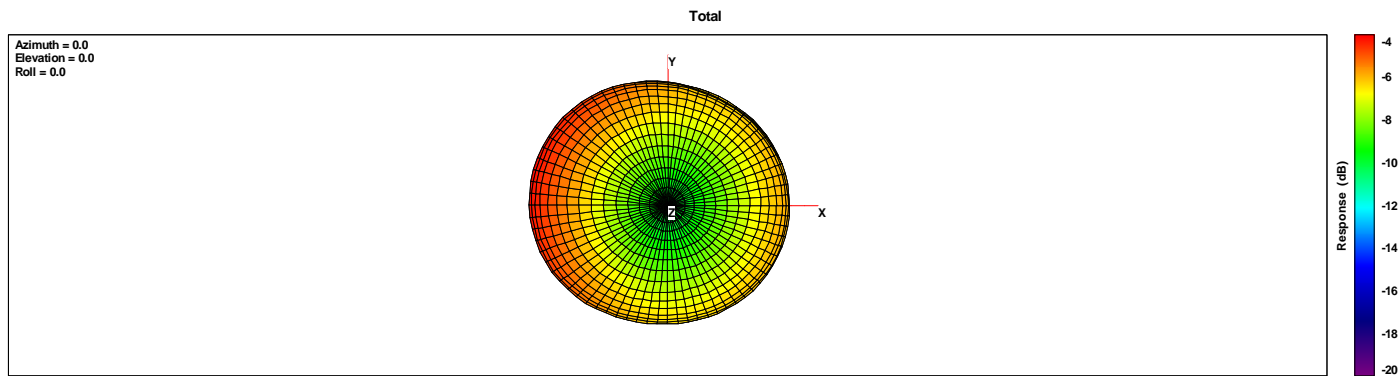
915MHz_Phi



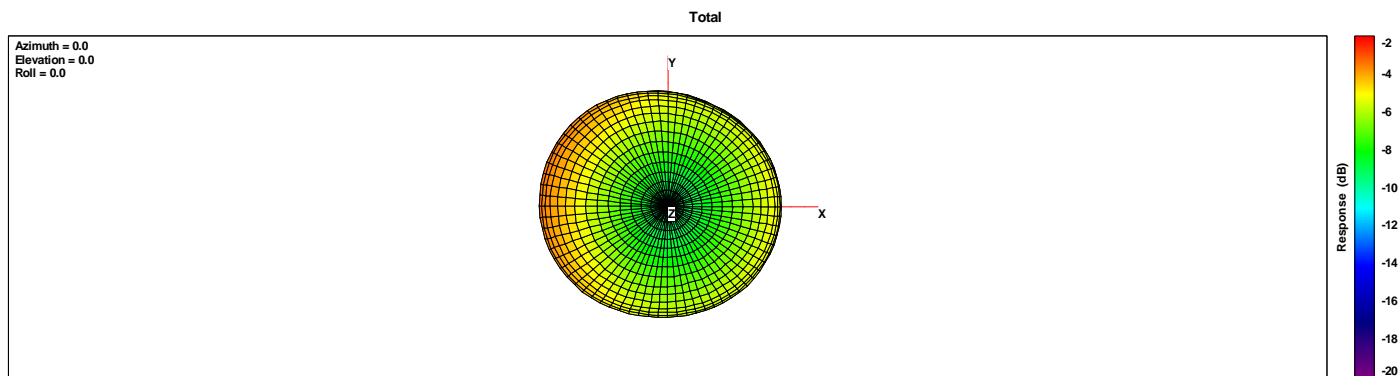
928MHz_Phi



902MHz_Total



915MHz_Total



928MHz_Total

