

Test Report

OTA Test Results for Frequency 868.000 MHz

OTA Evaluation Results:

Total Radiated Power	-1.95 dBm
Peak EIRP	3.46 dBm
Directivity	5.41 dBi
Efficiency	-1.95 dB
Efficiency	63.78 %
Gain	3.46 dBi
NHPRP 45°	-3.81 dBm
NHPRP 45° / TRP	-1.86 dB
NHPRP 45° / TRP	65.17 %
NHPRP 30°	-5.69 dBm
NHPRP 30° / TRP	-3.73 dB
NHPRP 30° / TRP	42.32 %
NHPRP 22.5°	-7.01 dBm
NHPRP 22.5° / TRP	-5.05 dB
NHPRP 22.5° / TRP	31.23 %
UHRP	-4.38 dBm
UHRP / TRP	-2.43 dB
UHRP / TRP	57.19 %
LHRP	-5.64 dBm
LHRP / TRP	-3.69 dB
LHRP / TRP	42.81 %
Front/Back Ratio	1.52
PhiBW	151.9 deg
PhiBW Up	43.3 deg
PhiBW Down	108.5 deg
ThetaBW	83.1 deg
ThetaBW Up	53.1 deg
ThetaBW Down	30.0 deg
Boresight Phi	330 deg
Boresight Theta	30 deg
Maximum Power	3.46 dBm
Minimum Power	-17.74 dBm
Average Power	-1.49 dBm
Max/Min Ratio	21.20 dB
Max/Avg Ratio	4.94 dB
Min/Avg Ratio	-16.25 dB
Best Single Value	2.70 dBm
Best Position	Phi = 345 deg; Theta = 45 deg; Pol = Ver

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Azimuth (deg)	Elevation 0 deg (dB)	Elevation 15 deg (dB)	Elevation 30 deg (dB)	Elevation 45 deg (dB)	Elevation 60 deg (dB)	Elevation 75 deg (dB)	Elevation 90 deg (dB)	Elevation 105 deg (dB)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.00	0.58	1.62	1.92	2.12	0.92	-0.58	-1.83	-2.96	-2.53	-5.82	-7.99	-3.77	-1.64
15.00	0.49	1.19	0.27	0.91	-1.81	-2.83	-4.34	-4.33	-4.05	-5.70	-7.31	-3.81	-2.42
30.00	0.50	0.35	-2.09	-1.82	-7.13	-6.77	-7.44	-5.64	-5.12	-5.16	-4.05	-3.38	-3.68
45.00	0.64	-0.72	-4.65	-6.90	-15.67	-8.10	-7.55	-4.62	-4.15	-3.22	-2.98	-3.31	-4.99
60.00	0.71	-1.83	-6.71	-15.87	-8.73	-5.39	-4.96	-2.91	-2.50	-1.28	-2.48	-3.12	-5.54
75.00	0.58	-3.03	-7.78	-11.68	-4.91	-3.70	-3.51	-1.96	-1.51	0.13	-1.78	-2.49	-4.55
90.00	0.17	-4.36	-8.54	-7.47	-3.57	-3.68	-3.21	-1.94	-0.90	1.19	-0.65	-1.39	-3.09
105.00	-0.50	-5.68	-9.67	-5.71	-3.49	-4.70	-3.36	-2.15	0.02	2.01	0.77	-0.39	-1.87
120.00	-1.31	-6.84	-10.68	-5.31	-3.75	-5.07	-2.86	-1.54	1.22	2.58	1.81	0.19	-1.29
135.00	-2.11	-7.79	-10.90	-5.22	-3.82	-3.59	-1.98	-0.43	1.96	2.80	2.22	0.31	-1.23
150.00	-2.60	-7.85	-10.22	-5.36	-3.97	-2.27	-1.50	0.23	1.81	2.37	1.94	0.10	-1.61
165.00	-2.42	-6.41	-8.58	-5.70	-4.56	-2.00	-1.94	0.19	0.65	1.20	0.89	-0.34	-2.15
180.00	-1.70	-4.21	-6.04	-5.72	-5.37	-3.13	-3.43	-0.58	-1.48	-0.81	-0.66	-0.84	-2.53
195.00	-0.66	-1.84	-3.15	-4.16	-4.75	-5.29	-5.87	-2.09	-4.64	-3.79	-2.67	-1.30	-2.51
210.00	0.28	0.01	-0.86	-1.78	-2.64	-6.01	-6.85	-4.15	-7.39	-7.16	-4.13	-1.76	-2.21
225.00	1.03	1.40	0.86	0.40	-0.69	-3.93	-5.43	-6.13	-8.40	-9.65	-5.07	-2.45	-1.83
240.00	1.36	2.20	1.87	1.71	0.37	-2.26	-4.33	-7.39	-9.02	-10.47	-5.98	-3.24	-1.47
255.00	1.37	2.48	2.31	2.29	0.57	-1.92	-4.51	-8.72	-11.41	-11.81	-7.70	-4.10	-1.12
270.00	1.14	2.33	2.53	2.18	0.33	-2.42	-5.44	-11.00	-17.74	-15.14	-10.44	-5.07	-0.84
285.00	0.89	1.95	2.75	1.83	0.40	-2.54	-4.94	-10.89	-14.28	-15.38	-13.54	-5.93	-0.69
300.00	0.63	1.72	3.07	1.81	1.19	-1.24	-2.81	-7.30	-8.00	-10.32	-13.44	-6.59	-0.67
315.00	0.58	1.72	3.41	2.32	2.20	0.34	-1.01	-4.22	-4.59	-6.74	-11.73	-6.84	-0.67
330.00	0.57	1.94	3.46	2.86	2.69	1.29	-0.25	-2.75	-2.90	-5.01	-11.11	-6.54	-0.85
345.00	0.56	2.06	3.02	3.01	2.42	1.18	-0.43	-2.31	-2.27	-4.45	-10.64	-5.69	-1.05
360.00	0.60	1.77	2.29	2.55	1.50	0.08	-1.23	-2.88	-2.34	-5.14	-8.90	-4.63	-1.47

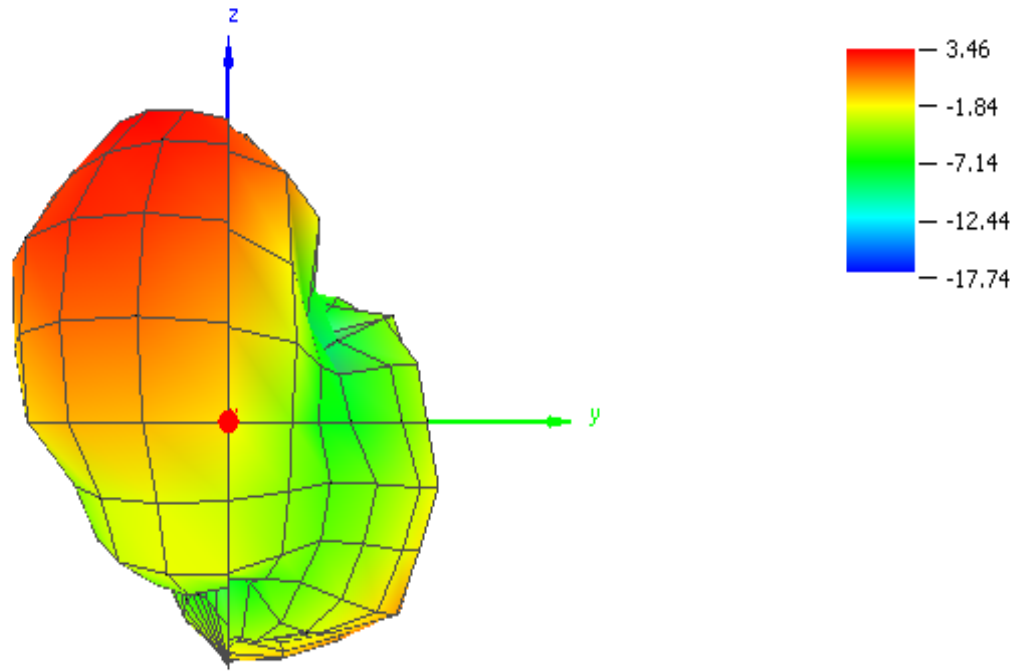
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Azimuth (deg)	Elevation 0 deg (dB)	Elevation 15 deg (dB)	Elevation 30 deg (dB)	Elevation 45 deg (dB)	Elevation 60 deg (dB)	Elevation 75 deg (dB)	Elevation 90 deg (dB)	Elevation 105 deg (dB)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	-12.67	-12.62	-18.97	-18.03	-12.68	-11.44	-9.16	-7.50	-10.62	-10.13	-9.61	-13.09	-16.32
15.0	-7.76	-6.45	-11.37	-16.30	-17.17	-12.96	-8.88	-7.25	-10.04	-7.61	-11.51	-14.74	-20.64
30.0	-4.06	-3.71	-7.32	-12.80	-20.19	-12.17	-8.72	-7.90	-9.28	-5.88	-7.93	-14.84	-14.56
45.0	-1.71	-2.58	-6.25	-13.61	-16.52	-11.37	-9.00	-8.82	-8.35	-4.38	-7.30	-10.91	-10.07
60.0	-0.44	-2.51	-6.94	-17.93	-12.94	-10.95	-9.25	-8.90	-6.56	-2.57	-5.60	-6.61	-6.95
75.0	0.13	-3.19	-9.29	-19.81	-9.94	-10.42	-8.94	-7.47	-4.30	-0.76	-3.19	-3.63	-4.78
90.0	0.05	-4.53	-13.29	-13.08	-7.89	-9.61	-8.15	-5.71	-2.37	0.75	-1.34	-1.72	-3.40
105.0	-0.67	-6.34	-19.86	-9.62	-6.72	-9.09	-7.56	-4.48	-1.13	1.55	-0.29	-0.93	-2.63
120.0	-2.12	-8.53	-20.60	-8.18	-6.26	-9.08	-7.49	-4.19	-0.76	1.51	-0.27	-1.23	-2.61
135.0	-4.76	-12.11	-16.79	-7.87	-6.52	-9.09	-8.11	-5.04	-1.47	0.50	-1.47	-2.84	-3.43
150.0	-9.58	-18.74	-14.66	-8.31	-7.28	-9.14	-9.03	-7.07	-3.43	-1.53	-4.08	-5.98	-5.23
165.0	-23.30	-19.55	-12.91	-8.77	-7.94	-9.13	-9.59	-9.70	-7.22	-5.05	-9.30	-11.55	-8.39
180.0	-13.04	-11.38	-10.81	-8.67	-8.07	-8.94	-9.25	-10.12	-14.01	-9.74	-16.21	-12.98	-11.69
195.0	-6.31	-6.34	-7.94	-7.53	-7.49	-8.62	-8.36	-8.39	-18.47	-12.31	-10.32	-7.75	-9.82
210.0	-3.04	-3.04	-4.96	-5.41	-6.33	-7.87	-7.46	-7.30	-12.92	-10.74	-6.72	-4.98	-6.29
225.0	-0.98	-0.69	-2.24	-2.87	-4.51	-6.66	-6.75	-7.34	-11.45	-10.06	-5.56	-3.77	-3.65
240.0	0.13	0.85	-0.05	-0.67	-2.61	-5.16	-6.18	-8.27	-13.02	-11.38	-6.01	-3.67	-2.17
255.0	0.67	1.83	1.52	0.97	-0.97	-3.83	-5.80	-9.79	-17.02	-14.98	-8.01	-4.36	-1.37
270.0	0.60	2.13	2.42	1.78	0.00	-2.97	-5.66	-11.31	-22.77	-21.02	-11.22	-5.71	-1.18
285.0	0.01	1.73	2.57	1.81	0.29	-2.66	-5.81	-12.22	-21.63	-21.92	-15.77	-7.36	-1.56
300.0	-1.24	0.60	1.93	1.03	-0.16	-2.95	-6.21	-12.27	-20.82	-20.09	-19.97	-8.96	-2.41
315.0	-3.34	-1.72	0.27	-0.78	-1.39	-4.02	-6.85	-11.51	-26.36	-21.99	-21.89	-10.31	-3.83
330.0	-6.60	-5.45	-2.49	-3.61	-3.32	-5.67	-7.78	-10.27	-24.73	-21.72	-19.17	-11.12	-6.00
345.0	-12.27	-12.54	-7.84	-8.55	-6.37	-8.17	-8.59	-8.57	-16.18	-14.81	-14.15	-11.96	-9.28
360.0	-14.35	-15.46	-19.71	-14.79	-10.72	-10.54	-8.96	-7.70	-12.05	-11.33	-10.75	-12.69	-14.43

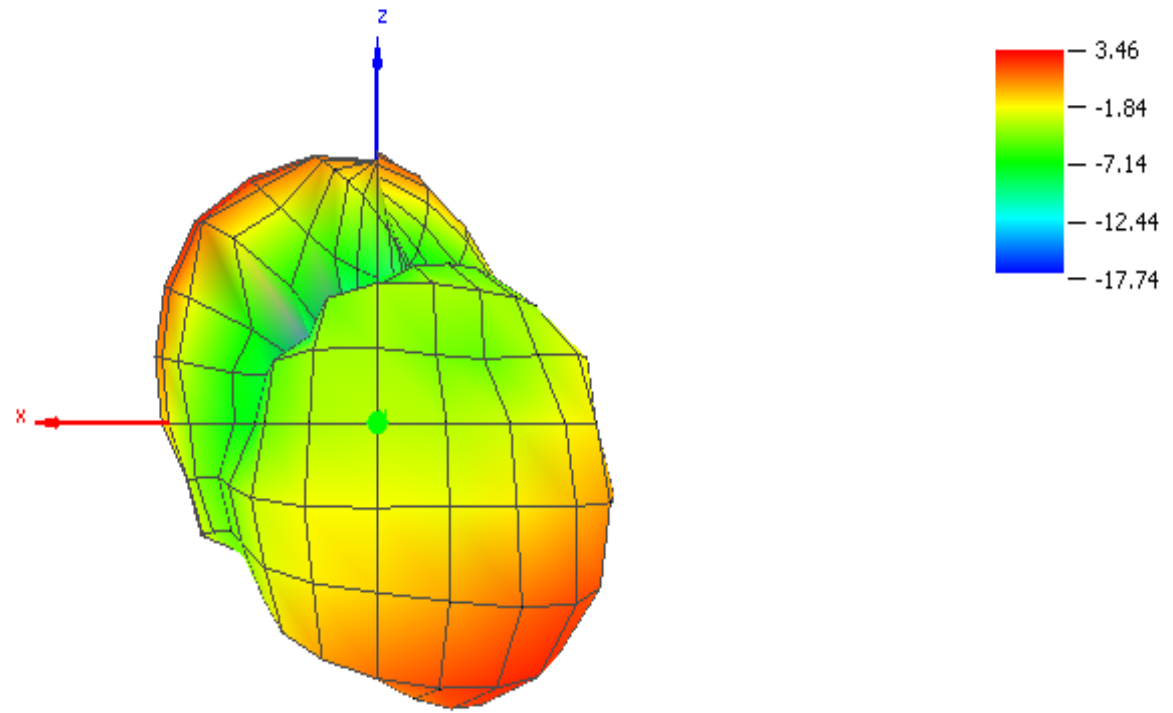
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Azimuth (deg)	Elevation 0 deg (dB)	Elevation 15 deg (dB)	Elevation 30 deg (dB)	Elevation 45 deg (dB)	Elevation 60 deg (dB)	Elevation 75 deg (dB)	Elevation 90 deg (dB)	Elevation 105 deg (dB)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	0.37	1.46	1.89	2.08	0.73	-0.96	-2.71	-4.85	-3.27	-7.82	-13.04	-4.31	-1.79
15.0	-0.21	0.37	-0.03	0.83	-1.93	-3.27	-6.22	-7.44	-5.32	-10.20	-9.38	-4.17	-2.48
30.0	-1.37	-1.81	-3.64	-2.18	-7.35	-8.24	-13.38	-9.57	-7.22	-13.30	-6.33	-3.70	-4.06
45.0	-3.16	-5.29	-9.77	-7.94	-23.18	-10.87	-13.01	-6.71	-6.22	-9.54	-4.99	-4.14	-6.60
60.0	-5.61	-10.18	-19.55	-20.11	-10.80	-6.80	-6.98	-4.17	-4.66	-7.16	-5.39	-5.70	-11.10
75.0	-9.49	-17.50	-13.10	-12.40	-6.54	-4.74	-4.97	-3.40	-4.76	-7.23	-7.36	-8.86	-17.33
90.0	-15.53	-18.54	-10.31	-8.86	-5.57	-4.96	-4.89	-4.31	-6.32	-8.98	-8.93	-12.71	-14.70
105.0	-14.72	-14.22	-10.11	-7.98	-6.28	-6.67	-5.44	-5.96	-6.30	-7.96	-5.86	-9.72	-9.78
120.0	-9.00	-11.74	-11.14	-8.47	-7.34	-7.27	-4.69	-4.95	-3.14	-4.02	-2.38	-5.36	-7.10
135.0	-5.51	-9.80	-12.19	-8.63	-7.17	-5.03	-3.20	-2.27	-0.66	-1.07	-0.21	-2.56	-5.24
150.0	-3.57	-8.22	-12.16	-8.42	-6.70	-3.27	-2.35	-0.67	0.27	0.09	0.68	-1.13	-4.09
165.0	-2.46	-6.62	-10.58	-8.65	-7.24	-2.94	-2.76	-0.29	-0.12	0.02	0.46	-0.68	-3.32
180.0	-2.03	-5.13	-7.79	-8.79	-8.71	-4.45	-4.74	-1.10	-1.73	-1.40	-0.79	-1.11	-3.10
195.0	-2.04	-3.75	-4.90	-6.84	-8.05	-8.00	-9.47	-3.24	-4.82	-4.45	-3.48	-2.42	-3.40
210.0	-2.43	-2.96	-3.00	-4.25	-5.06	-10.59	-15.70	-7.03	-8.82	-9.67	-7.61	-4.58	-4.37
225.0	-3.29	-2.77	-2.05	-2.36	-3.02	-7.25	-11.25	-12.28	-11.36	-20.09	-14.77	-8.26	-6.47
240.0	-4.71	-3.54	-2.59	-2.02	-2.68	-5.39	-8.93	-14.77	-11.21	-17.74	-27.51	-13.52	-9.71
255.0	-6.86	-6.13	-5.47	-3.50	-4.68	-6.40	-10.40	-15.35	-12.80	-14.66	-19.33	-16.47	-13.79
270.0	-8.23	-11.09	-13.58	-8.34	-11.01	-11.60	-18.55	-22.62	-19.38	-16.43	-18.30	-13.68	-12.05
285.0	-6.50	-11.14	-11.33	-21.61	-15.57	-18.13	-12.31	-16.68	-15.16	-16.48	-17.49	-11.44	-8.10
300.0	-3.93	-4.72	-3.31	-6.01	-4.55	-6.13	-5.46	-8.96	-8.23	-10.80	-14.54	-10.35	-5.48
315.0	-1.68	-0.89	0.53	-0.61	-0.30	-1.64	-2.31	-5.12	-4.62	-6.87	-12.16	-9.44	-3.54
330.0	-0.35	1.06	2.18	1.75	1.43	0.31	-1.09	-3.60	-2.93	-5.11	-11.85	-8.39	-2.44
345.0	0.33	1.91	2.65	2.70	1.81	0.65	-1.15	-3.49	-2.45	-4.87	-13.19	-6.85	-1.76
360.0	0.46	1.69	2.27	2.47	1.24	-0.32	-2.04	-4.61	-2.83	-6.34	-13.50	-5.36	-1.69

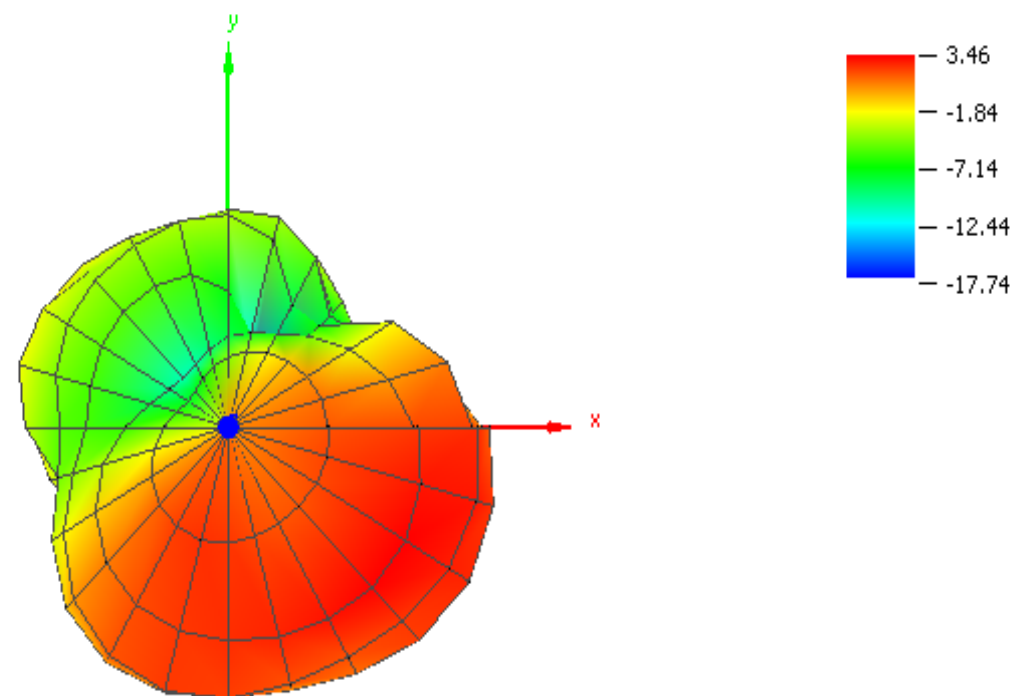
Theta = 90, Phi = 0



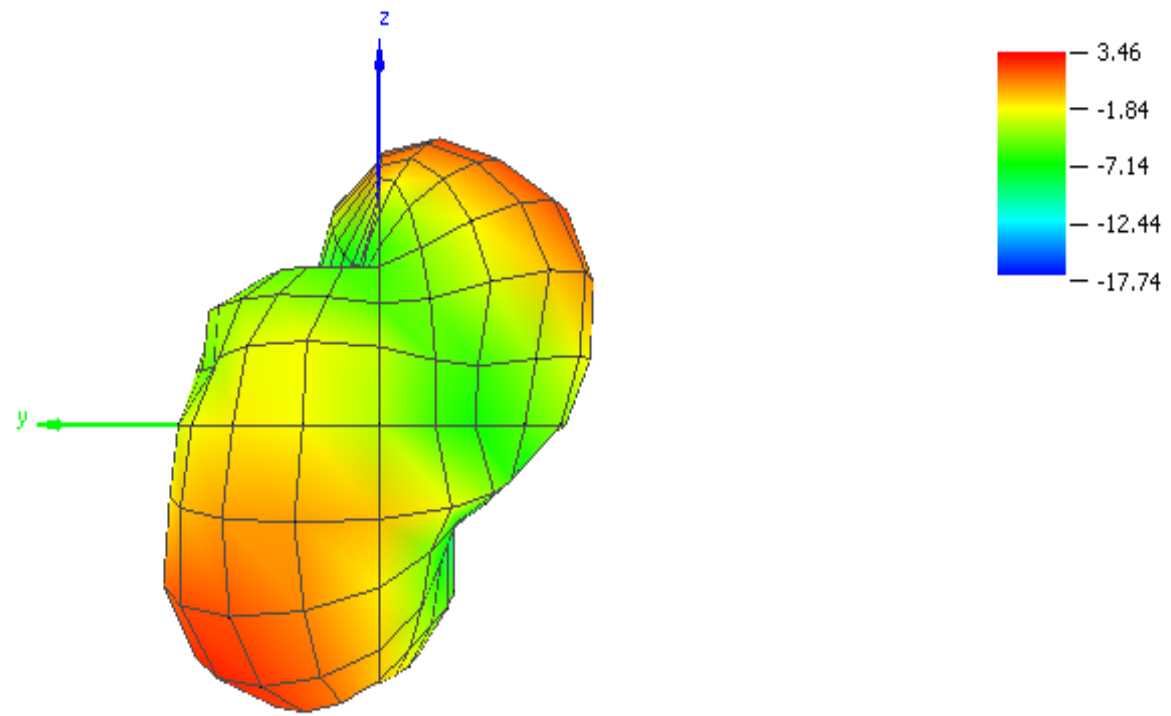
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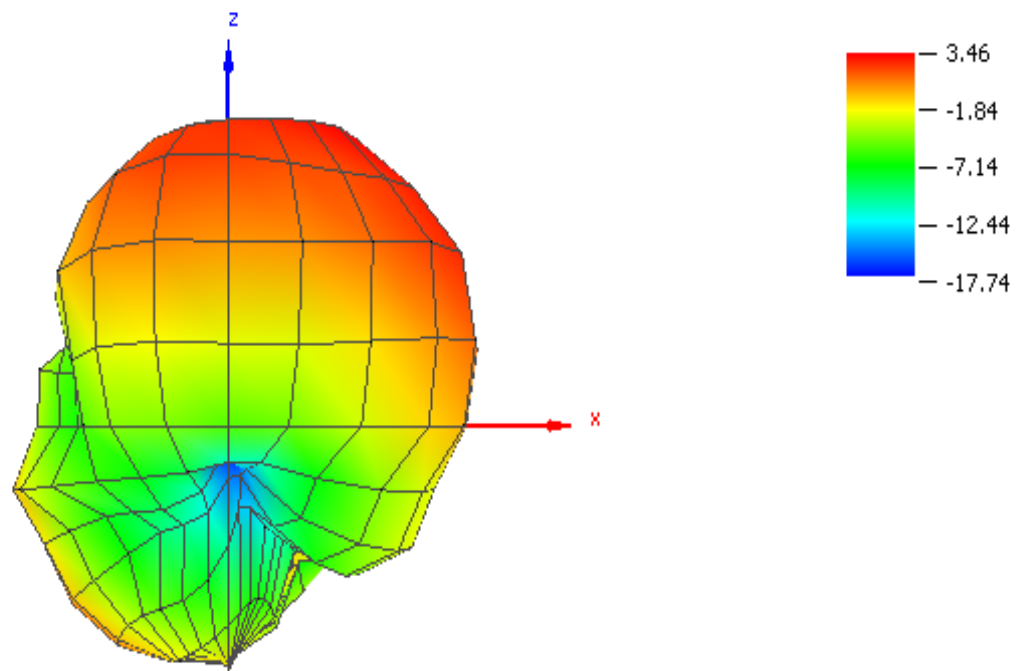
Theta = 0, Phi = 0



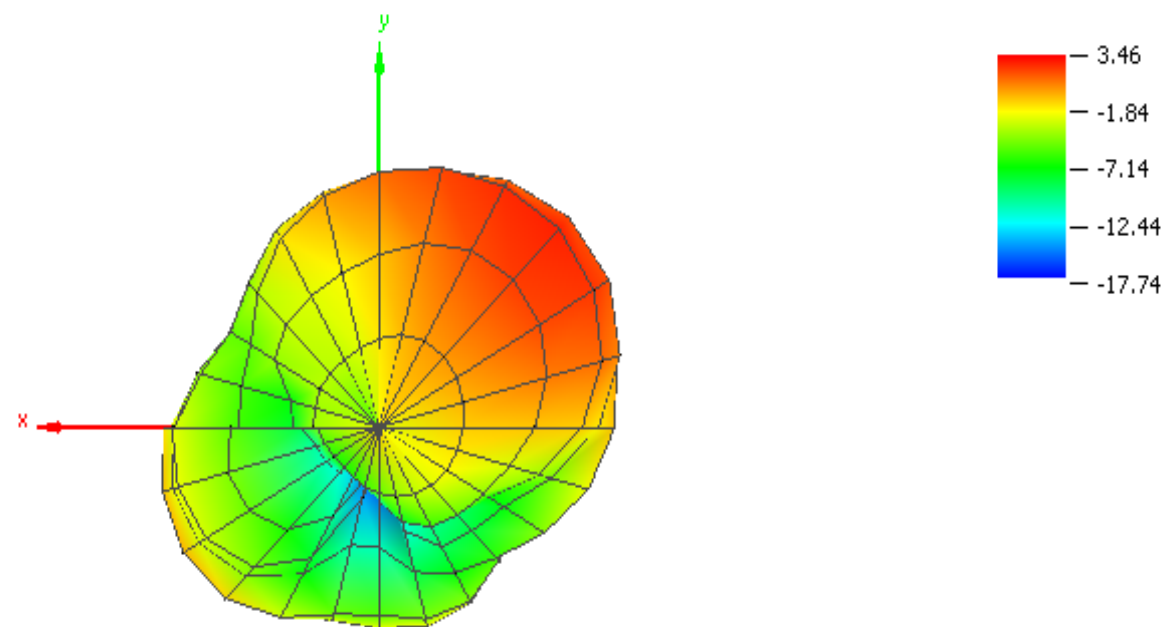
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 180, Phi = 0



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