CTIA Report (RP_2440.000_tot)

Test Information:

Test Method:	Radiated Power Passive Antenna
Test Condition:	FS: Free Space
Frequency:	2440.000 MHz
Test Time:	Start: 16-11-2012 09:03:53; Stop: 16-11-2012 09:31:50
Cal Data Hor:	43.80 dB (Range Calibration RadPower Hor Eval 200 to 6000)
Cal Data Ver:	46.53 dB (Range Calibration RadPower Ver Eval 400 to 6000)

OTA Evaluation Results:

Total Radiated Power	-7,24 dBm
Peak EIRP	-2,82 dBm
Directivity	4,43 dBi
Efficiency	-7,24 dB
Efficiency	18,87 %
Gain	-2,82 dBi
NHPRP 45°	-8,87 dBm
NHPRP 45° / TRP	-1,63 dB
NHPRP 45° / TRP	68,67 %
NHPRP 30°	-10,43 dBm
NHPRP 30° / TRP	-3,19 dB
NHPRP 30° / TRP	47,94 %
NHPRP 22.5°	-11,62 dBm
NHPRP 22.5° / TRP	-4,38 dB
NHPRP 22.5° / TRP	36,50 %
UHRP	-9,08 dBm
UHRP / TRP	-1,84 dB
UHRP / TRP	65,45 %
LHRP	-11,86 dBm
LHRP / TRP	-4,62 dB
LHRP / TRP	34,55 %
Front/Back Ratio	6,45
PhiBW	193,9 deg
PhiBW Up	83,6 deg
PhiBW Down	110,3 deg
ThetaBW	96,2 deg
ThetaBW Up	42,4 deg
ThetaBW Down	53,8 deg
Boresight Phi	30 deg
Boresight Theta	45 deg
Maximum Power	-2,82 dBm
Minimum Power	-18,08 dBm
Average Power	-6,98 dBm
Max/Min Ratio	15,26 dB
Max/Avg Ratio	4,16 dB
Min/Avg Ratio	-11,10 dB
Best Single Value	-3,11 dBm
Best Position	Phi = 15 deg; Theta = 45 deg; Pol = Hor

RP_2440.000_tot

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)
0.00	-5.09	-4.27	-3.86	-3.11	-4.33	-4.33	-6.89	-9.61
15.00	-5.03	-4.40	-3.67	-2.95	-4.13	-4.11	-6.58	-9.59
30.00	-5.13	-4.75	-3.55	-2.82	-3.60	-3.94	-6.21	-9.25
45.00	-5.70	-5.33	-3.75	-2.92	-3.27	-3.79	-5.83	-8.43
60.00	-6.23	-6.07	-4.26	-3.02	-3.18	-3.83	-5.37	-7.53
75.00	-7.11	-6.75	-5.13	-3.40	-3.53	-3.94	-5.32	-7.23
90.00	-7.86	-7.50	-6.27	-4.14	-4.21	-4.63	-5.68	-7.54
105.00	-8.04	-7.81	-7.74	-5.15	-5.30	-5.67	-6.77	-8.84
120.00	-7.74	-7.87	-9.08	-6.31	-6.85	-6.80	-7.89	-10.64
135.00	-7.14	-7.66	-10.08	-8.06	-8.38	-7.77	-8.91	-12.07
150.00	-6.29	-7.25	-10.46	-9.67	-9.62	-8.59	-8.85	-11.69
165.00	-5.51	-6.75	-10.29	-10.75	-10.61	-8.98	-8.74	-10.64
180.00	-4.93	-6.49	-9.61	-11.59	-11.07	-9.36	-8.67	-10.00
195.00	-4.65	-6.44	-9.03	-11.71	-11.48	-9.94	-8.70	-9.68
210.00	-4.75	-6.57	-8.30	-10.88	-11.50	-10.49	-9.18	-9.41
225.00	-5.02	-6.79	-7.85	-9.93	-11.05	-10.63	-9.64	-9.48
240.00	-5.45	-7.15	-7.62	-8.66	-9.58	-10.04	-10.02	-9.43
255.00	-6.16	-7.36	-7.37	-7.64	-8.17	-8.58	-10.03	-9.42
270.00	-6.53	-7.45	-7.12	-6.48	-6.91	-7.02	-9.20	-8.92
285.00	-6.79	-6.91	-6.89	-5.46	-5.95	-5.75	-8.09	-8.73
300.00	-6.59	-6.19	-6.33	-4.54	-5.45	-5.08	-7.28	-8.43
315.00	-6.15	-5.38	-5.58	-3.97	-5.23	-4.62	-6.98	-8.44
330.00	-5.75	-4.74	-4.91	-3.51	-5.13	-4.45	-7.03	-8.86
345.00	-5.27	-4.43	-4.36	-3.13	-5.02	-4.36	-6.98	-9.38
360.00	-5.18	-4.33	-3.85	-3.12	-4.60	-4.52	-6.92	-9.44

(continuation of the "RP_2440.000_tot" table from column 9 ...)

Azimuth (deg)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.00	-11.08	-9.21	-8.02	-8.01	-6.13
15.00	-11.67	-10.99	-9.35	-9.05	-6.46
30.00	-11.84	-12.70	-10.59	-10.32	-6.56
45.00	-11.27	-13.98	-11.32	-11.34	-6.60
60.00	-9.93	-12.75	-11.26	-12.04	-6.24
75.00	-8.77	-11.02	-10.35	-12.36	-5.95
90.00	-8.63	-9.78	-9.28	-12.09	-5.62
105.00	-9.20	-9.17	-8.42	-11.98	-5.53
120.00	-10.72	-9.08	-7.92	-11.84	-5.65
135.00	-13.32	-9.46	-7.79	-11.94	-5.89
150.00	-16.50	-10.06	-7.99	-11.86	-6.44
165.00	-18.08	-10.45	-8.41	-11.61	-6.99
180.00	-15.99	-10.38	-8.52	-11.53	-7.46
195.00	-13.60	-9.75	-7.98	-11.28	-7.82
210.00	-11.99	-9.26	-7.14	-10.81	-7.99
225.00	-11.10	-8.39	-6.28	-9.99	-7.95
240.00	-9.96	-7.60	-5.94	-9.31	-7.58
255.00	-9.31	-6.95	-5.60	-8.62	-7.17
270.00	-8.69	-6.48	-5.31	-8.13	-6.67
285.00	-8.37	-6.30	-5.06	-7.79	-6.26
300.00	-8.33	-6.44	-5.09	-7.53	-6.01
315.00	-8.61	-6.68	-5.31	-7.51	-5.86
330.00	-9.31	-7.06	-6.02	-7.51	-5.66
345.00	-10.08	-7.80	-6.78	-7.84	-5.80
360.00	-10.79	-8.79	-8.28	-8.33	-6.00

RP_2440.000_hor

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)
0.0	-5.24	-4.34	-3.97	-3.35	-4.77	-5.13	-7.48	-10.30
15.0	-5.52	-4.62	-3.80	-3.11	-4.43	-4.68	-6.95	-10.04
30.0	-6.31	-5.52	-4.09	-3.23	-4.10	-4.41	-6.54	-9.53
45.0	-8.01	-7.04	-4.95	-3.93	-4.07	-4.33	-6.24	-8.79

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)
60.0	-10.26	-9.45	-6.41	-4.78	-4.36	-4.55	-5.86	-8.14
75.0	-13.86	-12.58	-8.66	-6.22	-5.06	-4.94	-5.79	-8.10
90.0	-16.57	-15.94	-11.80	-7.90	-6.26	-5.69	-6.05	-8.48
105.0	-13.87	-14.42	-16.20	-9.96	-7.75	-6.81	-7.02	-9.60
120.0	-10.56	-11.26	-16.97	-11.89	-9.33	-7.89	-8.08	-11.19
135.0	-8.21	-9.09	-14.35	-13.33	-10.71	-8.57	-9.12	-12.53
150.0	-6.55	-7.70	-11.97	-13.59	-11.24	-9.11	-9.20	-12.46
165.0	-5.65	-6.90	-10.68	-13.05	-11.51	-9.51	-9.17	-11.75
180.0	-5.33	-6.83	-10.02	-12.89	-11.75	-10.16	-9.28	-11.34
195.0	-5.57	-7.39	-10.03	-13.09	-12.28	-11.25	-9.79	-11.32
210.0	-6.51	-8.34	-10.35	-13.54	-13.02	-12.85	-10.86	-11.47
225.0	-8.04	-9.93	-11.32	-14.82	-14.27	-14.57	-12.38	-12.05
240.0	-10.57	-12.85	-13.34	-17.17	-15.66	-16.28	-14.34	-12.46
255.0	-14.65	-17.97	-16.62	-22.16	-17.45	-15.85	-16.34	-12.51
270.0	-18.83	-21.87	-22.74	-21.62	-17.72	-13.54	-15.68	-12.03
285.0	-15.02	-14.58	-18.15	-14.84	-15.77	-11.35	-13.63	-11.66
300.0	-10.63	-10.21	-12.34	-10.40	-12.54	-9.61	-11.38	-11.33
315.0	-7.92	-7.46	-8.71	-7.45	-9.88	-8.06	-9.97	-11.04
330.0	-6.43	-5.72	-6.30	-5.49	-7.74	-6.74	-8.89	-11.01
345.0	-5.45	-4.74	-4.92	-4.09	-6.33	-5.78	-8.17	-10.89
360.0	-5.28	-4.40	-4.05	-3.46	-5.22	-5.45	-7.61	-10.36

(continuation of the "RP_2440.000_hor" table from column 9 ...)

Azimuth (deg)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	-12.67	-12.06	-14.78	-11.78	-10.34
15.0	-12.62	-13.64	-18.17	-12.87	-9.95
30.0	-12.24	-14.67	-20.01	-14.48	-9.46
45.0	-11.84	-15.15	-20.96	-16.28	-9.14
60.0	-11.07	-14.76	-22.11	-18.46	-8.72
75.0	-10.49	-14.28	-21.97	-20.78	-8.45
90.0	-10.55	-13.86	-19.61	-22.19	-8.27
105.0	-11.15	-13.17	-16.06	-21.39	-8.29
120.0	-12.76	-12.52	-13.35	-18.80	-8.60
135.0	-15.59	-12.04	-11.56	-16.92	-9.12
150.0	-18.81	-11.77	-10.63	-15.34	-10.10
165.0	-20.43	-11.25	-10.12	-13.87	-10.76
180.0	-21.47	-10.86	-9.55	-12.78	-10.90
195.0	-22.78	-10.98	-9.08	-11.82	-10.76
210.0	-24.88	-11.95	-9.05	-11.28	-10.18
225.0	-20.92	-12.21	-9.09	-11.10	-9.93
240.0	-16.54	-11.73	-8.99	-11.27	-9.55
255.0	-13.82	-10.43	-8.57	-11.33	-9.69
270.0	-12.23	-9.48	-8.09	-11.21	-9.89
285.0	-11.42	-8.94	-7.87	-10.94	-10.21
300.0	-11.15	-8.90	-8.18	-10.61	-10.71
315.0	-11.45	-9.14	-8.86	-10.52	-10.97
330.0	-11.88	-9.57	-10.39	-10.75	-10.93
345.0	-12.25	-10.33	-12.23	-11.05	-10.77
360.0	-12.56	-11.41	-15.21	-12.19	-10.38

RP_2440.000_ver

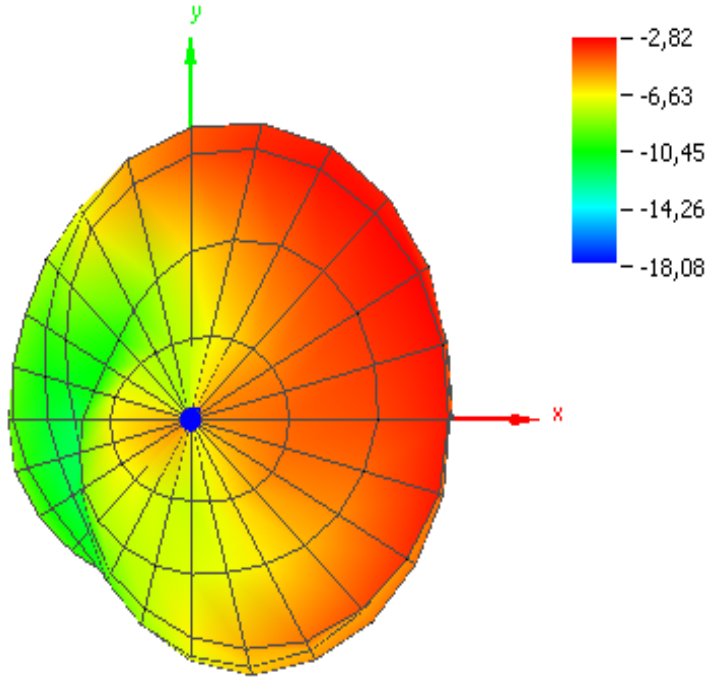
Azimuth (deg)	Elevation 0 deg (dB)	Elevation 15 deg (dB)	Elevation 30 deg (dB)	Elevation 45 deg (dB)	Elevation 60 deg (dB)	Elevation 75 deg (dB)	Elevation 90 deg (dB)	Elevation 105 deg (dB)
0.0	-19.82	-22.18	-19.85	-15.76	-14.55	-12.09	-15.80	-17.94
15.0	-14.73	-17.30	-18.99	-17.32	-15.86	-13.22	-17.53	-19.66
30.0	-11.38	-12.64	-12.89	-13.22	-13.28	-13.87	-17.55	-21.24
45.0	-9.55	-10.22	-9.95	-9.74	-11.04	-13.14	-16.34	-19.43
60.0	-8.42	-8.74	-8.34	-7.79	-9.41	-11.97	-15.10	-16.38
75.0	-8.14	-8.06	-7.68	-6.62	-8.79	-10.80	-15.21	-14.60
90.0	-8.49	-8.17	-7.69	-6.50	-8.46	-11.25	-16.58	-14.65
105.0	-9.36	-8.87	-8.40	-6.89	-8.95	-12.01	-19.30	-16.77
120.0	-10.96	-10.54	-9.85	-7.71	-10.46	-13.33	-21.70	-19.91
135.0	-13.76	-13.17	-12.12	-9.60	-12.21	-15.53	-22.20	-22.13

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)
150.0	-18.52	-17.33	-15.78	-11.93	-14.69	-18.04	-19.93	-19.61
165.0	-20.51	-21.61	-20.96	-14.62	-17.91	-18.38	-19.03	-17.09
180.0	-15.45	-17.61	-20.05	-17.45	-19.42	-17.12	-17.52	-15.76
195.0	-11.86	-13.50	-15.90	-17.37	-19.23	-15.78	-15.24	-14.71
210.0	-9.50	-11.34	-12.53	-14.27	-16.79	-14.26	-14.10	-13.64
225.0	-8.02	-9.68	-10.45	-11.63	-13.86	-12.87	-12.93	-12.97
240.0	-7.04	-8.52	-8.98	-9.32	-10.81	-11.23	-12.02	-12.41
255.0	-6.83	-7.75	-7.92	-7.80	-8.72	-9.49	-11.19	-12.35
270.0	-6.80	-7.60	-7.24	-6.61	-7.29	-8.12	-10.31	-11.83
285.0	-7.50	-7.72	-7.23	-5.99	-6.42	-7.15	-9.52	-11.82
300.0	-8.78	-8.39	-7.58	-5.84	-6.39	-6.96	-9.43	-11.55
315.0	-10.91	-9.58	-8.47	-6.55	-7.04	-7.25	-10.02	-11.90
330.0	-14.17	-11.68	-10.54	-7.86	-8.58	-8.33	-11.62	-12.93
345.0	-19.15	-16.09	-13.58	-10.17	-10.86	-9.88	-13.16	-14.69
360.0	-21.77	-22.07	-17.34	-14.39	-13.37	-11.67	-15.21	-16.62

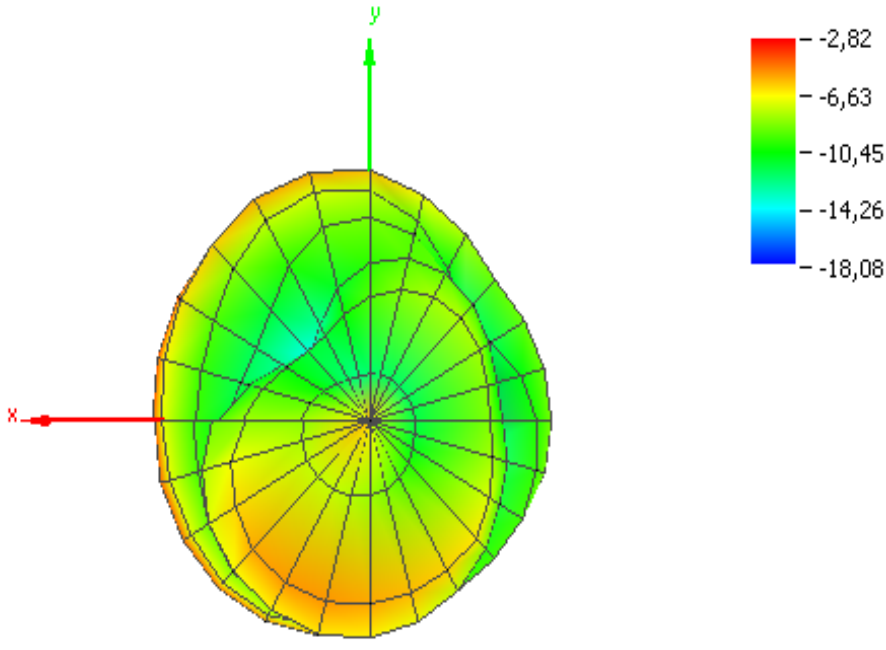
(continuation of the "RP_2440.000_ver" table from column 9 ...)

Azimuth (deg)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	-16.21	-12.40	-9.05	-10.37	-8.20
15.0	-18.72	-14.39	-9.96	-11.37	-9.04
30.0	-22.42	-17.09	-11.12	-12.42	-9.70
45.0	-20.36	-20.25	-11.82	-13.02	-10.13
60.0	-16.27	-17.07	-11.63	-13.16	-9.85
75.0	-13.63	-13.78	-10.66	-13.03	-9.53
90.0	-13.11	-11.94	-9.70	-12.53	-9.01
105.0	-13.60	-11.38	-9.24	-12.51	-8.81
120.0	-14.98	-11.71	-9.39	-12.82	-8.72
135.0	-17.22	-12.95	-10.15	-13.60	-8.70
150.0	-20.36	-14.92	-11.40	-14.45	-8.88
165.0	-21.85	-18.17	-13.29	-15.53	-9.36
180.0	-17.44	-20.19	-15.26	-17.53	-10.08
195.0	-14.16	-15.83	-14.49	-20.59	-10.90
210.0	-12.22	-12.62	-11.63	-20.73	-12.00
225.0	-11.58	-10.72	-9.50	-16.44	-12.32
240.0	-11.04	-9.72	-8.91	-13.70	-11.97
255.0	-11.21	-9.54	-8.66	-11.95	-10.73
270.0	-11.23	-9.50	-8.57	-11.08	-9.48
285.0	-11.34	-9.71	-8.28	-10.67	-8.50
300.0	-11.54	-10.09	-8.02	-10.47	-7.81
315.0	-11.79	-10.33	-7.84	-10.52	-7.46
330.0	-12.82	-10.64	-8.01	-10.31	-7.19
345.0	-14.12	-11.35	-8.24	-10.66	-7.46
360.0	-15.54	-12.23	-9.27	-10.63	-7.97

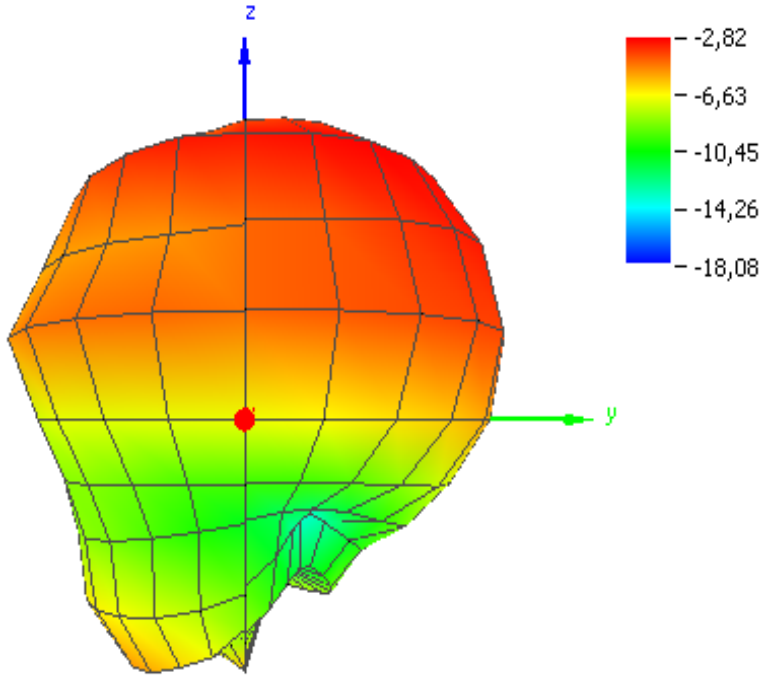
Theta = 0, Phi = 0



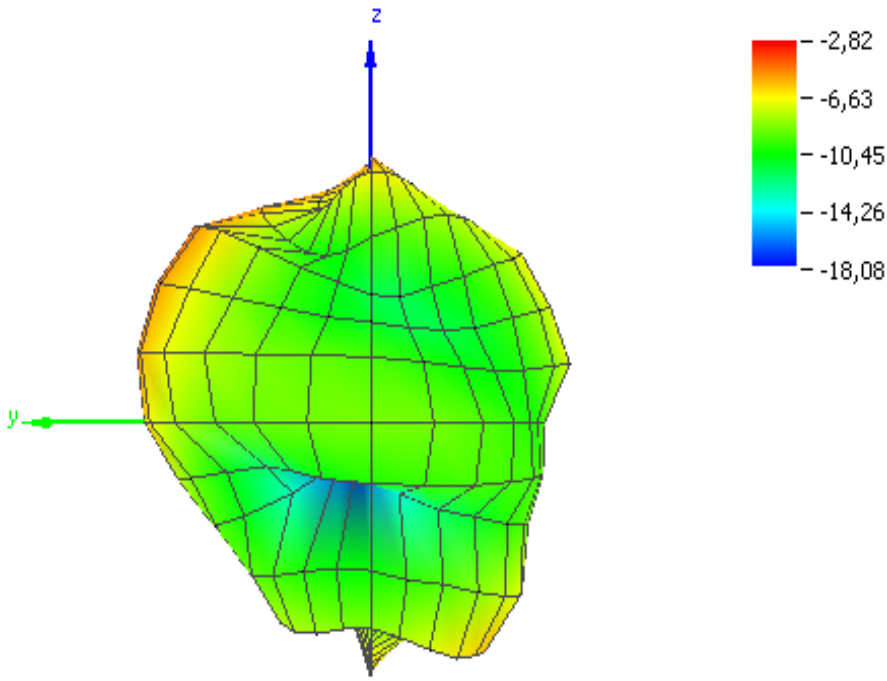
Theta = 180, Phi = 0



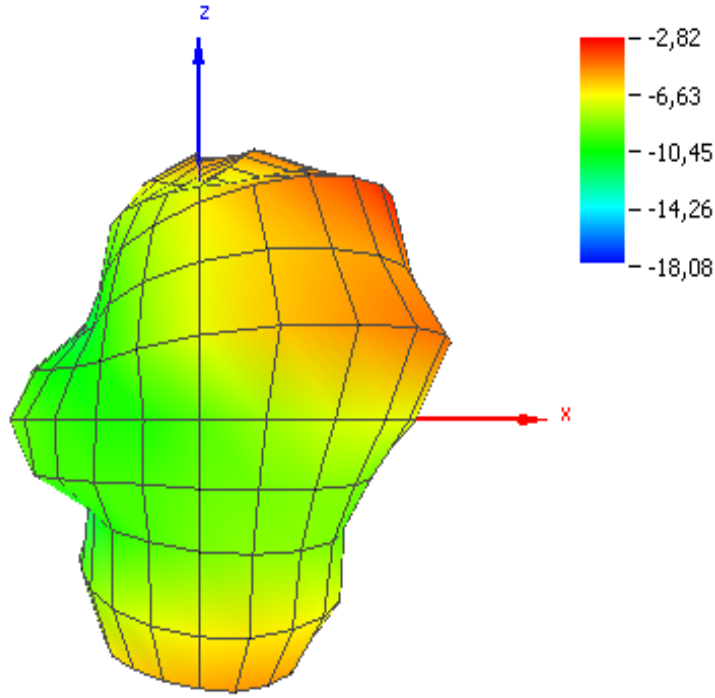
Theta = 90, Phi = 0



Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90