

DN608 - board 12 433 MHz (RP_433.000_tot)

Common Information:

Test Description:
Operating Conditions:
Operator Name:
Comment:

Test Information:

Test Method: Radiated Power Passive Antenna
Test Condition: FS: Free Space
Frequency: 433.000 MHz
Test Time: Start: 07-07-2010 12:23:19; Stop: 07-07-2010 12:56:31
Cal Data Hor: 29.90 dB (Range Calibration RadPower Hor Eval 200-1000MHz)
Cal Data Ver: 29.90 dB (Range Calibration RadPower Hor Eval 200-1000MHz)

OTA Evaluation Results:

Total Radiated Power -8.34 dBm
Peak EIRP -3.48 dBm
Directivity 4.86 dBi
Efficiency -8.34 dB
Efficiency 14.67 %
Gain -3.48 dBi
NHPRP 45° -10.42 dBm
NHPRP 45° / TRP -2.08 dB
NHPRP 45° / TRP 61.97 %
NHPRP 30° -12.32 dBm
NHPRP 30° / TRP -3.98 dB
NHPRP 30° / TRP 39.99 %
NHPRP 22.5° -13.60 dBm
NHPRP 22.5° / TRP -5.26 dB
NHPRP 22.5° / TRP 29.78 %
UHRP -11.34 dBm
UHRP / TRP -3.00 dB
UHRP / TRP 50.10 %
LHRP -11.36 dBm
LHRP / TRP -3.02 dB
LHRP / TRP 49.90 %
Front/Back Ratio 5.57
PhiBW 230.4 deg
PhiBW Up 81.6 deg
PhiBW Down 148.8 deg
ThetaBW 50.5 deg
ThetaBW Up 29.7 deg
ThetaBW Down 20.8 deg
Boresight Phi 345 deg
Boresight Theta 150 deg
Maximum Power -3.48 dBm
Minimum Power -26.89 dBm
Average Power -7.75 dBm
Max/Min Ratio 23.41 dB
Max/Avg Ratio 4.27 dB
Min/Avg Ratio -19.14 dB
Best Single Value -4.25 dBm
Best Position Phi = 300 deg; Theta = 150 deg; Pol = Hor

RP_433.000_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)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.00	-7.52	-8.50	-11.69	-14.78	-9.95	-7.14	-7.84	-11.33	-8.90	-4.87	-3.67	-4.23	-5.97
15.00	-7.28	-8.39	-11.69	-15.19	-10.68	-7.85	-8.17	-10.94	-8.80	-5.25	-3.93	-4.34	-5.74
30.00	-7.17	-8.37	-11.38	-14.22	-11.23	-8.40	-8.51	-10.77	-8.87	-5.82	-4.38	-4.67	-5.49
45.00	-7.25	-8.43	-10.85	-12.46	-10.94	-8.60	-8.78	-10.80	-9.11	-6.53	-5.07	-5.17	-5.39
60.00	-7.48	-8.50	-10.10	-10.76	-10.10	-8.50	-8.98	-11.02	-9.46	-7.40	-5.99	-5.94	-5.43
75.00	-7.90	-8.59	-9.43	-9.53	-9.07	-8.19	-9.13	-11.54	-9.87	-8.33	-7.09	-6.84	-5.51
90.00	-8.48	-8.74	-8.92	-8.64	-8.22	-7.84	-9.28	-12.46	-10.50	-9.24	-8.34	-7.83	-5.60
105.00	-9.21	-9.08	-8.69	-8.12	-7.60	-7.62	-9.56	-13.74	-11.17	-10.00	-9.50	-8.64	-5.62
120.00	-10.07	-9.48	-8.69	-7.98	-7.27	-7.54	-9.97	-15.50	-11.74	-10.45	-10.36	-9.14	-5.55
135.00	-10.88	-9.90	-8.86	-8.00	-7.18	-7.70	-10.56	-17.44	-11.84	-10.19	-10.43	-9.17	-5.39
150.00	-11.40	-10.12	-9.04	-8.08	-7.25	-7.97	-11.37	-18.96	-11.27	-9.40	-9.72	-8.68	-5.19
165.00	-11.39	-9.90	-9.05	-8.07	-7.40	-8.37	-12.29	-19.75	-10.30	-8.38	-8.63	-7.92	-4.96
180.00	-10.84	-9.44	-8.78	-7.92	-7.47	-8.59	-13.24	-19.83	-9.42	-7.43	-7.49	-7.14	-4.75
195.00	-10.05	-8.79	-8.30	-7.62	-7.36	-8.56	-13.78	-20.08	-8.83	-6.64	-6.54	-6.43	-4.64
210.00	-9.34	-8.29	-7.91	-7.28	-7.08	-8.18	-13.54	-20.82	-8.51	-6.06	-5.73	-5.84	-4.68
225.00	-8.75	-8.04	-7.72	-7.09	-6.70	-7.57	-12.59	-22.24	-8.50	-5.68	-5.12	-5.45	-4.83
240.00	-8.49	-8.09	-7.83	-7.13	-6.37	-6.95	-11.44	-24.59	-8.76	-5.40	-4.72	-5.20	-5.13
255.00	-8.46	-8.47	-8.32	-7.42	-6.13	-6.36	-10.28	-26.89	-9.20	-5.27	-4.42	-5.03	-5.52
270.00	-8.63	-9.00	-9.14	-7.99	-6.08	-5.93	-9.35	-24.30	-9.75	-5.15	-4.15	-4.93	-5.96
285.00	-8.86	-9.46	-10.19	-8.82	-6.20	-5.68	-8.59	-20.01	-10.18	-5.00	-3.94	-4.80	-6.39
300.00	-8.95	-9.68	-11.25	-9.83	-6.50	-5.60	-8.05	-16.93	-10.36	-4.88	-3.76	-4.66	-6.72
315.00	-8.82	-9.56	-11.90	-10.98	-6.97	-5.71	-7.69	-14.62	-10.16	-4.75	-3.58	-4.50	-6.88
330.00	-8.47	-9.17	-12.16	-12.15	-7.64	-5.97	-7.58	-13.13	-9.71	-4.68	-3.52	-4.37	-6.74
345.00	-8.02	-8.76	-12.02	-13.45	-8.51	-6.47	-7.63	-12.09	-9.29	-4.70	-3.48	-4.27	-6.53
360.00	-7.58	-8.53	-11.83	-14.37	-9.53	-6.97	-7.83	-11.45	-8.93	-4.78	-3.60	-4.16	-6.17

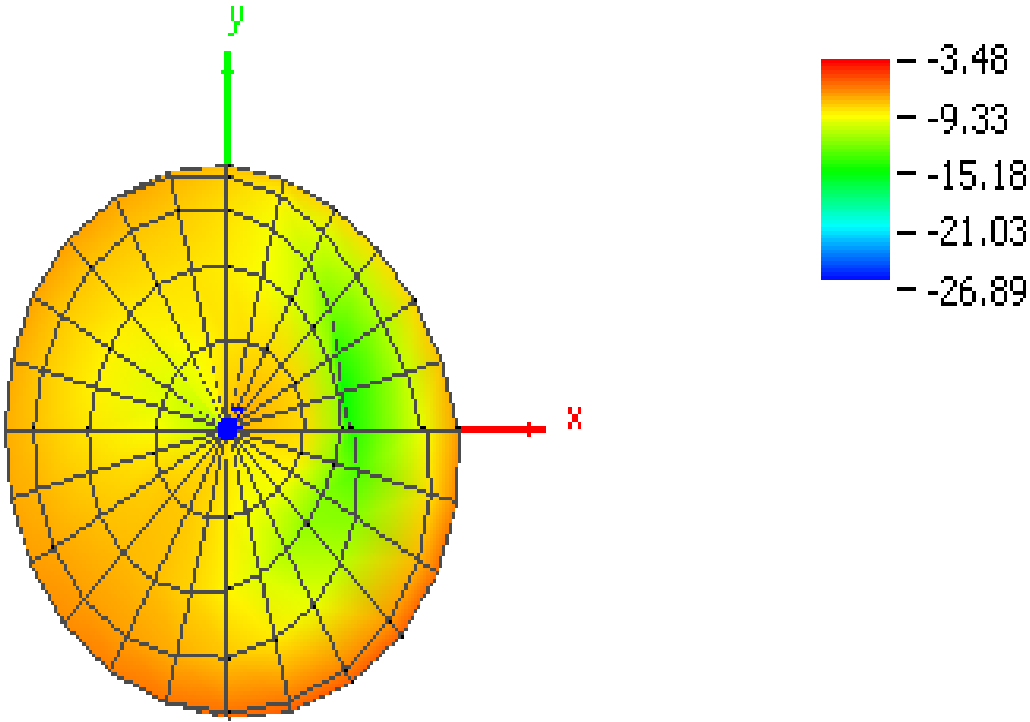
RP_433.000_hor

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)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	-11.21	-11.60	-14.69	-15.22	-11.15	-9.79	-12.41	-30.20	-12.99	-8.44	-7.53	-9.40	-13.15
15.0	-12.91	-14.10	-17.12	-16.85	-11.77	-10.61	-13.24	-28.36	-14.02	-10.37	-9.21	-12.65	-17.19
30.0	-16.57	-18.48	-21.85	-16.55	-12.19	-11.17	-13.91	-26.19	-15.47	-12.84	-11.74	-18.88	-21.15
45.0	-23.25	-24.16	-21.34	-14.30	-11.74	-11.24	-14.34	-24.49	-16.28	-15.03	-14.83	-33.03	-15.69
60.0	-26.90	-19.65	-16.24	-11.92	-10.76	-10.87	-14.45	-23.23	-15.76	-15.35	-17.21	-18.38	-11.45
75.0	-18.80	-15.11	-12.88	-10.22	-9.67	-10.32	-14.34	-22.72	-14.49	-13.88	-16.12	-13.54	-8.76
90.0	-15.05	-12.49	-10.83	-9.03	-8.83	-9.82	-14.24	-23.18	-13.36	-12.31	-13.89	-10.98	-7.04
105.0	-13.08	-11.19	-9.66	-8.40	-8.29	-9.52	-14.19	-24.89	-12.59	-11.23	-12.19	-9.67	-6.04
120.0	-12.18	-10.70	-9.22	-8.32	-8.11	-9.45	-14.35	-27.31	-12.14	-10.68	-11.28	-9.22	-5.63
135.0	-12.09	-10.93	-9.38	-8.67	-8.29	-9.73	-14.74	-26.82	-11.90	-10.45	-10.90	-9.57	-5.76
150.0	-12.74	-11.87	-10.13	-9.39	-8.80	-10.26	-15.42	-24.03	-11.68	-10.41	-10.94	-10.65	-6.45
165.0	-14.21	-13.55	-11.40	-10.52	-9.63	-11.07	-16.37	-22.28	-11.46	-10.40	-11.14	-12.69	-7.72
180.0	-16.63	-16.29	-13.32	-11.87	-10.63	-11.80	-17.44	-21.87	-11.40	-10.27	-11.17	-15.51	-9.99
195.0	-21.02	-20.98	-15.86	-13.41	-11.52	-12.31	-17.87	-23.06	-11.58	-9.98	-10.75	-17.44	-13.58
210.0	-28.05	-32.44	-19.51	-14.87	-12.11	-12.16	-17.13	-25.97	-11.94	-9.40	-9.74	-14.93	-21.11
225.0	-22.88	-25.94	-24.58	-15.89	-12.14	-11.52	-15.56	-31.30	-12.27	-8.60	-8.43	-11.49	-27.21
240.0	-17.41	-18.95	-26.93	-16.26	-11.77	-10.68	-14.15	-38.05	-12.34	-7.66	-7.13	-8.87	-15.92
255.0	-14.02	-15.26	-22.05	-15.75	-11.08	-9.86	-12.94	-31.68	-12.02	-6.79	-5.99	-6.97	-11.39
270.0	-11.84	-12.86	-18.02	-14.83	-10.46	-9.15	-12.14	-28.56	-11.52	-6.09	-5.09	-5.76	-8.90
285.0	-10.35	-11.24	-15.37	-13.78	-9.91	-8.67	-11.62	-27.49	-11.02	-5.59	-4.51	-5.04	-7.50
300.0	-9.36	-10.16	-13.59	-13.01	-9.52	-8.42	-11.34	-27.42	-10.71	-5.43	-4.25	-4.80	-6.92
315.0	-8.87	-9.57	-12.51	-12.59	-9.36	-8.36	-11.30	-28.41	-10.64	-5.58	-4.32	-5.05	-7.00
330.0	-8.86	-9.52	-12.18	-12.74	-9.52	-8.54	-11.50	-30.18	-10.92	-6.06	-4.83	-5.76	-7.74
345.0	-9.41	-10.06	-12.62	-13.53	-10.00	-9.04	-11.89	-31.22	-11.55	-6.96	-5.68	-7.08	-9.37
360.0	-10.56	-11.03	-13.97	-14.63	-10.76	-9.56	-12.45	-31.24	-12.53	-7.92	-7.04	-8.45	-12.12

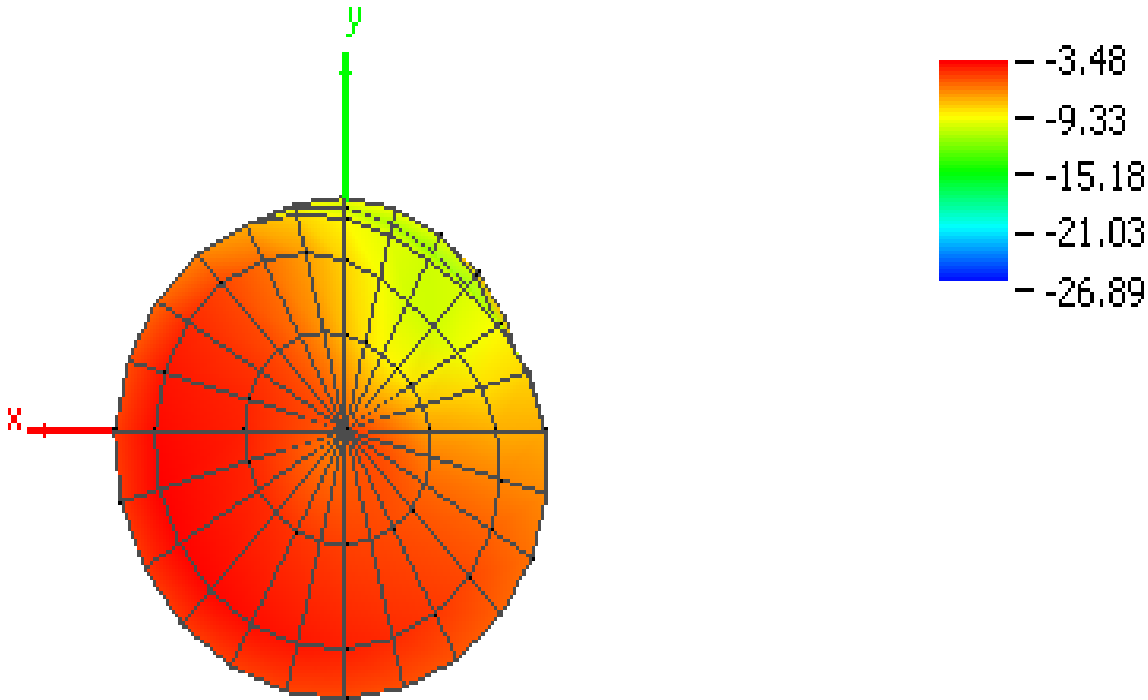
RP_433.000_ver

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)	Elevation 120 deg (dB)	Elevation 135 deg (dB)	Elevation 150 deg (dB)	Elevation 165 deg (dB)	Elevation 180 deg (dB)
0.0	-9.94	-11.42	-14.72	-24.92	-16.11	-10.55	-9.71	-11.39	-11.05	-7.38	-5.97	-5.81	-6.89
15.0	-8.67	-9.75	-13.15	-20.17	-17.18	-11.13	-9.79	-11.02	-10.35	-6.84	-5.46	-5.03	-6.06
30.0	-7.70	-8.82	-11.79	-18.02	-18.28	-11.67	-9.98	-10.90	-9.94	-6.78	-5.26	-4.83	-5.61
45.0	-7.36	-8.55	-11.26	-17.08	-18.69	-12.02	-10.20	-10.99	-10.04	-7.19	-5.56	-5.18	-5.81
60.0	-7.53	-8.85	-11.31	-17.05	-18.61	-12.27	-10.43	-11.29	-10.62	-8.16	-6.33	-6.20	-6.68
75.0	-8.27	-9.68	-12.04	-17.85	-18.01	-12.30	-10.69	-11.89	-11.71	-9.75	-7.67	-7.89	-8.30
90.0	-9.56	-11.11	-13.40	-19.21	-17.06	-12.21	-10.95	-12.84	-13.67	-12.19	-9.76	-10.71	-11.09
105.0	-11.49	-13.23	-15.65	-20.13	-15.92	-12.12	-11.40	-14.09	-16.71	-16.09	-12.85	-15.41	-15.92
120.0	-14.20	-15.59	-18.11	-19.13	-14.85	-12.02	-11.94	-15.79	-22.27	-23.38	-17.57	-26.52	-22.84
135.0	-17.02	-16.66	-18.37	-16.47	-13.65	-11.97	-12.65	-17.97	-30.71	-22.66	-20.34	-19.65	-16.31
150.0	-17.17	-14.91	-15.60	-13.92	-12.47	-11.86	-13.54	-20.58	-21.77	-16.22	-15.84	-13.06	-11.20
165.0	-14.60	-12.34	-12.83	-11.74	-11.36	-11.70	-14.45	-23.31	-16.62	-12.68	-12.21	-9.68	-8.24
180.0	-12.17	-10.44	-10.66	-10.16	-10.34	-11.41	-15.32	-24.07	-13.78	-10.61	-9.92	-7.83	-6.29
195.0	-10.42	-9.06	-9.14	-8.95	-9.46	-10.94	-15.93	-23.12	-12.12	-9.34	-8.61	-6.79	-5.24
210.0	-9.40	-8.30	-8.22	-8.12	-8.72	-10.40	-16.03	-22.40	-11.14	-8.76	-7.93	-6.41	-4.78
225.0	-8.93	-8.11	-7.81	-7.70	-8.17	-9.81	-15.63	-22.82	-10.86	-8.79	-7.85	-6.69	-4.85
240.0	-9.08	-8.46	-7.88	-7.69	-7.85	-9.34	-14.77	-24.79	-11.27	-9.34	-8.43	-7.63	-5.51
255.0	-9.88	-9.49	-8.51	-8.11	-7.80	-8.93	-13.66	-28.64	-12.41	-10.57	-9.59	-9.48	-6.82
270.0	-11.44	-11.31	-9.74	-9.00	-8.06	-8.73	-12.58	-26.34	-14.50	-12.27	-11.26	-12.54	-9.04
285.0	-14.24	-14.21	-11.76	-10.49	-8.61	-8.71	-11.58	-20.87	-17.71	-14.01	-13.06	-17.42	-12.86
300.0	-19.32	-19.51	-15.06	-12.67	-9.49	-8.81	-10.80	-17.33	-21.44	-14.16	-13.43	-19.54	-20.12
315.0	-28.77	-37.21	-20.73	-16.04	-10.71	-9.10	-10.18	-14.81	-19.94	-12.33	-11.63	-13.75	-22.59
330.0	-19.11	-20.33	-36.72	-21.14	-12.20	-9.48	-9.84	-13.22	-15.86	-10.31	-9.36	-9.98	-13.62
345.0	-13.65	-14.63	-20.96	-31.06	-13.87	-9.99	-9.67	-12.14	-13.21	-8.60	-7.48	-7.50	-9.72
360.0	-10.62	-12.12	-15.94	-26.76	-15.58	-10.44	-9.67	-11.50	-11.42	-7.66	-6.22	-6.18	-7.44

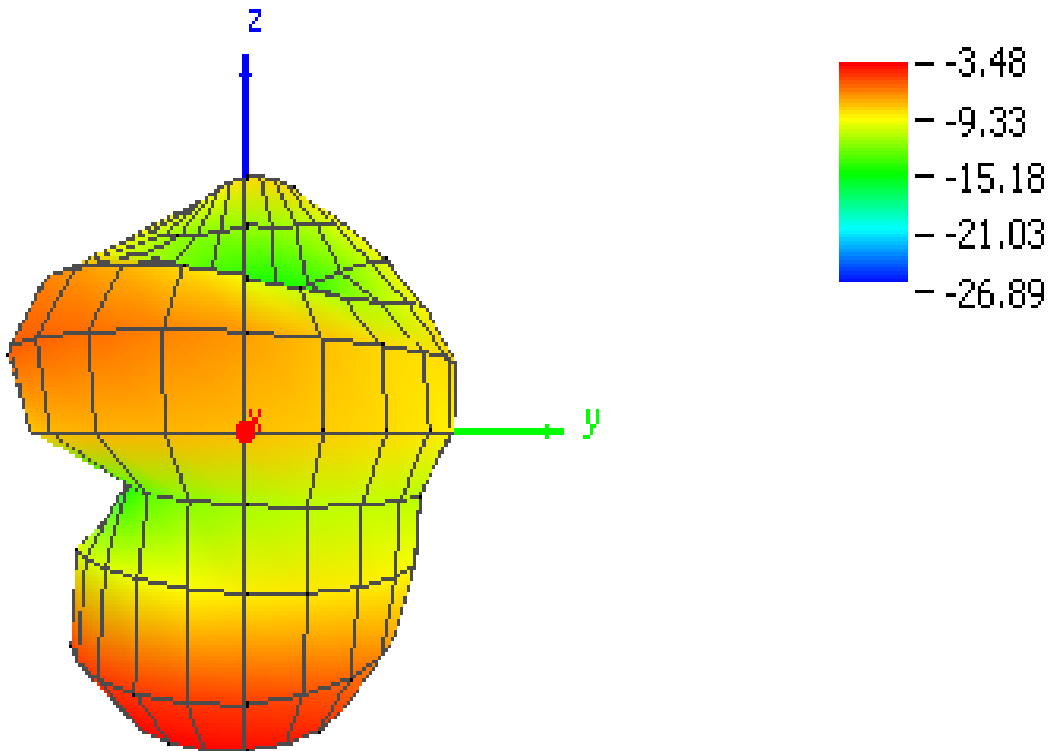
Theta = 0, Phi = 0



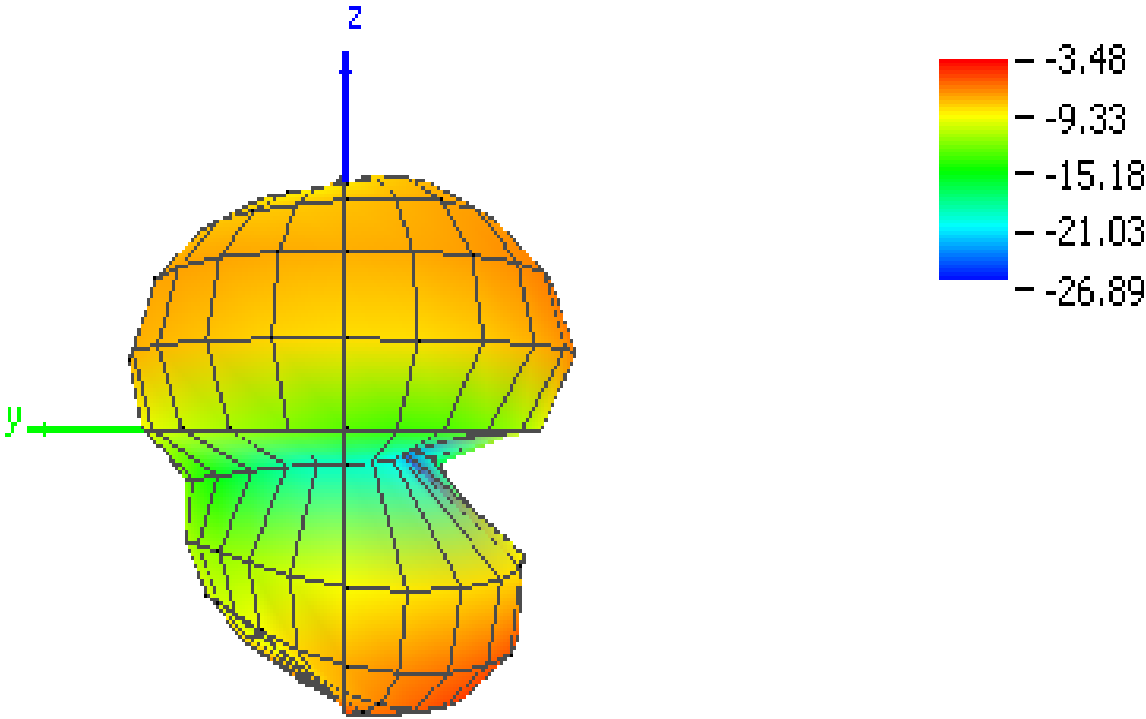
Theta = 180, Phi = 0



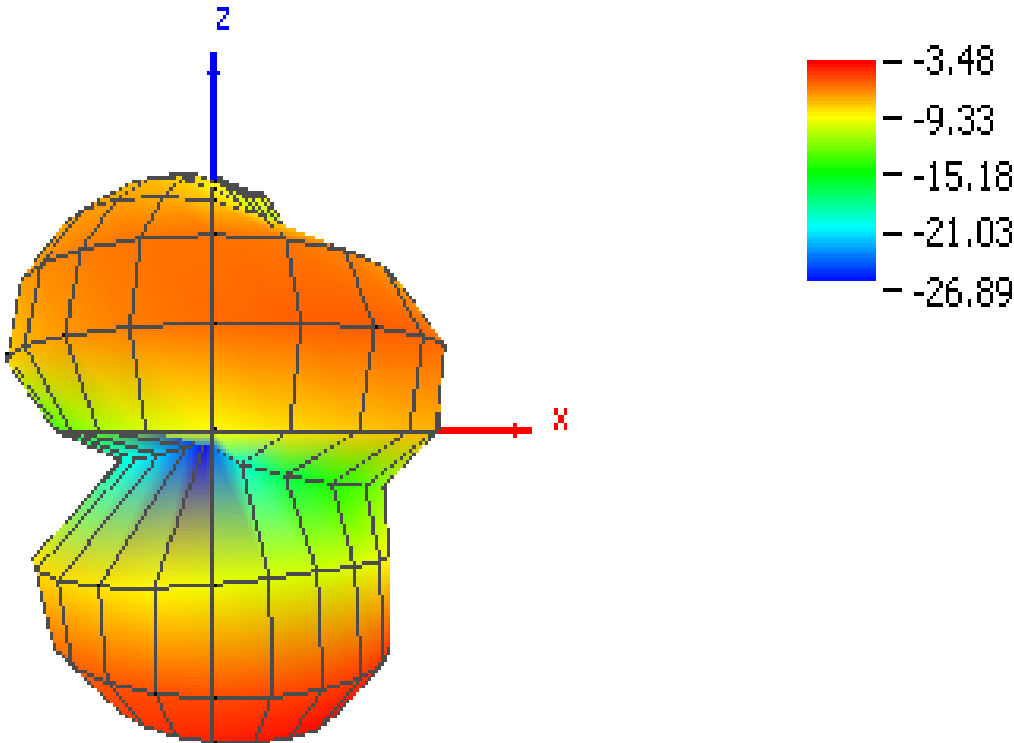
Theta = 90, Phi = 0



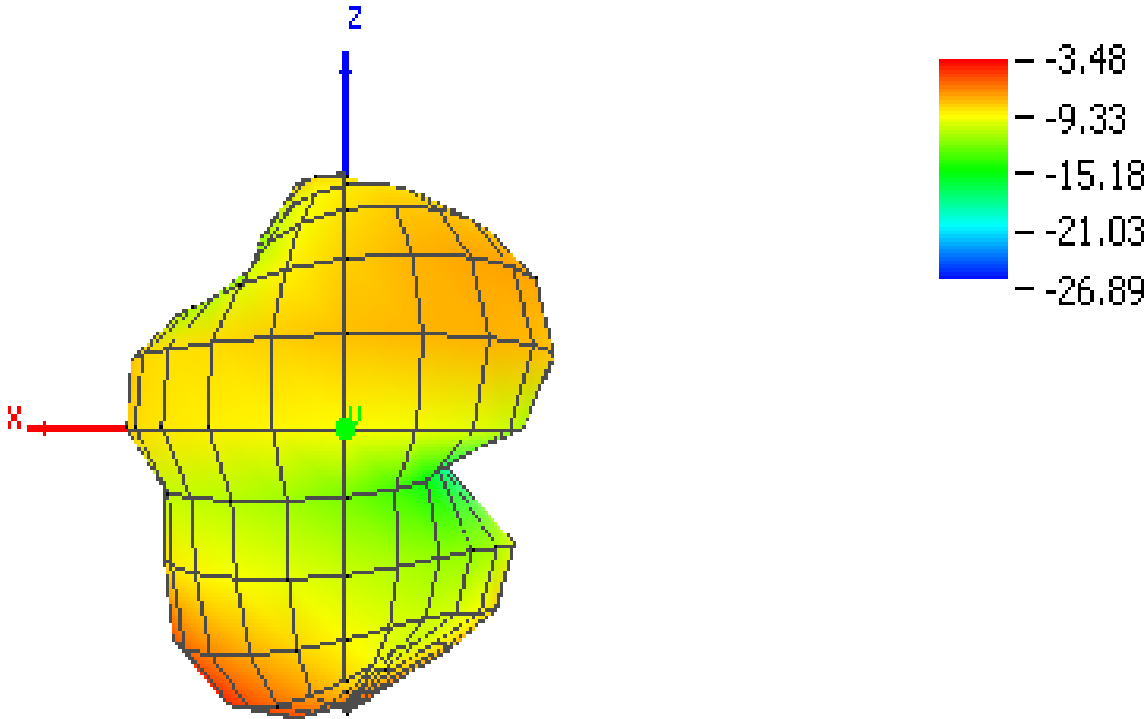
Theta = 90, Phi = 180



Theta = 90, Phi = 270



Theta = 90, Phi = 90



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RF/IF and ZigBee® Solutions	www.ti.com/lprf	Video and Imaging	www.ti.com/video
		Wireless	www.ti.com/wireless-apps