

DN610 - board 14 169 MHz (RP_169.000_tot)**OTA Evaluation Results:**

Total Radiated Power	-11.62 dBm
Peak EIRP	-8.91 dBm
Directivity	2.71 dBi
Efficiency	-11.62 dB
Efficiency	6.89 %
Gain	-8.91 dBi
NHPRP 45°	-12.68 dBm
NHPRP 45° / TRP	-1.07 dB
NHPRP 45° / TRP	78.25 %
NHPRP 30°	-14.10 dBm
NHPRP 30° / TRP	-2.48 dB
NHPRP 30° / TRP	56.50 %
NHPRP 22.5°	-15.29 dBm
NHPRP 22.5° / TRP	-3.67 dB
NHPRP 22.5° / TRP	42.92 %
UHRP	-14.62 dBm
UHRP / TRP	-3.01 dB
UHRP / TRP	50.05 %
LHRP	-14.63 dBm
LHRP / TRP	-3.01 dB
LHRP / TRP	49.95 %
Front/Back Ratio	2.52
PhiBW	177.9 deg
PhiBW Up	95.0 deg
PhiBW Down	82.9 deg
ThetaBW	125.8 deg
ThetaBW Up	83.7 deg
ThetaBW Down	42.1 deg
Boresight Phi	315 deg
Boresight Theta	45 deg
Maximum Power	-8.91 dBm
Minimum Power	-31.21 dBm
Average Power	-12.43 dBm
Max/Min Ratio	22.30 dB
Max/Avg Ratio	3.52 dB
Min/Avg Ratio	-18.78 dB
Best Single Value	-11.12 dBm
Best Position	Phi = 285 deg; Theta = 45 deg; Pol = Hor

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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)
0.00	-13.48	-11.58	-10.15	-9.47	-9.60	-9.93	-10.50
15.00	-14.01	-12.25	-10.60	-10.02	-10.05	-10.33	-10.75
30.00	-14.90	-13.08	-11.35	-10.75	-10.65	-10.82	-11.04
45.00	-15.80	-14.03	-12.24	-11.58	-11.35	-11.38	-11.33
60.00	-16.71	-15.05	-13.31	-12.57	-12.14	-11.94	-11.63
75.00	-17.46	-16.06	-14.49	-13.56	-12.90	-12.41	-11.87
90.00	-18.09	-17.04	-15.69	-14.54	-13.63	-12.82	-12.03
105.00	-18.68	-18.07	-16.90	-15.35	-14.18	-13.09	-12.12
120.00	-19.39	-19.20	-18.12	-16.05	-14.59	-13.22	-12.14
135.00	-20.40	-20.57	-19.25	-16.48	-14.78	-13.20	-12.09
150.00	-21.86	-21.96	-20.02	-16.59	-14.76	-13.09	-11.98
165.00	-23.64	-22.87	-19.98	-16.26	-14.54	-12.87	-11.83
180.00	-24.55	-22.15	-18.92	-15.54	-14.07	-12.55	-11.65
195.00	-23.11	-20.05	-17.28	-14.54	-13.43	-12.17	-11.45
210.00	-20.42	-17.73	-15.49	-13.43	-12.76	-11.76	-11.24
225.00	-17.95	-15.70	-13.90	-12.36	-12.03	-11.32	-11.02
240.00	-15.98	-14.11	-12.54	-11.41	-11.32	-10.89	-10.82
255.00	-14.57	-12.84	-11.47	-10.57	-10.64	-10.48	-10.62
270.00	-13.52	-11.95	-10.63	-9.91	-10.08	-10.12	-10.44
285.00	-12.80	-11.31	-10.03	-9.42	-9.64	-9.83	-10.29
300.00	-12.35	-10.93	-9.62	-9.09	-9.32	-9.63	-10.19
315.00	-12.19	-10.76	-9.41	-8.91	-9.13	-9.53	-10.15
330.00	-12.23	-10.83	-9.38	-8.94	-9.11	-9.55	-10.18
345.00	-12.52	-11.10	-9.56	-9.14	-9.22	-9.69	-10.28
360.00	-13.10	-11.45	-9.92	-9.43	-9.51	-9.86	-10.45

Azimuth (deg)	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	-10.95	-11.24	-12.71	-15.21	-20.65	-27.39
15.00	-11.03	-11.46	-12.56	-15.07	-19.49	-23.72
30.00	-11.12	-11.44	-12.36	-14.69	-18.36	-21.34
45.00	-11.18	-11.35	-12.16	-14.29	-17.40	-19.59
60.00	-11.24	-11.26	-11.97	-13.94	-16.61	-18.30
75.00	-11.27	-11.19	-11.82	-13.66	-15.99	-17.28
90.00	-11.28	-11.12	-11.69	-13.43	-15.50	-16.52
105.00	-11.27	-11.06	-11.59	-13.27	-15.16	-15.93
120.00	-11.22	-11.00	-11.50	-13.16	-14.96	-15.57
135.00	-11.13	-10.92	-11.43	-13.09	-14.83	-15.33
150.00	-11.03	-10.83	-11.35	-13.03	-14.78	-15.19
165.00	-10.90	-10.73	-11.28	-12.98	-14.72	-15.08
180.00	-10.77	-10.64	-11.22	-12.91	-14.70	-14.96
195.00	-10.66	-10.57	-11.15	-12.84	-14.61	-14.88
210.00	-10.57	-10.50	-11.11	-12.77	-14.56	-14.77
225.00	-10.49	-10.46	-11.11	-12.73	-14.56	-14.78
240.00	-10.44	-10.47	-11.16	-12.77	-14.75	-15.00
255.00	-10.41	-10.52	-11.30	-12.95	-15.19	-15.54
270.00	-10.42	-10.63	-11.52	-13.29	-16.00	-16.46
285.00	-10.46	-10.79	-11.81	-13.76	-17.11	-17.88
300.00	-10.53	-10.98	-12.13	-14.34	-18.58	-20.05
315.00	-10.61	-11.16	-12.45	-14.92	-20.23	-23.22
330.00	-10.71	-11.35	-12.66	-15.35	-21.42	-27.84
345.00	-10.80	-11.46	-12.74	-15.52	-21.52	-31.21
360.00	-10.81	-11.52	-12.56	-15.41	-20.71	-27.49

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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)
0.0	-18.06	-16.18	-14.45	-13.52	-13.44	-13.51	-13.83
15.0	-19.82	-18.19	-15.62	-14.71	-14.19	-14.07	-14.04
30.0	-23.31	-20.87	-17.50	-16.12	-15.19	-14.67	-14.25
45.0	-28.18	-24.33	-19.74	-17.65	-16.16	-15.25	-14.45
60.0	-32.21	-27.81	-22.28	-19.11	-17.10	-15.71	-14.60
75.0	-28.64	-28.40	-24.75	-20.27	-17.75	-16.02	-14.70
90.0	-25.32	-26.61	-26.12	-20.88	-18.18	-16.18	-14.72
105.0	-23.58	-25.25	-26.27	-21.00	-18.27	-16.18	-14.69
120.0	-22.94	-24.80	-25.85	-20.79	-18.19	-16.08	-14.61
135.0	-23.24	-25.11	-25.24	-20.31	-17.90	-15.88	-14.49
150.0	-24.37	-25.61	-24.15	-19.52	-17.48	-15.60	-14.35
165.0	-25.89	-25.01	-22.34	-18.39	-16.86	-15.23	-14.20
180.0	-26.08	-22.84	-20.10	-17.07	-16.01	-14.80	-14.05
195.0	-23.71	-20.19	-17.94	-15.67	-15.09	-14.33	-13.92
210.0	-20.66	-17.85	-16.01	-14.39	-14.23	-13.86	-13.79
225.0	-18.18	-15.96	-14.47	-13.29	-13.39	-13.40	-13.69
240.0	-16.28	-14.56	-13.24	-12.41	-12.69	-12.99	-13.60
255.0	-15.01	-13.53	-12.36	-11.74	-12.09	-12.66	-13.51
270.0	-14.16	-12.90	-11.77	-11.32	-11.70	-12.42	-13.44
285.0	-13.71	-12.59	-11.46	-11.12	-11.50	-12.30	-13.39
300.0	-13.58	-12.61	-11.41	-11.14	-11.46	-12.31	-13.37
315.0	-13.87	-12.93	-11.62	-11.38	-11.60	-12.43	-13.39
330.0	-14.51	-13.60	-12.10	-11.86	-11.94	-12.68	-13.47
345.0	-15.64	-14.63	-12.90	-12.57	-12.48	-13.05	-13.61
360.0	-17.21	-15.75	-13.98	-13.33	-13.17	-13.42	-13.78

Azimuth (deg)	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	-14.05	-14.29	-15.86	-18.82	-25.56	-31.63
15.0	-13.98	-14.35	-15.49	-18.40	-23.55	-27.56
30.0	-13.91	-14.14	-15.06	-17.67	-21.25	-23.52
45.0	-13.85	-13.90	-14.64	-16.86	-19.32	-20.73
60.0	-13.79	-13.69	-14.25	-16.10	-17.81	-18.79
75.0	-13.73	-13.51	-13.92	-15.48	-16.74	-17.43
90.0	-13.65	-13.36	-13.66	-15.01	-16.03	-16.56
105.0	-13.57	-13.24	-13.51	-14.72	-15.68	-16.09
120.0	-13.49	-13.16	-13.43	-14.62	-15.67	-16.04
135.0	-13.42	-13.12	-13.45	-14.71	-15.98	-16.40
150.0	-13.35	-13.13	-13.56	-14.98	-16.65	-17.19
165.0	-13.33	-13.18	-13.77	-15.40	-17.67	-18.47
180.0	-13.36	-13.30	-14.05	-15.94	-19.06	-20.44
195.0	-13.44	-13.51	-14.38	-16.55	-20.71	-23.27
210.0	-13.58	-13.76	-14.76	-17.18	-22.43	-27.81
225.0	-13.75	-14.05	-15.14	-17.69	-23.63	-37.07
240.0	-13.93	-14.37	-15.51	-18.07	-23.93	-38.61
255.0	-14.09	-14.68	-15.83	-18.32	-23.55	-30.41
270.0	-14.22	-14.93	-16.10	-18.49	-23.11	-27.16
285.0	-14.28	-15.11	-16.30	-18.66	-23.00	-25.77
300.0	-14.30	-15.19	-16.41	-18.84	-23.34	-25.66
315.0	-14.27	-15.18	-16.43	-19.04	-24.16	-26.73
330.0	-14.21	-15.08	-16.35	-19.20	-25.32	-29.13
345.0	-14.12	-14.90	-16.15	-19.21	-26.16	-33.65
360.0	-14.02	-14.67	-15.82	-18.98	-25.79	-34.01

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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)
0.0	-15.34	-13.42	-12.16	-11.65	-11.92	-12.44	-13.20
15.0	-15.33	-13.52	-12.24	-11.82	-12.16	-12.71	-13.50
30.0	-15.58	-13.87	-12.55	-12.23	-12.53	-13.13	-13.85
45.0	-16.06	-14.46	-13.09	-12.81	-13.09	-13.67	-14.24
60.0	-16.84	-15.28	-13.89	-13.66	-13.80	-14.31	-14.67
75.0	-17.80	-16.32	-14.92	-14.61	-14.62	-14.89	-15.07
90.0	-19.01	-17.55	-16.10	-15.69	-15.51	-15.50	-15.40
105.0	-20.37	-19.00	-17.44	-16.73	-16.32	-16.03	-15.63
120.0	-21.92	-20.61	-18.93	-17.83	-17.08	-16.39	-15.77
135.0	-23.59	-22.45	-20.51	-18.81	-17.68	-16.58	-15.81
150.0	-25.42	-24.42	-22.13	-19.68	-18.07	-16.66	-15.75
165.0	-27.56	-26.97	-23.75	-20.37	-18.38	-16.64	-15.60
180.0	-29.81	-30.43	-25.15	-20.81	-18.49	-16.48	-15.38
195.0	-32.01	-34.93	-25.77	-20.91	-18.41	-16.25	-15.09
210.0	-32.95	-33.42	-25.00	-20.47	-18.18	-15.91	-14.76
225.0	-31.01	-28.19	-23.05	-19.54	-17.72	-15.52	-14.40
240.0	-27.76	-24.25	-20.80	-18.29	-16.99	-15.05	-14.07
255.0	-24.74	-21.19	-18.78	-16.82	-16.12	-14.52	-13.76
270.0	-22.14	-19.04	-16.97	-15.47	-15.15	-13.98	-13.47
285.0	-20.04	-17.23	-15.54	-14.32	-14.21	-13.46	-13.22
300.0	-18.40	-15.87	-14.34	-13.34	-13.43	-13.01	-13.05
315.0	-17.12	-14.80	-13.39	-12.54	-12.76	-12.66	-12.94
330.0	-16.13	-14.09	-12.71	-12.04	-12.30	-12.44	-12.93
345.0	-15.42	-13.64	-12.28	-11.77	-12.00	-12.38	-13.00
360.0	-15.23	-13.47	-12.09	-11.70	-11.95	-12.39	-13.16

Azimuth (deg)	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	-13.87	-14.22	-15.59	-17.70	-22.34	-29.44
15.0	-14.11	-14.60	-15.66	-17.79	-21.66	-26.04
30.0	-14.37	-14.78	-15.72	-17.72	-21.50	-25.38
45.0	-14.57	-14.87	-15.79	-17.79	-21.87	-25.97
60.0	-14.77	-14.95	-15.87	-18.02	-22.77	-28.03
75.0	-14.92	-15.02	-15.98	-18.33	-23.97	-31.83
90.0	-15.05	-15.07	-16.05	-18.60	-24.87	-36.58
105.0	-15.12	-15.10	-16.06	-18.74	-24.61	-30.43
120.0	-15.11	-15.05	-15.95	-18.61	-23.14	-25.38
135.0	-15.02	-14.92	-15.71	-18.16	-21.14	-21.93
150.0	-14.85	-14.70	-15.34	-17.46	-19.34	-19.52
165.0	-14.58	-14.39	-14.89	-16.68	-17.80	-17.75
180.0	-14.25	-14.03	-14.43	-15.89	-16.68	-16.41
195.0	-13.92	-13.65	-13.96	-15.25	-15.83	-15.56
210.0	-13.58	-13.27	-13.56	-14.73	-15.33	-14.99
225.0	-13.26	-12.96	-13.29	-14.40	-15.14	-14.80
240.0	-13.02	-12.73	-13.14	-14.29	-15.31	-15.02
255.0	-12.84	-12.62	-13.18	-14.44	-15.88	-15.68
270.0	-12.76	-12.64	-13.37	-14.85	-16.94	-16.85
285.0	-12.79	-12.79	-13.72	-15.47	-18.41	-18.65
300.0	-12.89	-13.04	-14.16	-16.24	-20.35	-21.44
315.0	-13.07	-13.36	-14.66	-17.05	-22.49	-25.78
330.0	-13.28	-13.74	-15.09	-17.65	-23.68	-33.74
345.0	-13.53	-14.08	-15.39	-17.94	-23.35	-34.88
360.0	-13.62	-14.39	-15.33	-17.92	-22.32	-28.58

Antenna Kit

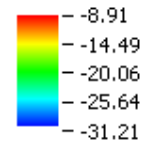
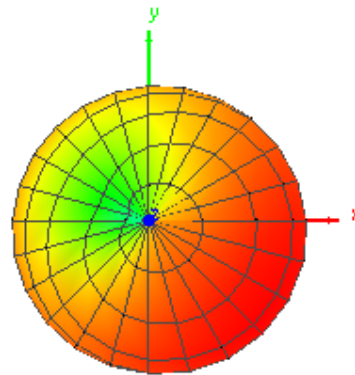
board 14 - 169 MHz

Theta = 0, Phi = 0

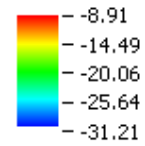
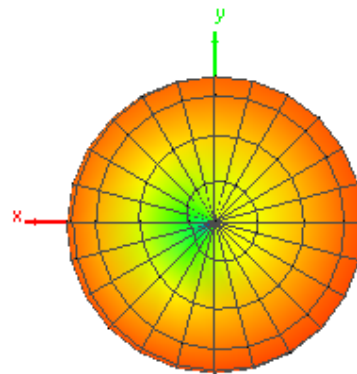
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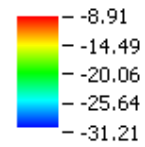
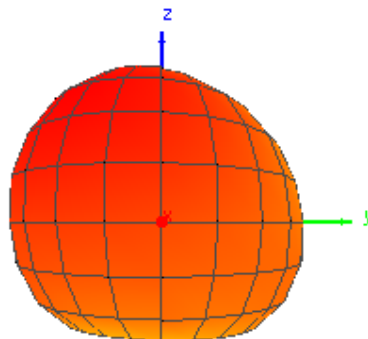
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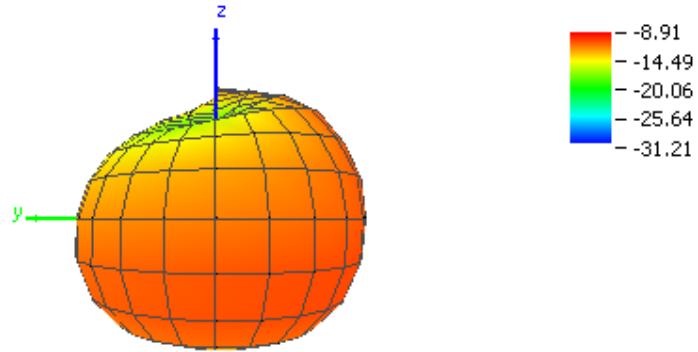
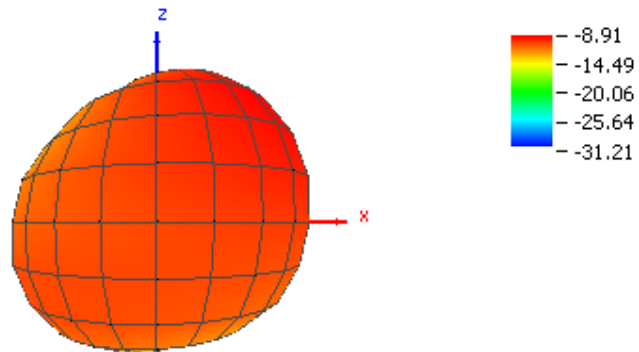
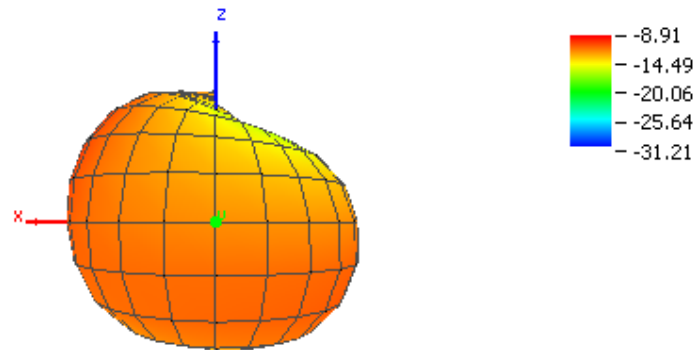


Theta = 180, Phi = 0



Theta = 90, Phi = 0



Theta = 90, Phi = 180**Theta = 90, Phi = 270****Theta = 90, Phi = 90**

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