

----- 2017-02-05 00:03 ---- (nec2c) -----

Frequency 1.800 MHz

Frequency 1.900 MHz

Frequency 2.000 MHz

Feedpoint(1) - Z: (37.922 - i 850.880) I: (0.0001 + i 0.0012) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(2) - Z: (38.247 - i 850.230) I: (0.0001 + i 0.0012) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(1) - Z: (42.528 - i 760.110) I: (0.0001 + i 0.0013) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(2) - Z: (42.994 - i 759.370) I: (0.0001 + i 0.0013) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(1) - Z: (47.430 - i 675.600) I: (0.0001 + i 0.0015) VSWR(Zo=50 Ω): 194.5:1

Feedpoint(2) - Z: (48.072 - i 674.770) I: (0.0001 + i 0.0015) VSWR(Zo=50 Ω): 191.4:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 7.21 dB

Max gain: 6.23 dBi (azimuth 180 deg., elevation 64 deg.)

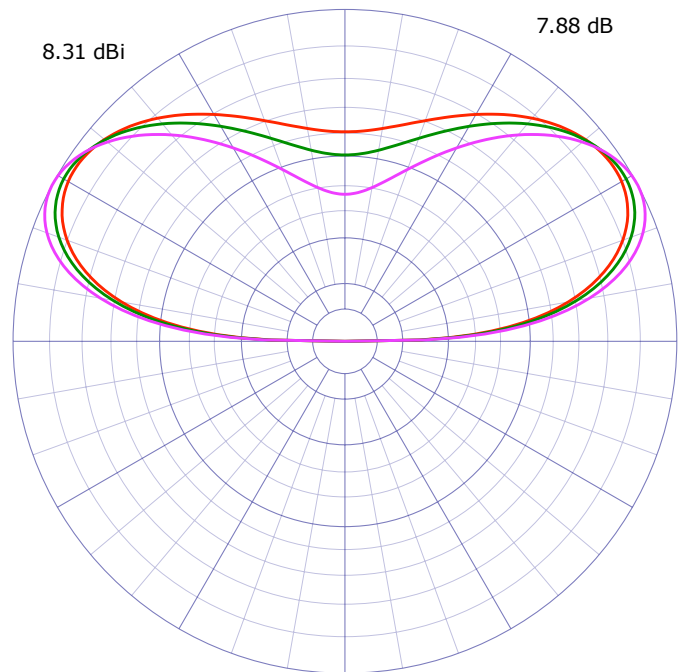
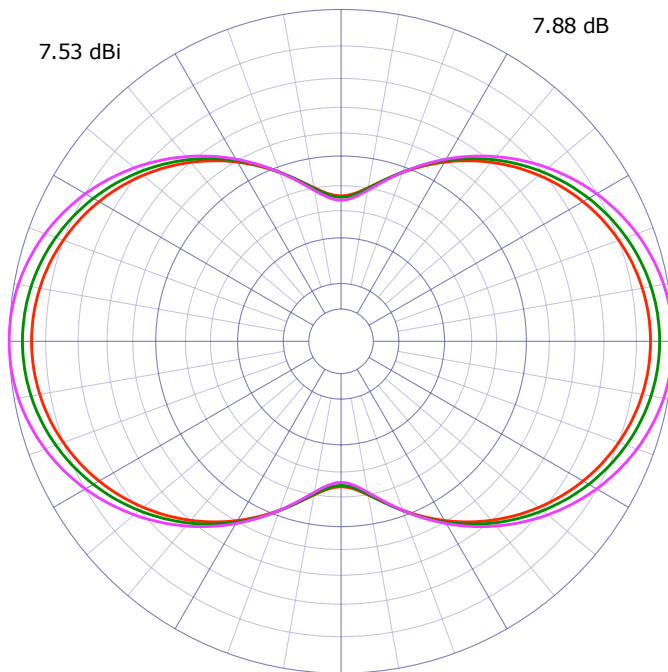
Front-to-back ratio: 0.00 dB (elevation 68 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7803 (1.077 dB)

Compute time: 0.21 sec



----- 2017-02-05 00:04 ---- (nec2c) -----

Frequency 3.500 MHz

Frequency 3.700 MHz

Frequency 4.000 MHz

Feedpoint(1) - Z: (175.670 + i 268.100) I: (0.0017 - i 0.0026) VSWR(Zo=50 Ω): 11.9:1

Feedpoint(2) - Z: (175.560 + i 262.560) I: (0.0018 - i 0.0026) VSWR(Zo=50 Ω): 11.6:1

Feedpoint(1) - Z: (206.390 + i 384.980) I: (0.0011 - i 0.0020) VSWR(Zo=50 Ω): 18.7:1

Feedpoint(2) - Z: (204.890 + i 378.530) I: (0.0011 - i 0.0020) VSWR(Zo=50 Ω): 18.3:1

Feedpoint(1) - Z: (264.860 + i 570.400) I: (0.0007 - i 0.0014) VSWR(Zo=50 Ω): 30.0:1

Feedpoint(2) - Z: (259.890 + i 563.300) I: (0.0007 - i 0.0015) VSWR(Zo=50 Ω): 29.8:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 7.88 dB

Max gain: 8.31 dBi (azimuth 180 deg., elevation 28 deg.)

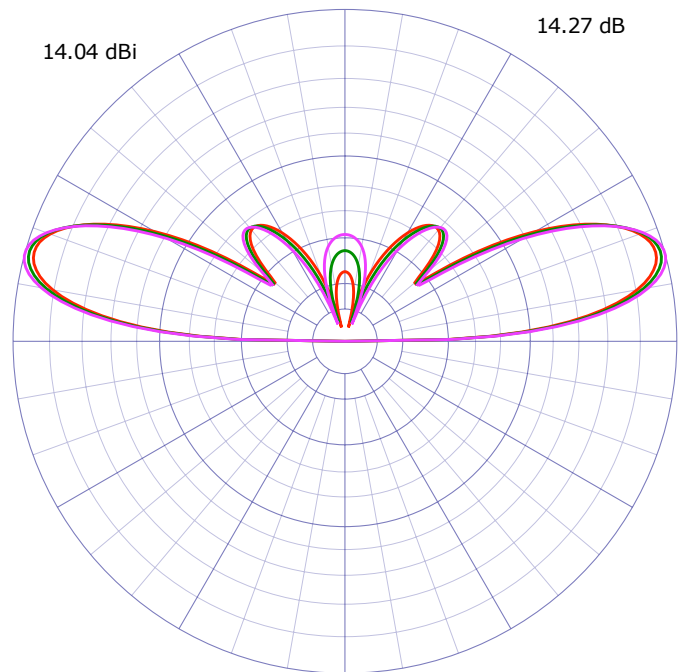
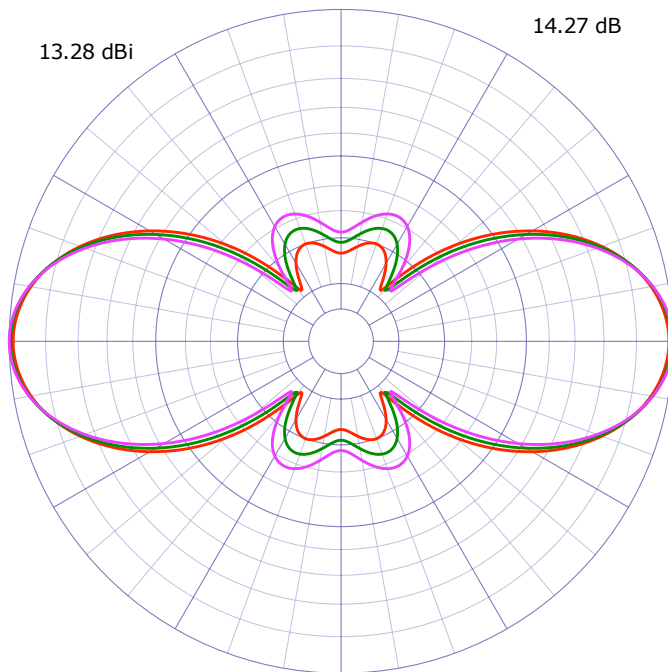
Front-to-back ratio: 0.00 dB (elevation 28 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9677 (0.142 dB)

Compute time: 0.18 sec



----- 2017-02-05 00:04 ---- (nec2c) -----

Frequency 7.000 MHz

Frequency 7.150 MHz

Frequency 7.300 MHz

Feedpoint(1) - Z: (618.050 - i 2228.700) I: (0.0001 + i 0.0004) VSWR($Z_0=50\ \Omega$): 173.2:1

Feedpoint(2) - Z: (611.420 - i 2222.300) I: (0.0001 + i 0.0004) VSWR($Z_0=50\ \Omega$): 173.9:1

Feedpoint(1) - Z: (418.350 - i 1868.100) I: (0.0001 + i 0.0005) VSWR($Z_0=50\ \Omega$): 175.3:1

Feedpoint(2) - Z: (413.480 - i 1863.400) I: (0.0001 + i 0.0005) VSWR($Z_0=50\ \Omega$): 176.3:1

Feedpoint(1) - Z: (296.280 - i 1577.600) I: (0.0001 + i 0.0006) VSWR($Z_0=50\ \Omega$): 174.1:1

Feedpoint(2) - Z: (292.380 - i 1573.600) I: (0.0001 + i 0.0006) VSWR($Z_0=50\ \Omega$): 175.4:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 14.27 dB

Max gain: 14.04 dBi (azimuth 180 deg., elevation 15 deg.)

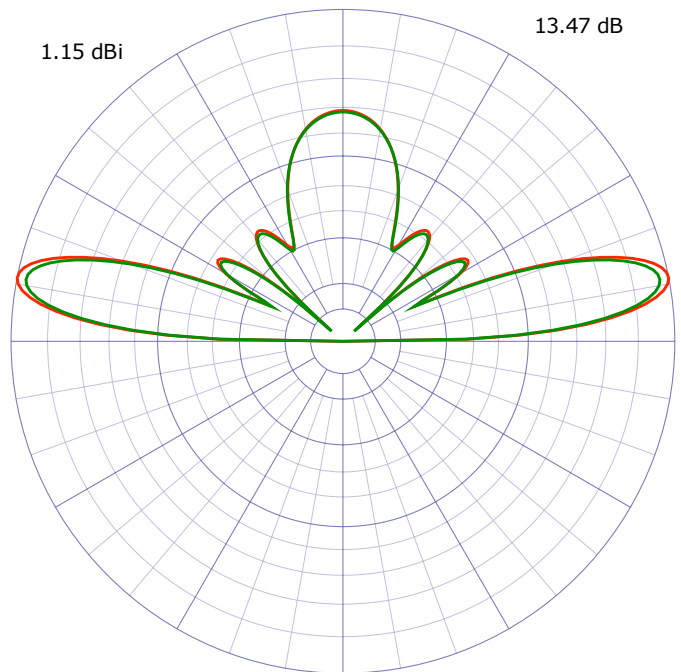
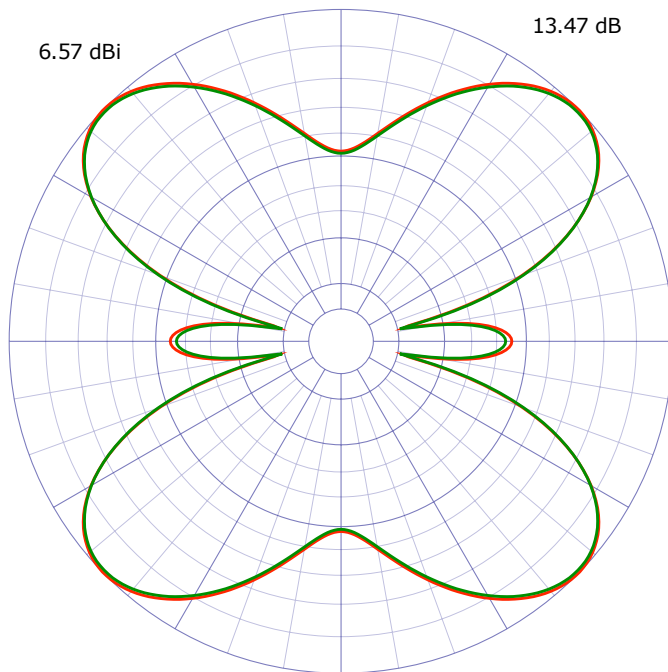
Front-to-back ratio: 0.00 dB (elevation 15 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8617 (0.646 dB)

Compute time: 0.13 sec



----- 2017-02-05 00:05 ---- (nec2c) -----

Frequency 10.100 MHz

Frequency 10.150 MHz

Feedpoint(1) - Z: (161.900 + i 568.700) I: (0.0005 - i 0.0016) VSWR(Zo=50 Ω): 43.5:1

Feedpoint(2) - Z: (164.880 + i 570.310) I: (0.0005 - i 0.0016) VSWR(Zo=50 Ω): 43.0:1

Feedpoint(1) - Z: (169.240 + i 603.090) I: (0.0004 - i 0.0015) VSWR(Zo=50 Ω): 46.6:1

Feedpoint(2) - Z: (172.550 + i 604.590) I: (0.0004 - i 0.0015) VSWR(Zo=50 Ω): 46.1:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 13.47 dB

Max gain: 12.58 dBi (azimuth 42 deg., elevation 12 deg.)

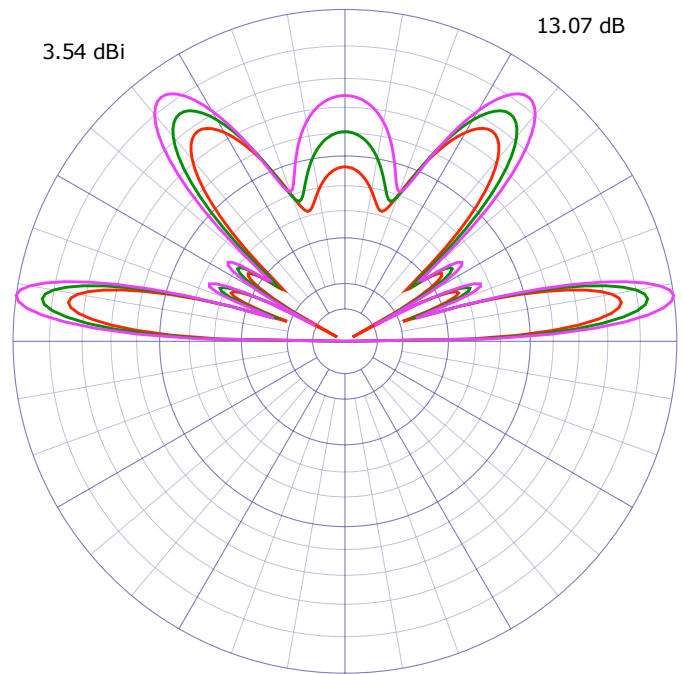
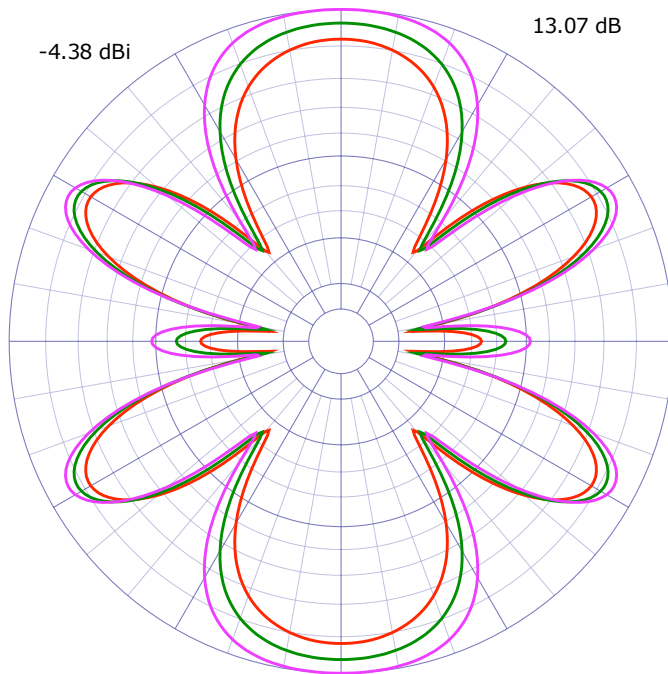
Front-to-back ratio: 0.00 dB (elevation 12 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8213 (0.855 dB)

Compute time: 0.09 sec



----- 2017-02-05 00:06 ---- (nec2c) -----

Frequency 14.000 MHz

Frequency 14.175 MHz

Frequency 14.350 MHz

Feedpoint(1) - Z: (186.610 - i 740.900) I: (0.0003 + i 0.0013) VSWR(Zo=50 Ω): 62.8:1

Feedpoint(2) - Z: (184.210 - i 738.950) I: (0.0003 + i 0.0013) VSWR(Zo=50 Ω): 63.2:1

Feedpoint(1) - Z: (157.590 - i 605.390) I: (0.0004 + i 0.0015) VSWR(Zo=50 Ω): 50.0:1

Feedpoint(2) - Z: (156.240 - i 603.530) I: (0.0004 + i 0.0016) VSWR(Zo=50 Ω): 50.1:1

Feedpoint(1) - Z: (137.130 - i 482.220) I: (0.0005 + i 0.0019) VSWR(Zo=50 Ω): 37.0:1

Feedpoint(2) - Z: (136.540 - i 480.600) I: (0.0005 + i 0.0019) VSWR(Zo=50 Ω): 36.9:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 13.07 dB

Max gain: 12.13 dBi (azimuth 27 deg., elevation 8 deg.)

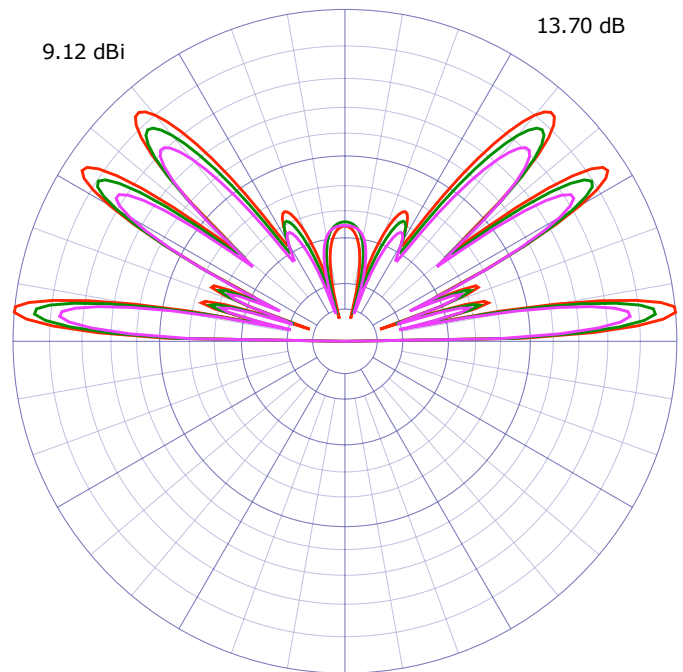
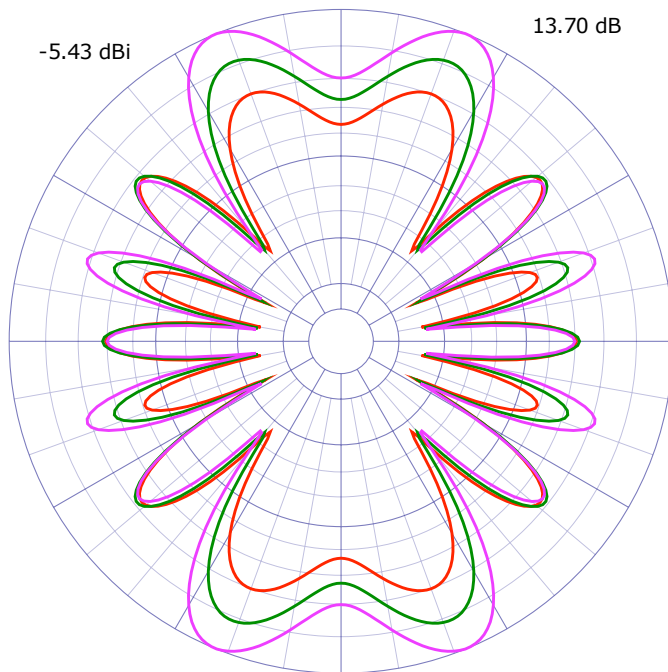
Front-to-back ratio: 0.00 dB (elevation 8 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8127 (0.901 dB)

Compute time: 0.12 sec



----- 2017-02-05 00:07 ---- (nec2c) -----

Frequency 21.000 MHz

Frequency 21.225 MHz

Frequency 21.450 MHz

Feedpoint(1) - Z: (132.750 - i 162.430) I: (0.0030 + i 0.0037) VSWR(Zo=50 Ω): 6.9:1

Feedpoint(2) - Z: (132.550 - i 163.190) I: (0.0030 + i 0.0037) VSWR(Zo=50 Ω): 6.9:1

Feedpoint(1) - Z: (126.470 - i 32.808) I: (0.0074 + i 0.0019) VSWR(Zo=50 Ω): 2.7:1

Feedpoint(2) - Z: (126.130 - i 33.130) I: (0.0074 + i 0.0019) VSWR(Zo=50 Ω): 2.7:1

Feedpoint(1) - Z: (129.000 + i 91.626) I: (0.0052 - i 0.0037) VSWR(Zo=50 Ω): 4.0:1

Feedpoint(2) - Z: (128.640 + i 91.596) I: (0.0052 - i 0.0037) VSWR(Zo=50 Ω): 4.0:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 13.70 dB

Max gain: 12.47 dBi (azimuth 66 deg., elevation 6 deg.)

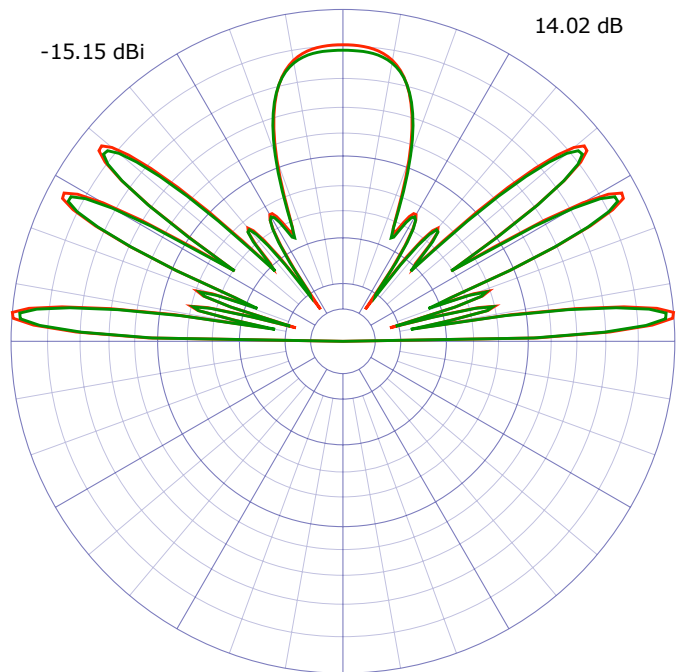
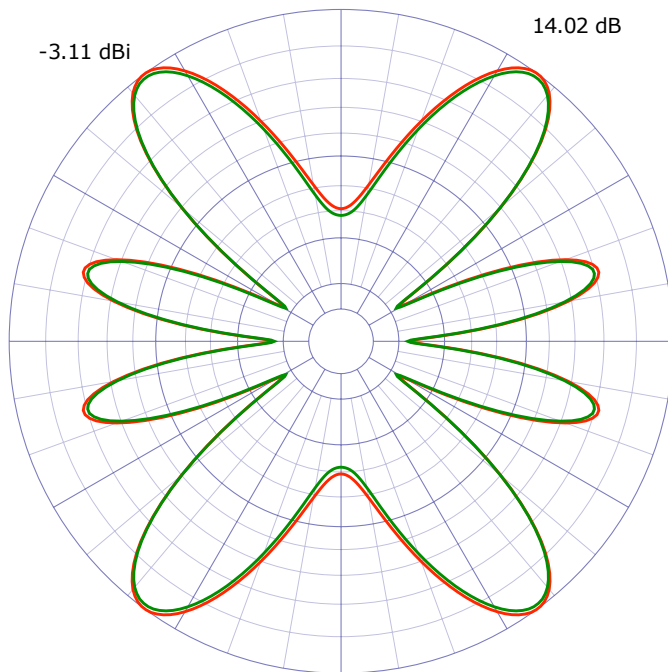
Front-to-back ratio: 0.00 dB (elevation 6 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7600 (1.192 dB)

Compute time: 0.12 sec



----- 2017-02-05 00:08 ---- (nec2c) -----

Frequency 24.890 MHz

Frequency 24.990 MHz

Feedpoint(1) - Z: (3283.000 - i 429.310) I: (0.0003 + i 0.0000) VSWR(Zo=50 Ω): 66.8:1

Feedpoint(2) - Z: (3315.500 - i 401.030) I: (0.0003 + i 0.0000) VSWR(Zo=50 Ω): 67.3:1

Feedpoint(1) - Z: (3078.200 - i 880.280) I: (0.0003 + i 0.0001) VSWR(Zo=50 Ω): 66.6:1

Feedpoint(2) - Z: (3117.300 - i 868.930) I: (0.0003 + i 0.0001) VSWR(Zo=50 Ω): 67.2:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 14.02 dB

Max gain: 12.64 dBi (azimuth 48 deg., elevation 4 deg.)

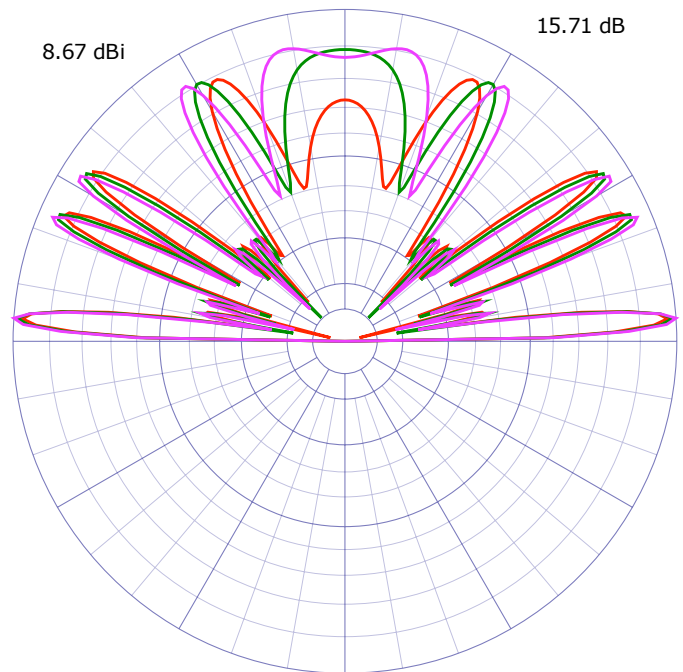
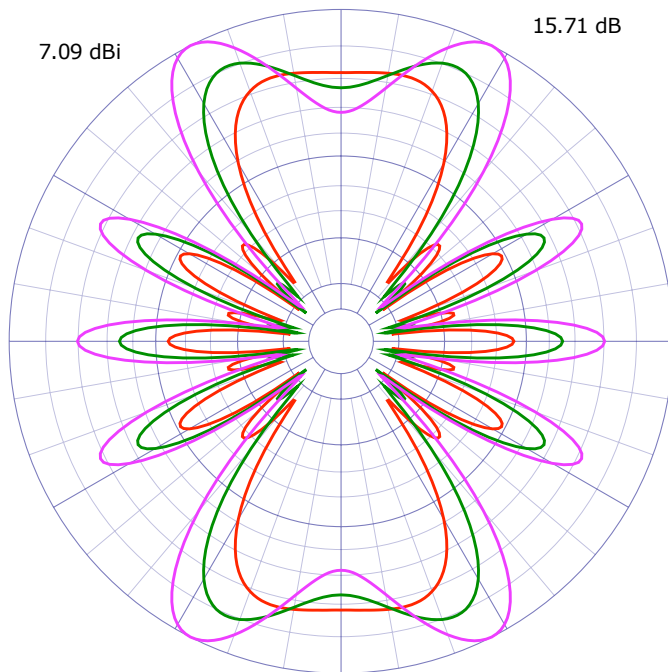
Front-to-back ratio: 0.00 dB (elevation 4 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7345 (1.340 dB)

Compute time: 0.09 sec



----- 2017-02-05 00:09 ---- (nec2c) -----

Frequency 28.000 MHz

Frequency 28.850 MHz

Frequency 29.700 MHz

Feedpoint(1) - Z: (188.630 + i 325.870) I: (0.0013 - i 0.0023) VSWR(Zo=50 Ω): 15.2:1

Feedpoint(2) - Z: (188.490 + i 326.810) I: (0.0013 - i 0.0023) VSWR(Zo=50 Ω): 15.3:1

Feedpoint(1) - Z: (351.710 + i 724.250) I: (0.0005 - i 0.0011) VSWR(Zo=50 Ω): 37.0:1

Feedpoint(2) - Z: (352.870 + i 724.730) I: (0.0005 - i 0.0011) VSWR(Zo=50 Ω): 36.9:1

Feedpoint(1) - Z: (736.320 + i 1145.100) I: (0.0004 - i 0.0006) VSWR(Zo=50 Ω): 50.4:1

Feedpoint(2) - Z: (737.130 + i 1143.600) I: (0.0004 - i 0.0006) VSWR(Zo=50 Ω): 50.3:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 15.71 dB

Max gain: 14.14 dBi (azimuth 63 deg., elevation 4 deg.)

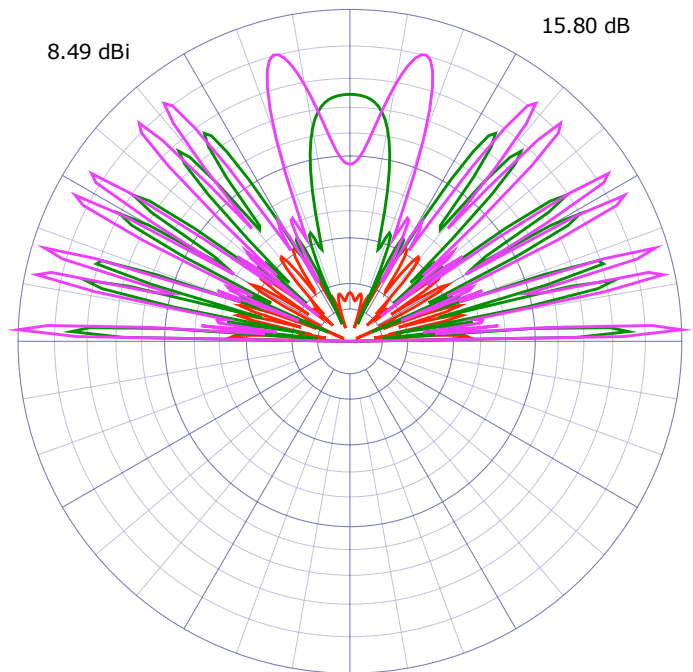
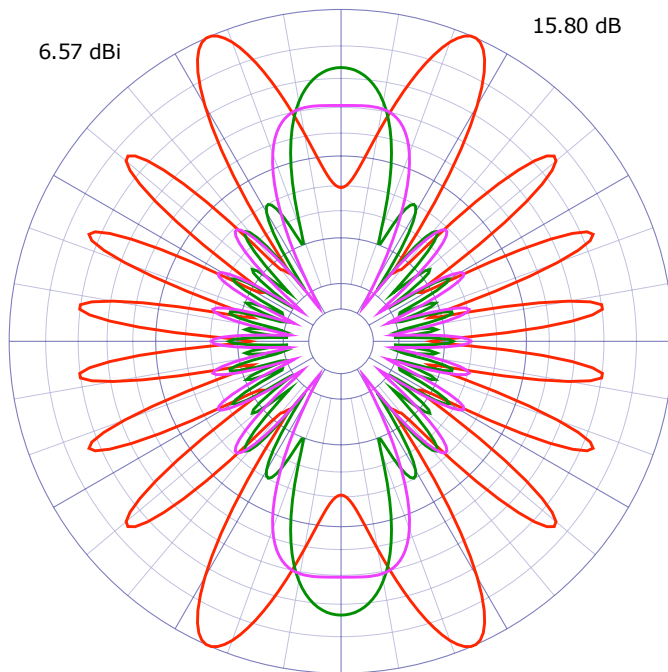
Front-to-back ratio: 0.00 dB (elevation 4 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7018 (1.538 dB)

Compute time: 0.12 sec



----- 2017-02-05 00:09 ---- (nec2c) -----

Frequency 50.000 MHz

Frequency 52.000 MHz

Frequency 54.000 MHz

Feedpoint(1) - Z: (2780.500 - i 6.918) I: (0.0004 + i 0.0000) VSWR(Zo=50 Ω): 55.6:1

Feedpoint(2) - Z: (2773.300 - i 12.706) I: (0.0004 + i 0.0000) VSWR(Zo=50 Ω): 55.5:1

Feedpoint(1) - Z: (224.670 + i 133.100) I: (0.0033 - i 0.0020) VSWR(Zo=50 Ω): 6.1:1

Feedpoint(2) - Z: (224.420 + i 132.930) I: (0.0033 - i 0.0020) VSWR(Zo=50 Ω): 6.1:1

Feedpoint(1) - Z: (362.190 + i 919.110) I: (0.0004 - i 0.0009) VSWR(Zo=50 Ω): 54.0:1

Feedpoint(2) - Z: (362.730 + i 920.360) I: (0.0004 - i 0.0009) VSWR(Zo=50 Ω): 54.1:1

Ground - Rel. dielectric constant 13.000, conductivity: 0.00400 mhos/meter. (Sommerfeld/Norton)

Directivity: 15.80 dB

Max gain: 13.81 dBi (azimuth 60 deg., elevation 2 deg.)

Front-to-back ratio: 0.00 dB (elevation 2 deg)

Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.6383 (1.950 dB)

Compute time: 0.13 sec