

----- 2017-02-05 00:24 ---- (nec2c) -----

Frequency 3.500 MHz

Frequency 3.700 MHz

Frequency 4.000 MHz

Feedpoint(1) - Z: (231.600 + i 330.160) I: (0.0014 - i 0.0020) VSWR(Zo=50 Ω): 14.2:1

Feedpoint(2) - Z: (227.650 + i 328.560) I: (0.0014 - i 0.0021) VSWR(Zo=50 Ω): 14.2:1

Feedpoint(1) - Z: (283.420 + i 459.500) I: (0.0010 - i 0.0016) VSWR(Zo=50 Ω): 20.7:1

Feedpoint(2) - Z: (278.310 + i 459.120) I: (0.0010 - i 0.0016) VSWR(Zo=50 Ω): 20.8:1

Feedpoint(1) - Z: (387.300 + i 661.750) I: (0.0007 - i 0.0011) VSWR(Zo=50 Ω): 30.5:1

Feedpoint(2) - Z: (380.970 + i 664.930) I: (0.0006 - i 0.0011) VSWR(Zo=50 Ω): 30.9:1

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

Directivity: 8.55 dB

Max gain: 7.98 dBi (azimuth 180 deg., elevation 26 deg.)

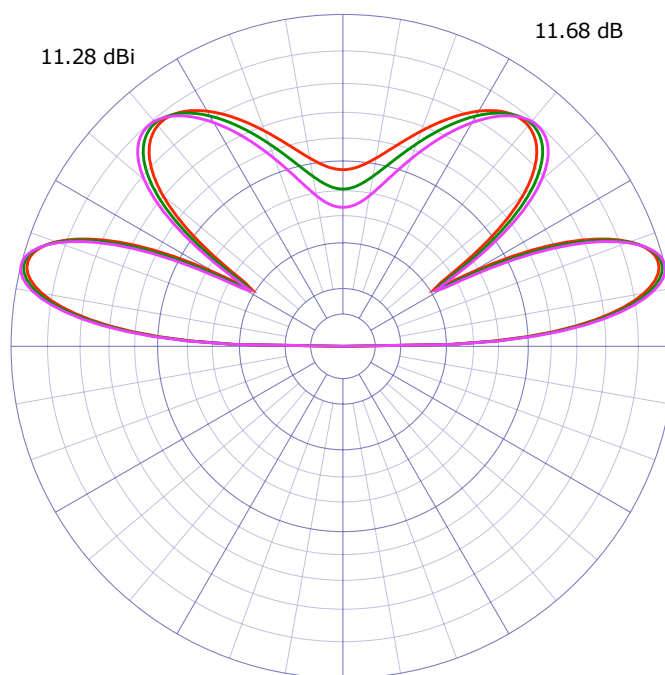
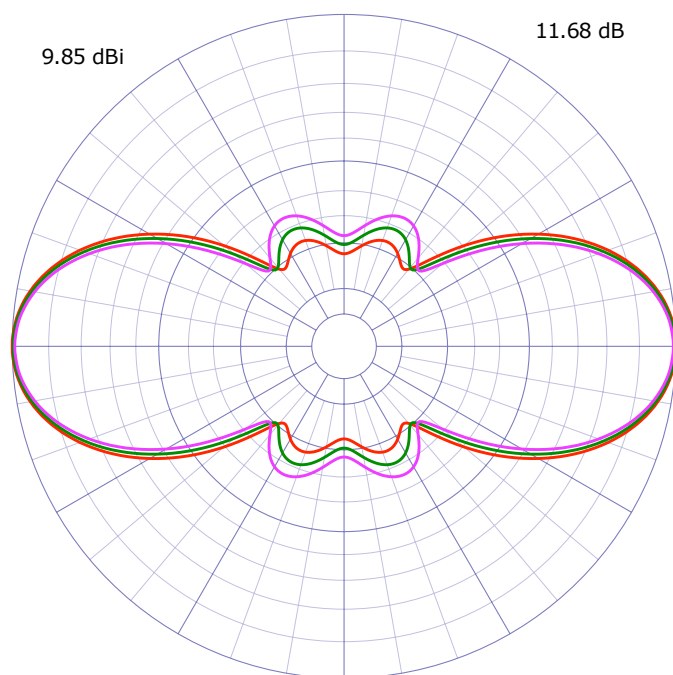
Front-to-back ratio: 0.00 dB (elevation 26 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8347 (0.784 dB)

Compute time: 0.13 sec



----- 2017-02-05 00:25 ---- (nec2c) -----

Frequency 7.000 MHz

Frequency 7.150 MHz

Frequency 7.300 MHz

Feedpoint(1) - Z: (900.480 - i 1713.400) I: (0.0002 + i 0.0005) VSWR( $Z_0=50\ \Omega$ ): 83.3:1

Feedpoint(2) - Z: (918.720 - i 1731.100) I: (0.0002 + i 0.0005) VSWR( $Z_0=50\ \Omega$ ): 83.7:1

Feedpoint(1) - Z: (694.270 - i 1531.100) I: (0.0002 + i 0.0005) VSWR( $Z_0=50\ \Omega$ ): 81.5:1

Feedpoint(2) - Z: (701.870 - i 1549.300) I: (0.0002 + i 0.0005) VSWR( $Z_0=50\ \Omega$ ): 82.5:1

Feedpoint(1) - Z: (544.410 - i 1357.200) I: (0.0003 + i 0.0006) VSWR( $Z_0=50\ \Omega$ ): 78.6:1

Feedpoint(2) - Z: (544.670 - i 1372.600) I: (0.0002 + i 0.0006) VSWR( $Z_0=50\ \Omega$ ): 80.2:1

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

Directivity: 11.68 dB

Max gain: 11.28 dBi (azimuth 180 deg., elevation 14 deg.)

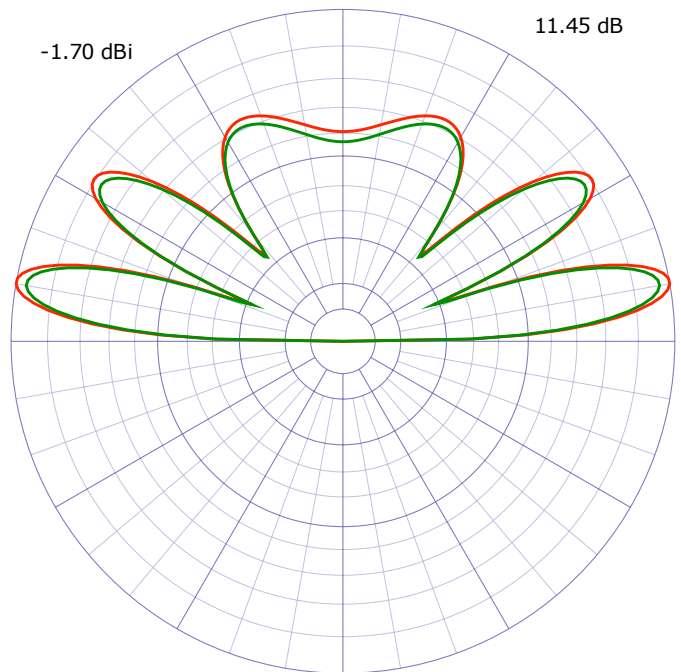
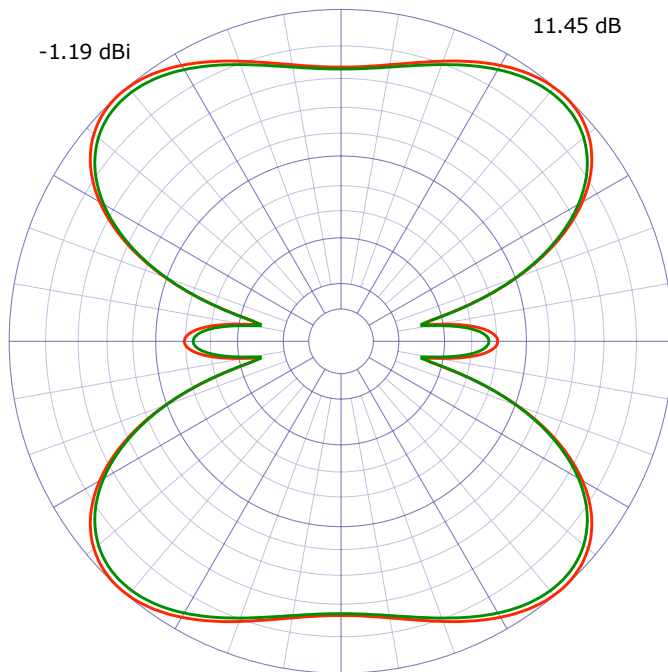
Front-to-back ratio: 0.00 dB (elevation 14 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8551 (0.680 dB)

Compute time: 0.11 sec



----- 2017-02-05 00:26 ---- (nec2c) -----

Frequency 10.100 MHz

Frequency 10.150 MHz

Feedpoint(1) - Z: (329.200 + i 488.540) I: (0.0009 - i 0.0014) VSWR(Zo=50 Ω): 21.2:1

Feedpoint(2) - Z: (329.980 + i 489.890) I: (0.0009 - i 0.0014) VSWR(Zo=50 Ω): 21.2:1

Feedpoint(1) - Z: (342.290 + i 514.590) I: (0.0009 - i 0.0013) VSWR(Zo=50 Ω): 22.4:1

Feedpoint(2) - Z: (343.270 + i 515.930) I: (0.0009 - i 0.0013) VSWR(Zo=50 Ω): 22.5:1

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

Directivity: 11.45 dB

Max gain: 10.24 dBi (azimuth 42 deg., elevation 10 deg.)

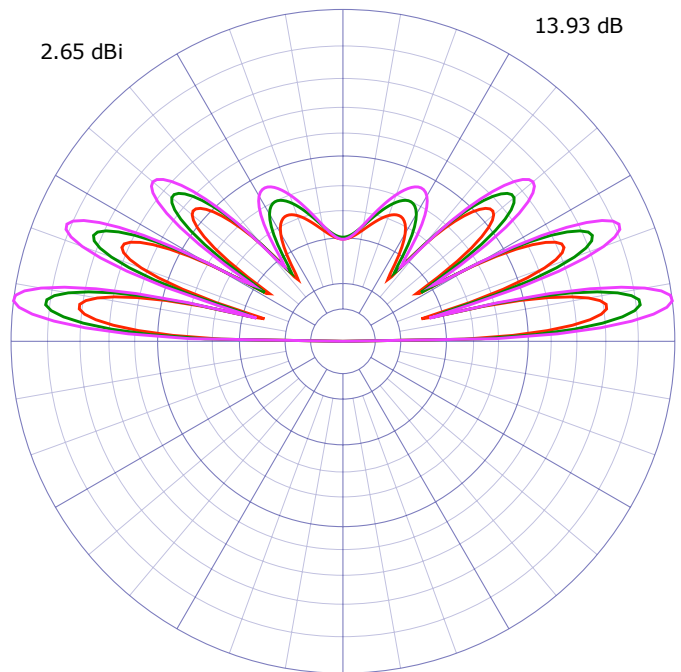
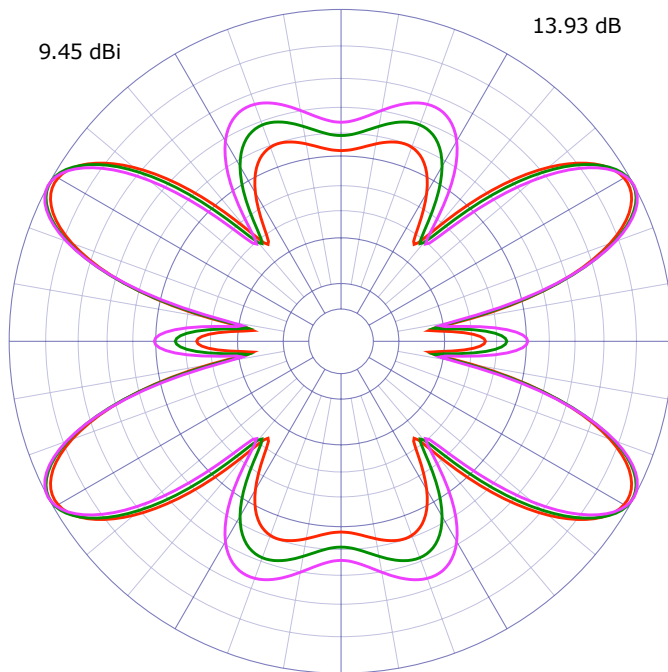
Front-to-back ratio: 0.00 dB (elevation 10 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7634 (1.172 dB)

Compute time: 0.09 sec



----- 2017-02-05 00:28 ---- (nec2c) -----

Frequency 14.000 MHz

Frequency 14.175 MHz

Frequency 14.350 MHz

Feedpoint(1) - Z: (321.300 - i 877.950) I: (0.0004 + i 0.0010) VSWR(Zo=50 Ω): 54.5:1

Feedpoint(2) - Z: (320.550 - i 874.810) I: (0.0004 + i 0.0010) VSWR(Zo=50 Ω): 54.3:1

Feedpoint(1) - Z: (254.630 - i 721.570) I: (0.0004 + i 0.0012) VSWR(Zo=50 Ω): 46.2:1

Feedpoint(2) - Z: (254.980 - i 719.060) I: (0.0004 + i 0.0012) VSWR(Zo=50 Ω): 45.8:1

Feedpoint(1) - Z: (210.250 - i 580.150) I: (0.0006 + i 0.0015) VSWR(Zo=50 Ω): 36.4:1

Feedpoint(2) - Z: (211.220 - i 578.390) I: (0.0006 + i 0.0015) VSWR(Zo=50 Ω): 36.1:1

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

Directivity: 13.93 dB

Max gain: 12.90 dBi (azimuth 27 deg., elevation 8 deg.)

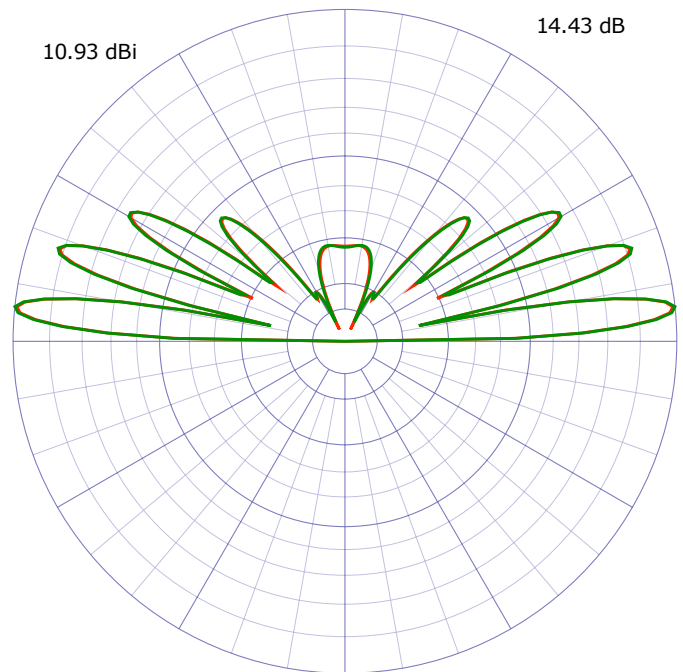
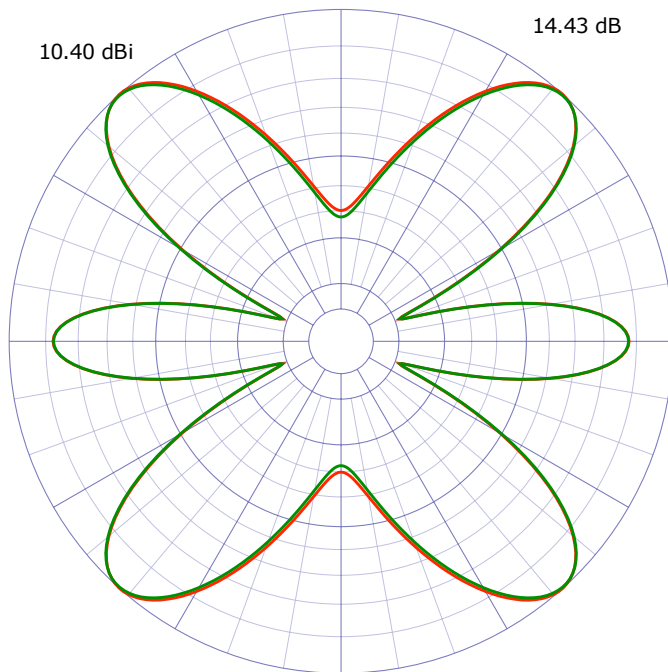
Front-to-back ratio: 0.00 dB (elevation 8 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7959 (0.991 dB)

Compute time: 0.13 sec



----- 2017-02-05 00:29 ---- (nec2c) -----

Frequency 18.068 MHz

Frequency 18.168 MHz

Feedpoint(1) - Z: (1512.300 + i 1691.700) I: (0.0003 - i 0.0003) VSWR(Zo=50 Ω): 68.1:1

Feedpoint(2) - Z: (1515.500 + i 1689.700) I: (0.0003 - i 0.0003) VSWR(Zo=50 Ω): 68.0:1

Feedpoint(1) - Z: (1765.500 + i 1756.000) I: (0.0003 - i 0.0003) VSWR(Zo=50 Ω): 70.3:1

Feedpoint(2) - Z: (1768.800 + i 1752.500) I: (0.0003 - i 0.0003) VSWR(Zo=50 Ω): 70.1:1

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

Directivity: 14.43 dB

Max gain: 13.56 dBi (azimuth 45 deg., elevation 6 deg.)

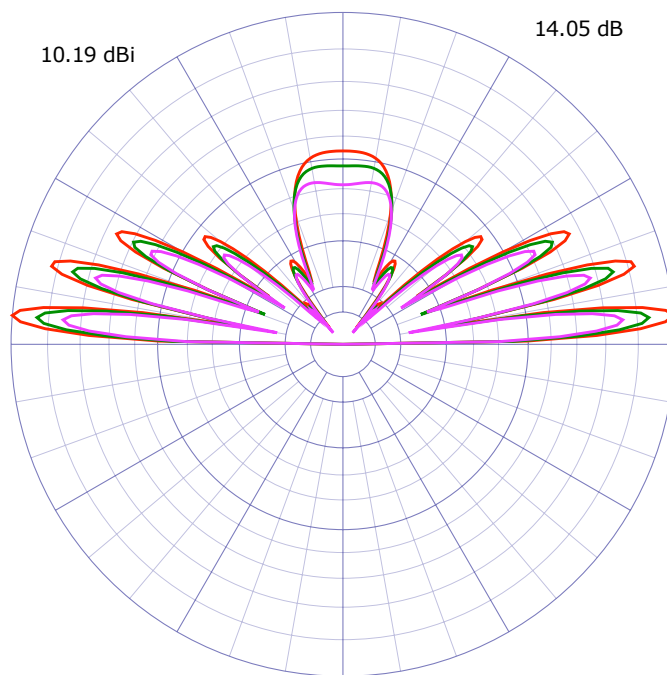
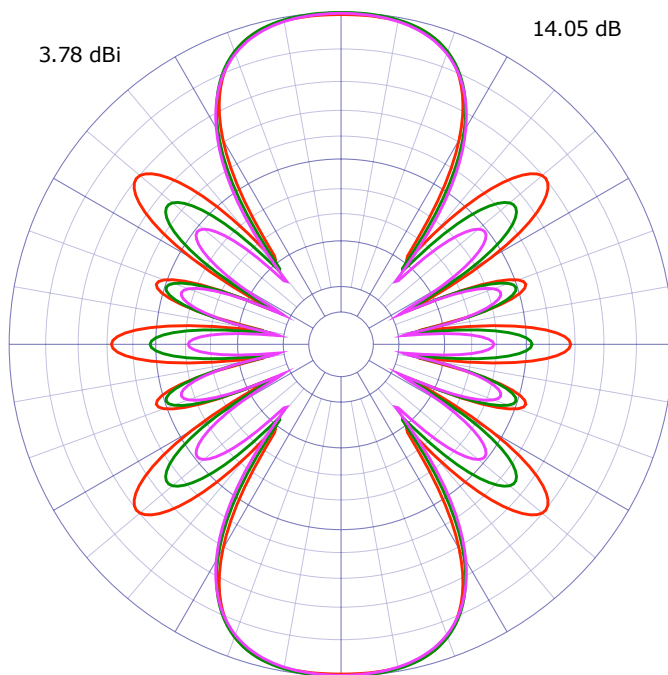
Front-to-back ratio: 0.00 dB (elevation 6 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8247 (0.837 dB)

Compute time: 0.09 sec



----- 2017-02-05 00:30 ---- (nec2c) -----

Frequency 21.000 MHz

Frequency 21.225 MHz

Frequency 21.450 MHz

Feedpoint(1) - Z: (141.230 - i 212.010) I: (0.0022 + i 0.0033) VSWR(Zo=50 Ω): 9.4:1

Feedpoint(2) - Z: (140.170 - i 211.380) I: (0.0022 + i 0.0033) VSWR(Zo=50 Ω): 9.4:1

Feedpoint(1) - Z: (139.400 - i 82.377) I: (0.0053 + i 0.0031) VSWR(Zo=50 Ω): 3.9:1

Feedpoint(2) - Z: (139.050 - i 81.533) I: (0.0054 + i 0.0031) VSWR(Zo=50 Ω): 3.8:1

Feedpoint(1) - Z: (143.950 + i 37.913) I: (0.0065 - i 0.0017) VSWR(Zo=50 Ω): 3.1:1

Feedpoint(2) - Z: (143.780 + i 38.461) I: (0.0065 - i 0.0017) VSWR(Zo=50 Ω): 3.1:1

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

Directivity: 14.05 dB

Max gain: 13.01 dBi (azimuth 66 deg., elevation 4 deg.)

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

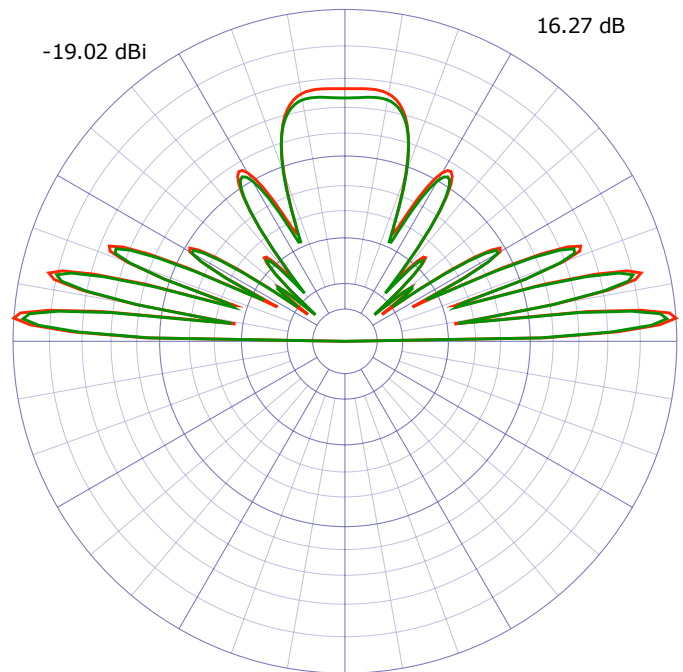
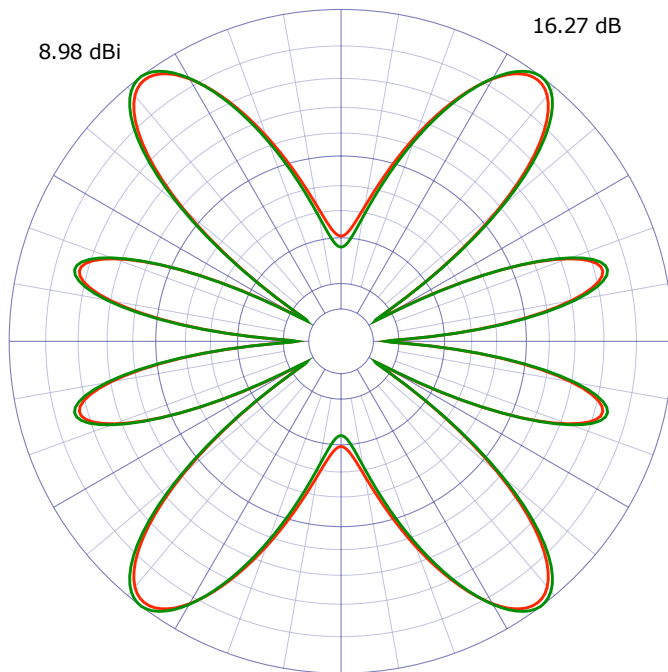
Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.7939 (1.002 dB)

Compute time: 0.12 sec





----- 2017-02-05 00:30 ---- (nec2c) -----

Frequency 24.890 MHz

Frequency 24.990 MHz

Feedpoint(1) - Z: (4408.800 + i 655.110) I: (0.0002 - i 0.0000) VSWR(Zo=50 Ω): 90.1:1

Feedpoint(2) - Z: (4439.600 + i 692.620) I: (0.0002 - i 0.0000) VSWR(Zo=50 Ω): 91.0:1

Feedpoint(1) - Z: (4522.600 - i 362.270) I: (0.0002 + i 0.0000) VSWR(Zo=50 Ω): 91.0:1

Feedpoint(2) - Z: (4571.900 - i 349.700) I: (0.0002 + i 0.0000) VSWR(Zo=50 Ω): 92.0:1

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

Directivity: 16.27 dB

Max gain: 15.51 dBi (azimuth 48 deg., elevation 4 deg.)

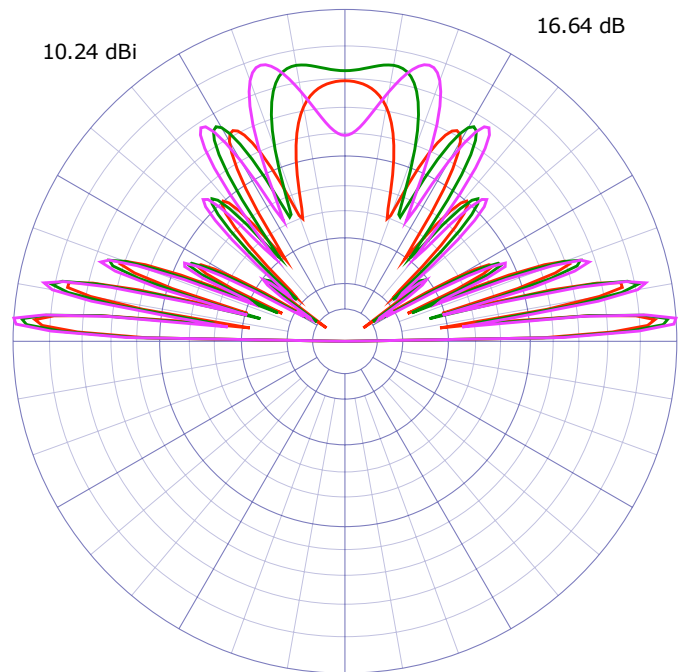
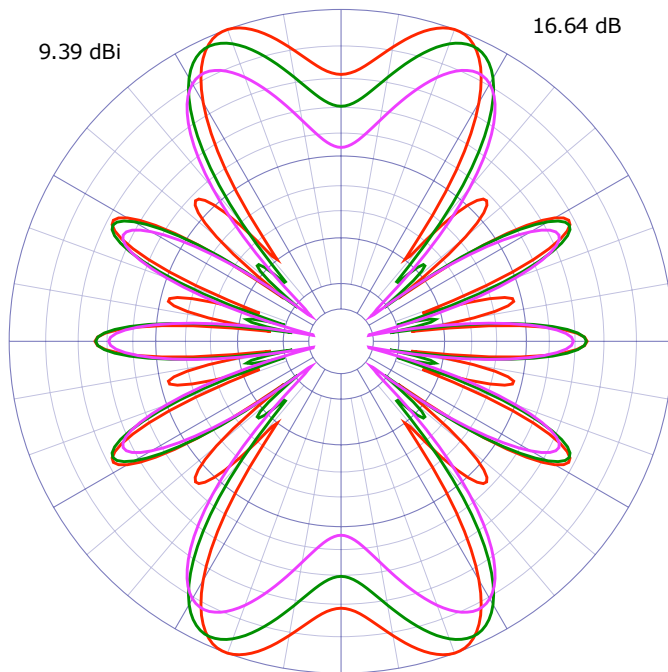
Front-to-back ratio: 0.00 dB (elevation 4 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8455 (0.729 dB)

Compute time: 0.09 sec



----- 2017-02-05 00:32 ---- (nec2c) -----

Frequency 28.000 MHz

Frequency 28.850 MHz

Frequency 29.700 MHz

Feedpoint(1) - Z: (161.500 + i 277.970) I: (0.0016 - i 0.0027) VSWR(Zo=50 Ω): 13.0:1

Feedpoint(2) - Z: (161.210 + i 278.450) I: (0.0016 - i 0.0027) VSWR(Zo=50 Ω): 13.1:1

Feedpoint(1) - Z: (266.970 + i 687.860) I: (0.0005 - i 0.0013) VSWR(Zo=50 Ω): 40.9:1

Feedpoint(2) - Z: (267.900 + i 688.370) I: (0.0005 - i 0.0013) VSWR(Zo=50 Ω): 40.9:1

Feedpoint(1) - Z: (558.980 + i 1209.500) I: (0.0003 - i 0.0007) VSWR(Zo=50 Ω): 63.6:1

Feedpoint(2) - Z: (559.560 + i 1207.700) I: (0.0003 - i 0.0007) VSWR(Zo=50 Ω): 63.4:1

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

Directivity: 16.64 dB

Max gain: 15.72 dBi (azimuth 63 deg., elevation 4 deg.)

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

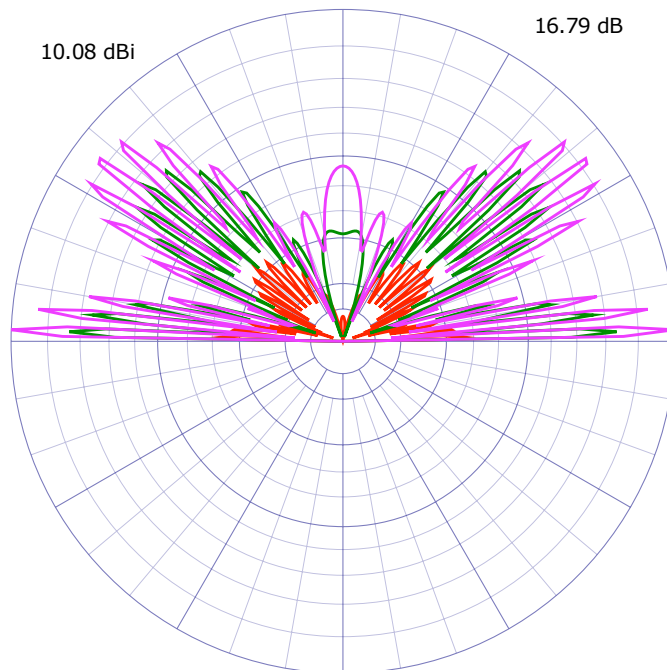
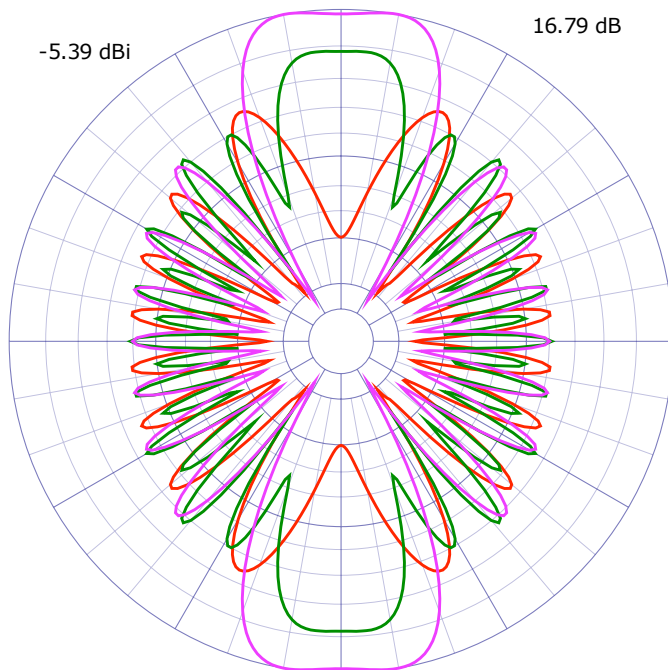
Front-to-back ratio: 0.00 dB (elevation of front lobe)

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8168 (0.879 dB)

Compute time: 0.13 sec





----- 2017-02-05 00:32 ---- (nec2c) -----

Frequency 50.000 MHz

Frequency 52.000 MHz

Frequency 54.000 MHz

Feedpoint(1) - Z: (2805.300 + i 186.310) I: (0.0004 - i 0.0000) VSWR(Zo=50 Ω): 56.4:1

Feedpoint(2) - Z: (2803.700 + i 185.460) I: (0.0004 - i 0.0000) VSWR(Zo=50 Ω): 56.3:1

Feedpoint(1) - Z: (216.370 + i 110.270) I: (0.0037 - i 0.0019) VSWR(Zo=50 Ω): 5.5:1

Feedpoint(2) - Z: (216.230 + i 110.500) I: (0.0037 - i 0.0019) VSWR(Zo=50 Ω): 5.5:1

Feedpoint(1) - Z: (321.800 + i 901.350) I: (0.0004 - i 0.0010) VSWR(Zo=50 Ω): 57.1:1

Feedpoint(2) - Z: (321.920 + i 900.770) I: (0.0004 - i 0.0010) VSWR(Zo=50 Ω): 57.0:1

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

Directivity: 16.79 dB

Max gain: 14.87 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: 0.6483 (1.882 dB)

Compute time: 0.13 sec