

----- 2017-02-04 23:42 ---- (nec2c) -----

Frequency 1.800 MHz

Frequency 1.900 MHz

Frequency 2.000 MHz

Feedpoint(1) - Z: (15.555 + i 663.780) I: (0.0000 - i 0.0015) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(1) - Z: (28.801 + i 901.160) I: (0.0000 - i 0.0011) VSWR(Zo=50 Ω): 99.0:1

Feedpoint(1) - Z: (61.478 + i 1280.900) I: (0.0000 - i 0.0008) VSWR(Zo=50 Ω): 99.0:1

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

Directivity: 6.83 dB

Max gain: 8.04 dBi (azimuth 180 deg., elevation 50 deg.)

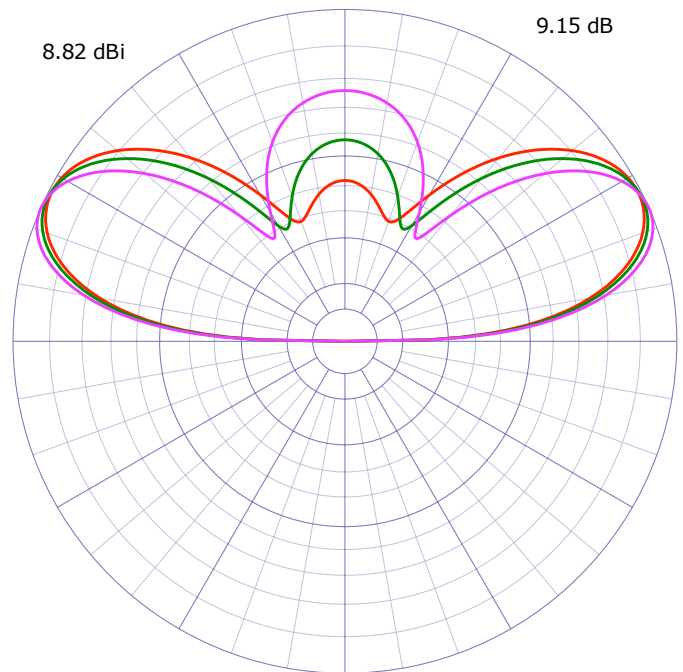
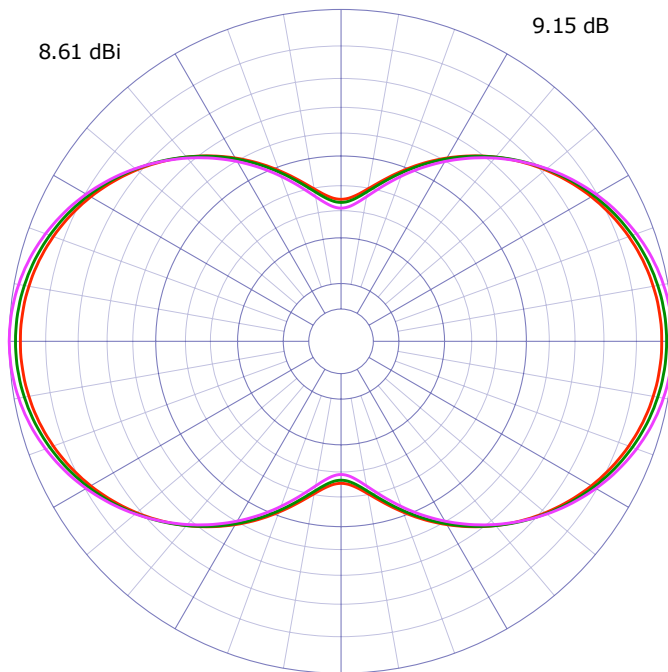
Front-to-back ratio: 0.00 dB (elevation 52 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 1.3013 (1.144 dB)

Compute time: 0.43 sec



----- 2017-02-04 23:43 ---- (nec2c) -----

Frequency 3.500 MHz

Frequency 3.700 MHz

Frequency 4.000 MHz

Feedpoint(1) - Z: (105.760 + i 314.070) I: (0.0010 - i 0.0029) VSWR($Z_0=50\ \Omega$): 21.2:1

Feedpoint(1) - Z: (187.730 + i 620.220) I: (0.0004 - i 0.0015) VSWR($Z_0=50\ \Omega$): 45.0:1

Feedpoint(1) - Z: (993.080 + i 1609.300) I: (0.0003 - i 0.0005) VSWR($Z_0=50\ \Omega$): 72.1:1

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

Directivity: 9.15 dB

Max gain: 8.82 dBi (azimuth 180 deg., elevation 23 deg.)

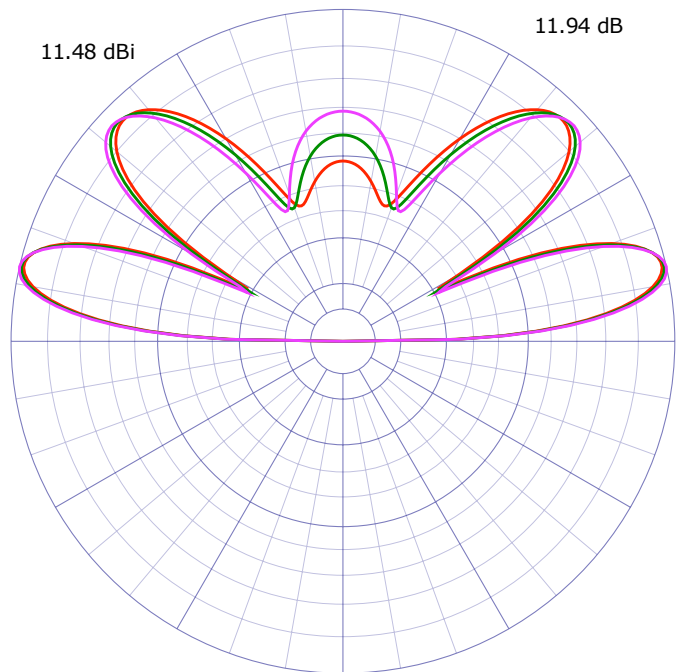
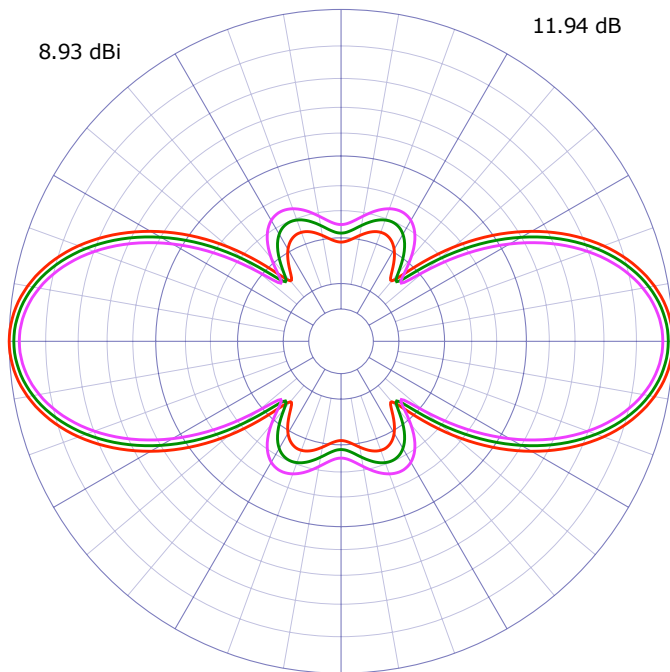
Front-to-back ratio: 0.00 dB (elevation 24 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9009 (0.453 dB)

Compute time: 0.50 sec



----- 2017-02-04 23:43 ---- (nec2c) -----

Frequency 7.000 MHz

Frequency 7.150 MHz

Frequency 7.300 MHz

Feedpoint(1) - Z: (183.730 - i 901.090) I: (0.0002 + i 0.0011) VSWR(Zo=50 Ω): 92.3:1

Feedpoint(1) - Z: (110.850 - i 609.070) I: (0.0003 + i 0.0016) VSWR(Zo=50 Ω): 69.6:1

Feedpoint(1) - Z: (77.982 - i 408.360) I: (0.0005 + i 0.0024) VSWR(Zo=50 Ω): 44.9:1

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

Directivity: 11.94 dB

Max gain: 11.48 dBi (azimuth 180 deg., elevation 13 deg.)

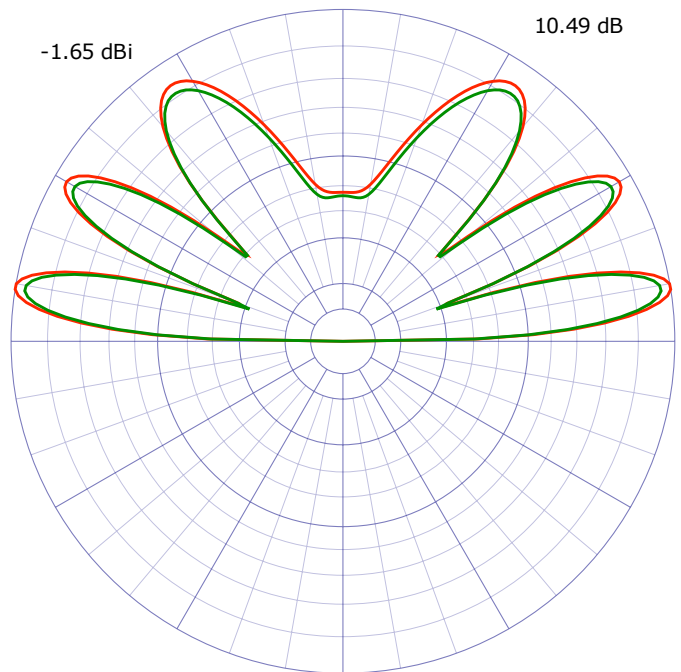
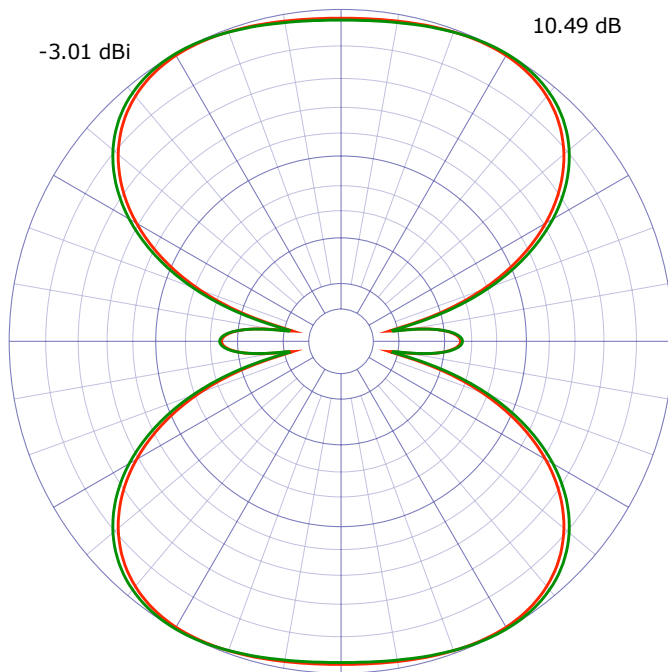
Front-to-back ratio: 0.00 dB (elevation 13 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.8627 (0.642 dB)

Compute time: 0.23 sec



----- 2017-02-04 23:44 ---- (nec2c) -----

Frequency 10.100 MHz

Frequency 10.150 MHz

Feedpoint(1) - Z: (182.450 + i 385.670) I: (0.0010 - i 0.0021) VSWR($Z_0=50\ \Omega$): 20.2:1

Feedpoint(1) - Z: (204.300 + i 450.510) I: (0.0008 - i 0.0018) VSWR($Z_0=50\ \Omega$): 24.2:1

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

Directivity: 10.49 dB

Max gain: 10.32 dBi (azimuth 42 deg., elevation 10 deg.)

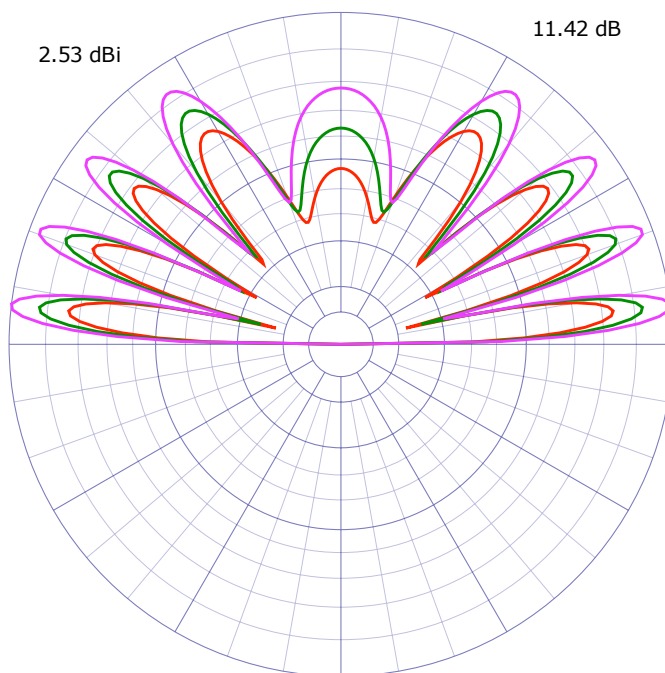
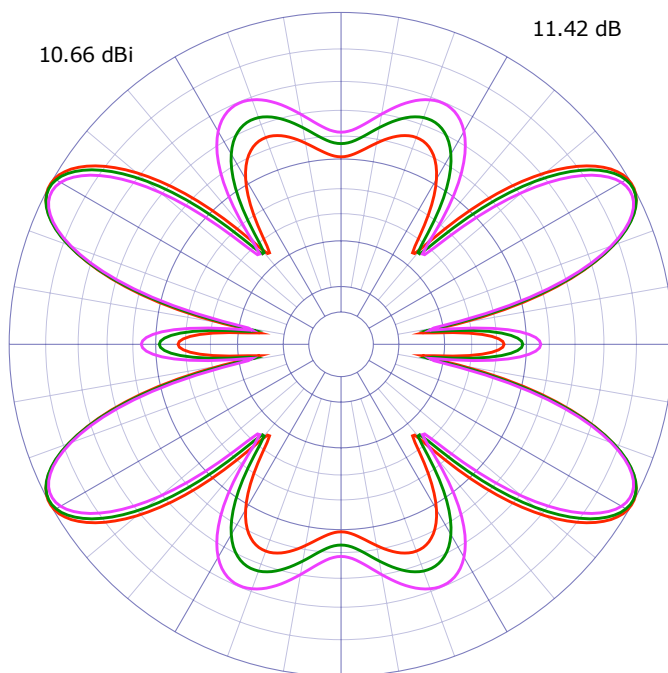
Front-to-back ratio: 0.00 dB (elevation 10 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9703 (0.131 dB)

Compute time: 0.15 sec



----- 2017-02-04 23:45 ---- (nec2c) -----

Frequency 14.000 MHz

Frequency 14.175 MHz

Frequency 14.350 MHz

Feedpoint(1) - Z: (82.376 - i 267.450) I: (0.0011 + i 0.0034) VSWR(Zo=50 Ω): 19.6:1

Feedpoint(1) - Z: (70.584 - i 102.970) I: (0.0045 + i 0.0066) VSWR(Zo=50 Ω): 4.9:1

Feedpoint(1) - Z: (70.175 + i 52.015) I: (0.0092 - i 0.0068) VSWR(Zo=50 Ω): 2.5:1

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

Directivity: 11.42 dB

Max gain: 11.36 dBi (azimuth 27 deg., elevation 6 deg.)

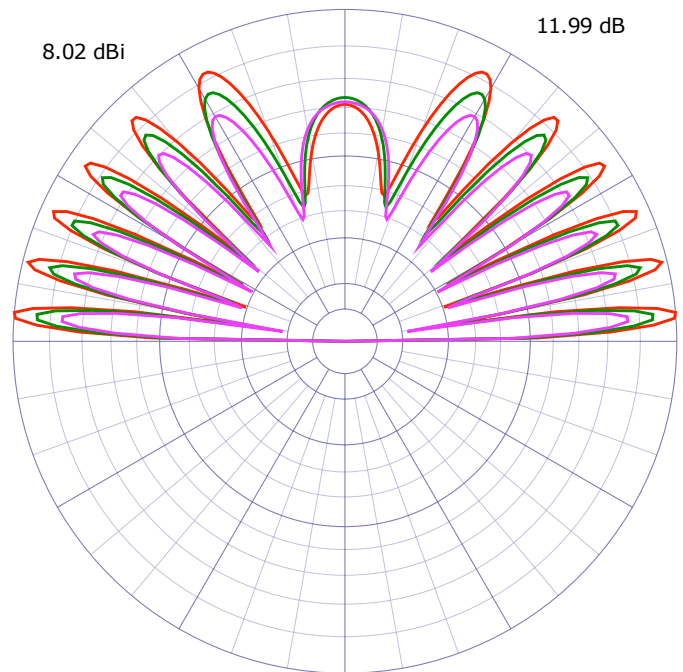
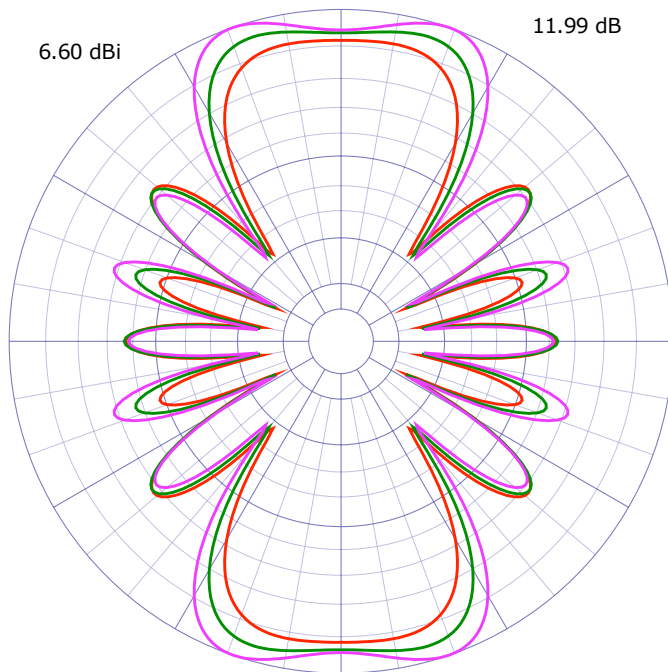
Front-to-back ratio: 0.00 dB (elevation 6 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9953 (0.020 dB)

Compute time: 0.18 sec



----- 2017-02-04 23:46 ---- (nec2c) -----

Frequency 21.000 MHz

Frequency 21.225 MHz

Frequency 21.450 MHz

Feedpoint(1) - Z: (98.721 + i 158.570) I: (0.0028 - i 0.0045) VSWR(Zo=50 Ω): 7.4:1

Feedpoint(1) - Z: (152.570 + i 414.650) I: (0.0008 - i 0.0021) VSWR(Zo=50 Ω): 25.9:1

Feedpoint(1) - Z: (347.120 + i 813.690) I: (0.0004 - i 0.0010) VSWR(Zo=50 Ω): 45.2:1

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

Directivity: 11.99 dB

Max gain: 11.63 dBi (azimuth 66 deg., elevation 4 deg.)

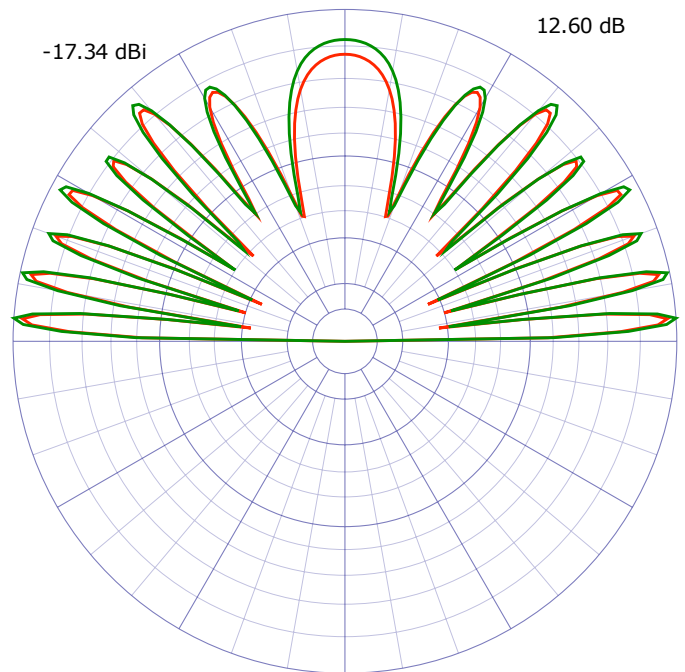
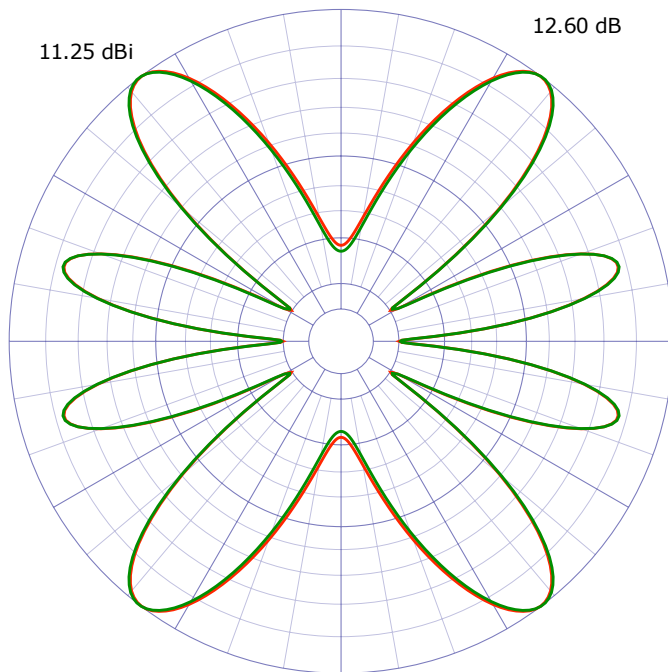
Front-to-back ratio: 0.00 dB (elevation 4 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9286 (0.322 dB)

Compute time: 0.19 sec



----- 2017-02-04 23:51 ---- (nec2c) -----

Frequency 24.890 MHz

Frequency 24.990 MHz

Feedpoint(1) - Z: (141.210 - i 204.640) I: (0.0023 + i 0.0033) VSWR(Zo=50 Ω): 9.0:1

Feedpoint(1) - Z: (128.710 - i 124.810) I: (0.0040 + i 0.0039) VSWR(Zo=50 Ω): 5.2:1

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

Directivity: 12.60 dB

Max gain: 12.27 dBi (azimuth 48 deg., elevation 4 deg.)

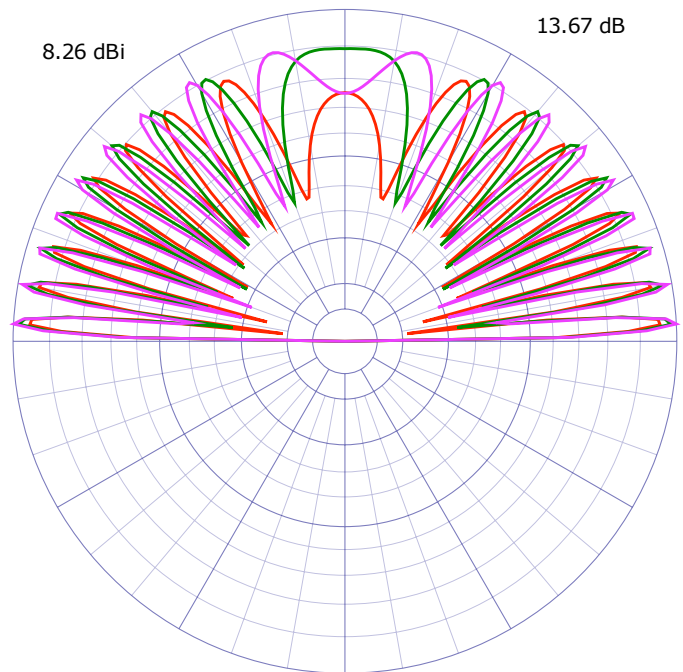
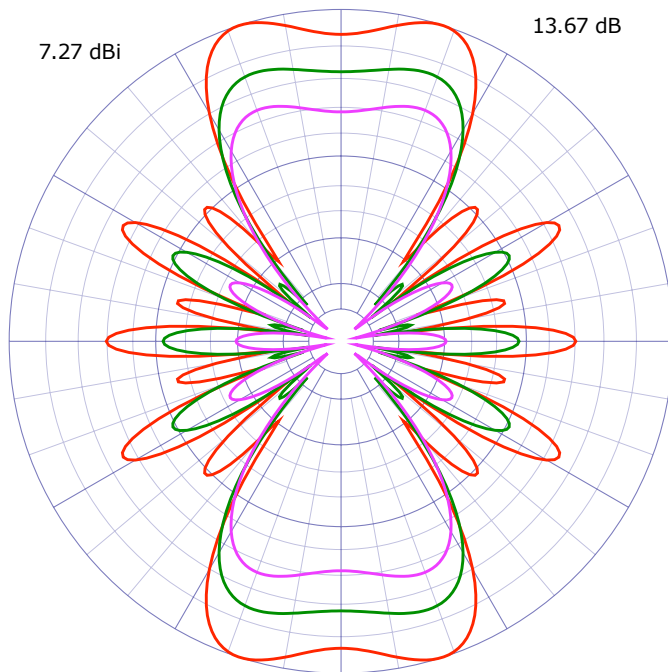
Front-to-back ratio: 0.00 dB (elevation 4 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9351 (0.292 dB)

Compute time: 0.13 sec



----- 2017-02-04 23:52 ---- (nec2c) -----

Frequency 28.000 MHz

Frequency 28.850 MHz

Frequency 29.700 MHz

Feedpoint(1) - Z: (479.620 + i 807.340) I: (0.0005 - i 0.0009) VSWR(Zo=50 Ω): 36.8:1

Feedpoint(1) - Z: (334.370 - i 505.470) I: (0.0009 + i 0.0014) VSWR(Zo=50 Ω): 22.1:1

Feedpoint(1) - Z: (214.450 + i 252.830) I: (0.0020 - i 0.0023) VSWR(Zo=50 Ω): 10.4:1

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

Directivity: 13.67 dB

Max gain: 13.38 dBi (azimuth 63 deg., elevation 4 deg.)

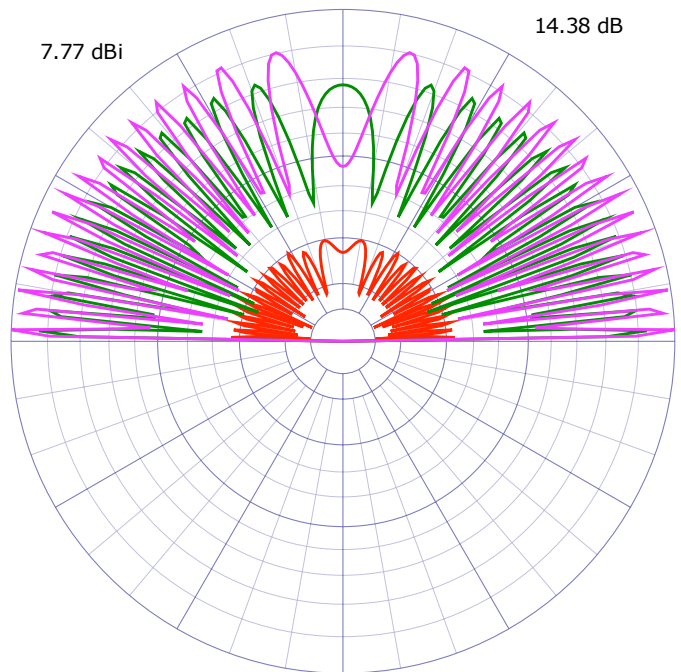
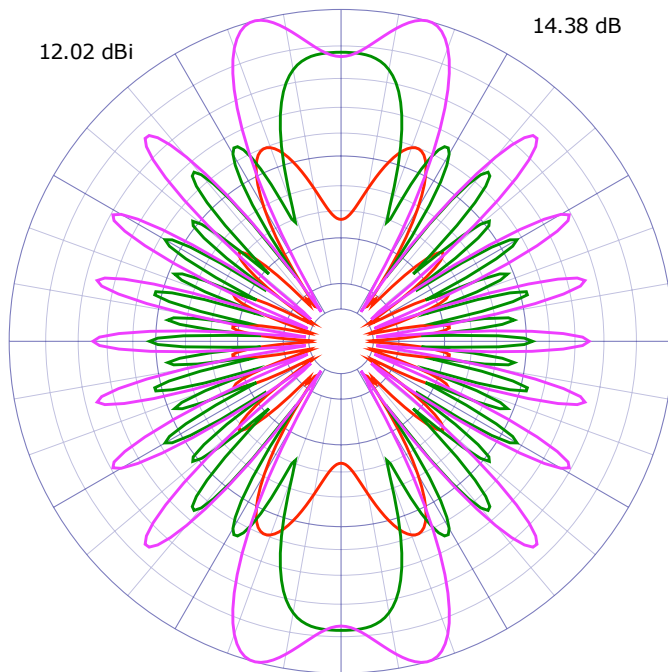
Front-to-back ratio: 0.00 dB (elevation 4 deg)

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

Front-to-rear ratio: 0.00 dB

Average Gain: 0.9425 (0.257 dB)

Compute time: 0.17 sec



----- 2017-02-04 23:53 ---- (nec2c) -----

Frequency 50.000 MHz

Frequency 52.000 MHz

Frequency 54.000 MHz

Feedpoint(1) - Z: (548.190 + i 900.860) I: (0.0005 - i 0.0008) VSWR(Zo=50 Ω): 40.6:1

Feedpoint(1) - Z: (270.930 + i 565.780) I: (0.0007 - i 0.0014) VSWR(Zo=50 Ω): 29.2:1

Feedpoint(1) - Z: (370.780 + i 405.730) I: (0.0012 - i 0.0013) VSWR(Zo=50 Ω): 16.4:1

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

Directivity: 14.38 dB

Max gain: 14.19 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: 0.9647 (0.156 dB)

Compute time: 0.17 sec