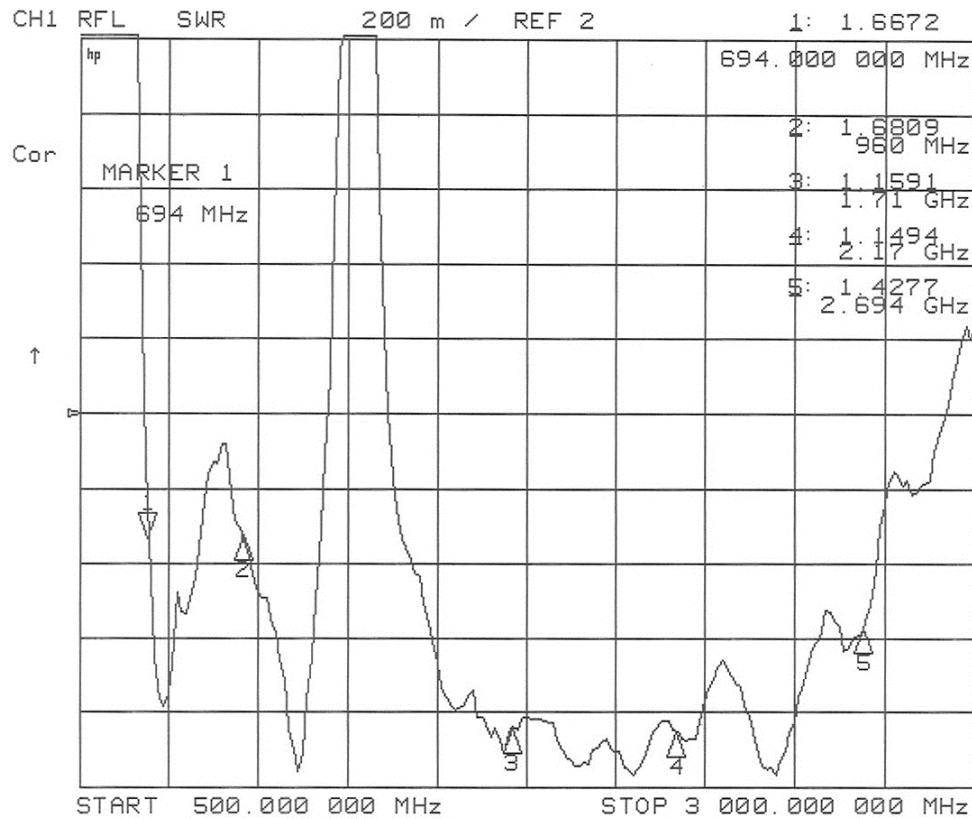


LTB Series Antenna

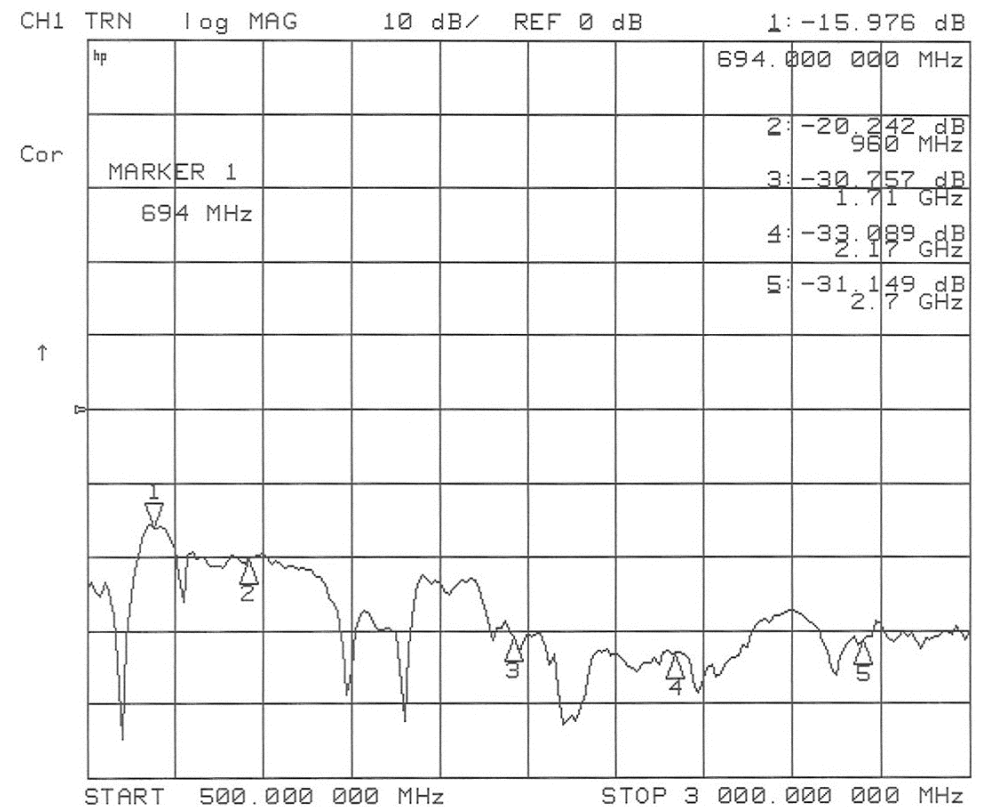
Multi-band 4G/LTE 2x MIMO Antenna

Dual 694-960MHz/1710-2700 MHz and GPS 1575MHz

VSWR



ISOLATION

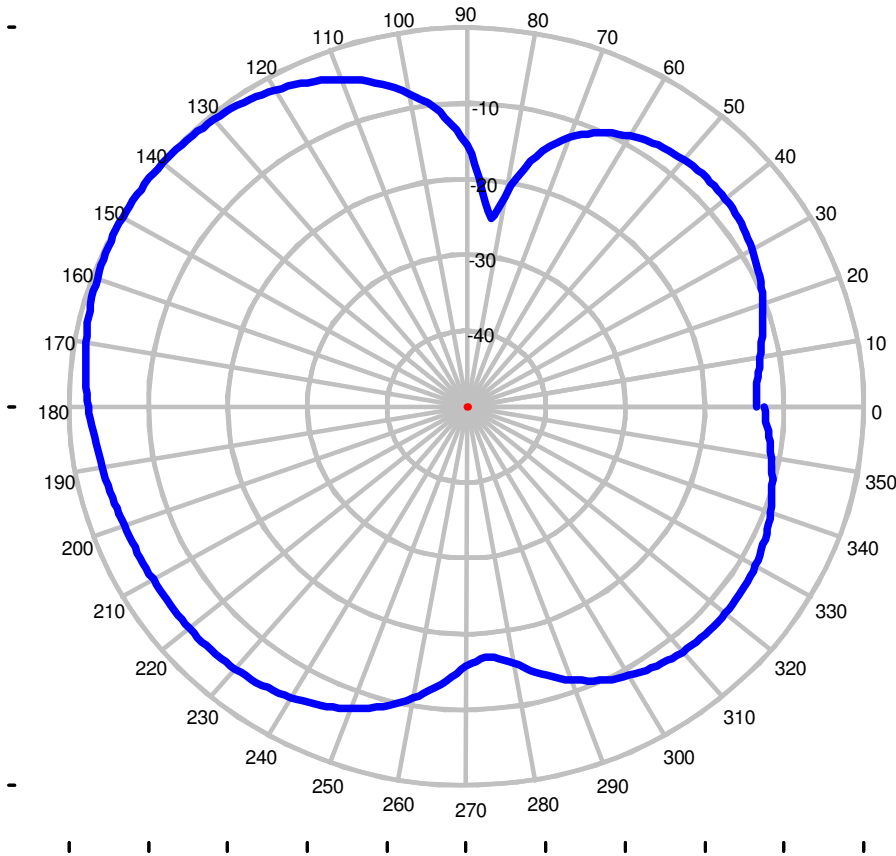


*MEASUREMENTS TESTED WHILE ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE

LTB Series Antenna

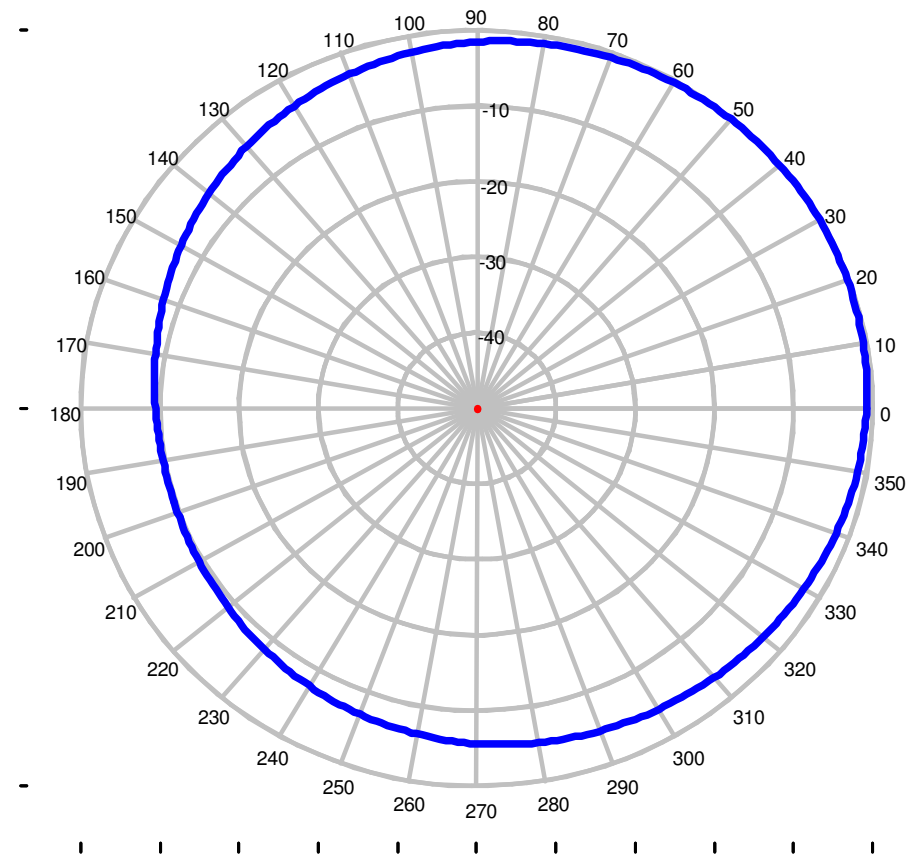
Multi-band 4G/LTE 2x MIMO Antenna

694 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:22:52 AM
Plot Scale: 10 dB/Div
Beamwidth: 70.46 Degrees

Frequency: 694 MHz
MAX dB= 2.1320 @ 143 Deg.
MIN dB= -22.82 @ 83 Deg.
dB Min/Max Delta = 24.961 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:36:04 AM
Plot Scale: 10 dB/Div
Beamwidth: 152.1 Degrees

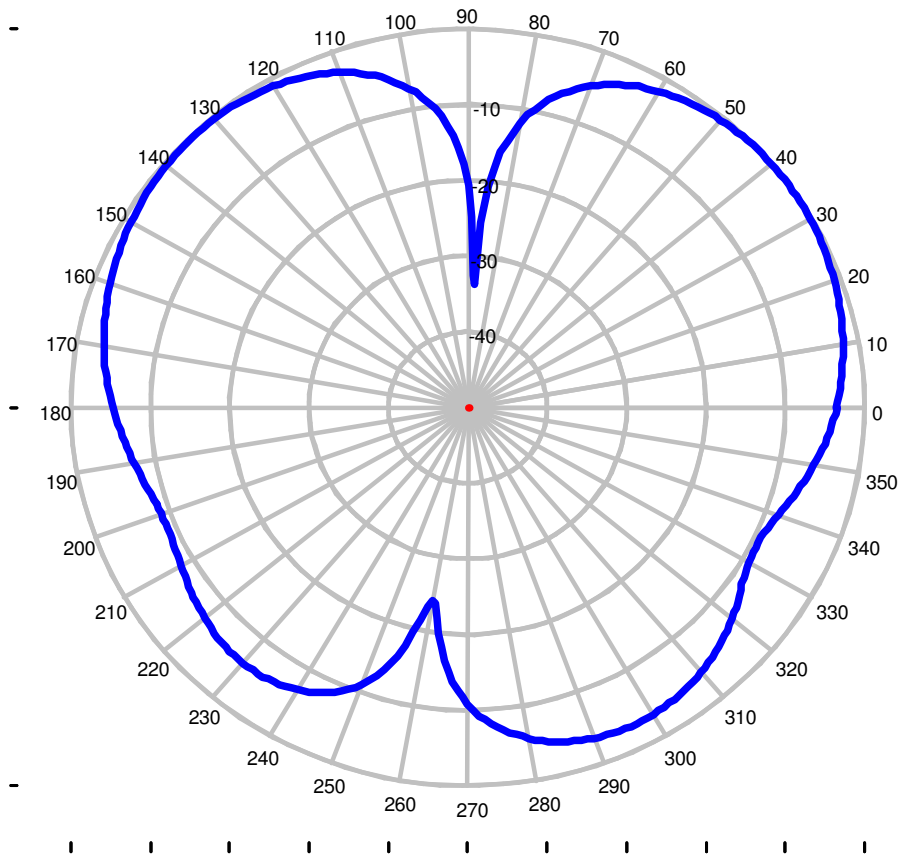
Frequency: 694 MHz
MAX dB= 2.0373 @ 38 Deg.
MIN dB= -7.827 @ 196 Deg.
dB Min/Max Delta = 9.8647 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

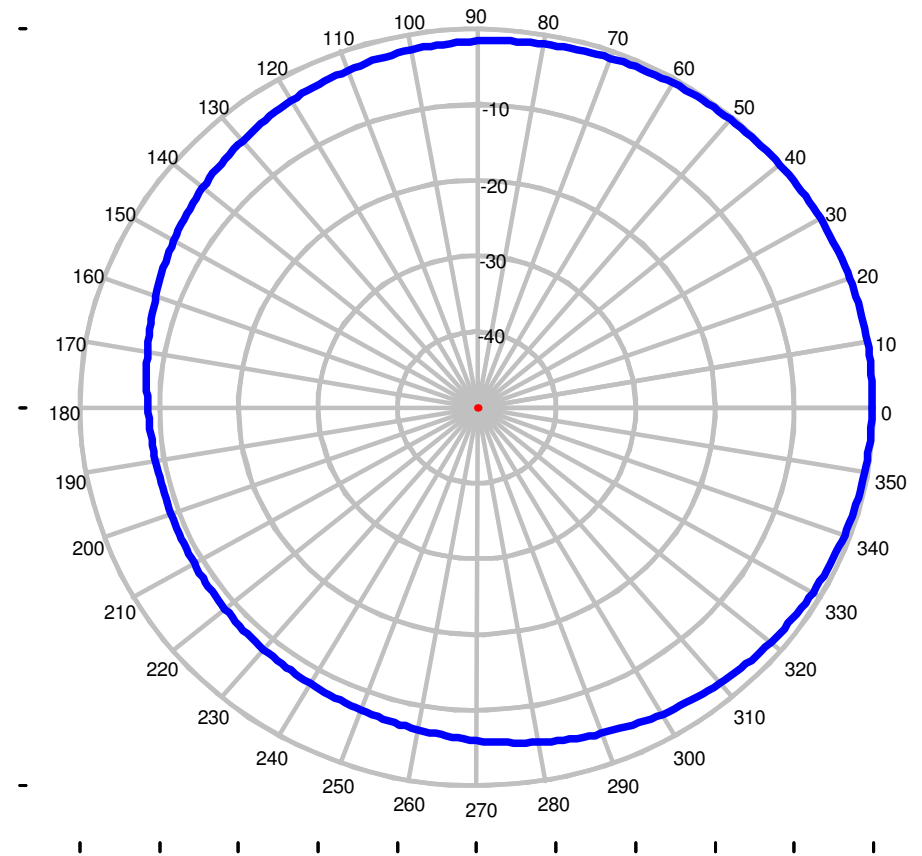
Multi-band 4G/LTE 2x MIMO Antenna

850 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:11:24 AM
Plot Scale: 10 dB/Div
Beamwidth: 61.36 Degrees

Frequency: 864.51 MHz
MAX dB= 2.1162 @ 38 Deg.
MIN dB= -31.63 @ 87 Deg.
dB Min/Max Delta = 33.754 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:37:07 AM
Plot Scale: 10 dB/Div
Beamwidth: 173.2 Degrees

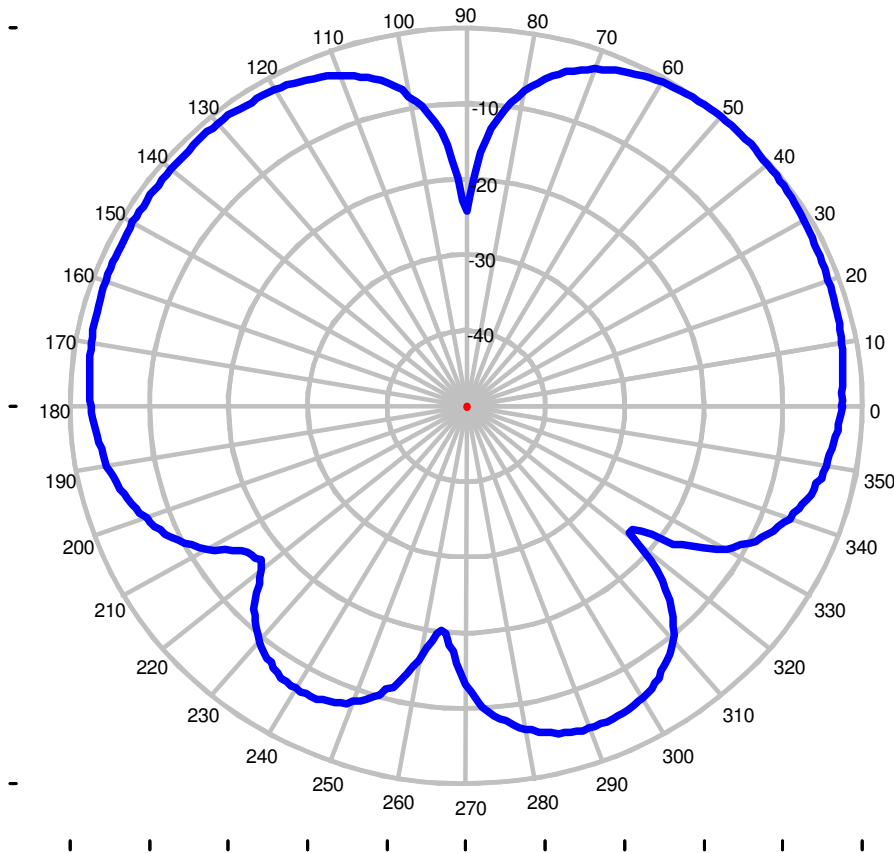
Frequency: 864.51 MHz
MAX dB= 2.2521 @ 21 Deg.
MIN dB= -6.786 @ 195 Deg.
dB Min/Max Delta = 9.0390 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

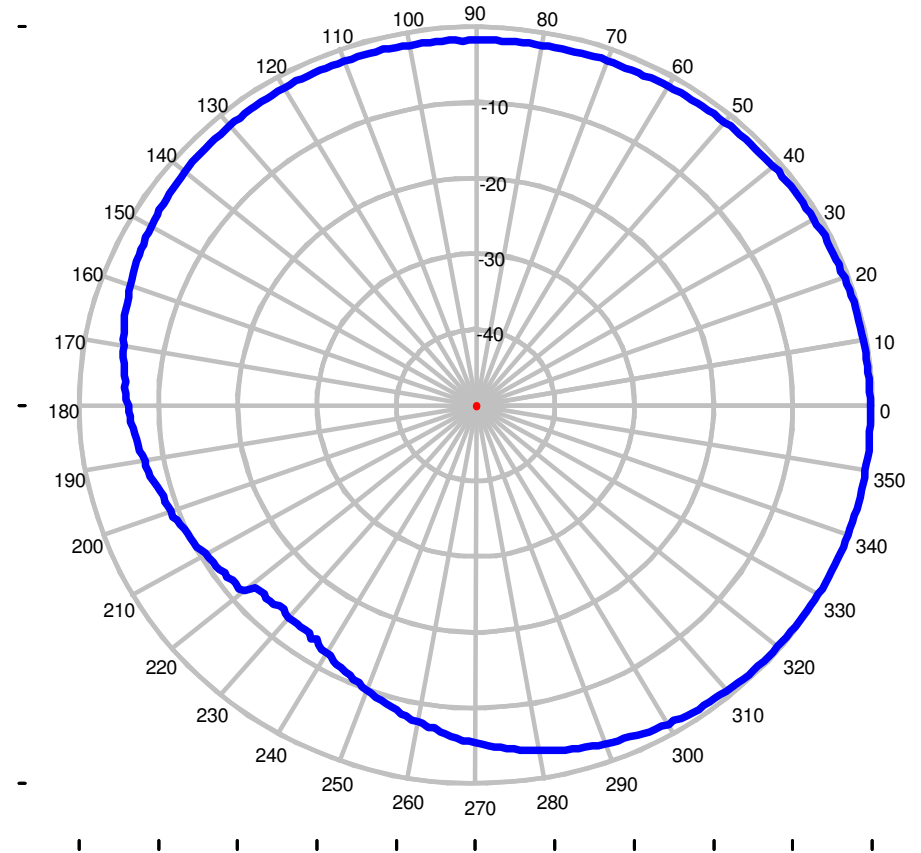
Multi-band 4G/LTE 2x MIMO Antenna

960 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:13:03 AM
Plot Scale: 10 dB/Div
Beamwidth: 75.19 Degrees

Frequency: 954.78 MHz
MAX dB= 5.5315 @ 52 Deg.
MIN dB= -18.60 @ 90 Deg.
dB Min/Max Delta = 24.134 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:37:49 AM
Plot Scale: 10 dB/Div
Beamwidth: 227.7 Degrees

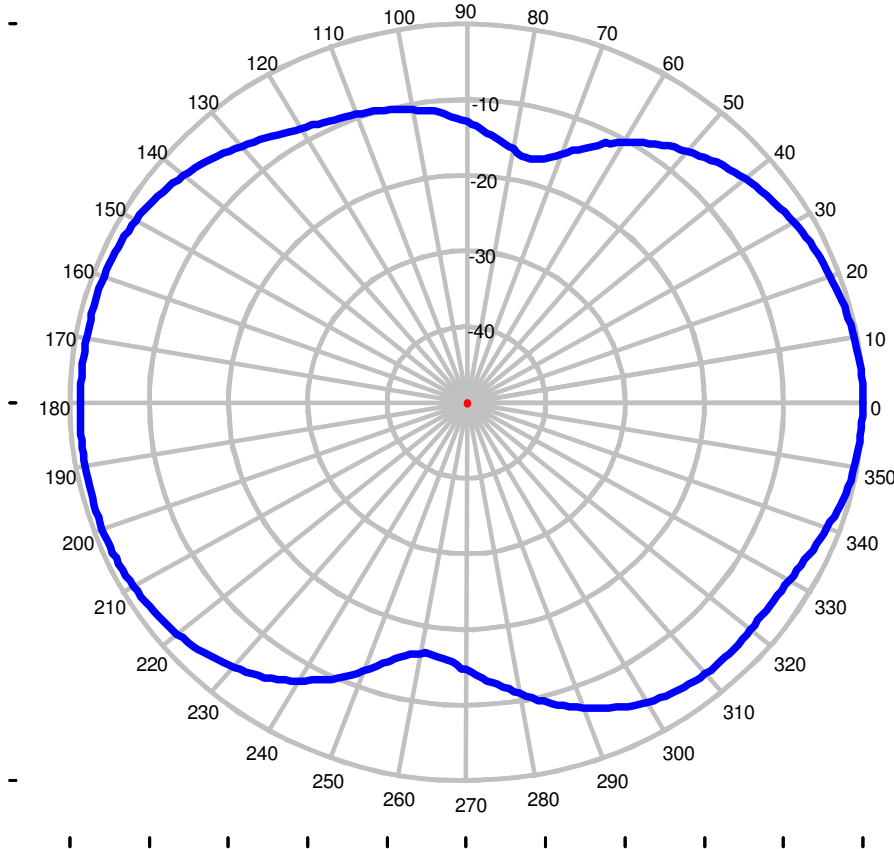
Frequency: 954.78 MHz
MAX dB= 2.9282 @ 336 Deg.
MIN dB= -10.80 @ 228 Deg.
dB Min/Max Delta = 13.737 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

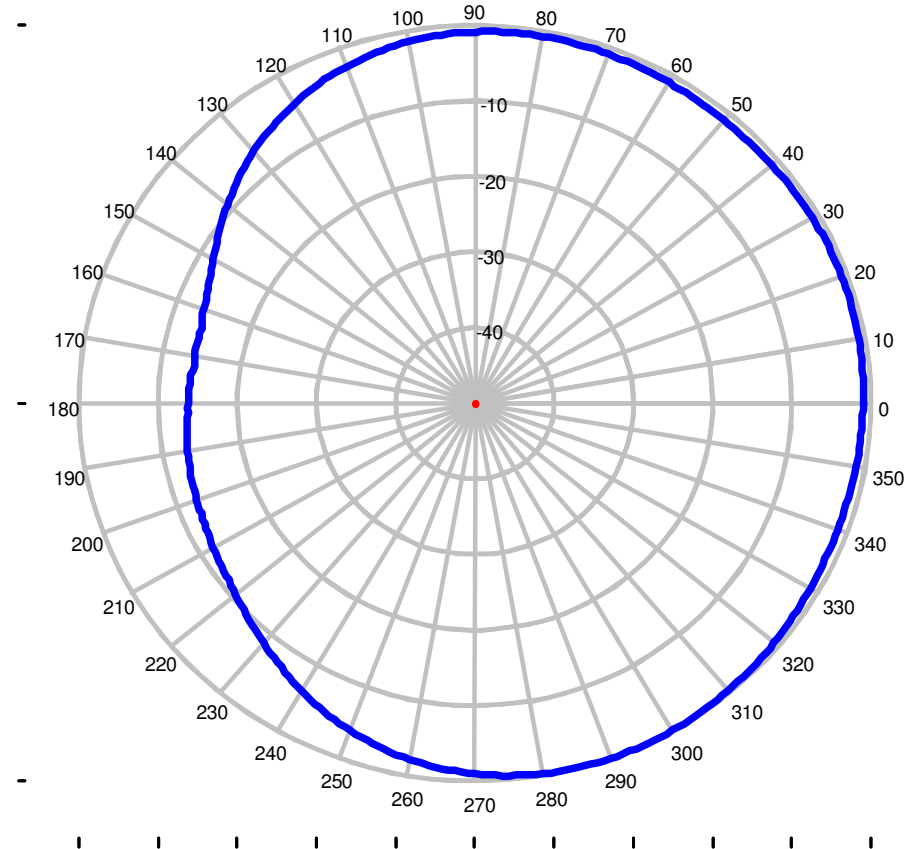
Multi-band 4G/LTE 2x MIMO Antenna

1710 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:27:26 AM
Plot Scale: 10 dB/Div
Beamwidth: 63.55 Degrees

Frequency: 1717.06 MHz
MAX dB= 3.2514 @ 1 Deg.
MIN dB= -13.63 @ 76 Deg.
dB Min/Max Delta = 16.888 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:43:03 AM
Plot Scale: 10 dB/Div
Beamwidth: 217.7 Degrees

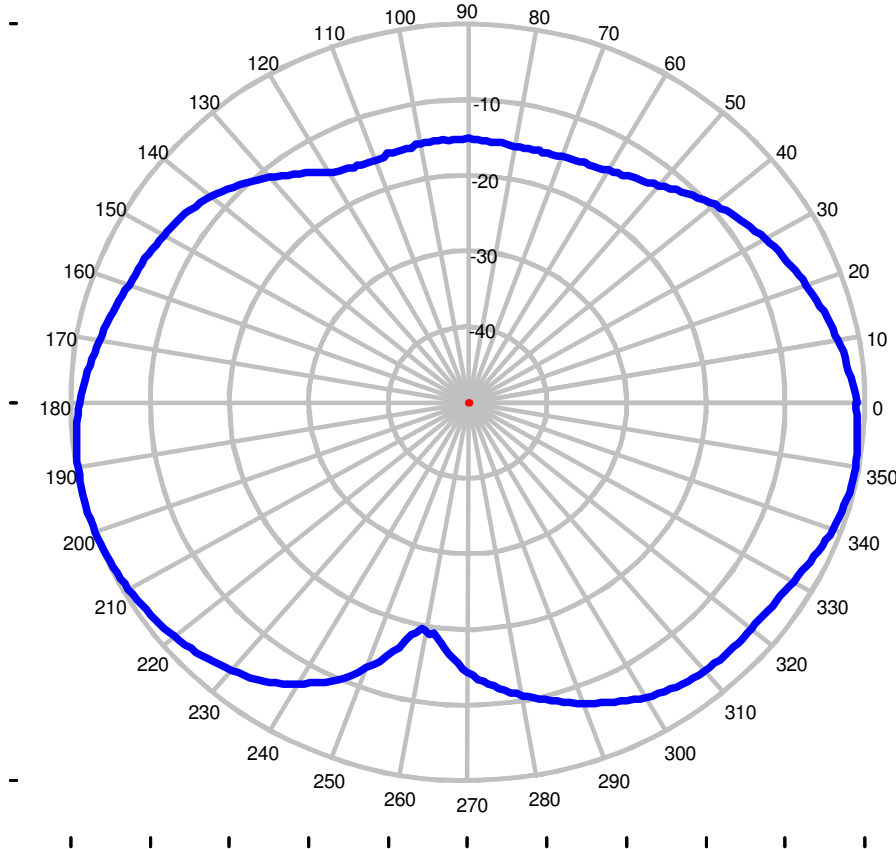
Frequency: 1717.06 MHz
MAX dB= 4.1447 @ 298 Deg.
MIN dB= -10.10 @ 172 Deg.
dB Min/Max Delta = 14.252 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

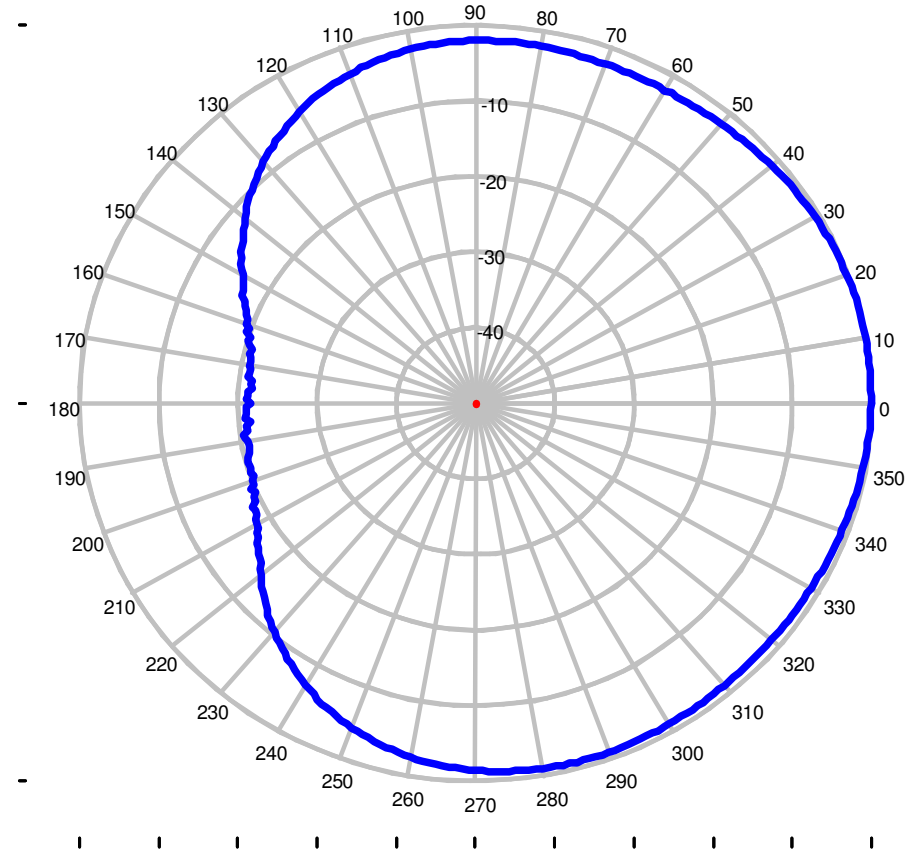
Multi-band 4G/LTE 2x MIMO Antenna

1850 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:33:44 AM
Plot Scale: 10 dB/Div
Beamwidth: 56.98 Degrees

Frequency: 1847.45 MHz
MAX dB= 2.9335 @ 196 Deg.
MIN dB= -16.59 @ 259 Deg.
dB Min/Max Delta = 19.527 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:40:28 AM
Plot Scale: 10 dB/Div
Beamwidth: 208.6 Degrees

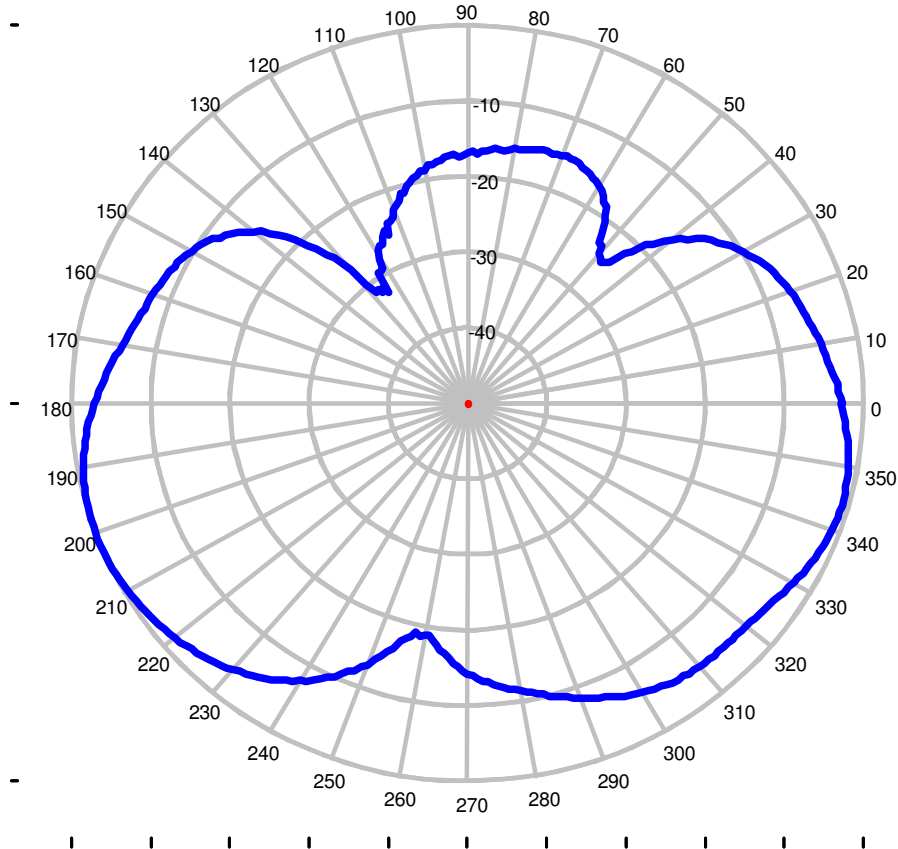
Frequency: 1847.45 MHz
MAX dB= 3.9384 @ 11 Deg.
MIN dB= -17.81 @ 176 Deg.
dB Min/Max Delta = 21.750 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

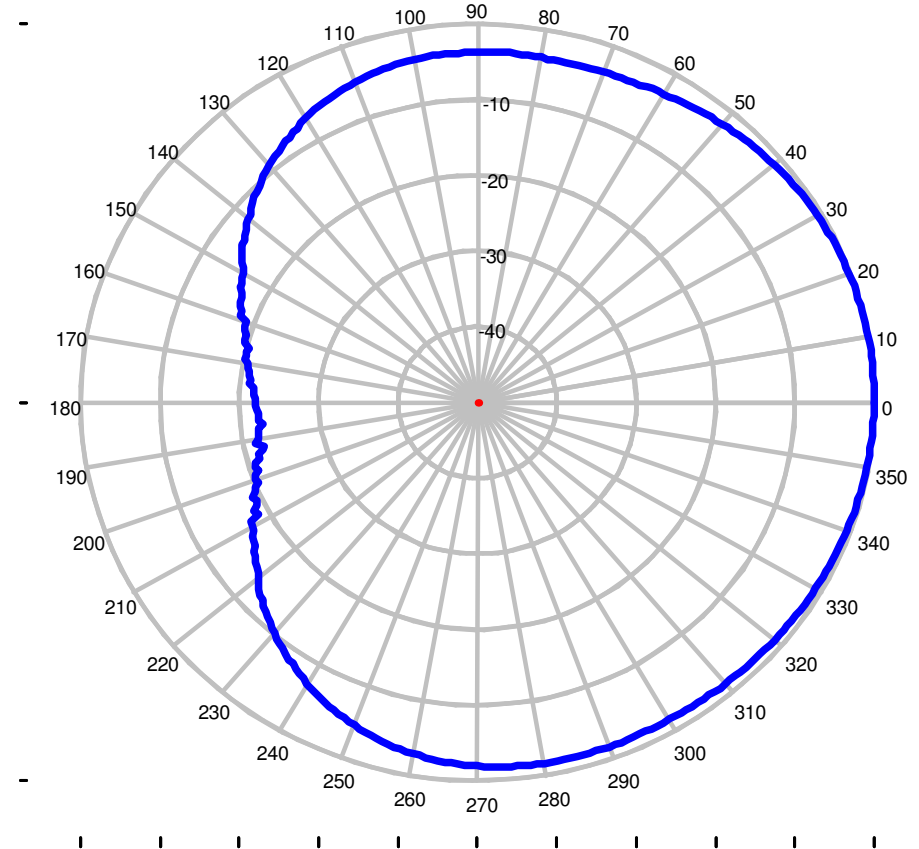
Multi-band 4G/LTE 2x MIMO Antenna

1920 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:31:59 AM
Plot Scale: 10 dB/Div
Beamwidth: 46.71 Degrees

Frequency: 1917.66 MHz
MAX dB= 2.7618 @ 201 Deg.
MIN dB= -29.54 @ 124 Deg.
dB Min/Max Delta = 32.303 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:39:48 AM
Plot Scale: 10 dB/Div
Beamwidth: 160.7 Degrees

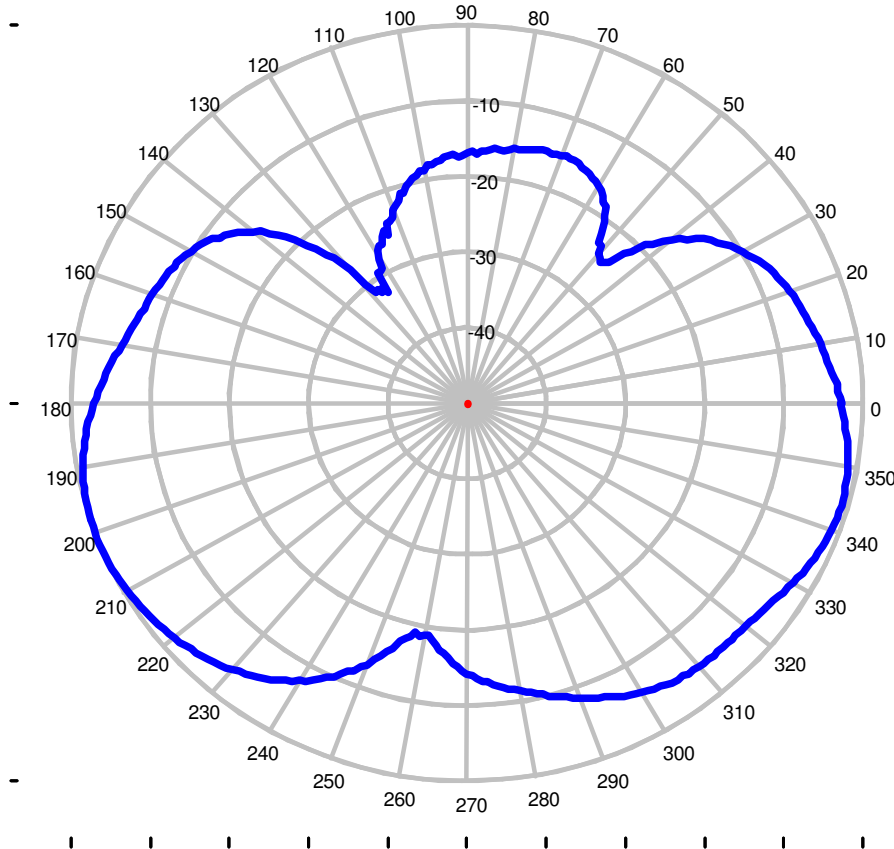
Frequency: 1917.66 MHz
MAX dB= 4.1735 @ 1 Deg.
MIN dB= -18.61 @ 186 Deg.
dB Min/Max Delta = 22.784 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

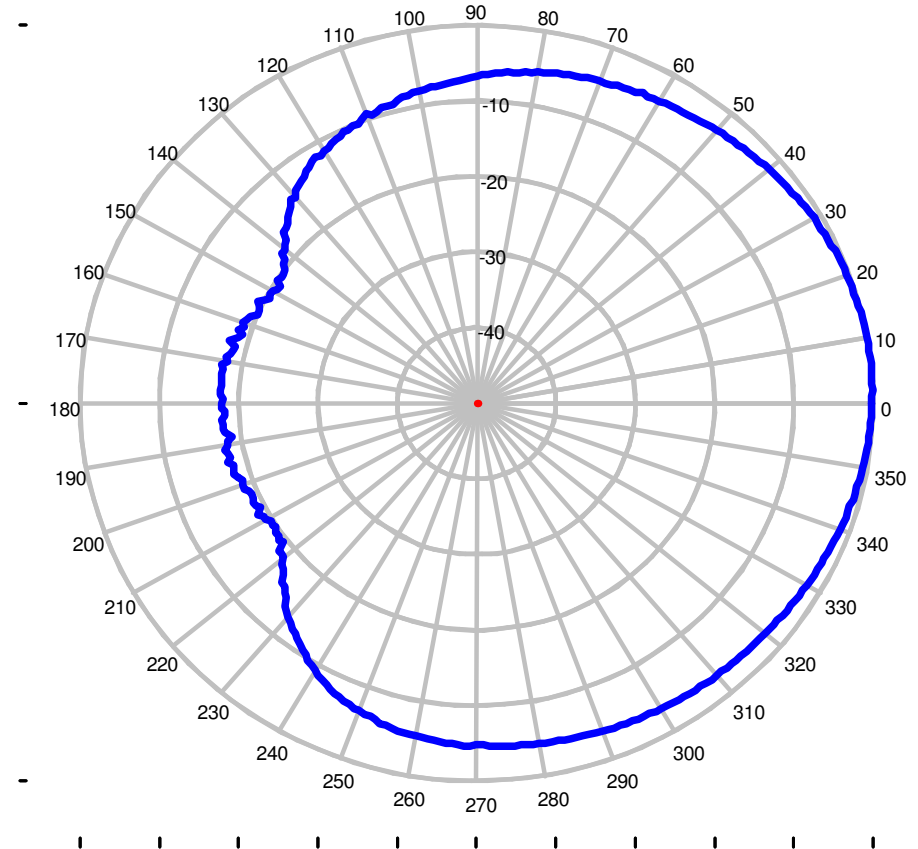
Multi-band 4G/LTE 2x MIMO Antenna

2170 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:31:59 AM
Plot Scale: 10 dB/Div
Beamwidth: 46.71 Degrees

Frequency: 1917.66 MHz
MAX dB= 2.7618 @ 201 Deg.
MIN dB= -29.54 @ 124 Deg.
dB Min/Max Delta = 32.303 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:39:02 AM
Plot Scale: 10 dB/Div
Beamwidth: 100.1 Degrees

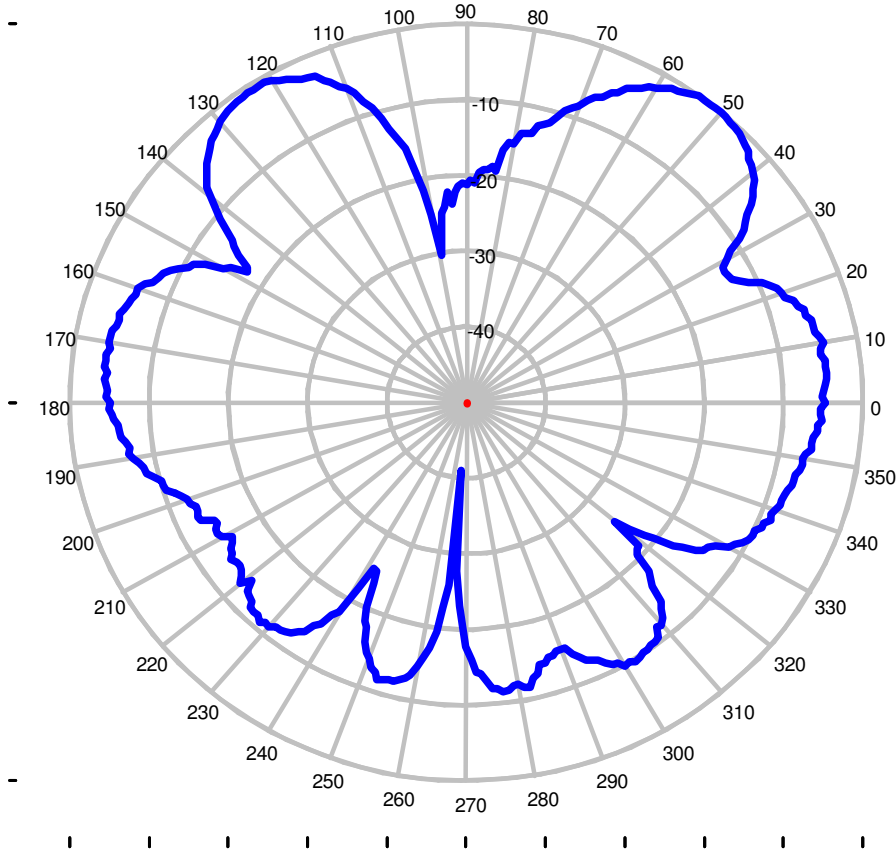
Frequency: 2168.41 MHz
MAX dB= 5.6783 @ 9 Deg.
MIN dB= -15.17 @ 148 Deg.
dB Min/Max Delta = 20.853 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

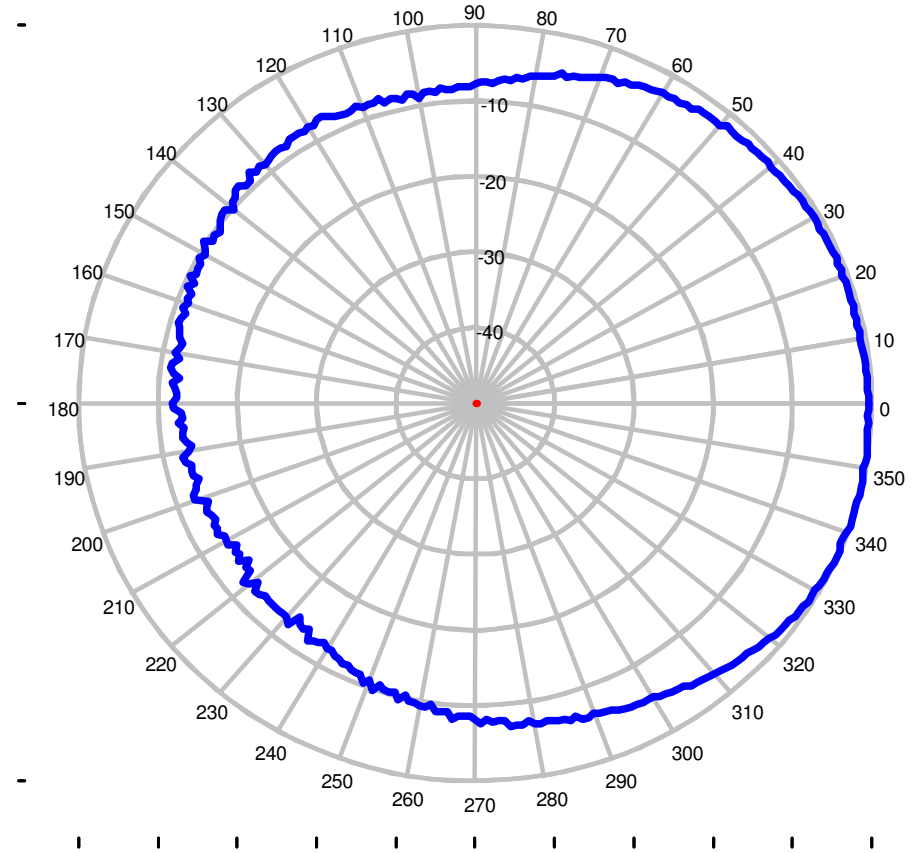
Multi-band 4G/LTE 2x MIMO Antenna

2500 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:15:03 AM
Plot Scale: 10 dB/Div
Beamwidth: 22.60 Degrees

Frequency: 2499.4 MHz
MAX dB= 6.7622 @ 50 Deg.
MIN dB= -34.26 @ 266 Deg.
dB Min/Max Delta = 41.022 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:41:24 AM
Plot Scale: 10 dB/Div
Beamwidth: 110.0 Degrees

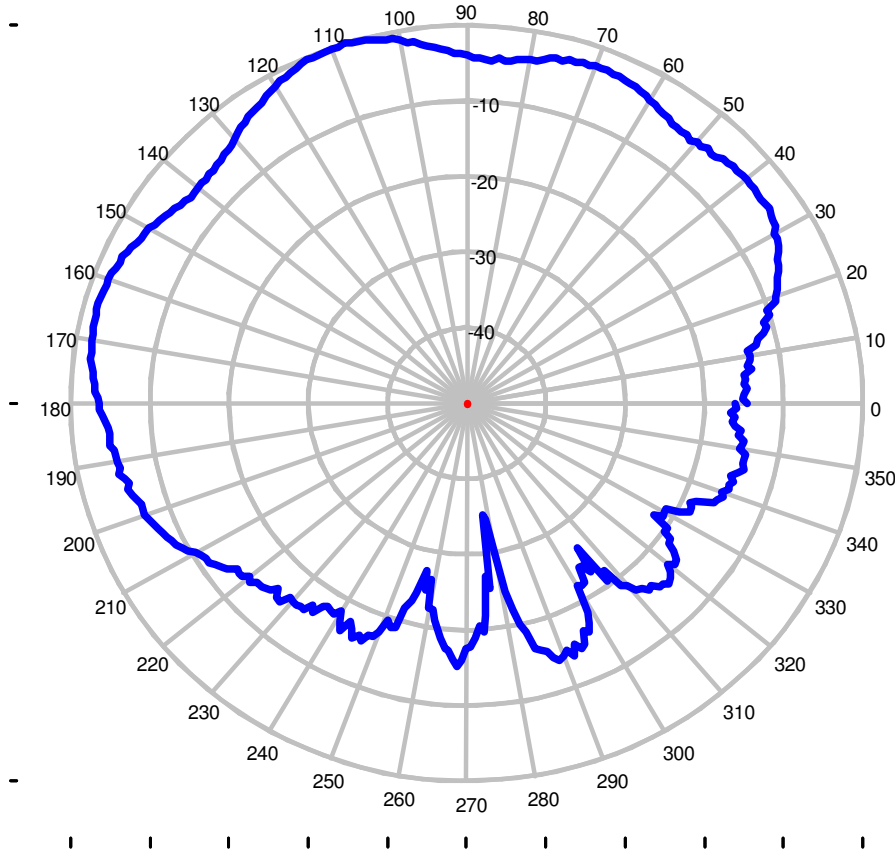
Frequency: 2499.4 MHz
MAX dB= 5.4831 @ 337 Deg.
MIN dB= -9.130 @ 216 Deg.
dB Min/Max Delta = 14.613 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON

LTB Series Antenna

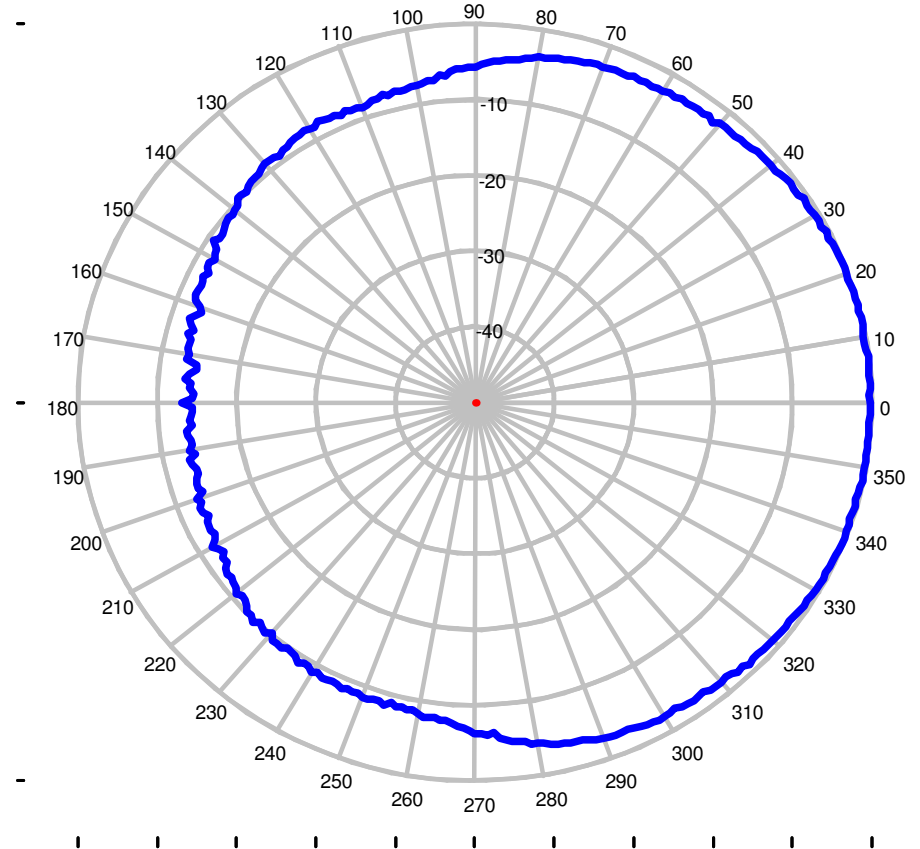
Multi-band 4G/LTE 2x MIMO Antenna

2700 MHz (single element)



Name: ELEVATION
Date/Time = 10/7/2015 10:24:04 AM
Plot Scale: 10 dB/Div
Beamwidth: 30.94 Degrees

Frequency: 2700 MHz
MAX dB= 4.3772 @ 108 Deg.
MIN dB= -30.77 @ 278 Deg.
dB Min/Max Delta = 35.157 dB



Name: AZIMUTH
Date/Time = 10/7/2015 10:42:05 AM
Plot Scale: 10 dB/Div
Beamwidth: 144.2 Degrees

Frequency: 2700 MHz
MAX dB= 3.6914 @ 348 Deg.
MIN dB= -11.04 @ 172 Deg.
dB Min/Max Delta = 14.734 dB

*PATTERNS MEASURED WITH ANTENNA MOUNTED TO 11"x6"x14" ELECTRICAL ENCLOSURE, AZIMUTH PATTERNS MEASURED AT HORIZON