Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

4G GSM / LTE / Wifi Gain Antenna

ANT-M4G3-SMA

Features

- Frequency Range
  - 690-960
  - 1710-2170
  - 2400-2700MHz
- Omni Directional 3 dBi Gain
- Rugged plastic finish IP65 Rated.
- Wall Mount Bracket
- 50ohm Impedance
- 3m RG58U with SMA Male
- Vertical Polarization
- V.S.W.R ≤2.5
- 270mm Long
- Operating Temp –30^{0}C to +70^{0}C

Applications

- 4G / LTE Applications
- GSM Applications
- WiFi

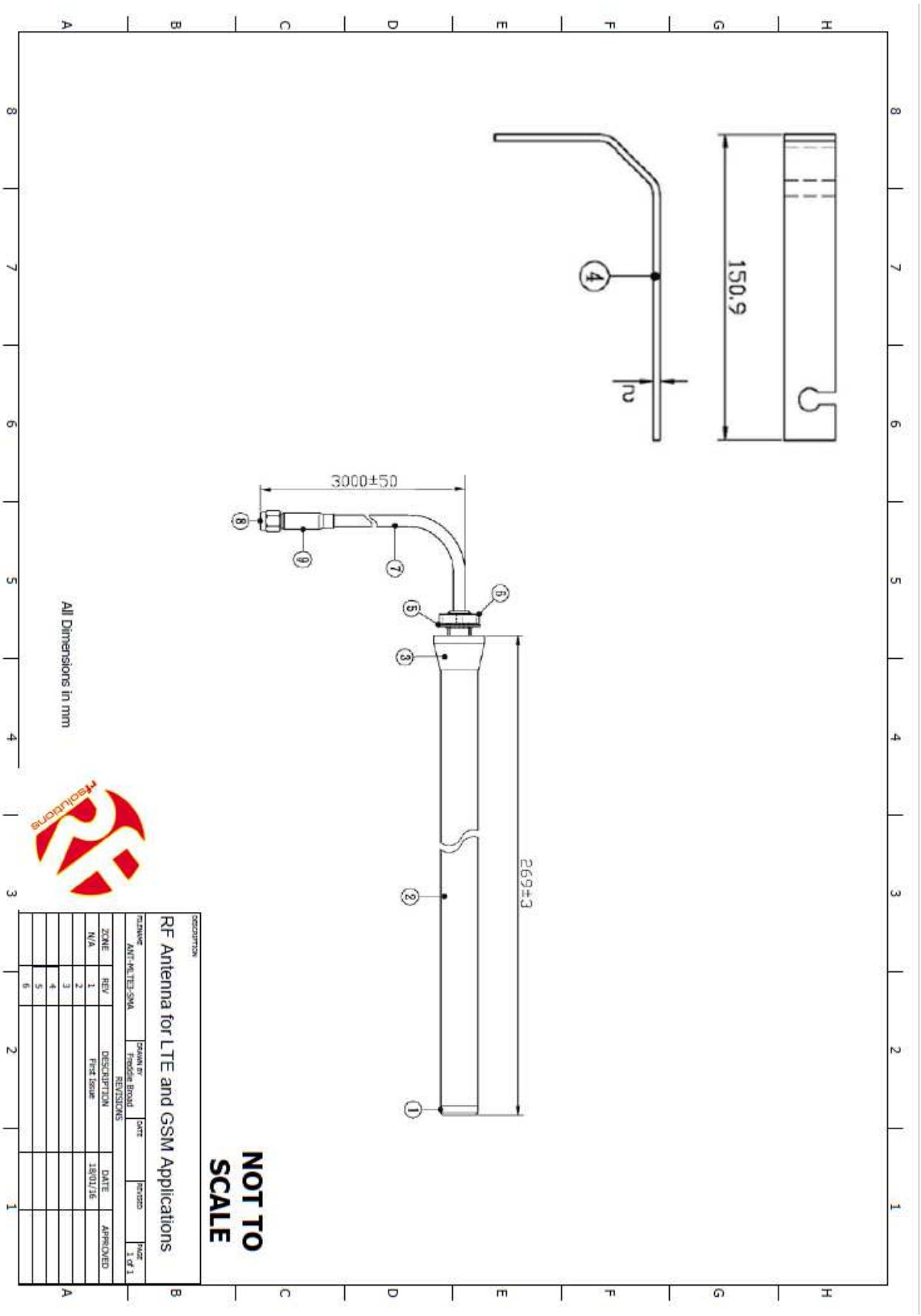
Description

A wall mount LTE and GSM antenna supplied with a 3m RG58U cable and male SMA connector. This ready to operate antenna required no tuning and provides optimum range and reliability to your application.

Ordering Information

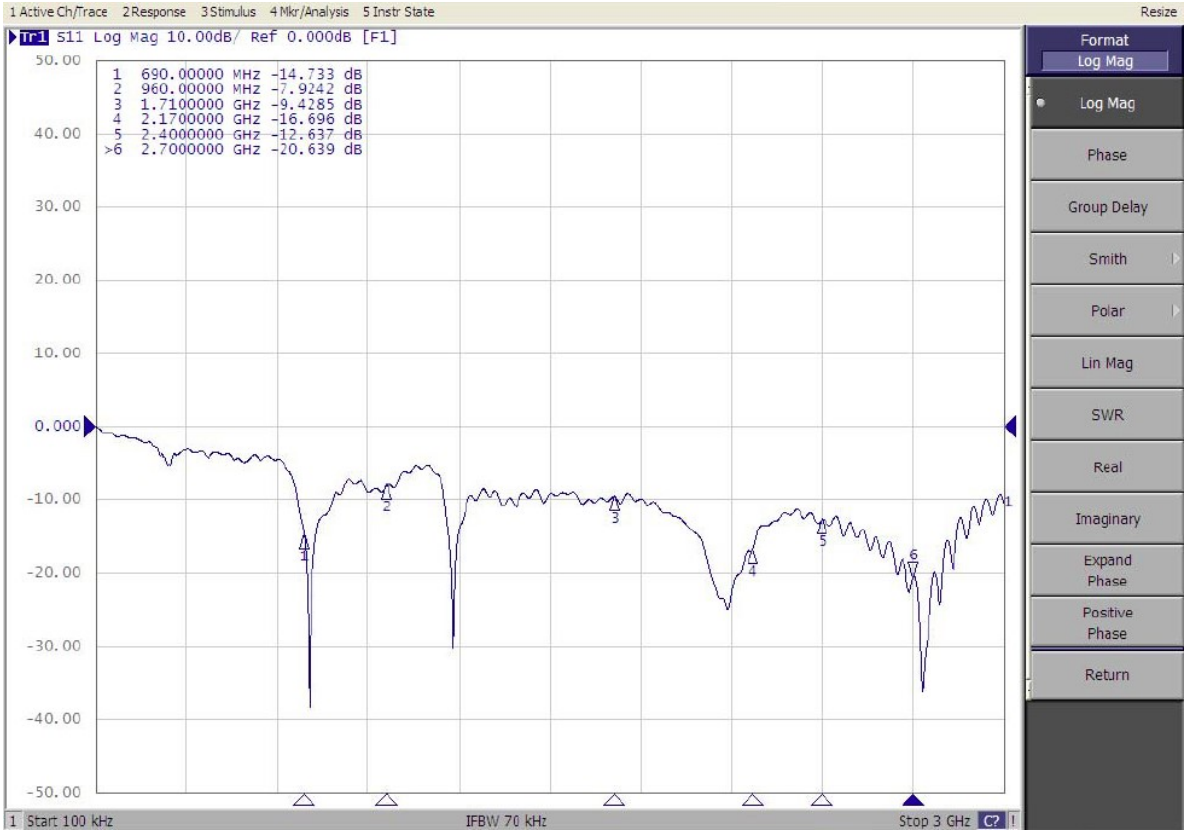
Part No	Description
ANT-M4G3-SMA	4G LTE/GSM Outside antenna (IP65 Rated) with SMA Male Connector

Mechanical Drawing

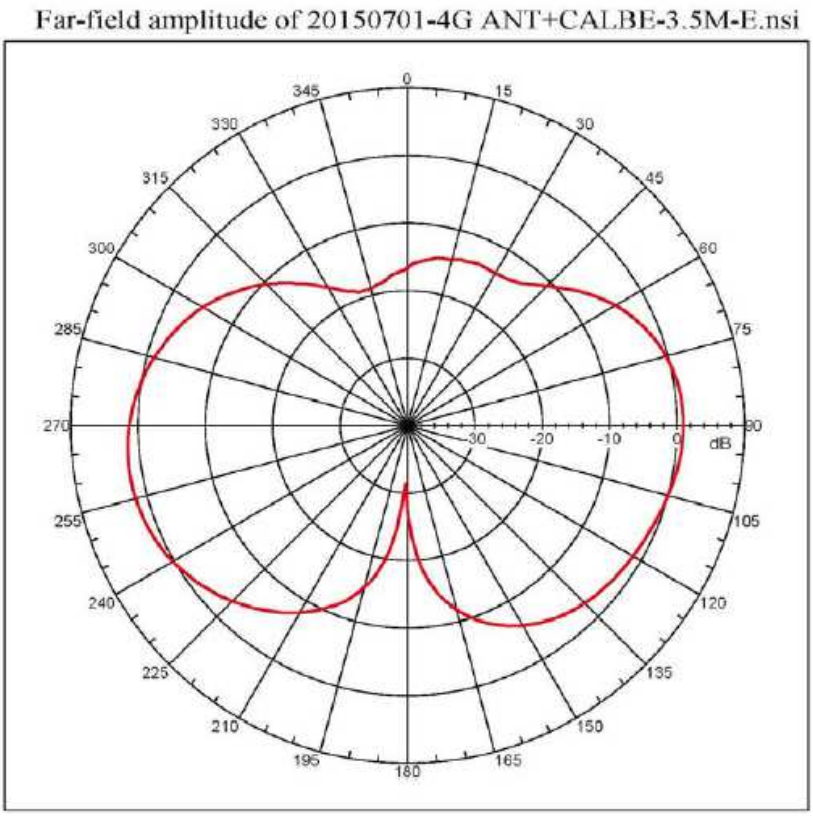


V.S.W.R Test Report

S11 Test Report

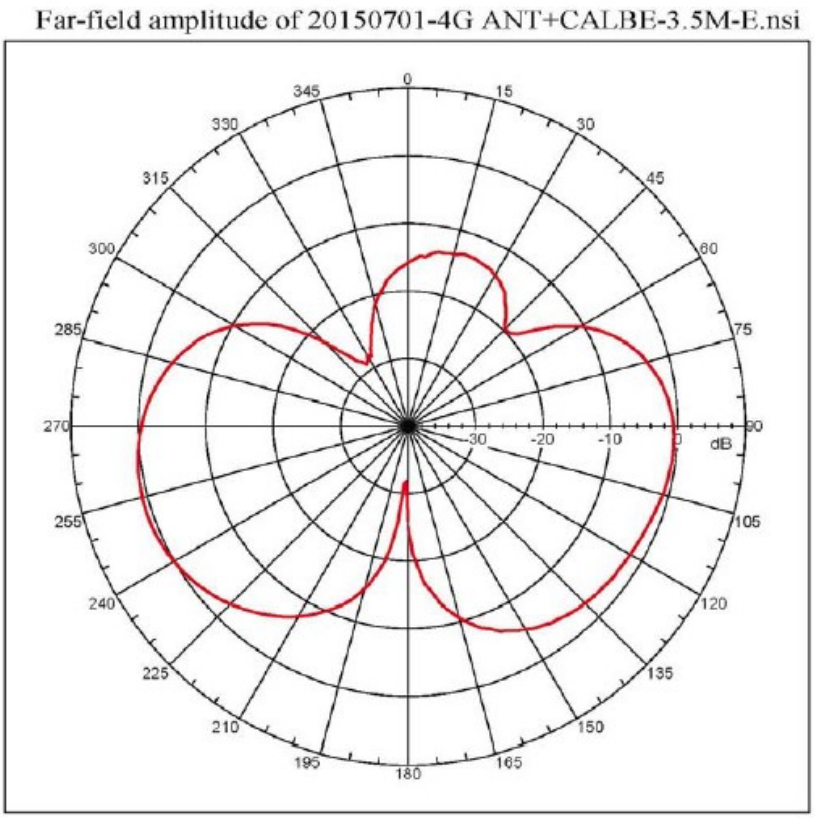


2D Pattern—E Plane 824MHz: 1.81917 dBi



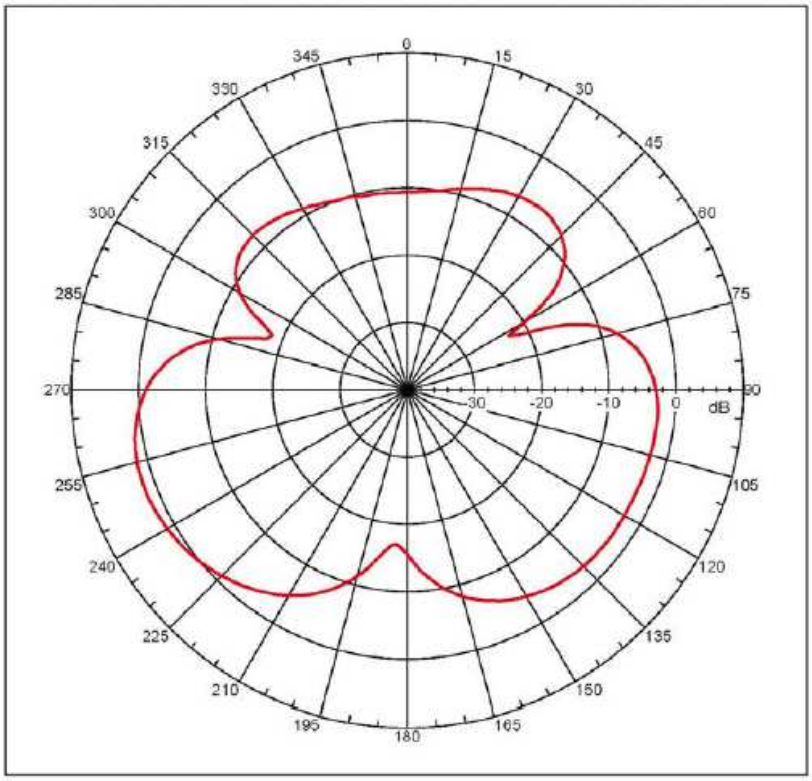

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.81917  dBi
Max far-field (global) = -41.16837  dB, Max far-field (plot) =
-41.16837  dB
Normalization: Reference, Network offset = 0.000  dB
Mpeak at: -180.00001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -6.448 dB
   -3. dB beam width: 52.53 deg
   -6. dB beam width: 76.14 deg
   -10. dB beam width: 100.18 deg
   Left Sidelobe: Not Found
   Right Sidelobe: -15.64 dB at 25.140  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
2       0.824  GHz  Azimuth  Elevation  Single-pol
```

2D Pattern—E Plane 850MHz: 0.84165 dBi



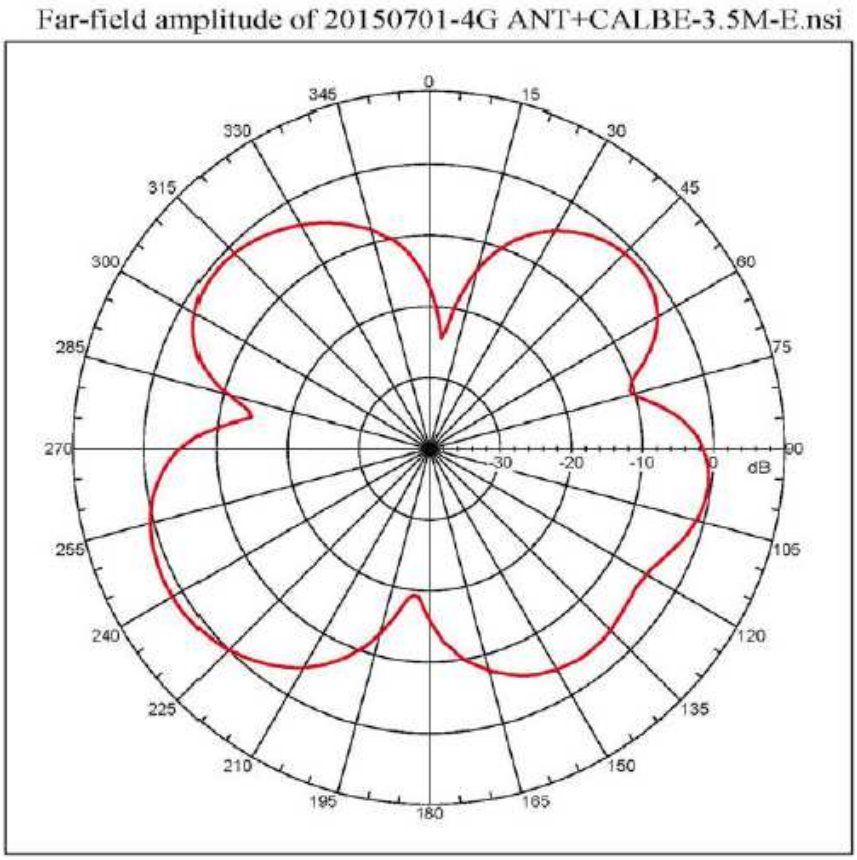

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 0.84165  dBi
Max far-field (global) = -40.41521  dB, Max far-field (plot) =
-40.41523  dB
Normalization: Reference, Network offset = 0.000  dB
Mpeak at: -108.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -6.448 dB
   -3. dB beam width: 51.67 deg
   -6. dB beam width: 72.59 deg
   -10. dB beam width: 92.50 deg
   Left Sidelobe: Not Found
   Right Sidelobe: -28.76 dB at -29.102  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
3       0.850  GHz  Azimuth  Elevation  Single-pol
```

2D Pattern—E Plane 900MHz: 1.72636 dBi



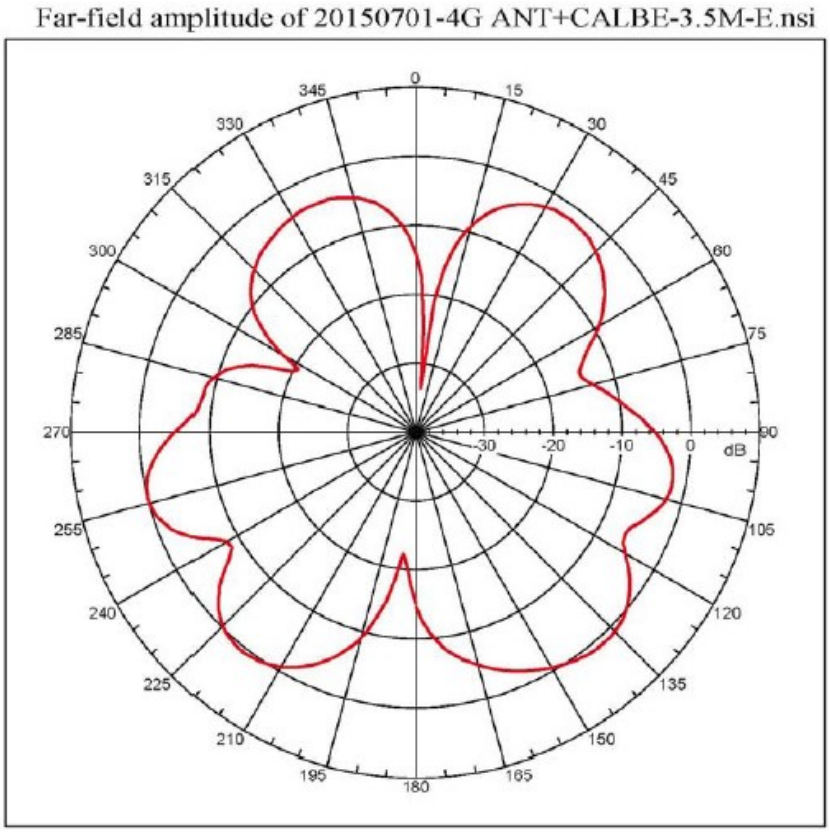

```
Far-field Amplitude, Kprincipal: Linear, Tau = 0.000  deg
Gain = 1.72636  dBi
Max far-field (global) = -39.83332  dB, Max far-field (plot) =
-39.83332  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -110.00001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -5.536 dB
   -3. dB beam width: 47.34 deg
   -6. dB beam width: 66.05 deg
   -10. dB beam width: 92.01 deg
   Left Sidelobe: Not Found
   Right Sidelobe: -9.33 dB at -45.251  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
4       0.900  GHz  Azimuth  Elevation  Single-pol
```

2D Pattern—E Plane 960MHz: 1.60164 dBi



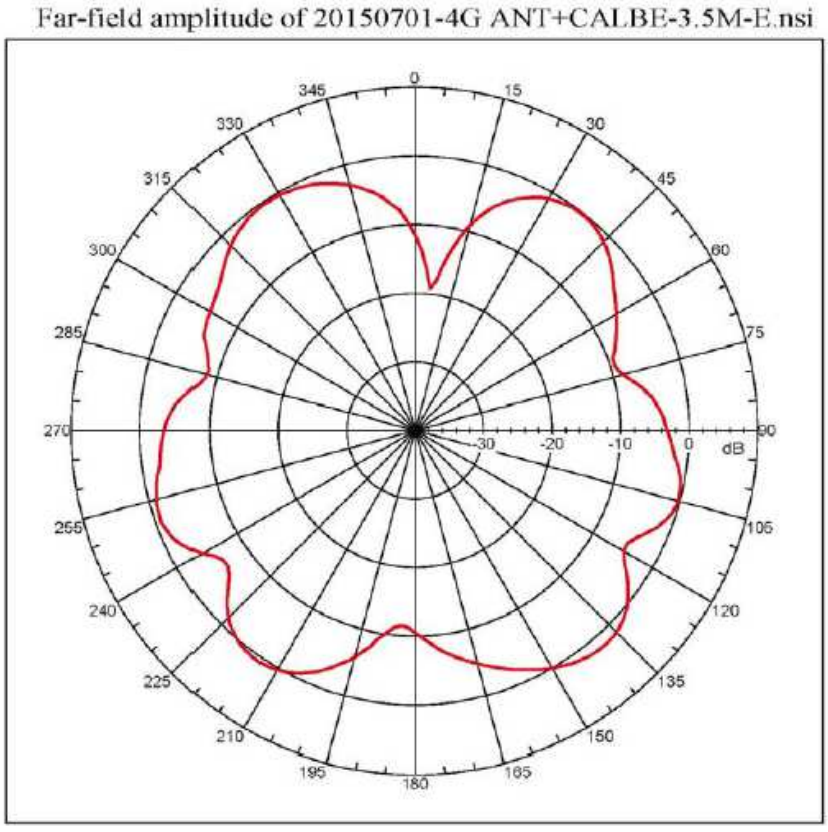

```
Far-field Amplitude, Kprincipal: Linear, Tau = 0.000  deg
Gain = 1.60164  dBi
Max far-field (global) = -41.82603  dB, Max far-field (plot) =
-41.82603  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -118.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.328 dB
   -3. dB beam width: 41.05 deg
   -6. dB beam width: 59.20 deg
   -10. dB beam width: 72.67 deg
   Left Sidelobe: Not Found
   Right Sidelobe: -2.56 dB at -45.274  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
5       0.960  GHz  Azimuth  Elevation  Single-pol
```

E-Plane 1710MHz: 1.06143 dBi



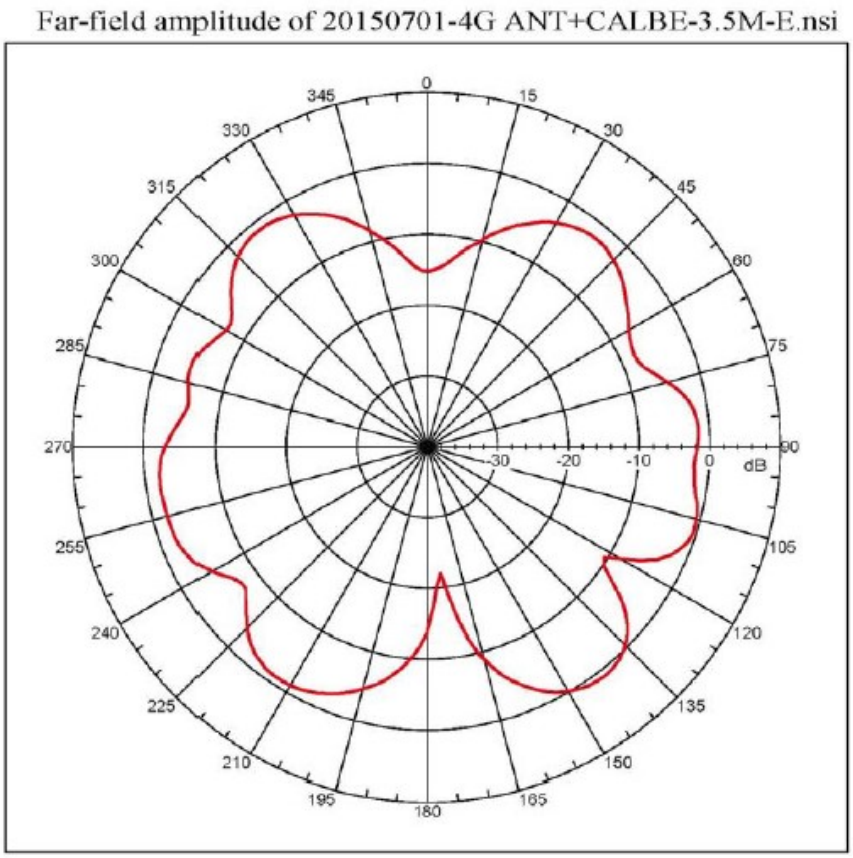

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.06143  dBi
Max far-field (global) = -44.13116  dB, Max far-field (plot) =
-44.13121  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 128.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.954 dB
   -3. dB beam width: 38.67 deg
   -6. dB beam width: 45.35 deg
   -10. dB beam width: 58.30 deg
   Left Sidelobe: -2.99 dB at 103.575  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
9       1.710  GHz  Azimuth  Elevation  Single-pol
```

E-Plane 1800MHz: 1.76763 dBi



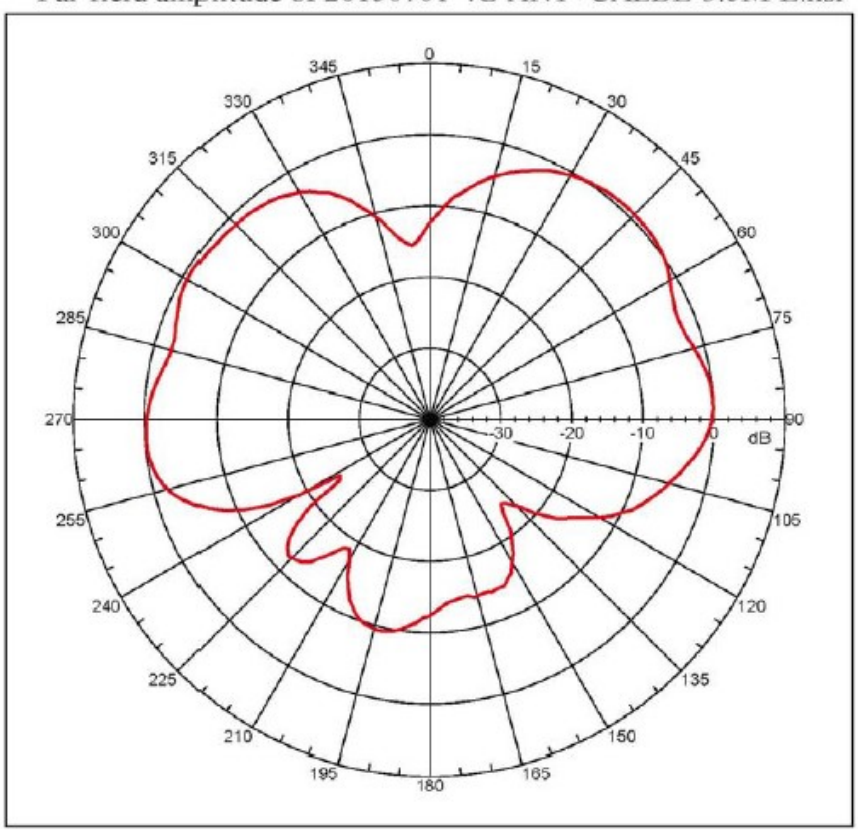

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.76763  dBi
Max far-field (global) = -45.95441  dB, Max far-field (plot) =
-45.95445  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 128.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -3.262 dB
   -3. dB beam width: 27.47 deg
   -6. dB beam width: 42.10 deg
   -10. dB beam width: 59.37 deg
   Left Sidelobe: -2.85 dB at 105.387  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
16      1.800  GHz  Azimuth  Elevation  Single-pol
```

E-Plane 1900MHz: 0.96073 dBi



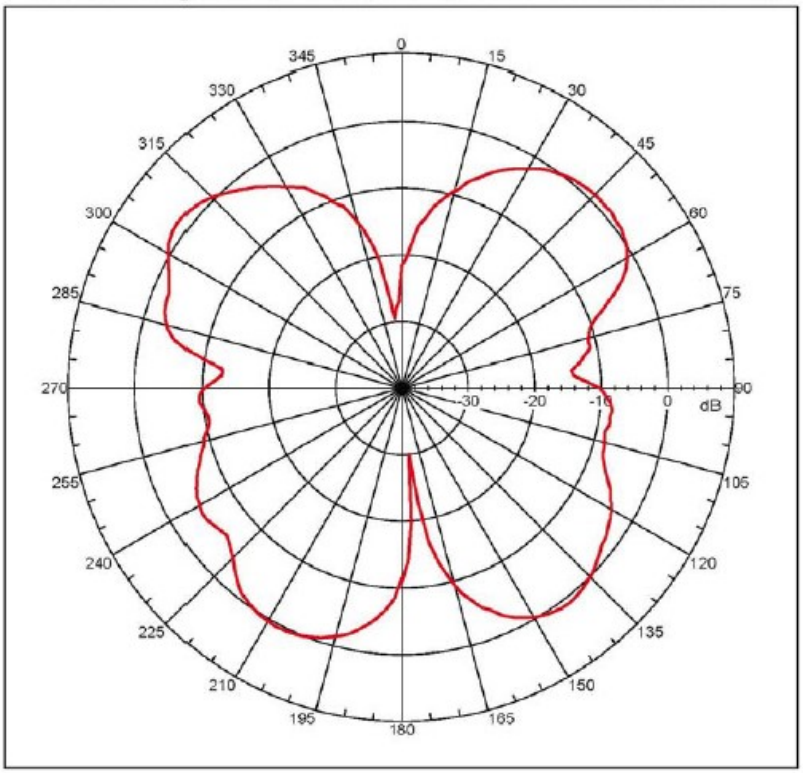

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 0.96073  dBi
Max far-field (global) = -46.87623  dB, Max far-field (plot) =
-46.87623  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 141.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.0.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.289 dB
   -3. dB beam width: 23.40 deg
   -6. dB beam width: 32.25 deg
   -10. dB beam width: 48.59 deg
   Left Sidelobe: -1.40 dB at 109.609  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
11      1.900  GHz  Azimuth  Elevation  Single-pol
```

E-Plane 2170MHz: 0.72134 dBi



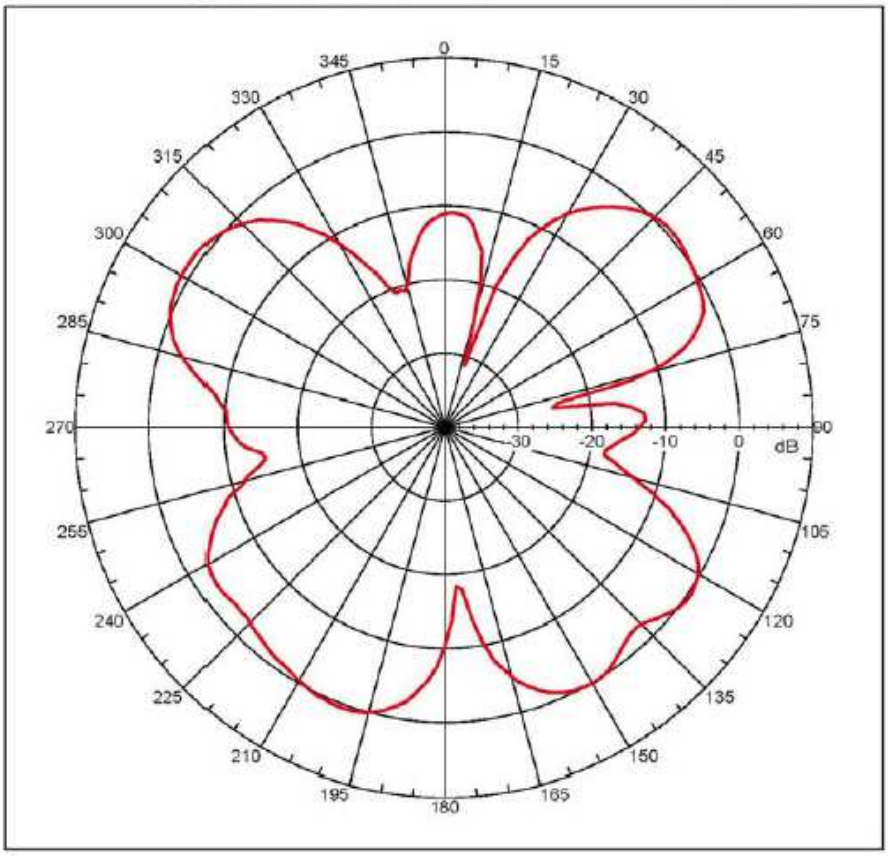

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 0.72134  dBi
Max far-field (global) = -46.81077  dB, Max far-field (plot) =
-46.81092  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 42.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.0.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:22 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -5.247 dB
   -3. dB beam width: 85.11 deg
   -6. dB beam width: 92.49 deg
   -10. dB beam width: 110.41 deg
   Left Sidelobe: -1.27 dB at -57.210  deg
   Right Sidelobe: -0.77 dB at 87.486  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
12      2.170  GHz  Azimuth  Elevation  Single-pol
```

E-Plane 2400MHz: 1.73269 dBi



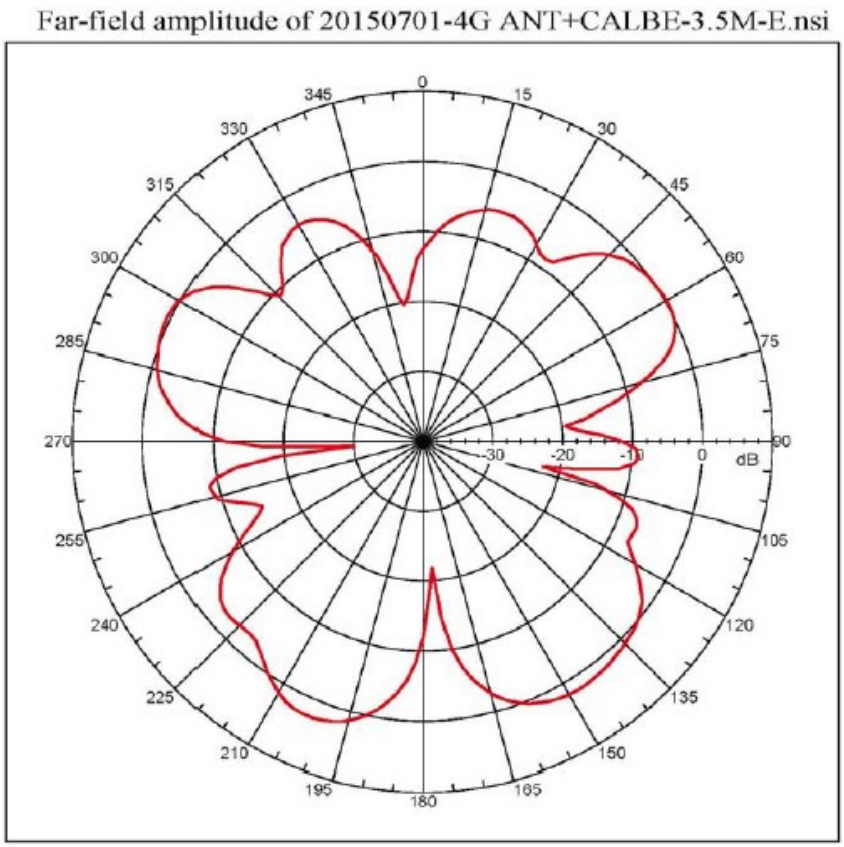

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.73269  dBi
Max far-field (global) = -47.27494  dB, Max far-field (plot) =
-47.27494  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -56.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.258 dB
   -3. dB beam width: 23.86 deg
   -6. dB beam width: 34.51 deg
   -10. dB beam width: 57.59 deg
   Left Sidelobe: -11.18 dB at -92.520  deg
   Right Sidelobe: -0.06 dB at 47.203  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth   Elevation   Pol
----    ---------   -------   ---------   ---
12      2.400  GHz  Azimuth   Elevation   Single-pol
```

E-Plane 2500 MHz: 1.04758 dBi



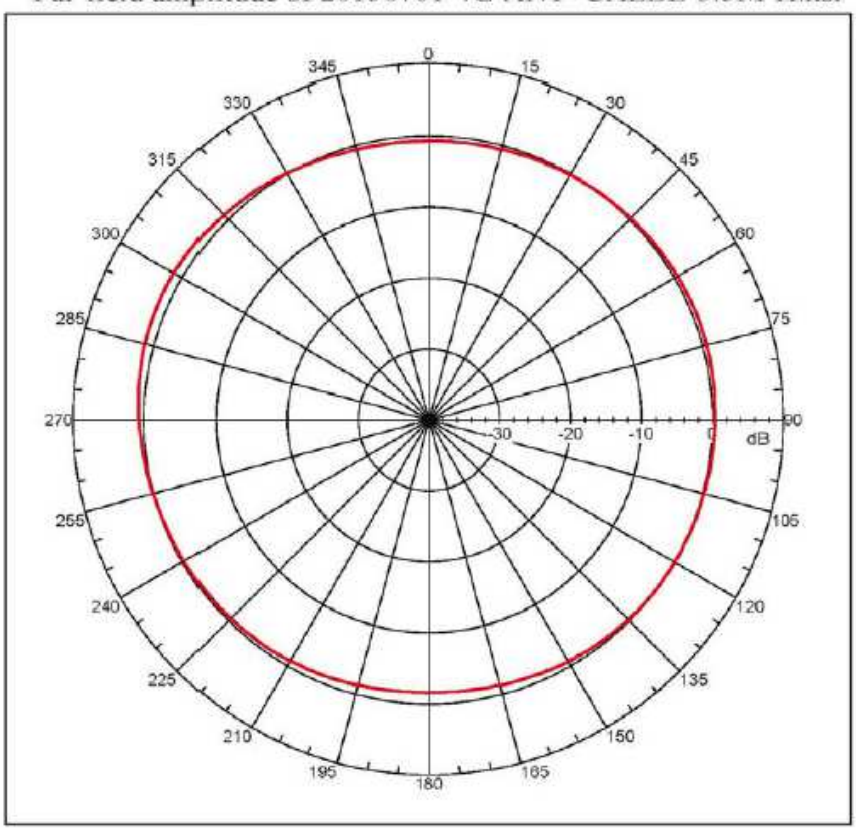

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.04758  dBi
Max far-field (global) = -49.80041  dB, Max far-field (plot) =
-49.80041  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -60.00001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.572 dB
   -3. dB beam width: 33.25 deg
   -6. dB beam width: 36.00 deg
   -10. dB beam width: 58.99 deg
   Left Sidelobe: -2.43 dB at -125.699  deg
   Right Sidelobe: -11.95 dB at 3.837  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth   Elevation   Pol
----    ---------   -------   ---------   ---
14      2.500  GHz  Azimuth   Elevation   Single-pol
```

E-Plane 2600MHz: 2.59262 dBi



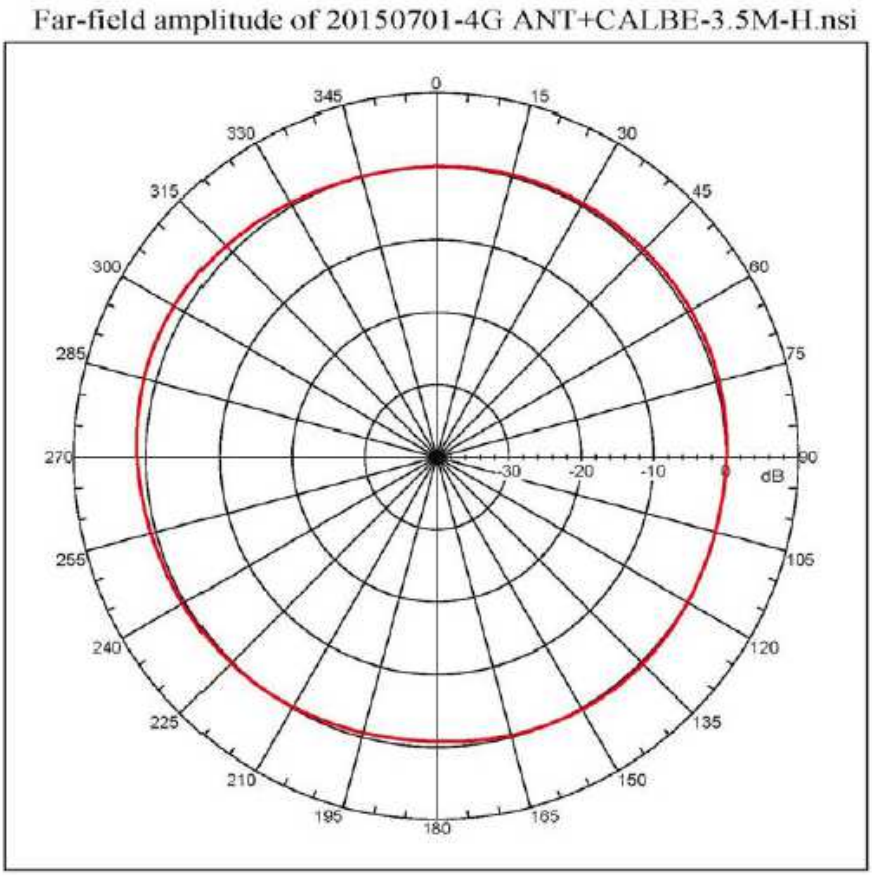

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 2.59262  dBi
Max far-field (global) = -47.72417  dB, Max far-field (plot) =
-47.72429  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -156.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-E

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-E.nsi
Measurement date/time: 7/1/2015 3:51:23 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.167 dB
   -3. dB beam width: 21.88 deg
   -6. dB beam width: 46.20 deg
   -10. dB beam width: 56.36 deg
   Left Sidelobe: Not Found
   Right Sidelobe: -11.26 dB at -181.564  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
15      2.600  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 806MHz: 1.37841 dBi



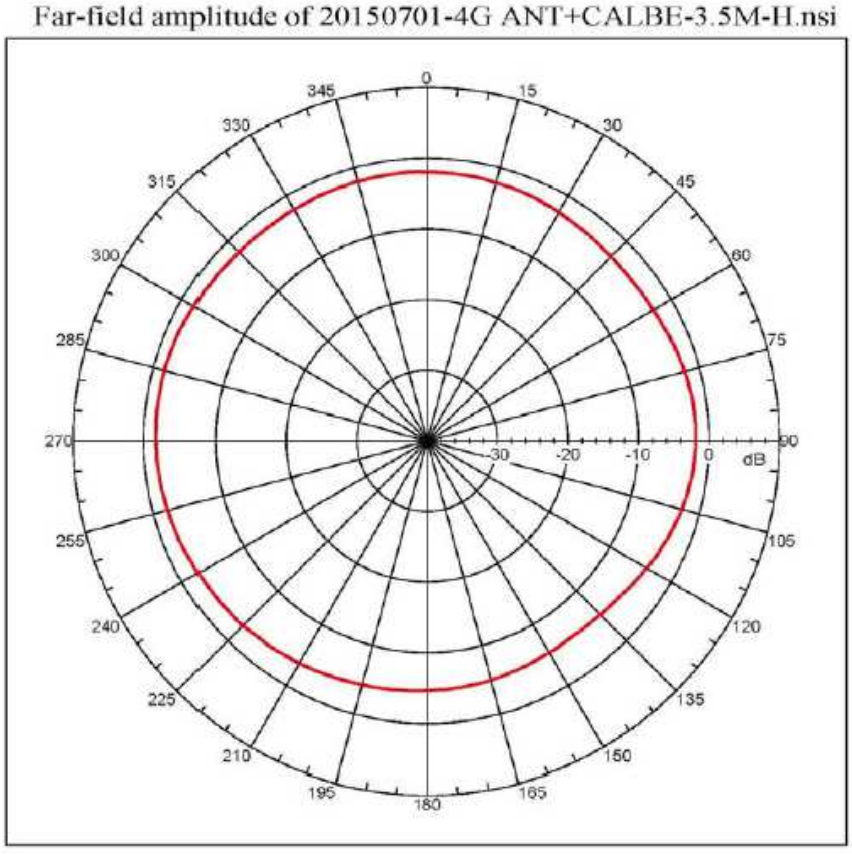

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.37841  dBi
Max far-field (global) = -41.30906  dB, Max far-field (plot) =
-41.30906  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -60.00001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:20 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -0.017 dB
   -3. dB beam width: Not Found
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: Not Found
   Right Sidelobe: -0.91 dB at 59.330  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
1       0.806  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 824MHz: 1.77902 dBi



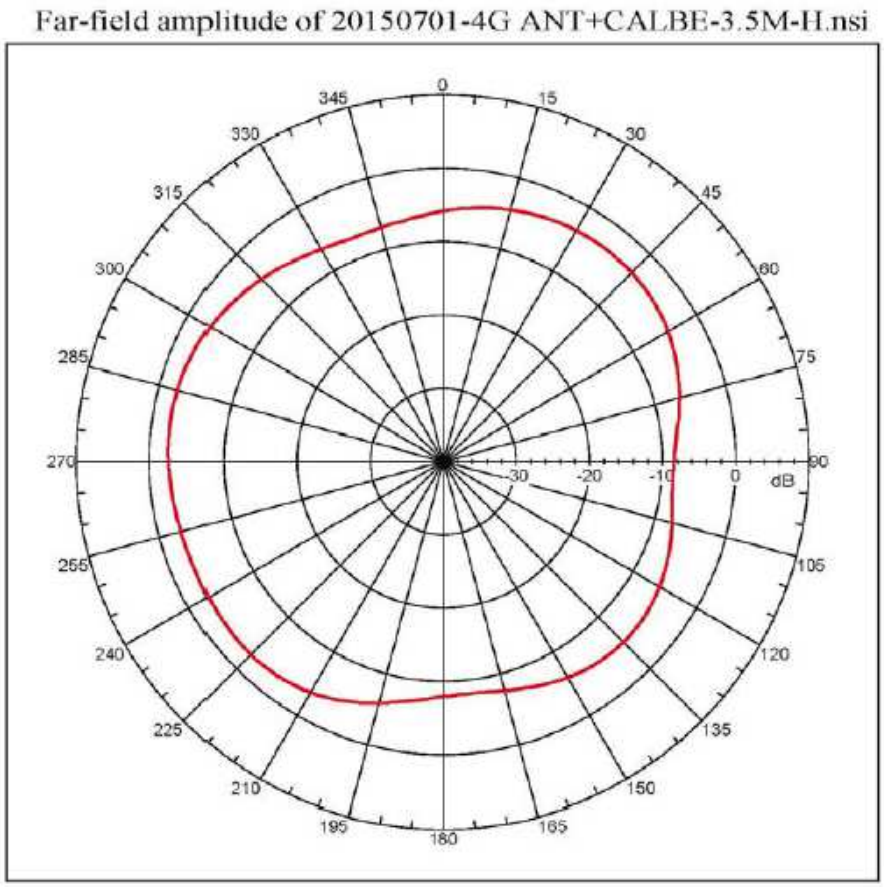

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 1.77902  dBi
Max far-field (global) = -41.22032  dB, Max far-field (plot) =
-41.22032  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -68.900  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:20 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: 8.371 dB
   -3. dB beam width: Not Found
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: Not Found
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
2       0.824 GHz   Azimuth  Elevation  Single-pol
```

H-Plane 850 MHz: -1.60185 dBi



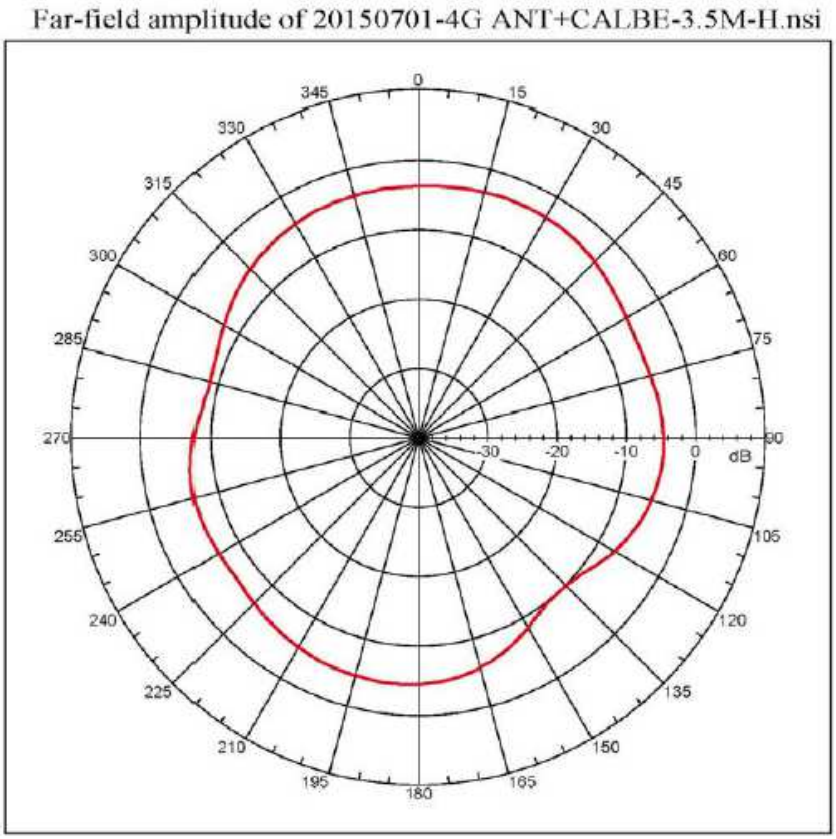

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -1.60185  dBi
Max far-field (global) = -42.85871  dB, Max far-field (plot) =
-42.85871  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -76.80001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:20 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -2.067 dB
   -3. dB beam width: Not Found
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: Not Found
   Right Sidelobe: -0.74 dB at 87.406  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
2       0.850 GHz   Azimuth  Elevation  Single-pol
```

H-Plane 900MHz: -2.47165 dBi



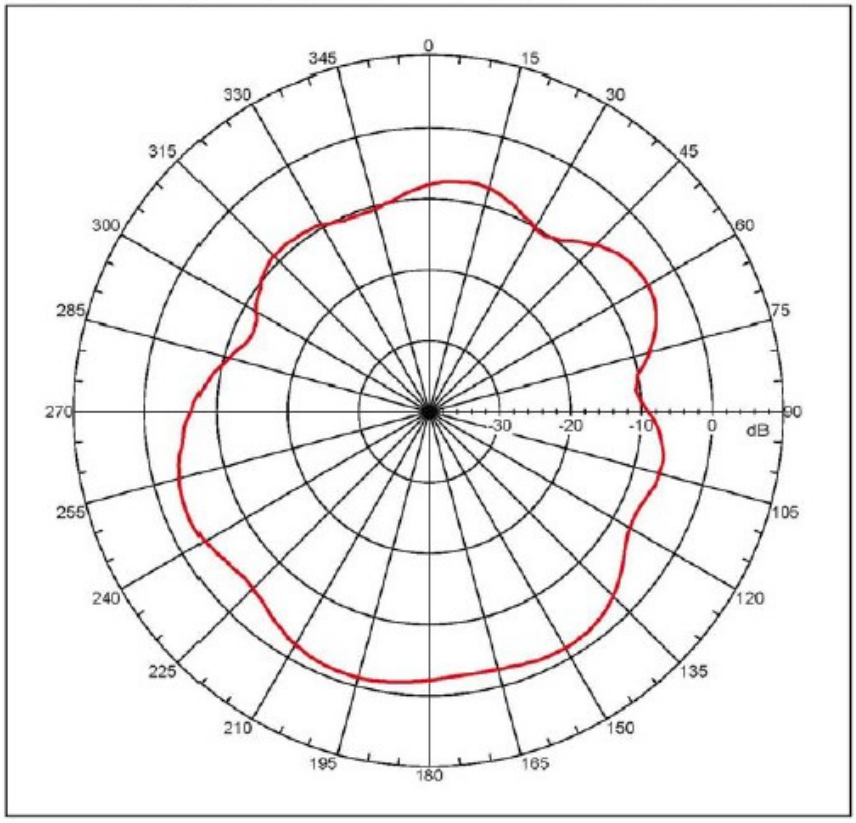

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -2.47165  dBi
Max far-field (global) = -44.93133  dB, Max far-field (plot) =
-44.93134  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -82.00001  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -4.919 dB
   -3. dB beam width: 103.68 deg
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: Not Found
   Right Sidelobe: -0.99 dB at 37.207  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00891  deg, Center = 0.000  deg, #pts = 181
      Start= -180.04901  deg, Stop = 180.04901  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 16
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
4       0.900  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 960MHz: -3.26146 dBi



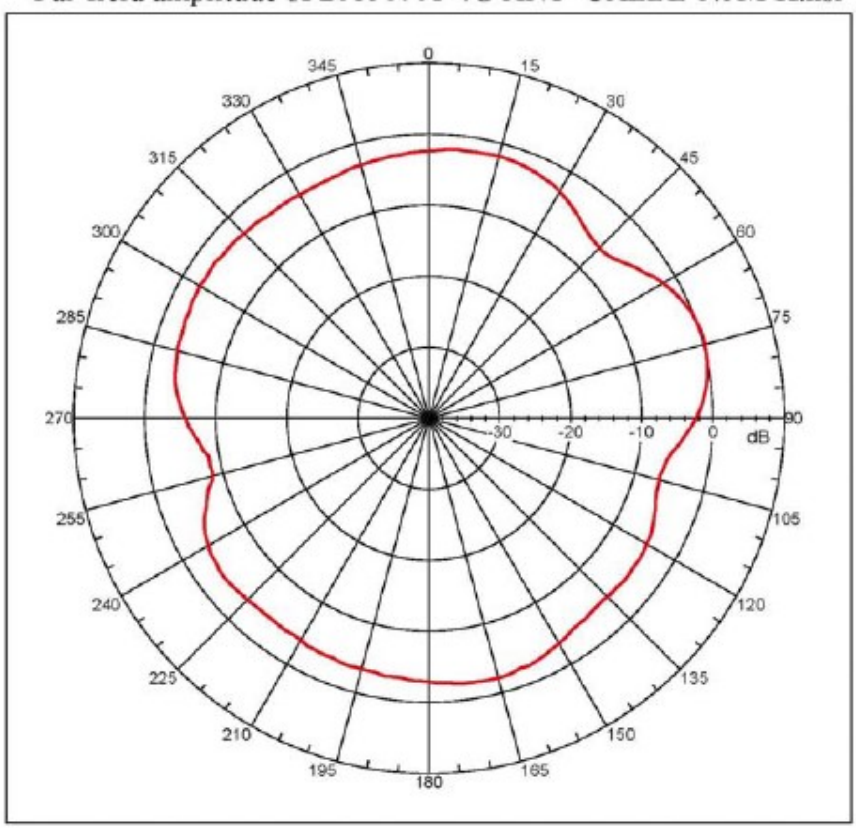

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -3.26146  dBi
Max far-field (global) = -45.89113  dB, Max far-field (plot) =
-45.89134  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 19.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -5.582 dB
   -3. dB beam width: 165.18 deg
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: -3.19 dB at -105.587  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (Deg)
      Span = 360.00891  deg, Center = 0.000  deg, #pts = 181
      Start= -180.04901  deg, Stop = 180.04901  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 16
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
1       0.960  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 1710MHz –1.21375 dBi



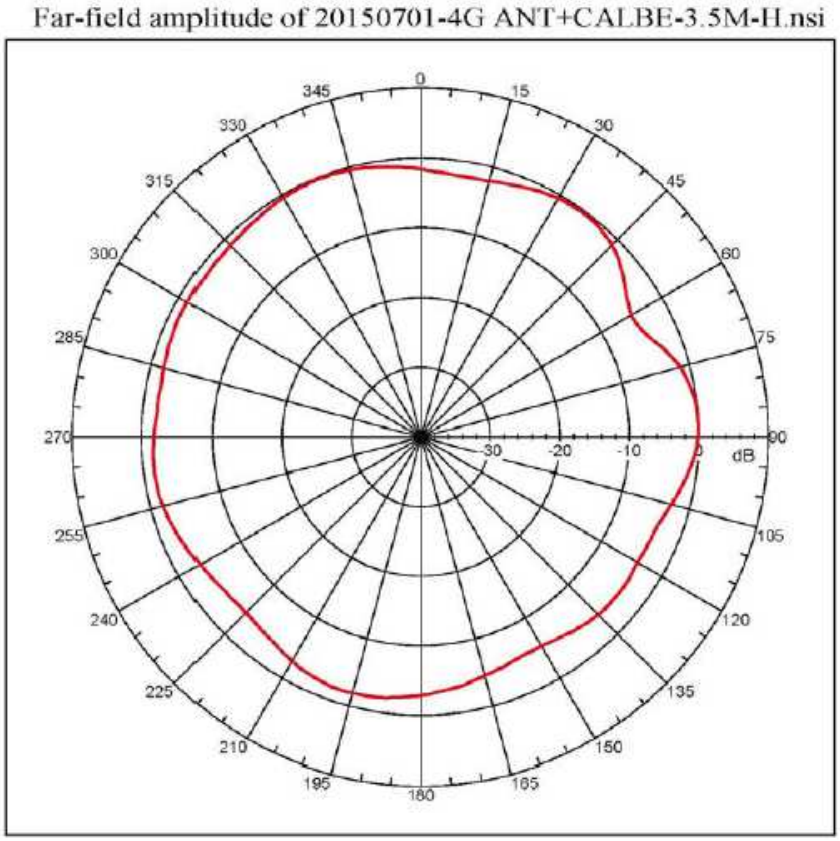

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -1.21375  dBi
Max far-field (global) = -46.40634  dB, Max far-field (plot) =
-46.40634  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -164.000  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -5.084 dB
   -3. dB beam width: Not Found
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: Not Found
   Right Sidelobe: -1.87 dB at -113.631  deg
Far-field display setup
   Azimuth (deg)
      Span = 359.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
0       1.710  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 1800MHz: 0.29161 dBi



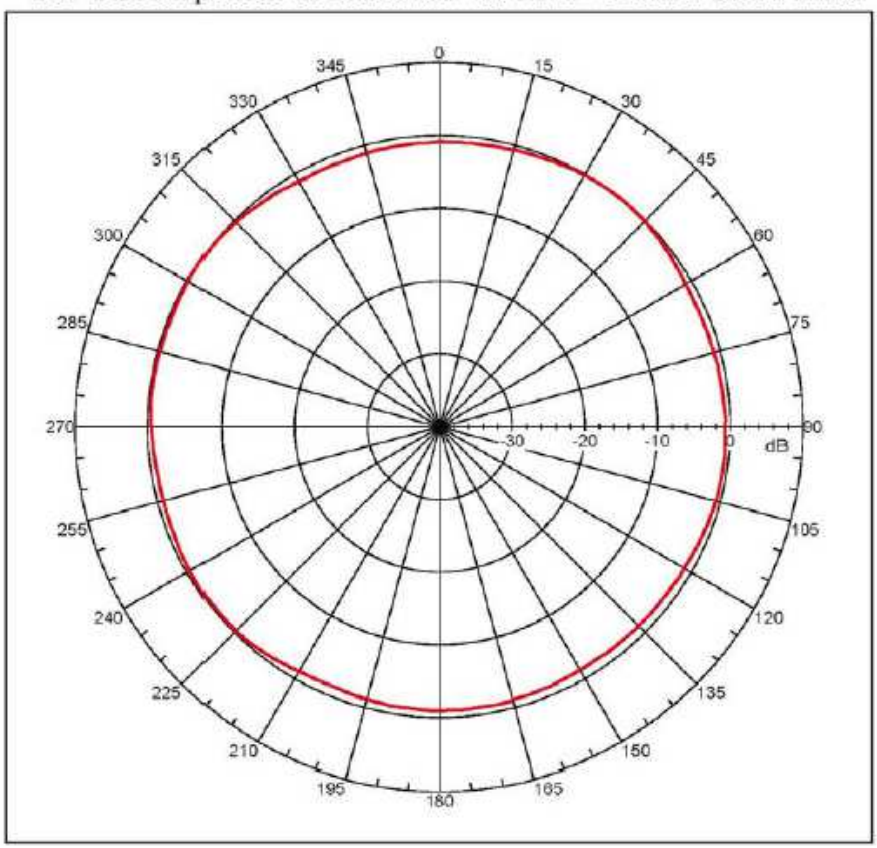

```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 0.29161  dBi
Max far-field (global) = -46.53043  dB, Max far-field (plot) =
-46.53043  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 73.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -3.447 dB
   -3. dB beam width: 33.46 deg
   -6. dB beam width: 50.52 deg
   -10. dB beam width: Not Found
   Left Sidelobe: -2.12 dB at 15.084  deg
   Right Sidelobe: -4.62 dB at 125.098  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
10      1.800  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 1900MHz: -0.03944 dBi



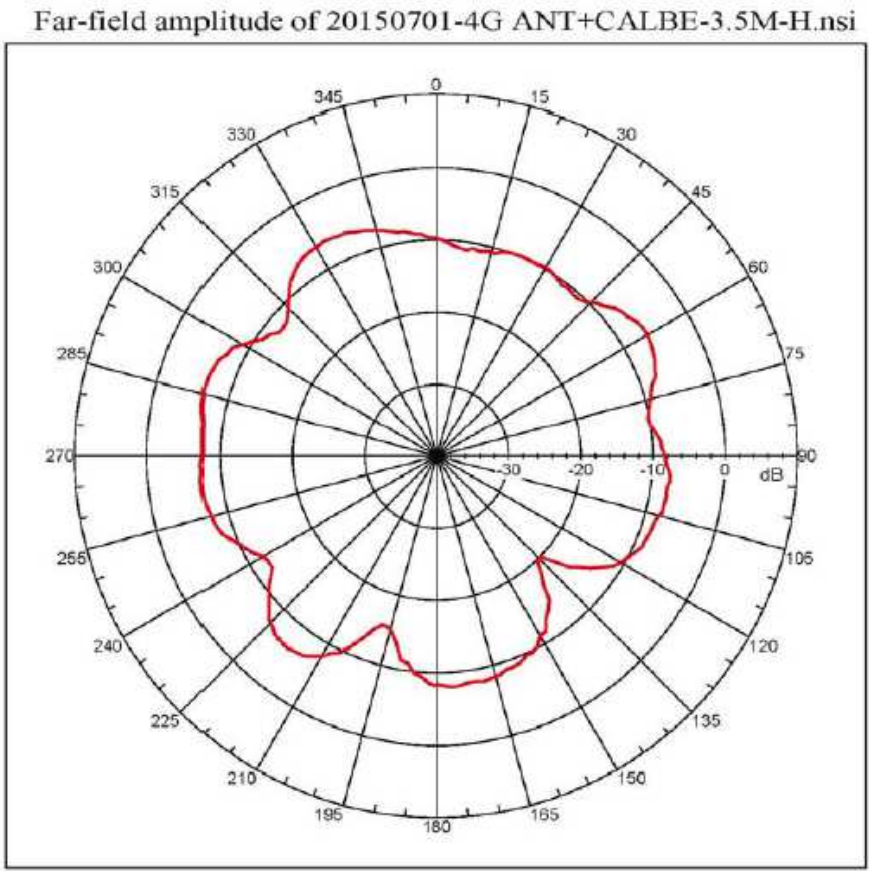

```
Far-field amplitude, Eprincipal: Linear, Phi = 0.000  deg
Gain = -0.03944  dBi
Max far-field (global) = -47.9764  dB, Max far-field (plot) =
-47.9764  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 85.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -2.231 dB
   -3. dB beam width: 37.22 deg
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: -8.27 dB at 37.287  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
11      1.900  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 2170MHz: 0.020 dBi



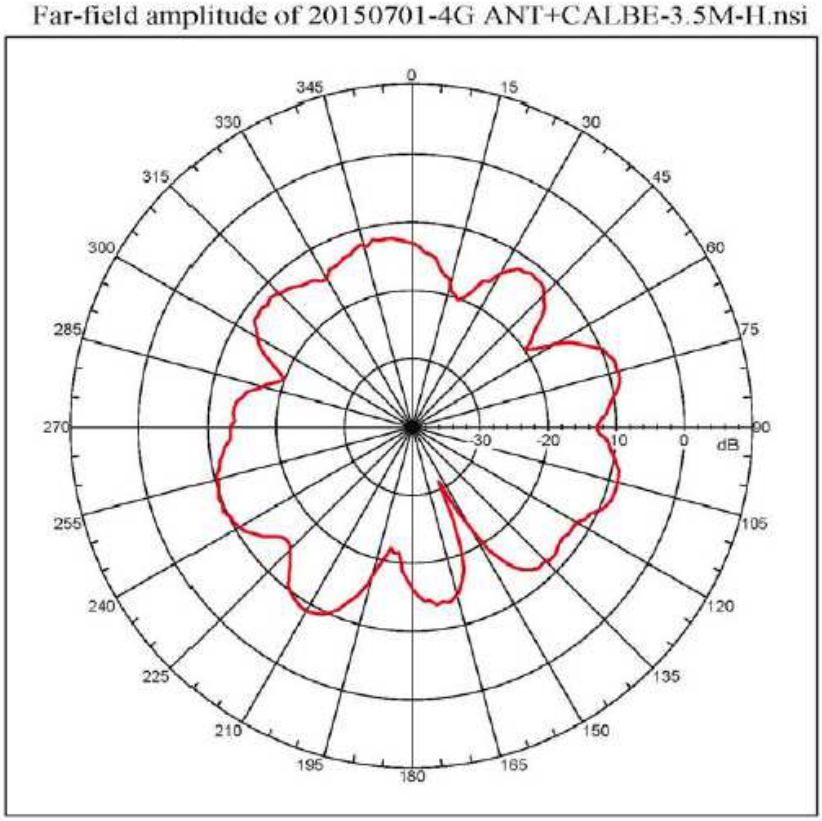

```
Far-field amplitude, Eprincipal: Linear, Phi = 0.000  deg
Gain = 0.020  dBi
Max far-field (global) = -47.51211  dB, Max far-field (plot) =
-47.51211  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 39.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.8.124, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -0.758 dB
   -3. dB beam width: Not Found
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: -9.09 dB at -51.295  deg
   Right Sidelobe: Not Found
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
12      2.170  GHz  Azimuth  Elevation  Single-pol
```

H-Plane 2400MHz –6.23579 dBi




```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -6.23579  dBi
Max far-field (global) = -55.24242  dB, Max far-field (plot) =
-55.24346  dB
Normalization: Reference, Network offset = 0.000  dB
Mpeak at: 59.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 1/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -9.169 dB
   -3. dB beam width: 26.38 deg
   -6. dB beam width: 245.17 deg
   -10. dB beam Width: Not Found
   Left Sidelobe: -9.32 dB at -21.117  deg
   Right Sidelobe: -1.24 dB at 97.542  deg
Far-field display setup
   Azimuth (deg)
      Npan = 360.00601  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
13      2.400  GHz  Azimuth  Elevation  Single-pol
```

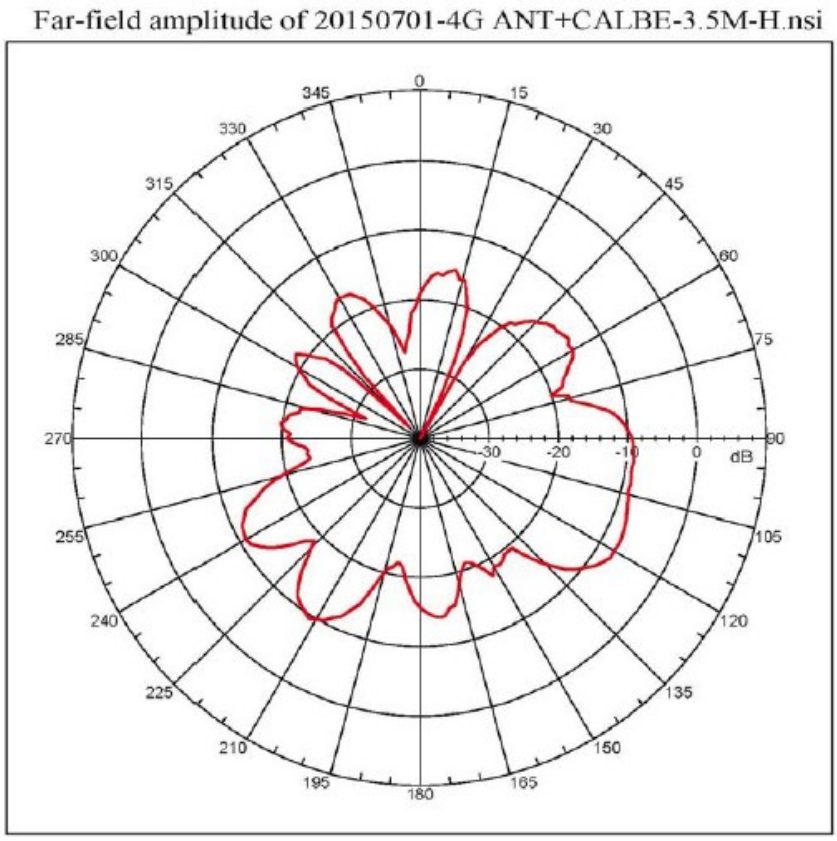
H-Plane 2500MHz: -8.61832 dBi




```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -8.61832  dBi
Max far-field (global) = -58.75431  dB, Max far-field (plot) =
-58.7546  dB
Normalization: Reference, Network offset = 0.000  dB
Mpeak at: 75.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 1/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -12.850 dB
   -3. dB beam width: 21.38 deg
   -6. dB beam width: 92.42 deg
   -10. dB beam Width: 98.70 deg
   Left Sidelobe: -3.08 dB at 42.282  deg
   Right Sidelobe: -0.97 dB at 107.398  deg
Far-field display setup
   Azimuth (deg)
      Npan = 360.00601  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
14      2.500  GHz  Azimuth  Elevation  Single-pol
```

ANT-M4G3

H-Plane 2600MHz: -7.49977 dBi




```
Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = -7.49977  dBi
Max far-field (global) = -57.81656  dB, Max far-field (plot) =
-57.81656  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 117.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

20150701-4G ANT+CALBE-3.5M-H

NSI2000 V4.0.324, Filename:C:\Documents and Settings\NSI\Desktop\20
150701-4G ANT+CALBE-3.5M\20150701-4G ANT+CALBE-3.5M-H.nsi
Measurement date/time: 7/1/2015 3:36:28 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -15.671 dB
   -3. dB beam width: 44.15 deg
   -6. dB Beam Width: 52.56 deg
   -10. dB beam width: 62.50 deg
   Left Sidelobe: -7.01 dB at 61.241  deg
   Right Sidelobe: -10.84 dB at 153.855  deg
Far-field display setup
   Azimuth (deg)
      Span = 360.00001  deg, Center = 0.000  deg, #pts = 181
      Start= -180.00001  deg, Stop = 180.00001  deg, Delta = 2.000
deg
   Elevation (deg)
      Center = 0.000  deg, #pts = 1

Selected beam(s) 1 of 15
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
15      2.600  GHz  Azimuth  Elevation  Single-pol
```

RF Solutions Ltd. Recycling Notice
Meets the following EC Directives:

DO NOT
Discard with normal waste, please recycle.

ROHS Directive 2002/95/EC
Specifies certain limits for hazardous substances.

WEEE Directive 2002/96/EC
Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

Waste Batteries and Accumulators Directive 2006/66/EC

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.

Environment Agency producer registration number: WEE/JB0104WV.

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