Omni-Directional 2.4G Antenna

MODEL: TH-260-2.4G

GENERAL DESCRIPTION

Model No	P/N
	TH-260-2.4G

Below is a table summarizing the antenna design specification.

1.1 Electrical Properties

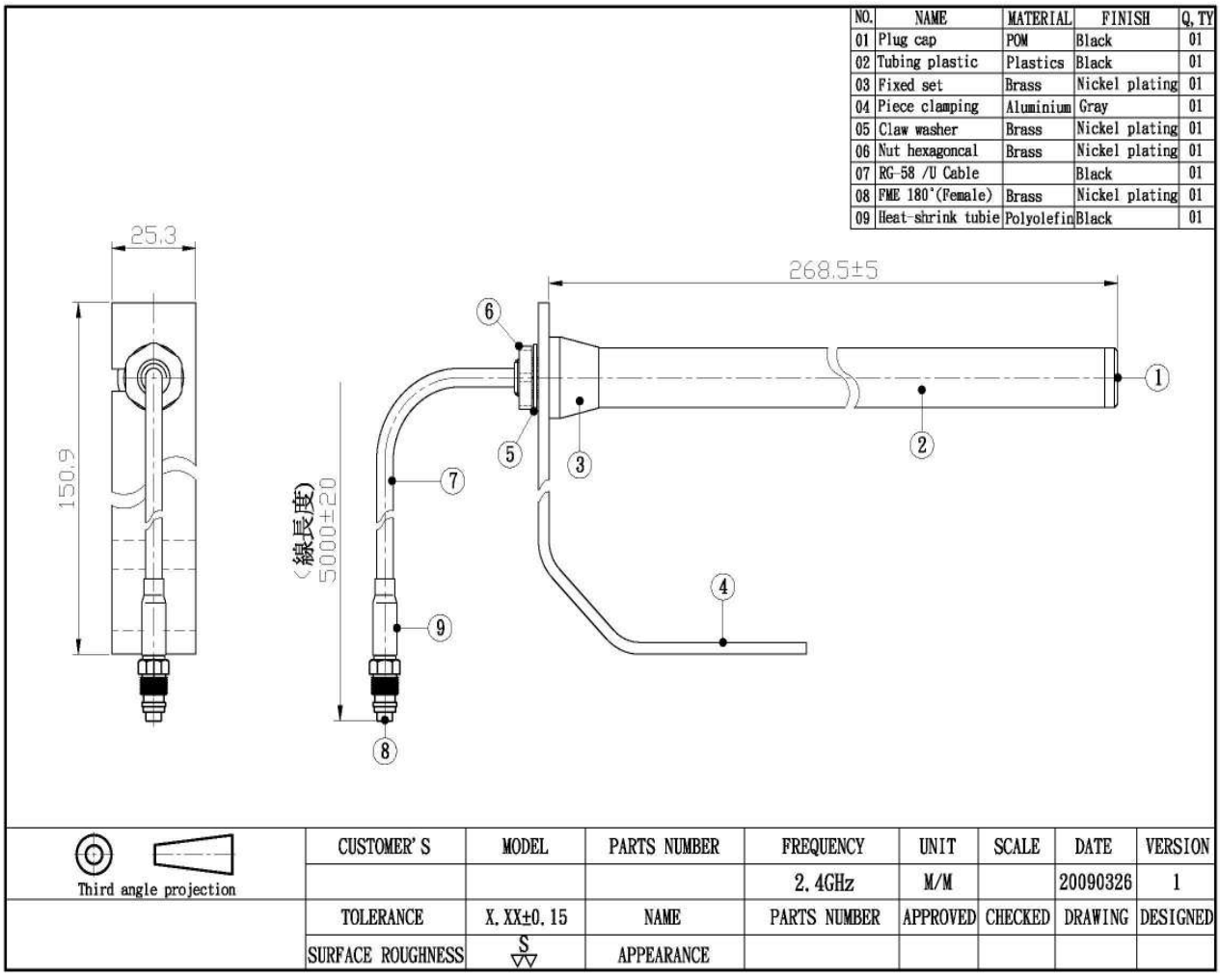
Parameter	Description
Frequency Band	2.4 GHz
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss	Please See Data-1
V.S.W.R	2.0:1
Antenna Average Gain	4.7dBi
Note: Gain includes the cable loss	

1.2 Mechanical Properties

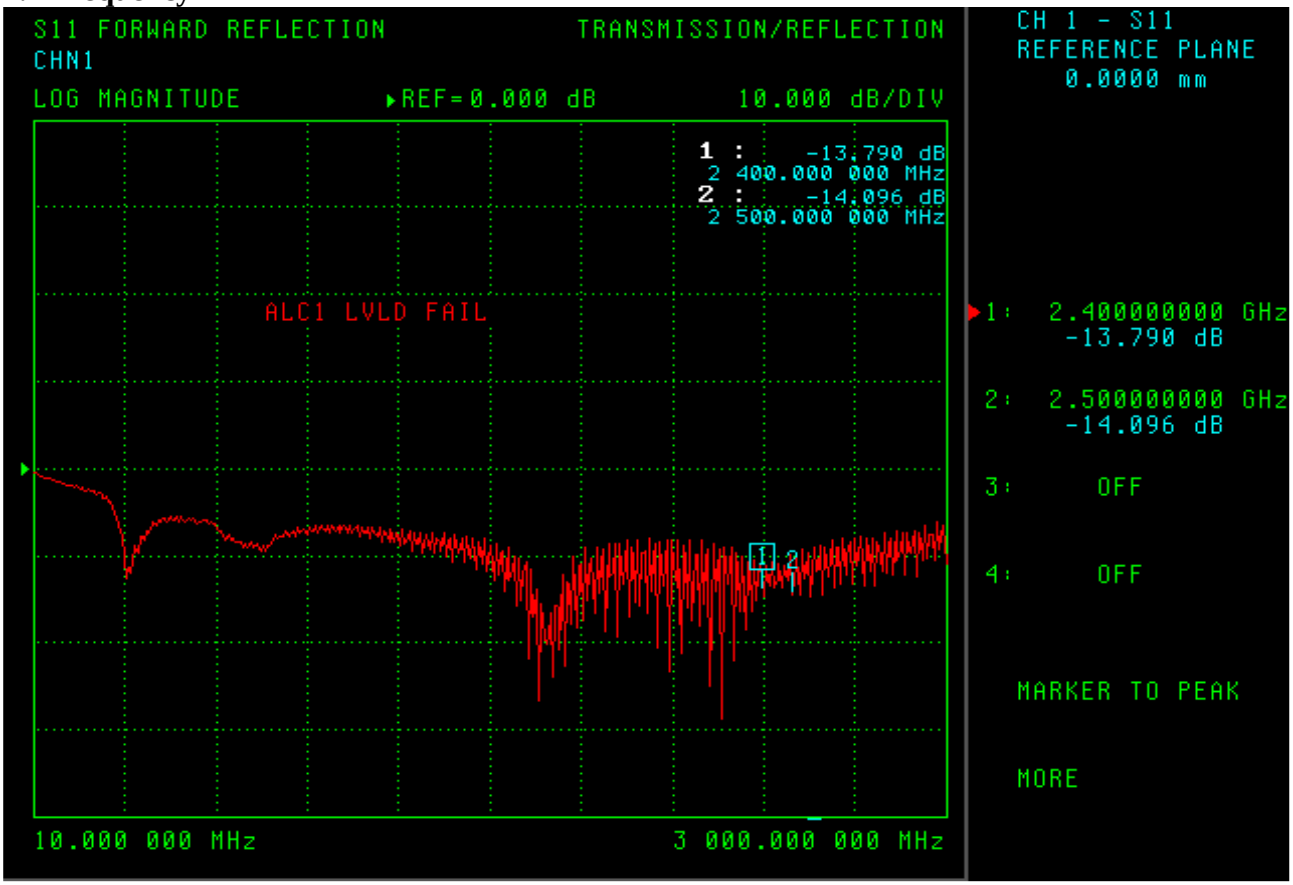
Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type
Connector Type	FME 180˚(Female) or SMA-M

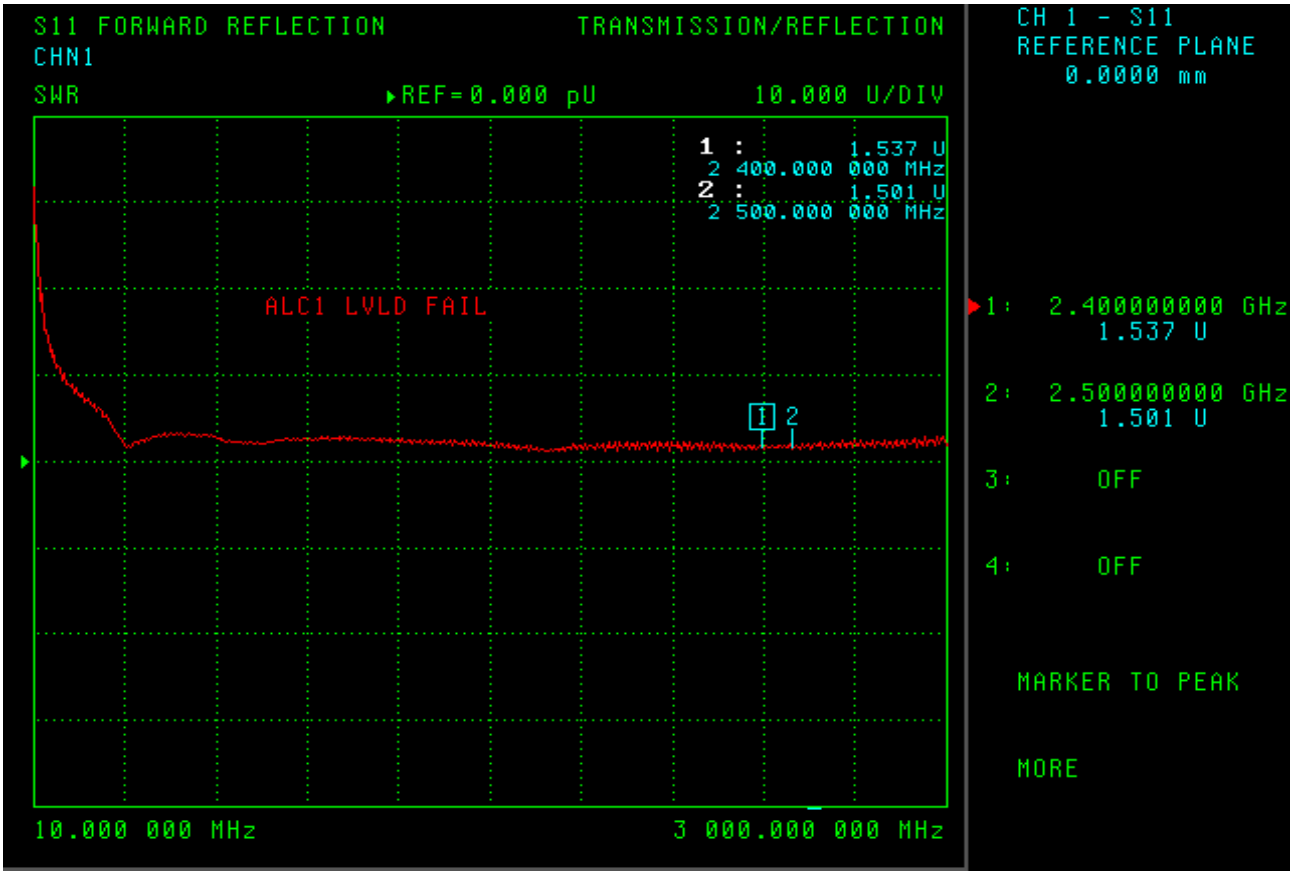
Antenna Dimensions	268.5 mm ± 5
Antenna Cable Total Length	RG-58 /U 5000 mm ± 20
Antenna Color	Black
Operating Temperature Range	-20˚C~+60˚C
Storage Temperature Range	-30˚C~+70˚C

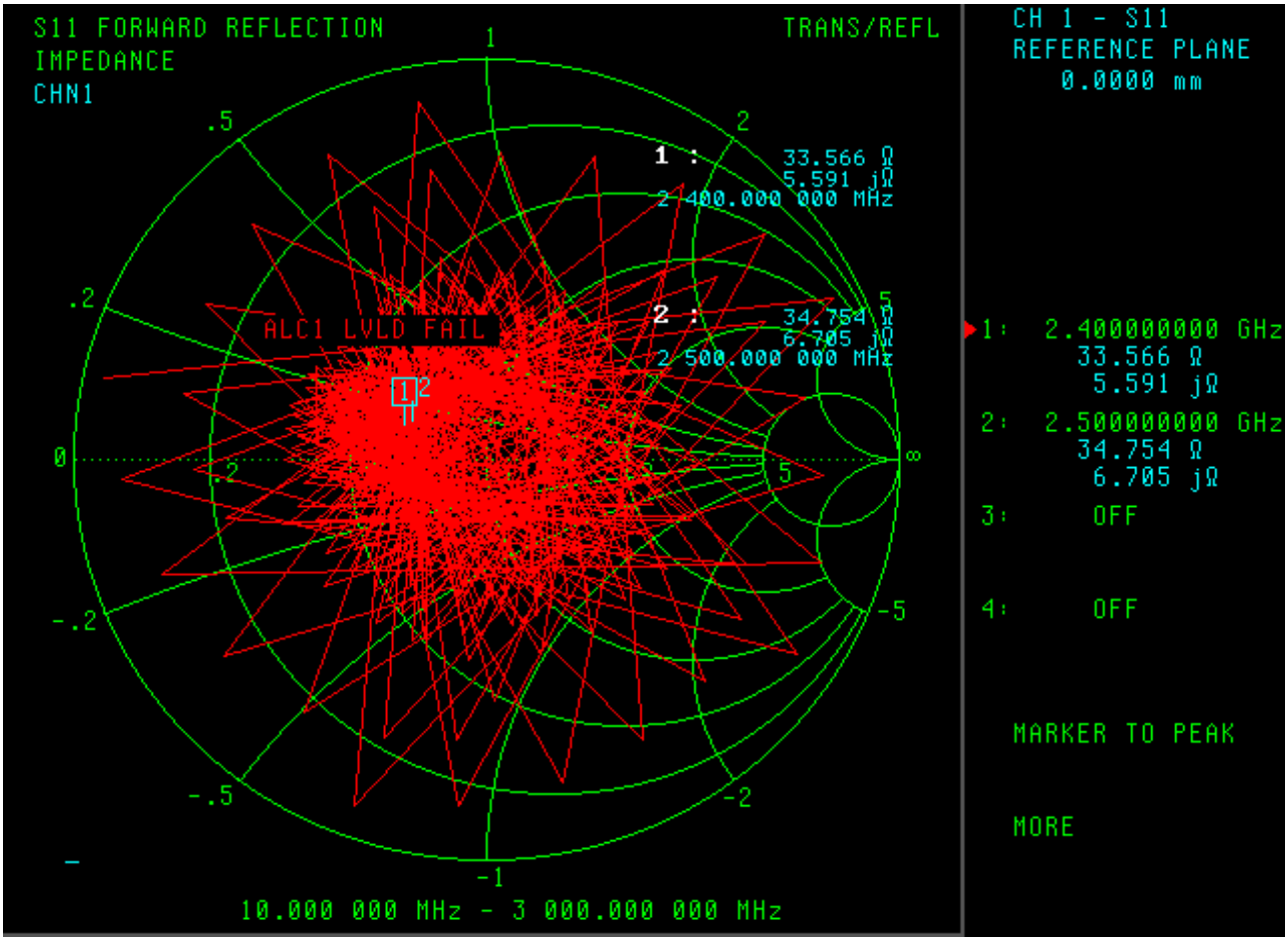
1. Appearance



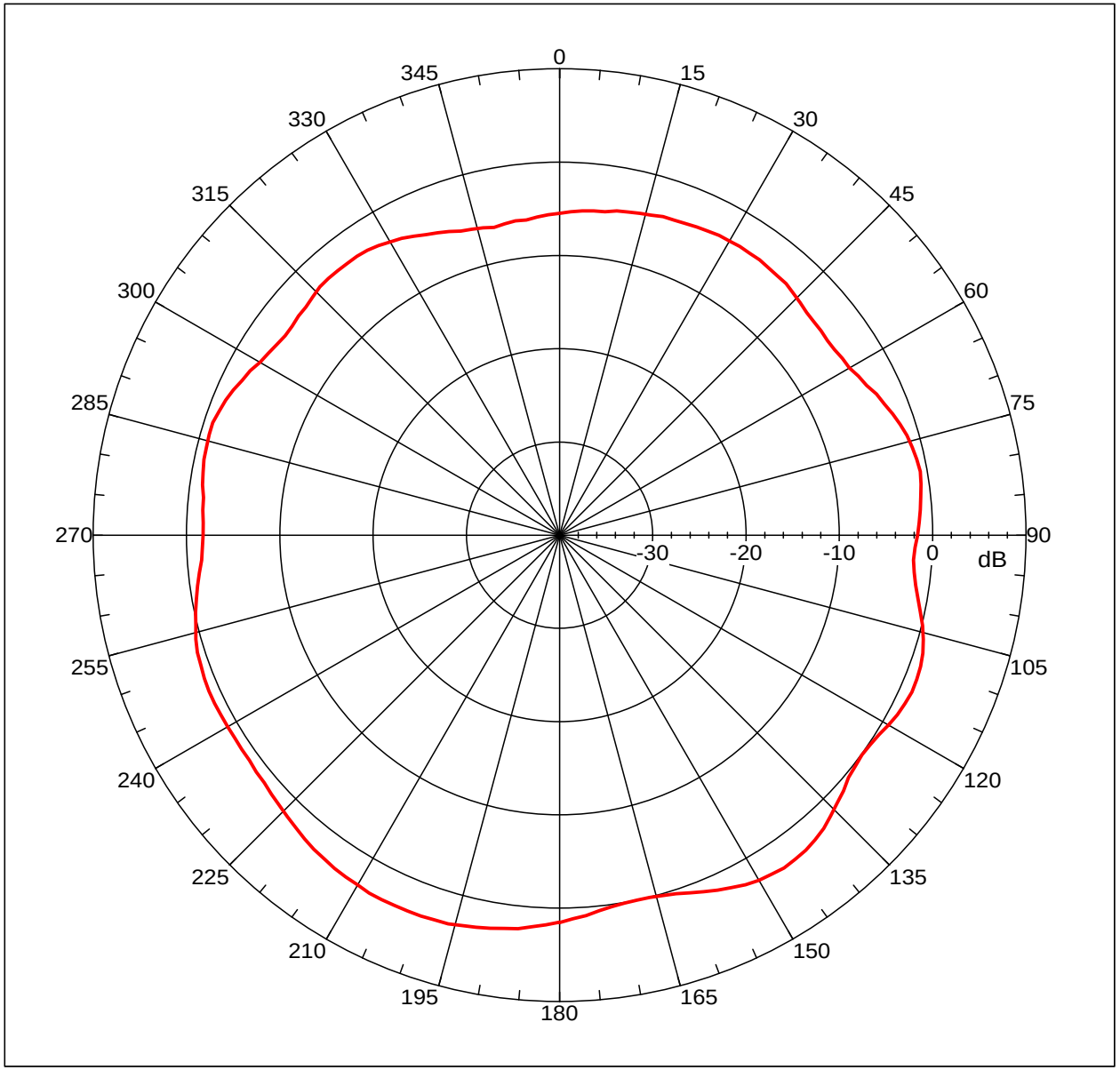
2. Frequency


S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
LOG MAGNITUDE
▸REF=0.000 dB
10.000 dB/DIV
1 : -13.790 dB
2 400.000 000 MHz
2 : -14.096 dB
2 500.000 000 MHz
ALC1 LVLD FAIL
10.000 000 MHz
3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 2.400000000 GHz
-13.790 dB
2: 2.500000000 GHz
-14.096 dB
3: OFF
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
TRANSMISSION/REFLECTION
CHN1
SWR
▸REF=0.000 pU
10.000 U/DIV
1 : 1.537 U
2 400.000 000 MHz
2 : 1.501 U
2 500.000 000 MHz
ALC1 LVLD FAIL
10.000 000 MHz
3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 2.400000000 GHz
1.537 U
2: 2.500000000 GHz
1.501 U
3: OFF
4: OFF
MARKER TO PEAK
MORE


S11 FORWARD REFLECTION
IMPEDANCE
CHN1
TRANS/REFL
1 : 33.566 Ω
5.591 jΩ
2.400.000 000 MHz
2 : 34.754 Ω
6.705 jΩ
2.500.000 000 MHz
ALC1 LVLD FAIL
10.000 000 MHz - 3 000.000 000 MHz
CH 1 - S11
REFERENCE PLANE
0.0000 mm
1: 2.400000000 GHz
33.566 Ω
5.591 jΩ
2: 2.500000000 GHz
34.754 Ω
6.705 jΩ
3: OFF
4: OFF
MARKER TO PEAK
MORE

Far-field amplitude of TH-261 2.4GHZ H-Plane04.nsi



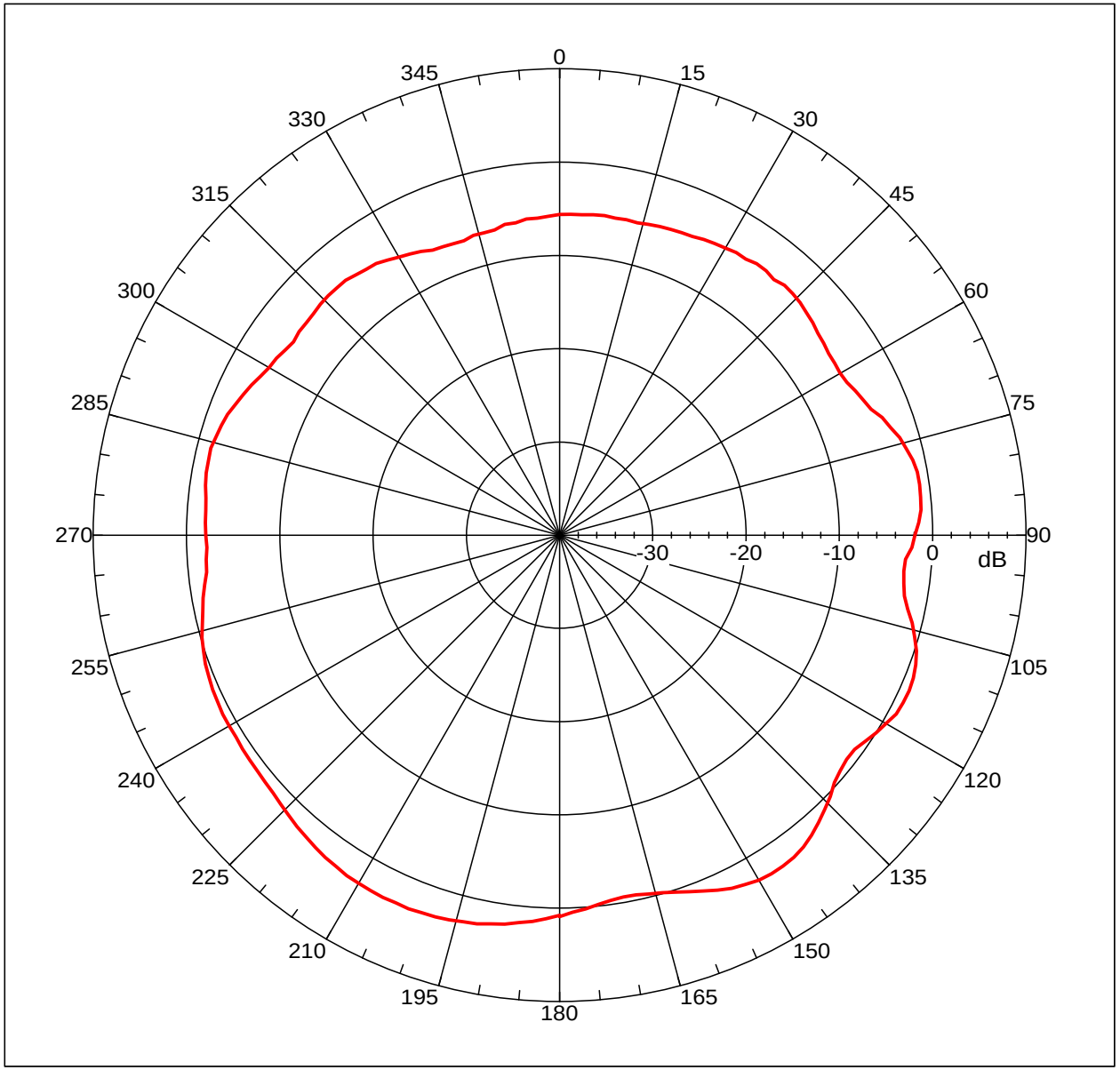

```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 3.47994  dBi
Max far-field (global) = -45.56096  dB, Max far-field (plot) =
-45.56096  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -156.000  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  H-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
H-Plane04.nsi
Measurement date/time: 3/16/2009 3:37:25 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -0.663 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: -6.99 dB at 33.184  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
1       2.400  GHz  Azimuth  Elevation  Single-pol
```

Far-field amplitude of TH-261 2.4GHZ H-Plane04.nsi



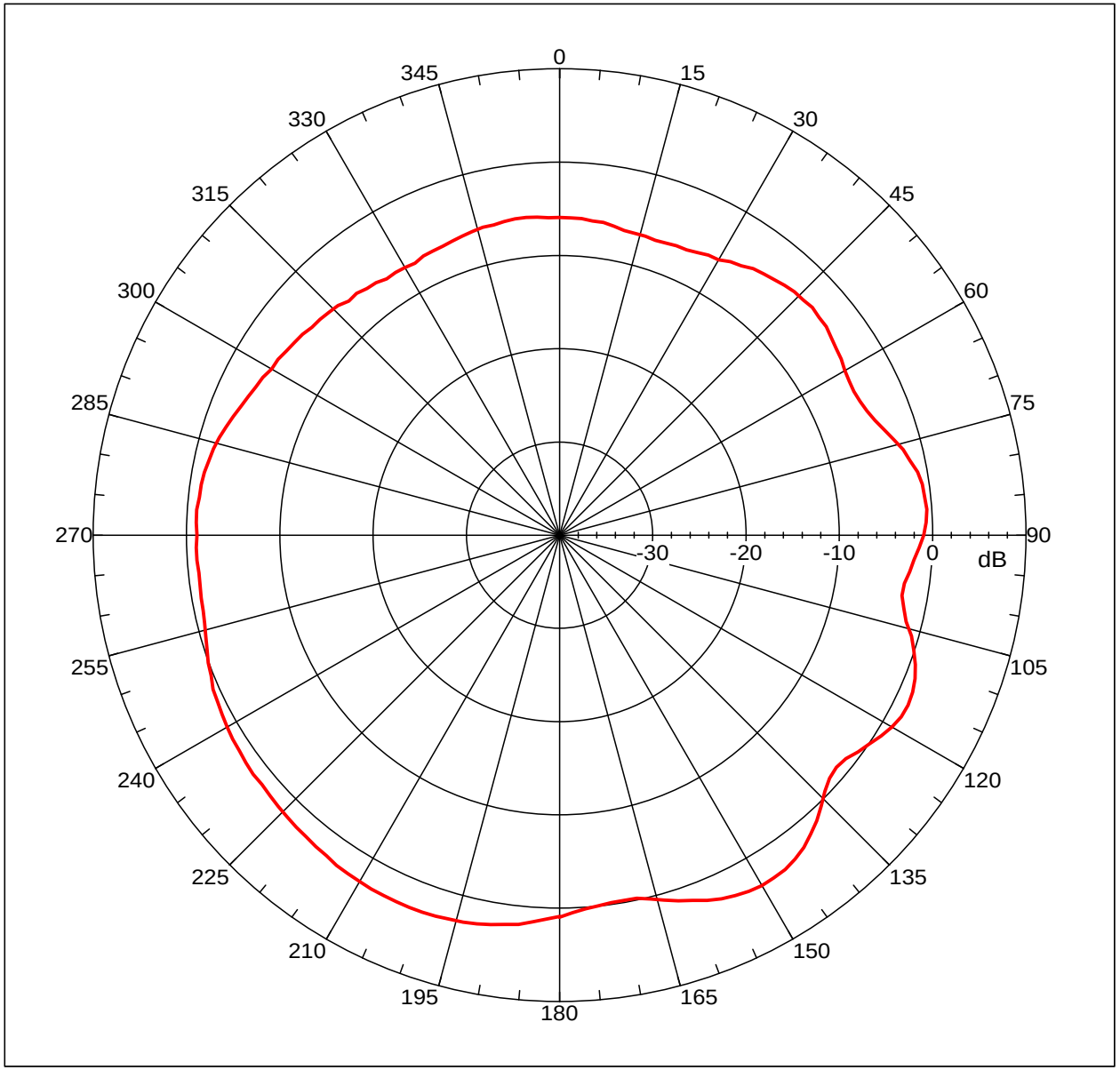

```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 3.21589  dBi
Max far-field (global) = -46.85104  dB, Max far-field (plot) =
-46.85109  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: -154.000  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  H-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
H-Plane04.nsi
Measurement date/time: 3/16/2009 3:37:25 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -1.244 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: -8.64 dB at 9.050  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
2       2.450  GHz  Azimuth  Elevation  Single-pol
```

Far-field amplitude of TH-261 2.4GHZ H-Plane04.nsi



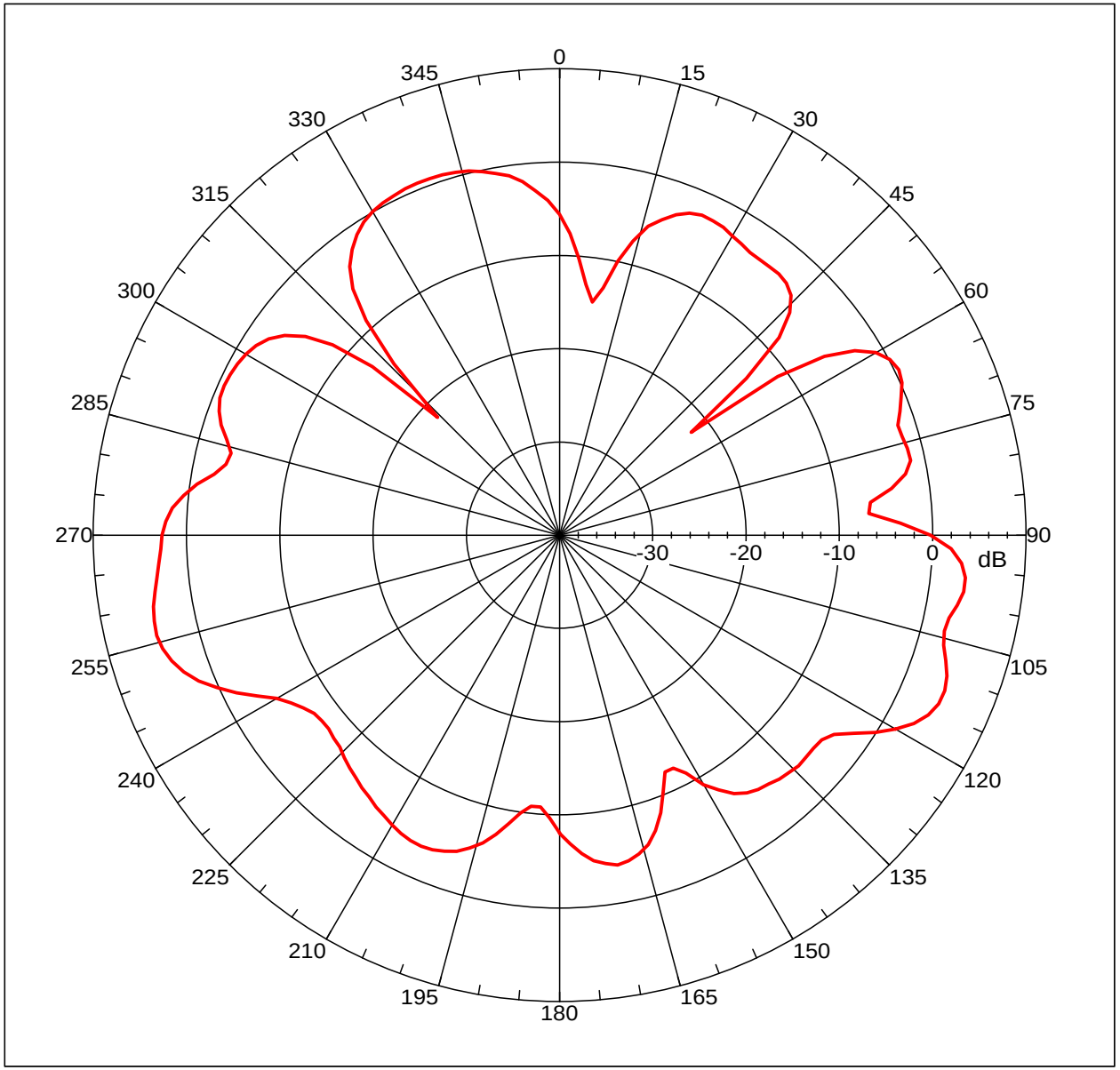

```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 3.39145  dBi
Max far-field (global) = -46.84228  dB, Max far-field (plot) =
-46.84233  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 150.000  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  H-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
H-Plane04.nsi
Measurement date/time: 3/16/2009 3:37:25 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -1.227 dB
   -3. dB beam width: 29.36 deg
   -6. dB beam width: Not Found
   -10. dB beam width: Not Found
   Left Sidelobe: -1.82 dB at 117.654  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
3       2.500  GHz  Azimuth  Elevation  Single-pol
```

Far-field amplitude of TH-261 2.4GHZ E-Plane02.nsi



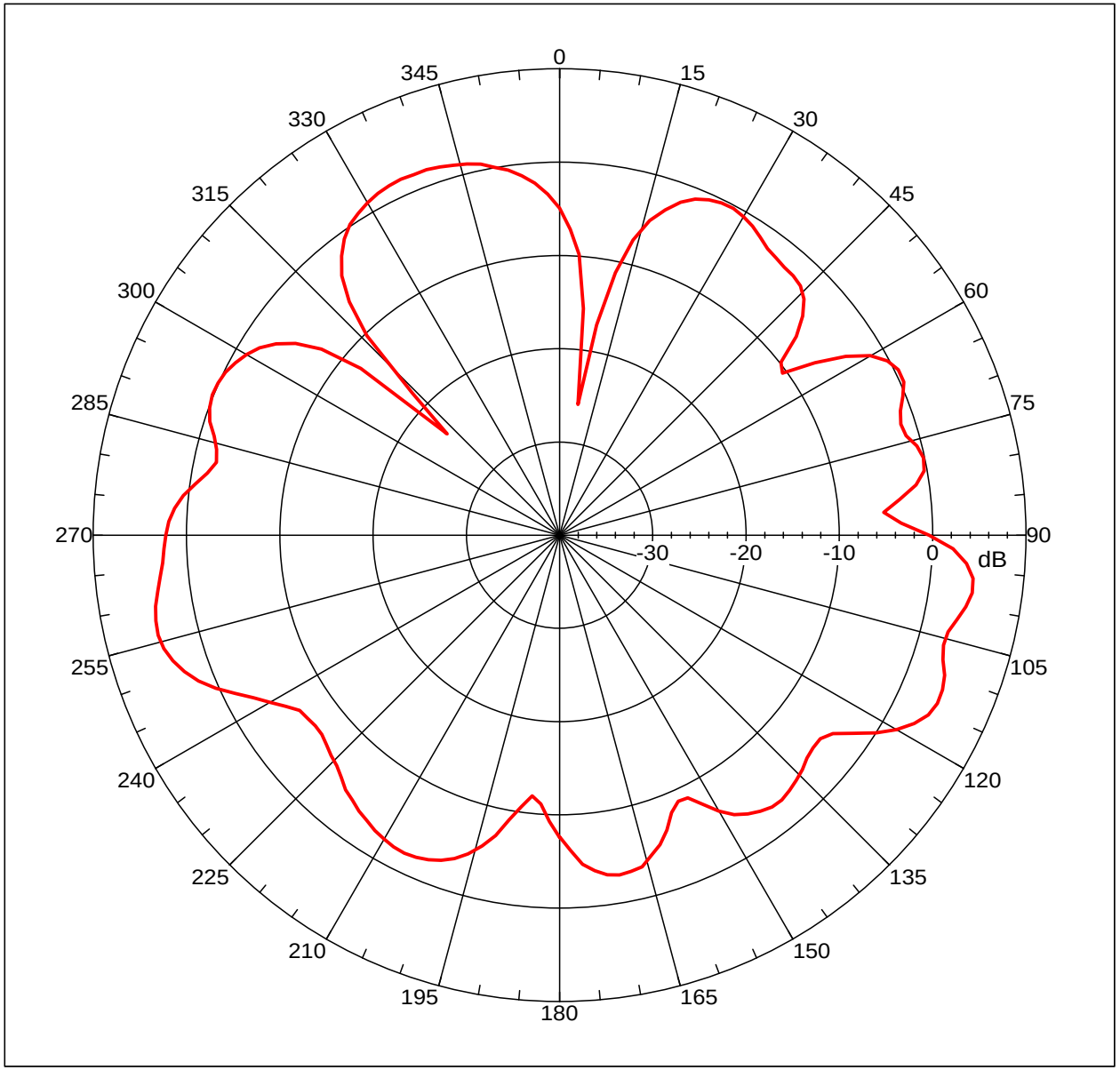

```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 4.53965  dBi
Max far-field (global) = -44.50125  dB, Max far-field (plot) =
-44.50151  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 111.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  E-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
E-Plane02.nsi
Measurement date/time: 3/16/2009 3:30:59 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -2.362 dB
   -3. dB beam width: 28.63 deg
   -6. dB beam width: 34.39 deg
   -10. dB beam width: 55.80 deg
   Left Sidelobe: -0.79 dB at 97.542  deg
   Right Sidelobe: -8.64 dB at 171.955  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
1       2.400  GHz  Azimuth  Elevation  Single-pol
```

Far-field amplitude of TH-261 2.4GHZ E-Plane02.nsi



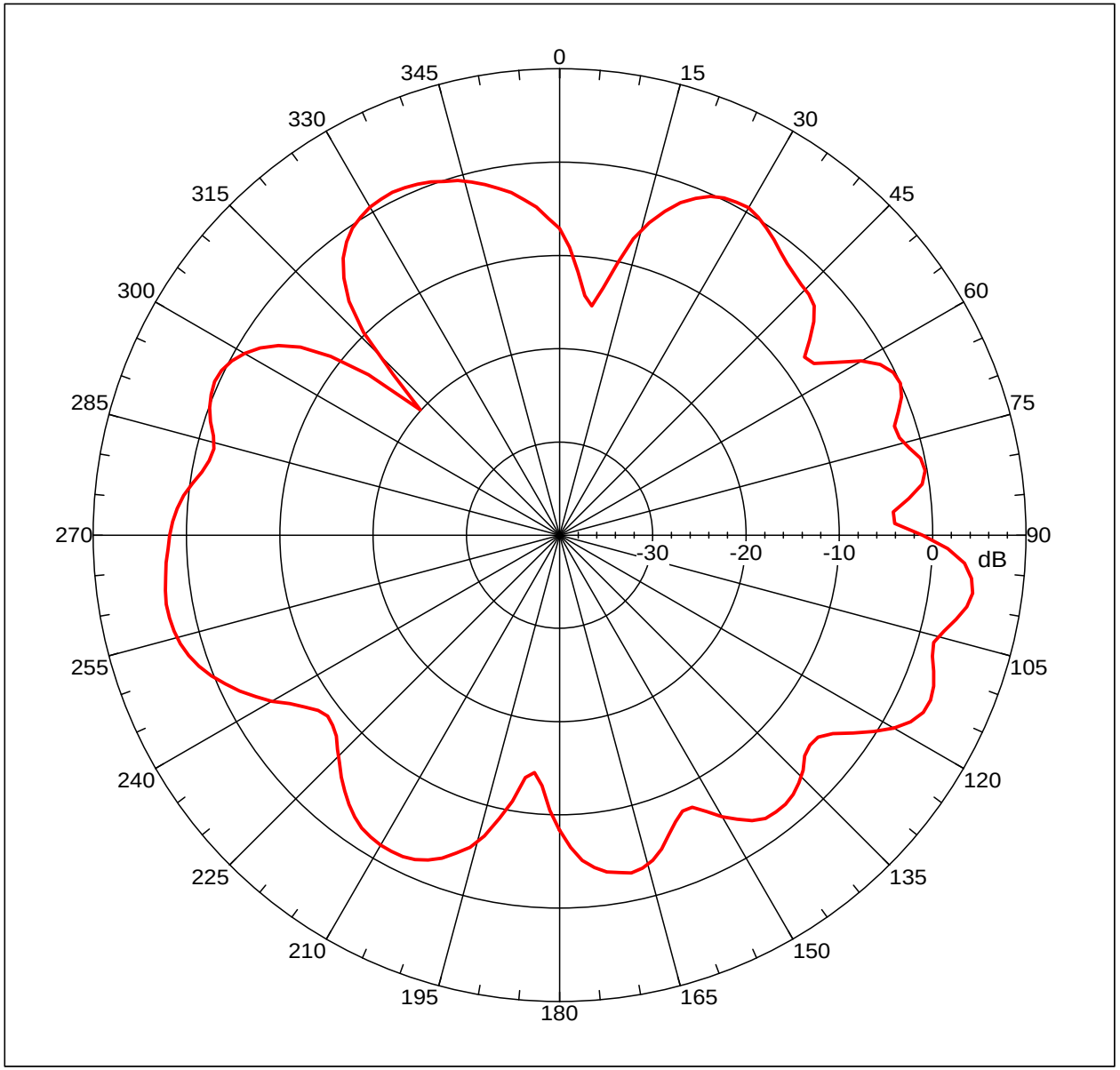

```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 4.67418  dBi
Max far-field (global) = -45.39275  dB, Max far-field (plot) =
-45.39286  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 97.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  E-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
E-Plane02.nsi
Measurement date/time: 3/16/2009 3:30:59 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -1.692 dB
   -3. dB beam width: 28.59 deg
   -6. dB beam width: 34.14 deg
   -10. dB beam width: 92.58 deg
   Left Sidelobe: -4.79 dB at 79.441  deg
   Right Sidelobe: -0.34 dB at 115.643  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
2       2.450  GHz  Azimuth  Elevation  Single-pol
```

Far-field amplitude of TH-261 2.4GHZ E-Plane02.nsi




```
 Far-field amplitude, Eprincipal: Linear, Tau = 0.000  deg
Gain = 4.71615  dBi
Max far-field (global) = -45.51758  dB, Max far-field (plot) =
-45.51777  dB
Normalization: Reference, Network offset = 0.000  dB
Hpeak at: 97.99999  deg, Vpeak at: 0.000  deg
Plot centering: On

TH261 2.4GHZ  E-Plane

NSI2000 V4.0.124, Filename:C:\nsi2000\Midy\2.4G\TH261 2.4GHZ
E-Plane02.nsi
Measurement date/time: 3/16/2009 3:30:59 PM, Filetype: NSI-97
Far-field Cut Analysis:
   Avg value: -2.027 dB
   -3. dB beam width: 27.52 deg
   -6. dB beam width: 33.43 deg
   -10. dB beam width: 92.96 deg
   Left Sidelobe: -4.94 dB at 81.453  deg
   Right Sidelobe: -1.20 dB at 115.643  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 3
Beam    Frequency   Azimuth  Elevation  Pol
----    ---------   -------  ---------  ---
3       2.500  GHz  Azimuth  Elevation  Single-pol
```