

Marine GSM/3G Antenna

Model : GSM100G



1. GENERAL DESCRIPTION

Model No
GSM100G-N(F)

1.1 Electrical Properties

Parameter	Description
Frequency Band	824~2170 MHz
Nominal Impedance	50 ohm
Polarization	Vertical
Return Loss	Please See Data-1
V.S.W.R	3.0:1
Gain	5dbi

1.2 Mechanical Properties

Parameter	Description
Antenna Type	Base Antenna
Antenna Cover	Fiber
Connector Type	N (Female)
Antenna Dimensions	756mm ±50
Antenna Color	White
Operating Temperature Range	-20°C~+60°C
Storage Temperature Range	-30°C~+70°C

2. Appearance

NO.	NAME	Q, TY
01	Fiberglass	01
02	Top cap	01
03	N (Female)	01
04	Rigid joint	01
05	Connecting vopper pipe	01

⇒ G1"-11

⇒ 1"-14

756±50

UNSI 1" x 14

BSP 1" x 11

1" - 14

②

①

④

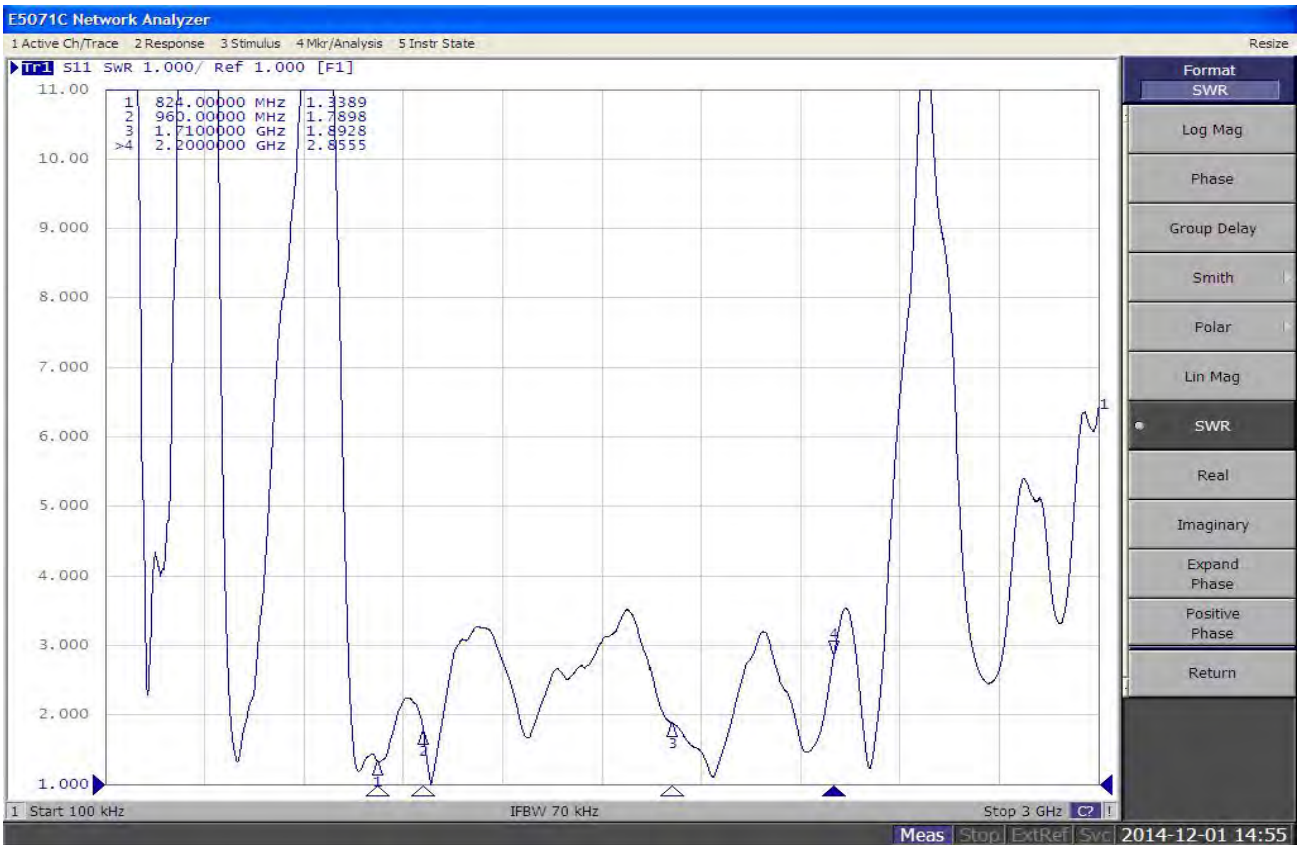
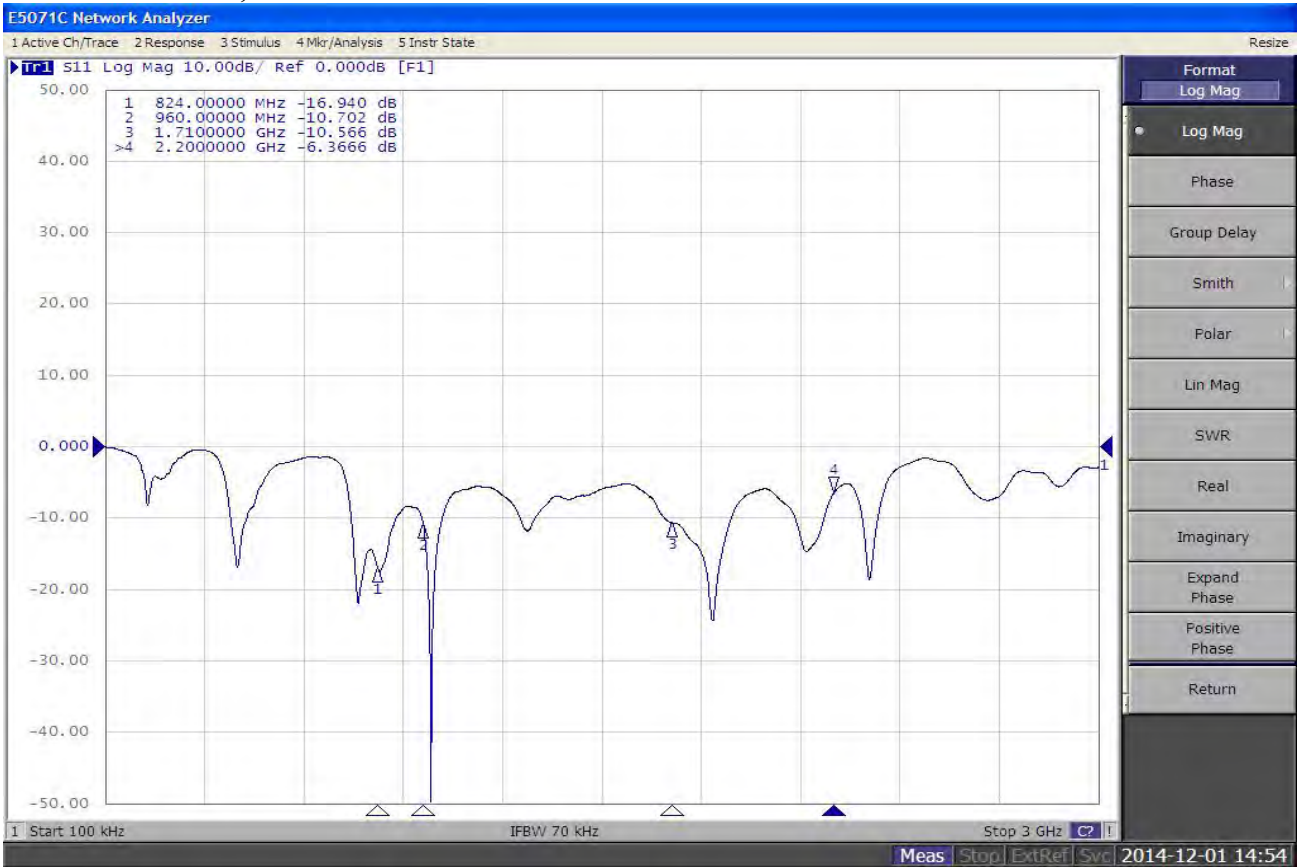
⑤

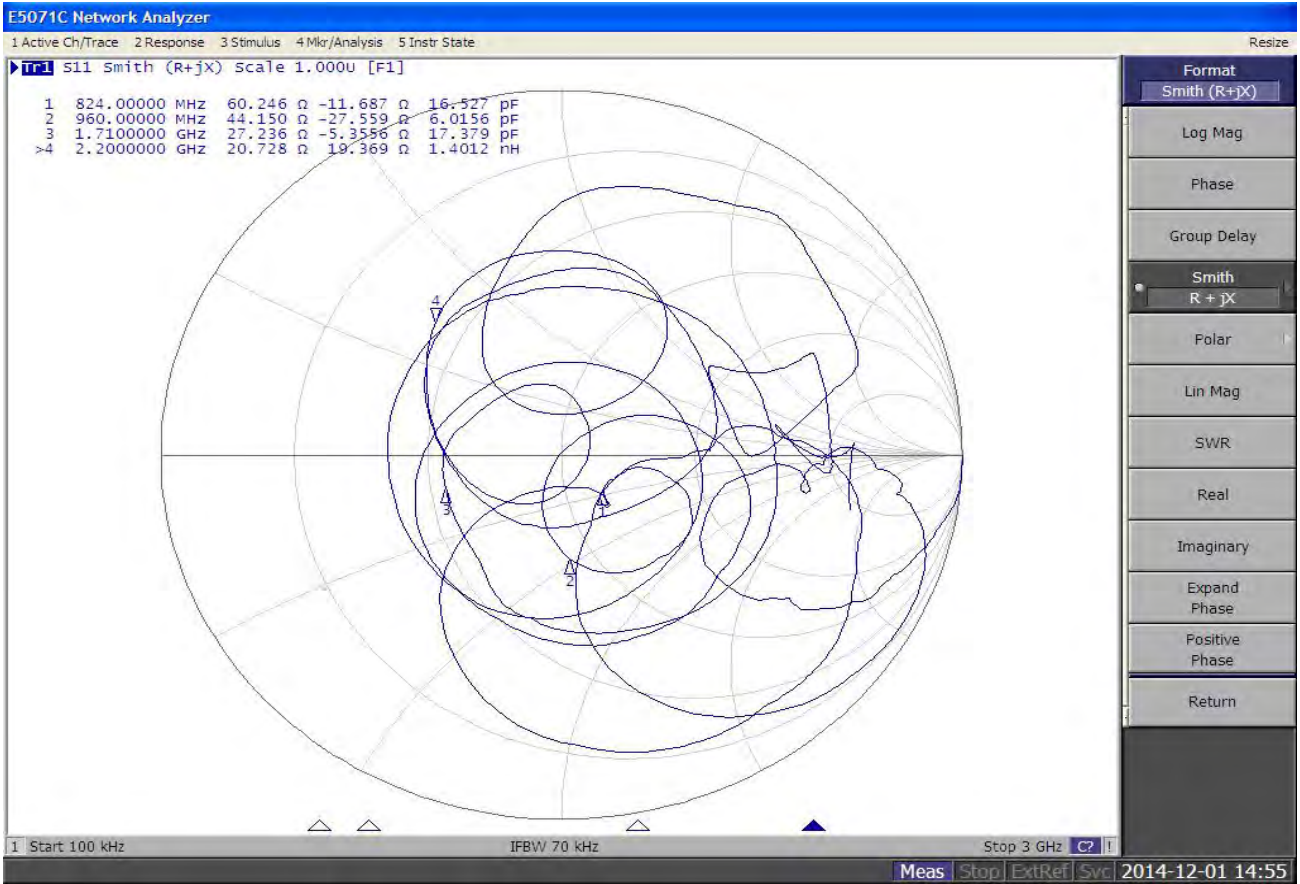
③

FREQUENCY: 800~2200MHz

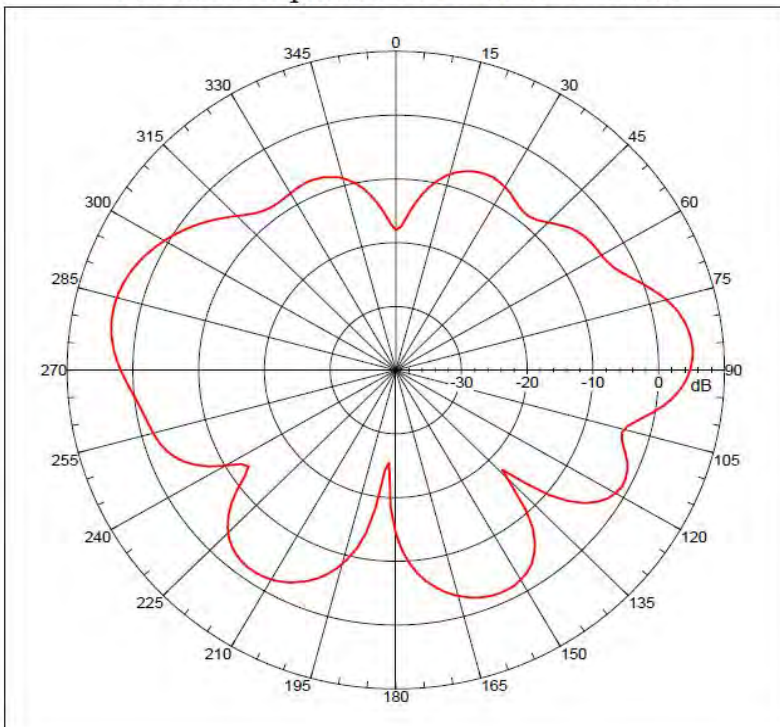
 Third angle projection	CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
					M/M		20150204	1
	TOLERANCE	X. XX±0. 15	NAME	PARTS NUMBER	APPROVED	CHECKED	DRAWING	DESIGNED
	SURFACE ROUGHNESS	S ▽▽	APPEARANCE					

3. Return Loss, V.S.W.R. and Smith Chart





Far-field amplitude of GSM-100G-E.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = 5.2792 dBi
 Max far-field (global) = -37.46907 dB, Max far-field (plot) = -37.4691 dB
 Normalization: Reference, Network offset = 0.000 dB
 Wpeak at: 85.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

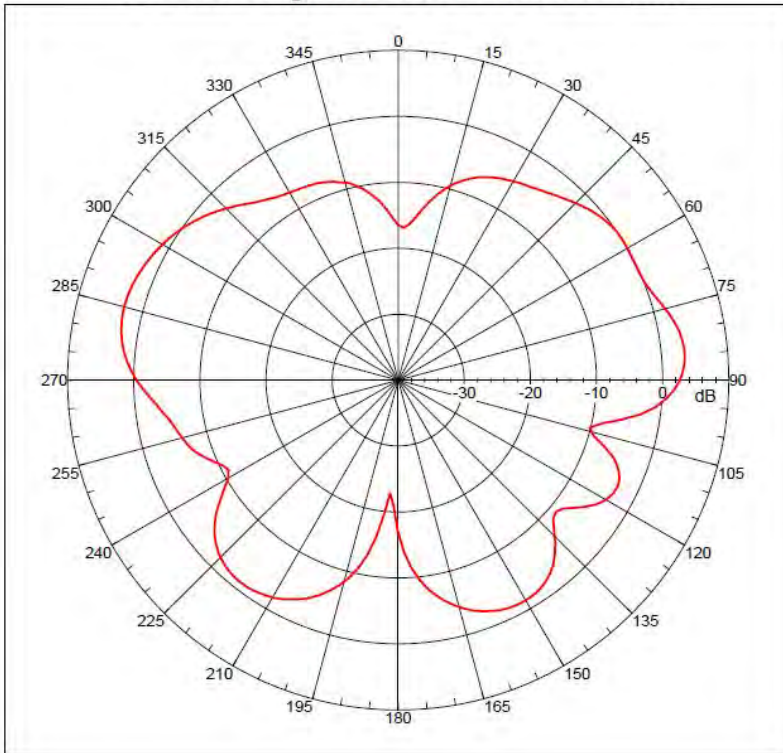
GSM-100G

NSI2000 V4.0.124, Filename: C:\Documents and Settings\NSI\Desktop\Y.
 H.T\GSM-100G\GSM-100G-E.nsi
 Measurement date/time: 3/4/2015 9:11:20 AM, Filetype: NSI-97
 Far-field Cut Analysis:
 Avg value: -3.194 dB
 -3. dB beam width: 21.81 deg
 -6. dB beam width: 31.17 deg
 -10. dB beam width: 74.09 deg
 Left Sidelobe: -11.62 dB at 23.151 deg
 Right Sidelobe: -6.24 dB at 119.665 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 7

Beam	Frequency	Azimuth	Elevation	Pol
1	0.806 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-E.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = 3.51448 dB
 Max far-field (global) = -38.01858 dB, Max far-field (plot) = -38.01858 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 0.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename: C:\Documents and Settings\NSI\Desktop\Y...
 H:\GSM-100G\GSM-100G-E.nsi
 Measurement date/time: 3/4/2015 9:11:20 AM, Filetype: NSI-97

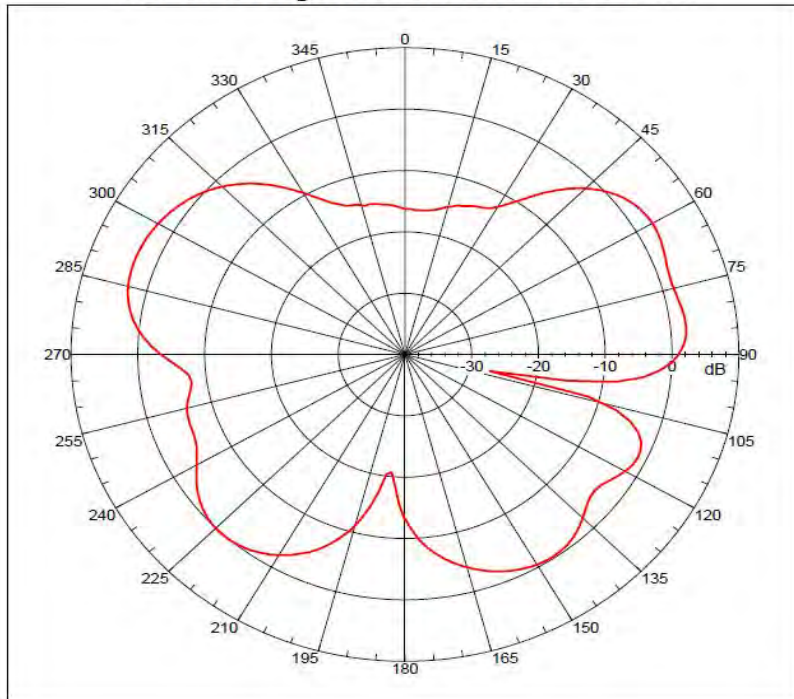
Far-field Cut Analysis:
 Avg value: -3.393 dB
 -3 dB beam width: 23.77 deg
 -6 dB beam width: 54.50 deg
 -10 dB beam width: 77.64 deg
 Left Sidelobe: -0.53 dB at -75.419 deg
 Right Sidelobe: -6.61 dB at 117.654 deg

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 7

Beam	Frequency	Azimuth	Elevation	Pol
1	0.850 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-E.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = 3.269 dB
 Max far-field (global) = -38.29068 dB, Max far-field (plot) = -38.29072 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: -68.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename: C:\Documents and Settings\NSI\Desktop\Y...
 H:\GSM-100G\GSM-100G-E.nsi
 Measurement date/time: 3/4/2015 9:11:20 AM, Filetype: NSI-97

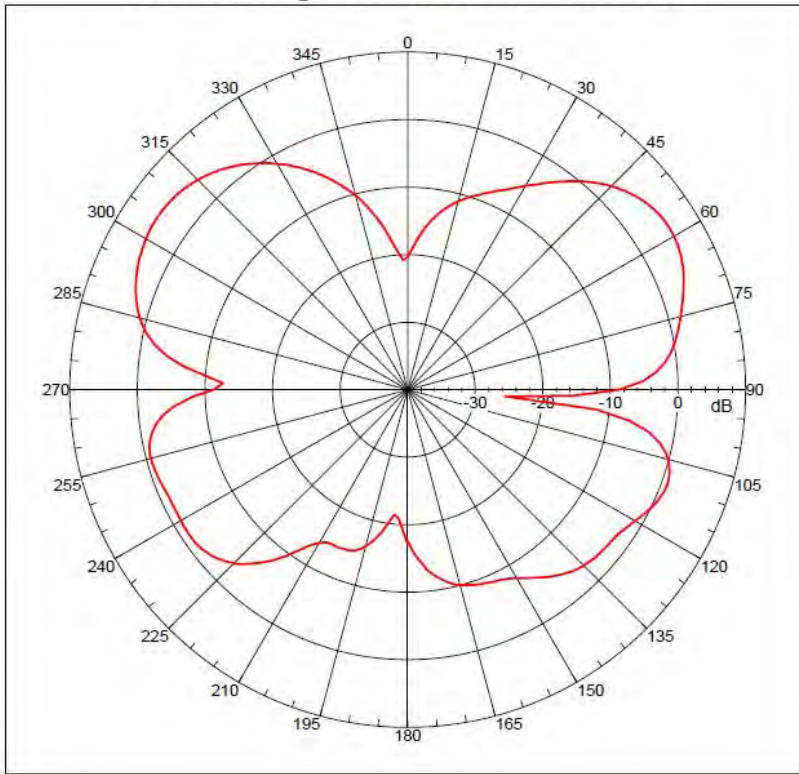
Far-field Cut Analysis:
 Avg value: -3.145 dB
 -3 dB beam width: 24.87 deg
 -6 dB beam width: 47.40 deg
 -10 dB beam width: 60.26 deg
 Left Sidelobe: -3.70 dB at -135.754 deg
 Right Sidelobe: -0.48 dB at 61.341 deg

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 7

Beam	Frequency	Azimuth	Elevation	Pol
1	0.850 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-E.nsi



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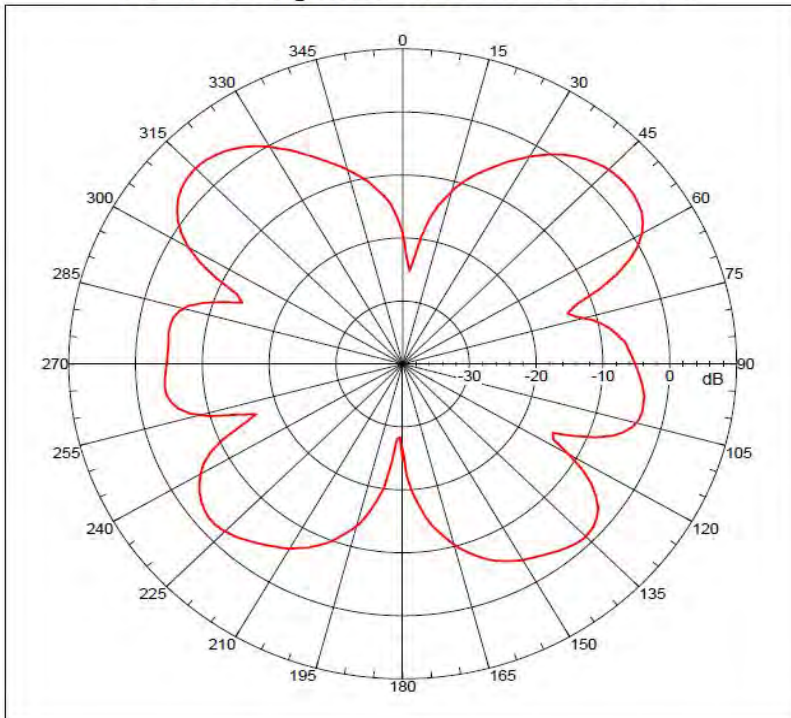
Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = 5.53455 dBi
Max far-field (global) = -37.09541 dB, Max far-field (plot) =
-37.09544 dB
Normalization: Reference, Network offset = 0.000 dB
Sweep at: 57.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y.
E.T\GSM-100G\GSM-100G-E.nsi
Measurement date/time: 3/4/2015 9:11:20 AM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: -2.156 dB
-3. dB beam width: 29.10 deg
-6. dB beam width: 43.11 deg
-10. dB beam width: 96.11 deg
Left Sidelobe: -0.37 dB at -55.307 deg
Right Sidelobe: -4.61 dB at 111.620 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 7
Beam: Frequency Azimuth Elevation Pol
4 0.950 GHz Azimuth Elevation Single-pol
    
```

Far-field amplitude of GSM-100G-E.nsi



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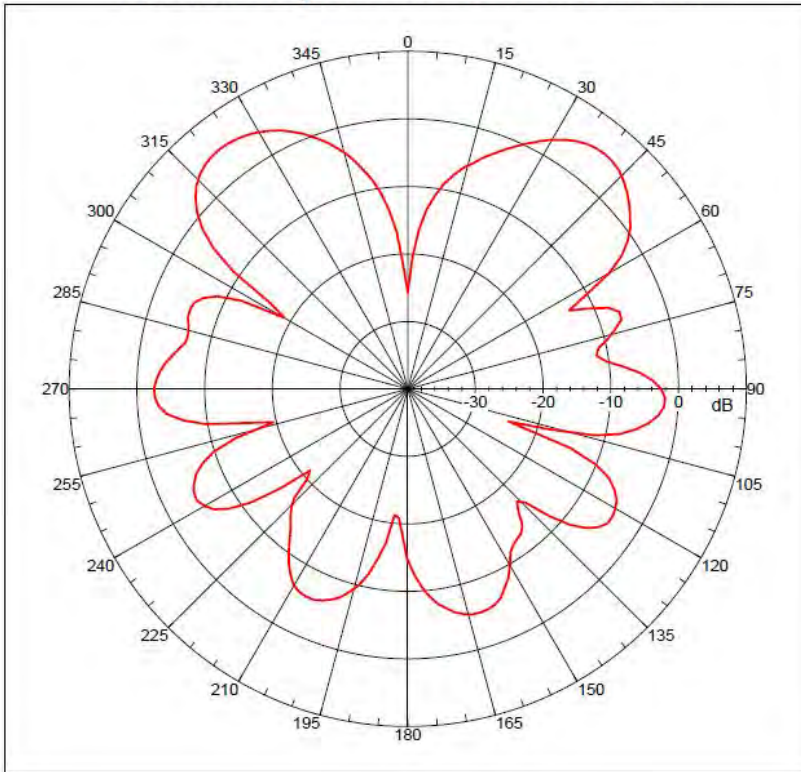
Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = 3.80395 dBi
Max far-field (global) = -42.81239 dB, Max far-field (plot) =
-42.81243 dB
Normalization: Reference, Network offset = 0.000 dB
Sweep at: 49.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y.
E.T\GSM-100G\GSM-100G-E.nsi
Measurement date/time: 3/4/2015 9:11:20 AM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: -4.447 dB
-3. dB beam width: 29.05 deg
-6. dB beam width: 34.28 deg
-10. dB beam width: 43.74 deg
Left Sidelobe: -0.04 dB at -43.240 deg
Right Sidelobe: -7.23 dB at 103.575 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 7
Beam: Frequency Azimuth Elevation Pol
5 1.800 GHz Azimuth Elevation Single-pol
    
```


Far-field amplitude of GSM-100G-E.nsi



Far-field amplitude, Principal: Linear, Tau = 0.000 deg
 Gain = 5.34751 dB
 Max far-field (global) = -41.68945 dB, Max far-field (plot) = -41.68945 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 39.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\F.7\GSM-100G\GSM-100G-E.nsi
 Measurement date/time: 3/4/2019 9:11:20 AM, Filetype: NSI-97

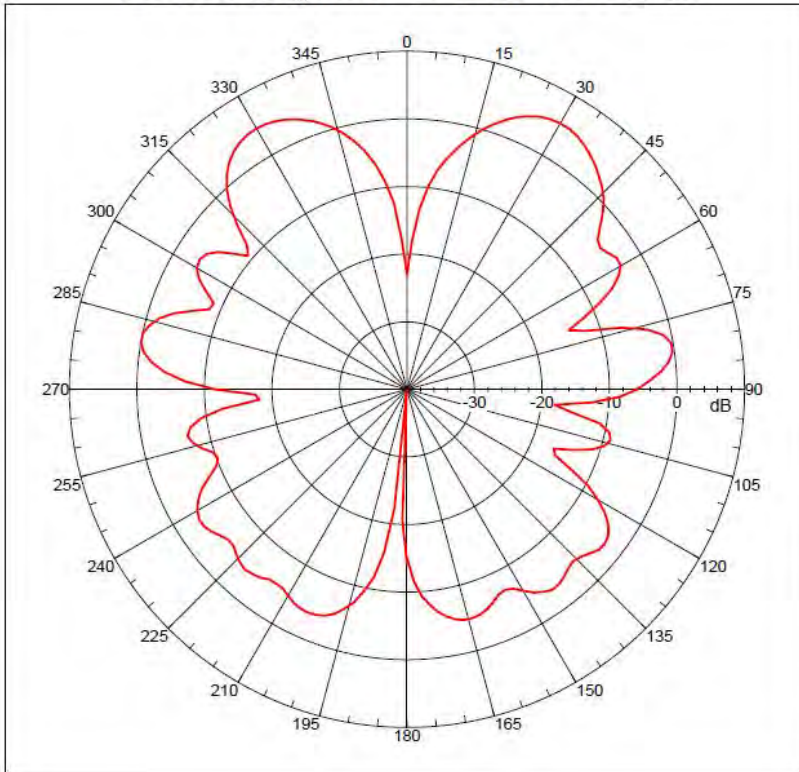
Far-field Cut Analysis:
 Avg value: -4.525 dB
 -3. dB beam width: 21.25 deg
 -6. dB beam width: 31.32 deg
 -10. dB beam width: 42.56 deg
 Left Sidelobe: -0.29 dB at -37.207 deg
 Right Sidelobe: -12.06 dB at 71.397 deg

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 7

Beam	Frequency	Azimuth	Elevation	Pol
6	1.900 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-E.nsi



Far-field amplitude, Principal: Linear, Tau = 0.000 deg
 Gain = 5.40464 dB
 Max far-field (global) = -42.12747 dB, Max far-field (plot) = -42.12747 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 29.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G

NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\F.7\GSM-100G\GSM-100G-E.nsi
 Measurement date/time: 3/4/2019 9:11:20 AM, Filetype: NSI-97

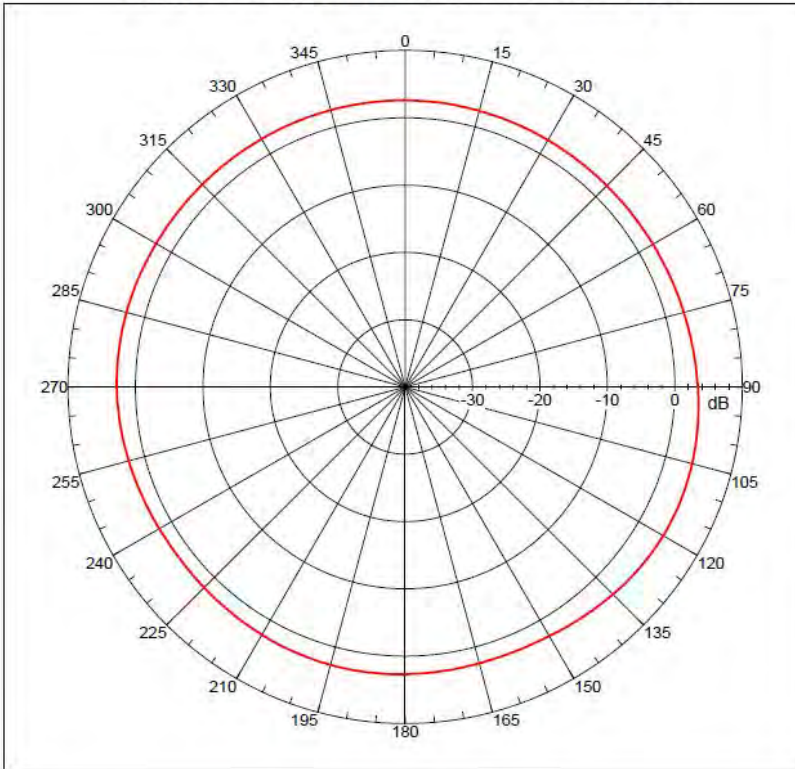
Far-field Cut Analysis:
 Avg value: -3.613 dB
 -3. dB beam width: 22.09 deg
 -6. dB beam width: 32.20 deg
 -10. dB beam width: 51.65 deg
 Left Sidelobe: -0.88 dB at -29.162 deg
 Right Sidelobe: -9.81 dB at 59.330 deg

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 7

Beam	Frequency	Azimuth	Elevation	Pol
7	2.170 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-H.nsi



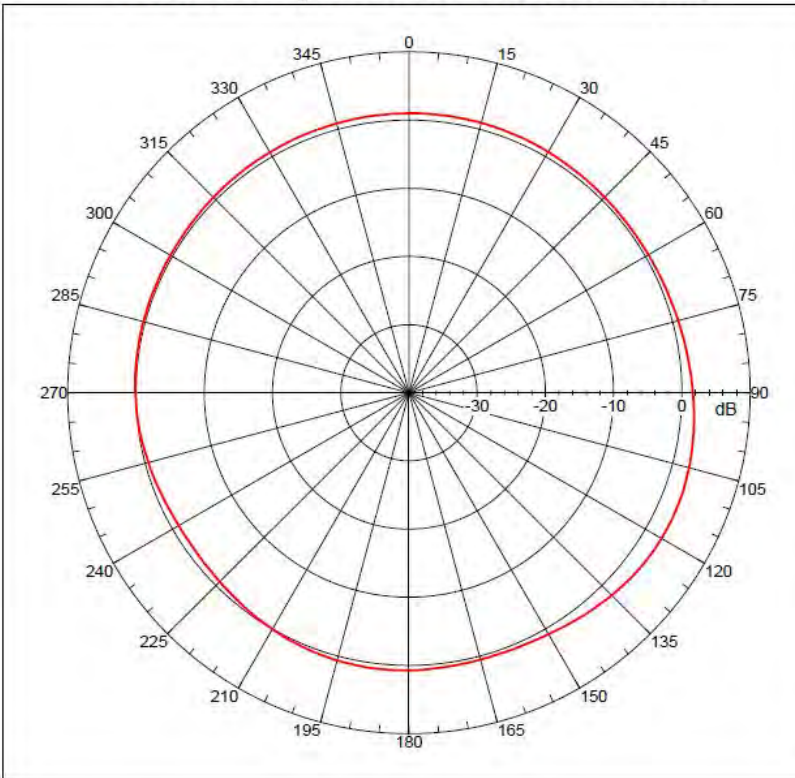
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Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = 4.22049 dB
Max far-field (global) = -38.5178 dB, Max far-field (plot) =
-38.5178 dB
Normalization: Reference, Network offset = 0.000 dB
Vpeak at: 113.99999 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G-H
NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y.
H.T\GSM-100G\GSM-100G-H.nsi
Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: 2.761 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 7
Beam Frequency Azimuth Elevation Pol
-----
1 0.806 GHz Azimuth Elevation Single-pol
    
```

Far-field amplitude of GSM-100G-H.nsi



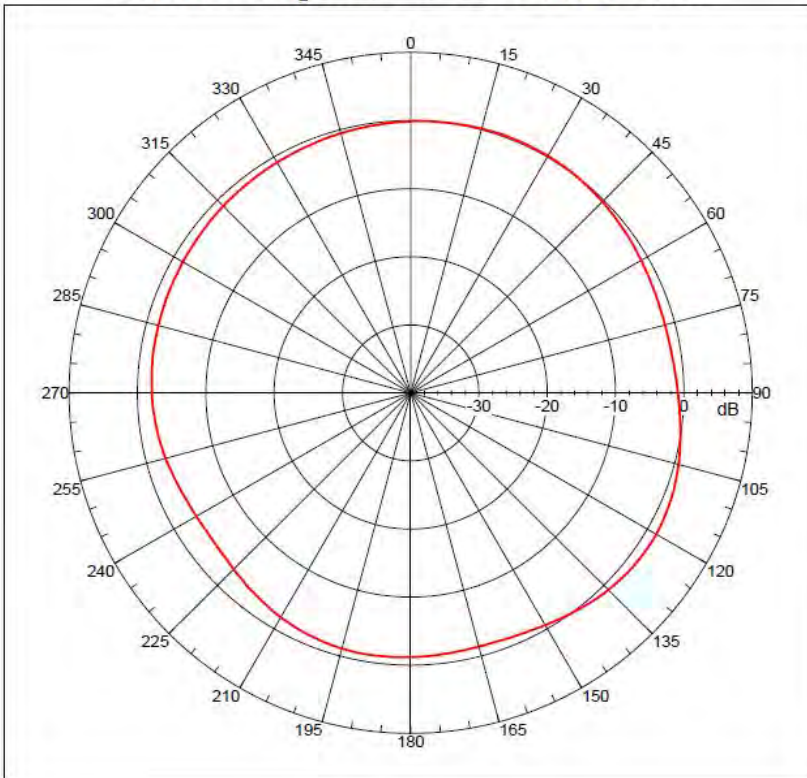
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Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = 2.77203 dB
Max far-field (global) = -38.76004 dB, Max far-field (plot) =
-38.76005 dB
Normalization: Reference, Network offset = 0.000 dB
Vpeak at: 116.000 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G-H
NSI2000 V4.0.124, Filename:D:\Documents and Settings\NSI\Desktop\Y.
H.T\GSM-100G\GSM-100G-H.nsi
Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: 0.739 dB
-3 dB beam width: Not Found
-6 dB beam width: Not Found
-10 dB beam width: Not Found
Left Sidelobe: -2.01 dB at -171.955 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 7
Beam Frequency Azimuth Elevation Pol
-----
2 0.850 GHz Azimuth Elevation Single-pol
    
```


Far-field amplitude of GSM-100G-H.nsi

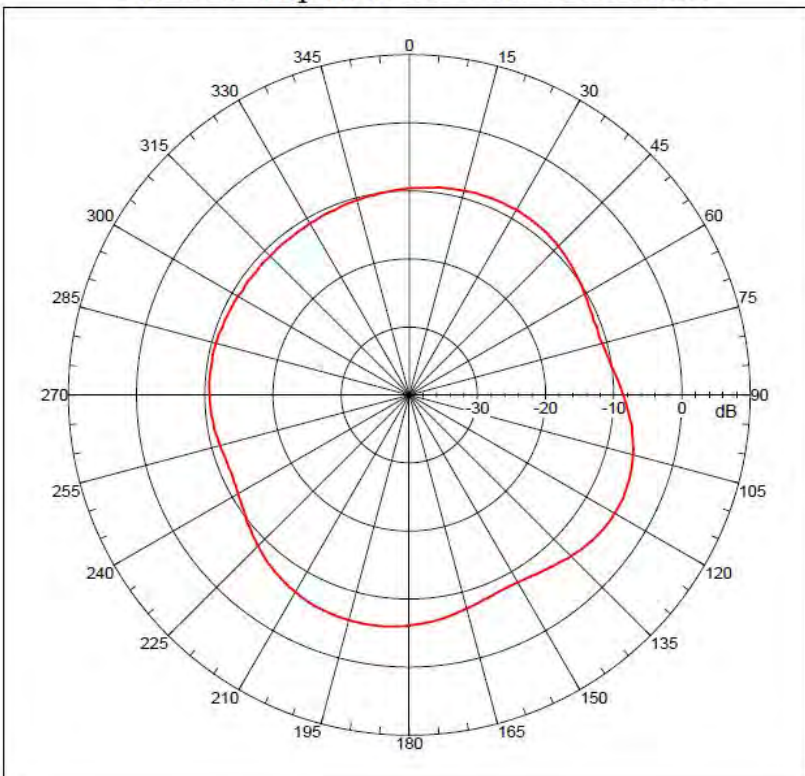


Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = 1.50232 dB
 Max far-field (global) = -40.05656 dB, Max far-field (plot) = -40.05656 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 121.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G-H
 NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y. H.T\GSM-100G\GSM-100G-H.nsi
 Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
 Far-field Cut Analysis:
 Avg value: -0.956 dB
 -3. dB beam width: Not Found
 -6. dB beam width: Not Found
 -10. dB beam width: Not Found
 Left Sidelobe: -1.28 dB at 27.151 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 7

Beam	Frequency	Azimuth	Elevation	Pol
3	0.900 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-H.nsi

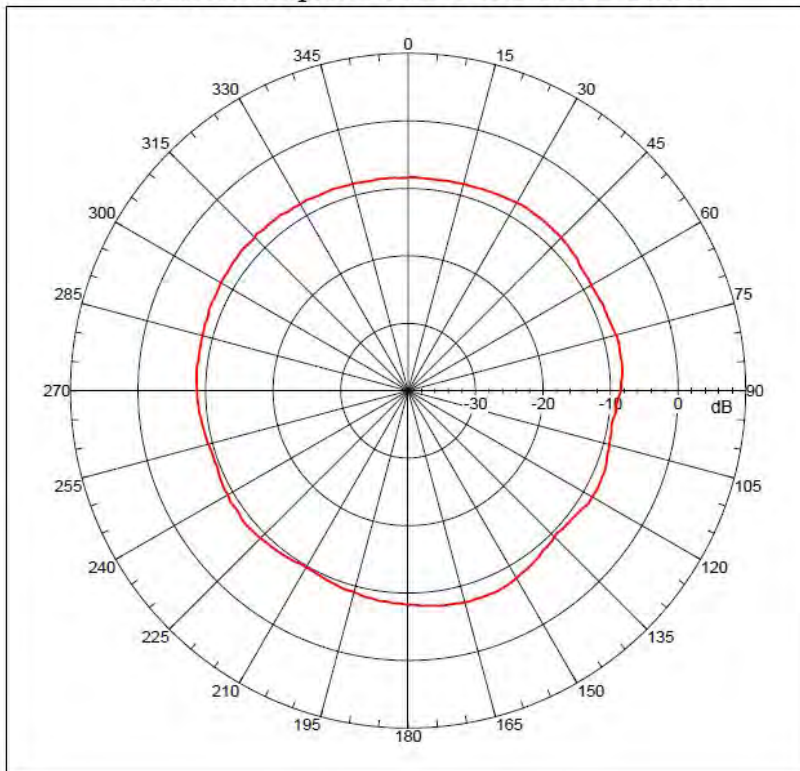


Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = -2.14517 dB
 Max far-field (global) = -47.77464 dB, Max far-field (plot) = -47.77462 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 116.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G-H
 NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y. H.T\GSM-100G\GSM-100G-H.nsi
 Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
 Far-field Cut Analysis:
 Avg value: -8.668 dB
 -3. dB beam width: 87.23 deg
 -6. dB beam width: Not Found
 -10. dB beam width: Not Found
 Left Sidelobe: -1.42 dB at 31.173 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 7

Beam	Frequency	Azimuth	Elevation	Pol
4	0.900 GHz	Azimuth	Elevation	Single-pol

Far-field amplitude of GSM-100G-H.nsi

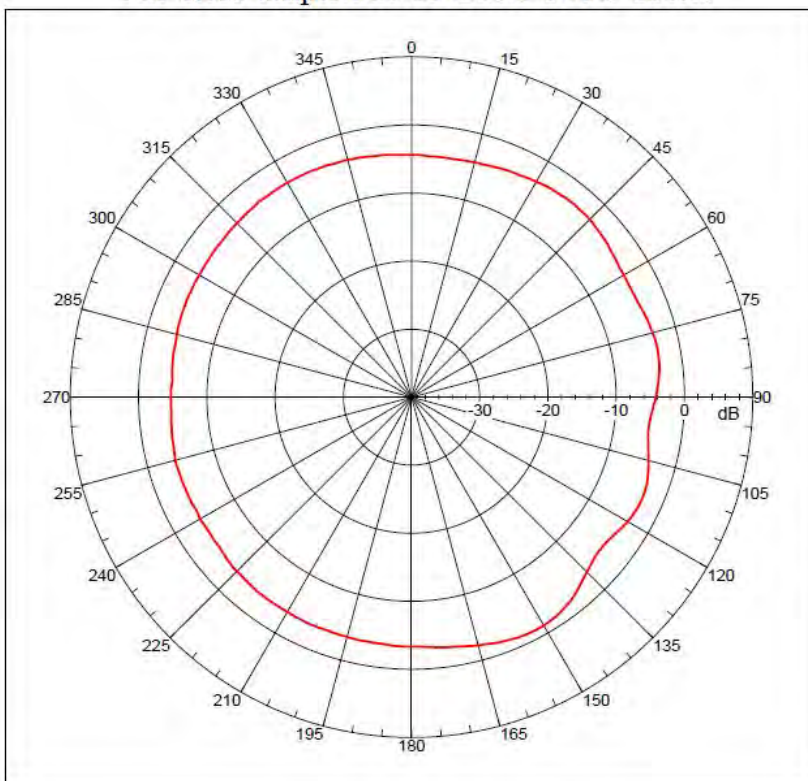


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Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -7.45515 dB
Max far-field (global) = -34.27719 dB, Max far-field (plot) =
-34.27719 dB
Normalization: Reference, Network offset = 0.000 dB
Vpeak at: 155.95999 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G-H
NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y.
H.T\GSM-100G\GSM-100G-H.nsi
Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
Far-field Cur Analysis:
Avg value: -8.458 dB
-3. dB beam width: Not Found
-6. dB beam width: Not Found
-10. dB beam width: Not Found
Left Sidelobe: -0.96 dB at 119.665 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 7
Beam Frequency Azimuth Elevation Pol
5 1.800 GHz Azimuth Elevation Single-pol
    
```

Far-field amplitude of GSM-100G-H.nsi

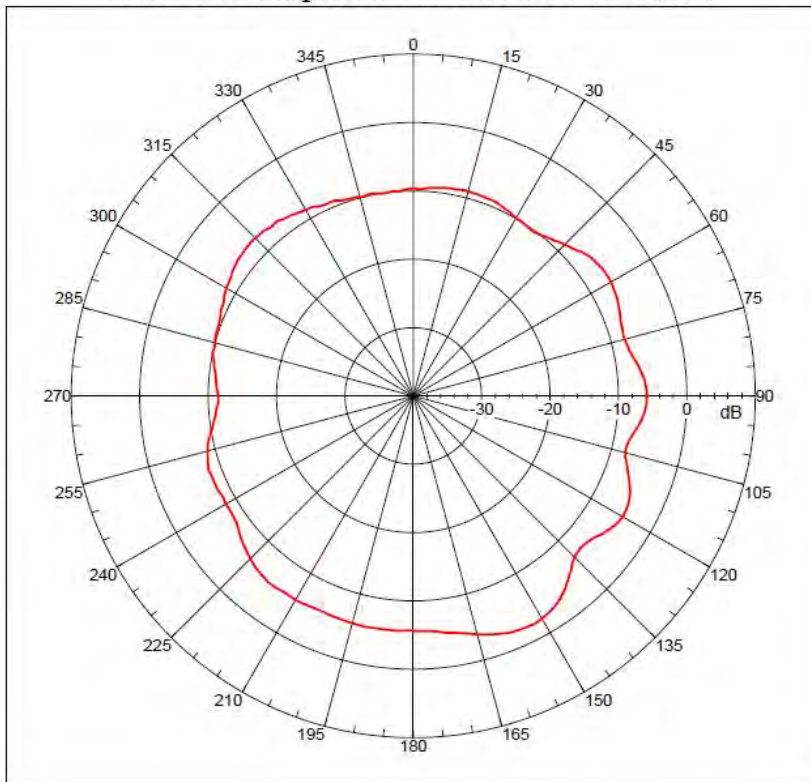


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Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -1.23508 dB
Max far-field (global) = -48.27204 dB, Max far-field (plot) =
-48.27204 dB
Normalization: Reference, Network offset = 0.000 dB
Vpeak at: 150.000 deg, Vpeak at: 0.000 deg
Plot centering: On

GSM-100G-H
NSI2000 V4.0.124, Filename:C:\Documents and Settings\NSI\Desktop\Y.
H.T\GSM-100G\GSM-100G-H.nsi
Measurement date/time: 3/4/2015 9:18:17 AM, Filetype: NSI-97
Far-field Cur Analysis:
Avg value: -3.688 dB
-3. dB beam width: Not Found
-6. dB beam width: Not Found
-10. dB beam width: Not Found
Left Sidelobe: -1.89 dB at 115.643 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 7
Beam Frequency Azimuth Elevation Pol
6 1.500 GHz Azimuth Elevation Single-pol
    
```

Far-field amplitude of GSM-100G-H.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = -2.24547 dB
 Max far-field (global) = -49.77759 dB, Max far-field (plot) = -49.77759 dB
 Normalization: Reference, Network offset = 0.000 dB
 Peak at: 151.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

GSM-100G-H

NSI2000 V4.0.124, Filename:G:\Documents and Settings\NSI\Desktop\Y.
 H.7\GSM-100G\GSM-100G-H.nsi
 Measurement date/time: 3/4/2013 9:18:17 AM, Filetype: NSI-97

Far-field Cut Analysis:

Avg value: -7.192 dB
 -3. dB beam width: 34.74 deg
 -6. dB beam width: Not Found
 -10. dB beam width: Not Found
 Left SideLobe: -2.29 dB at 121.676 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 7

Beam	Frequency	Azimuth	Elevation	Pol
7	2.170 GHz	Azimuth	Elevation	Single-pol