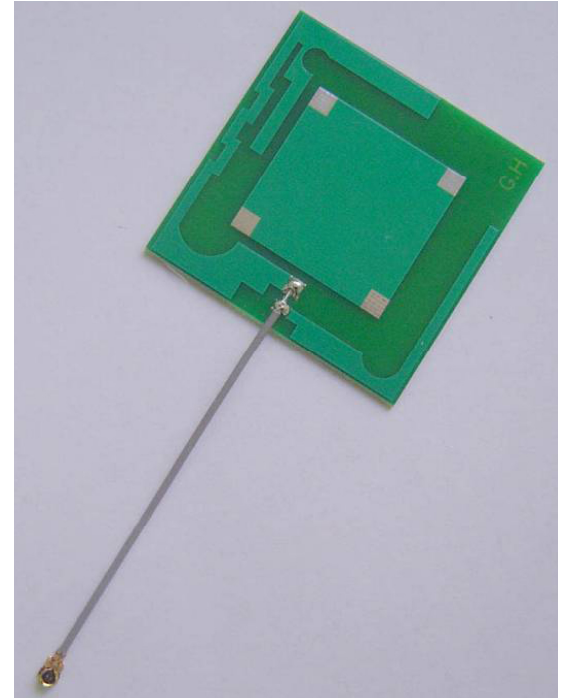




ANT-PCB4242

Features

- 800/900/1800/1900/2100MHz
- Omni Directional 1/2 Wave
- Miniature 42 x 42 x 1mm
- VSWR <3.0
- RG178 Coax 50Ω Impedance
- 2-3dBi Gain (nominal)
- Vertical Polarization
- Admitted Radiation Power 1W
- iPex/UFL Connector
- Operating temp -40 to +70°C



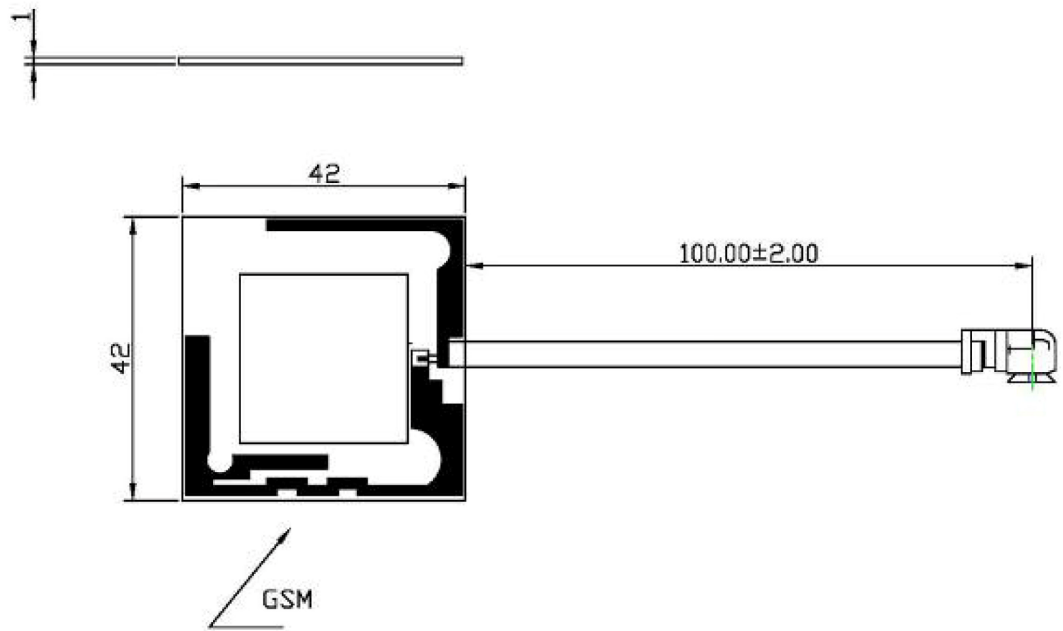
Applications

- Embedded GSM Systems
- For World-wide Use

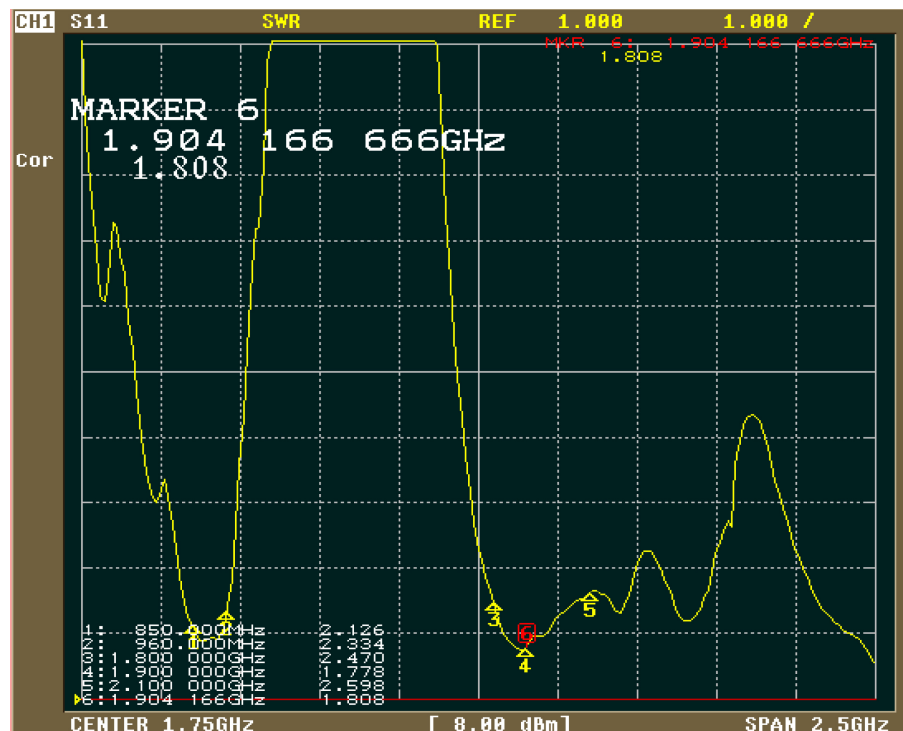
Ordering Information

PART No	Description
ANT-PCB4242-FL	Miniature PCB Penta Band Antenna

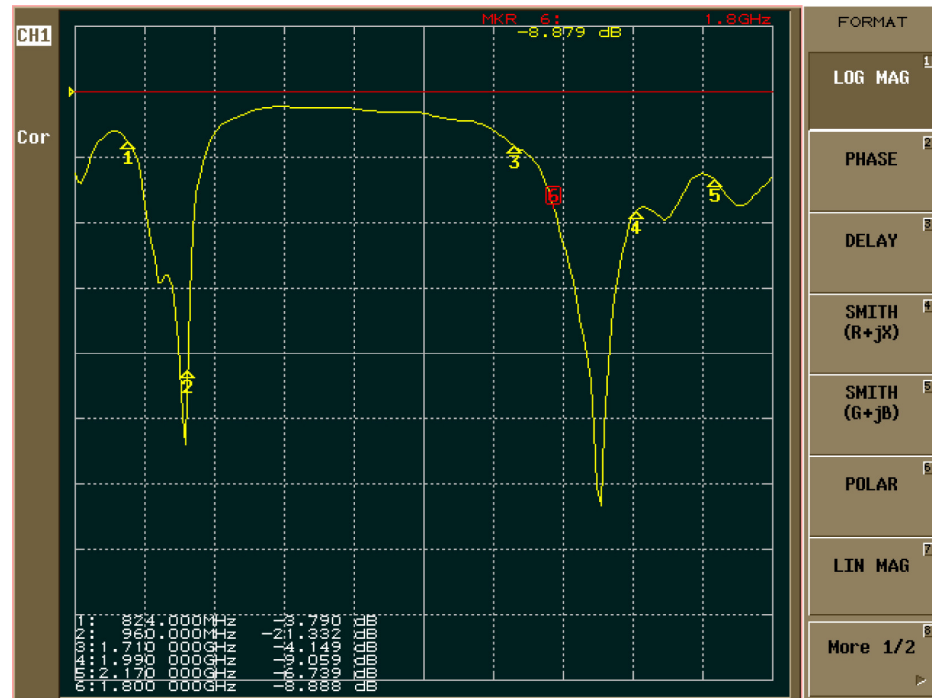
Mechanical Detail



Performance Data — TEST VSWR



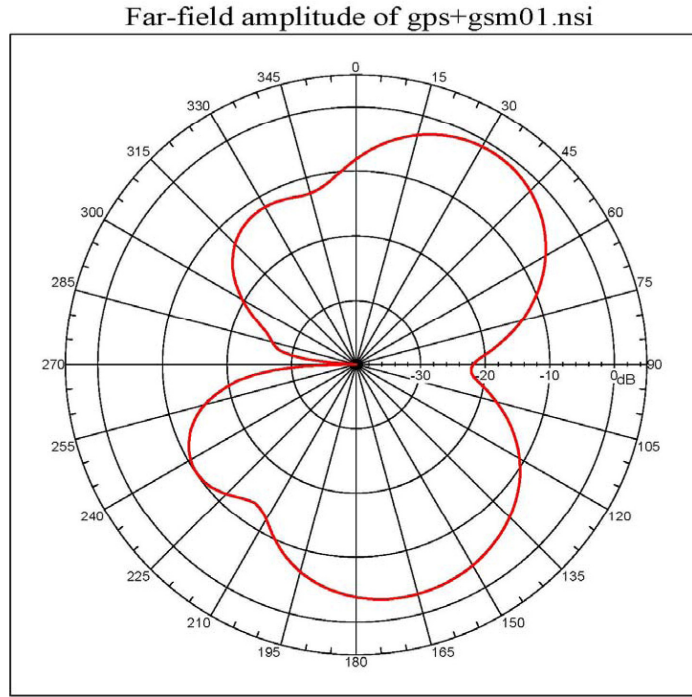
Performance



Performance Data — RETURN LOSS



Performance Data—Smith Chart @ 880MHz



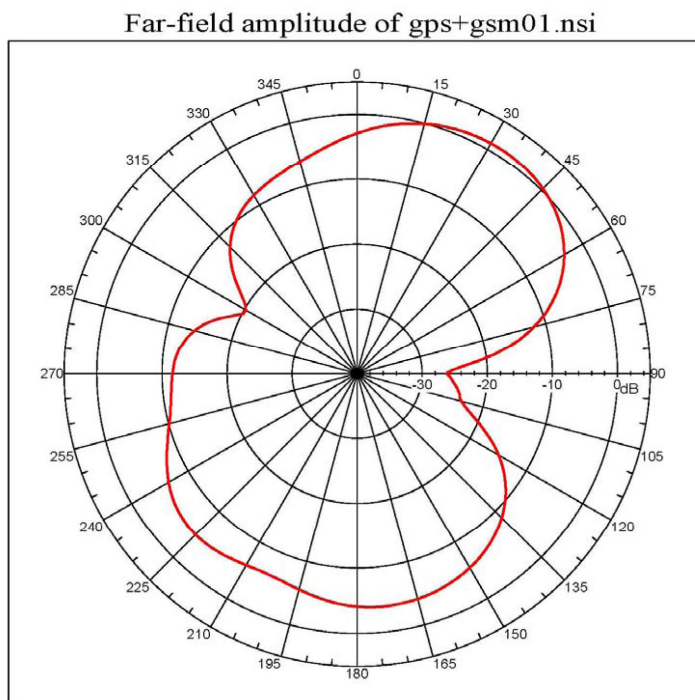
Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = -0.93756 dB
Max far-field (global) = -34.95309 dB, Max far-field (plot) = -34.95309 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 214.000 deg, Vpeak at: 0.000 deg
Plot centering: on

NSI2000 V4.0.116, Filename: C:\Documents and Settings\Administrator\Desktop\bill\gps+gsm01.nsi
Measurement date/time: 11/26/2009 8:04:08 PM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: -0.754 dB
-3. dB beam width: 41.64 deg
-6. dB beam width: 59.14 deg
-10. dB beam width: 78.02 deg
Left sidelobe: -9.20 dB at -123.687 deg
Right sidelobe: -2.13 dB at 107.933 deg
Far-field display setup
Azimuth (deg)
Span = 360.00001 deg, Center = 180.00001 deg, #pts = 181
Start = 0.000 deg, Stop = 360.00001 deg, Delta = 2.000 deg
Elevation (deg)
Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 9
Beam Frequency Azimuth Elevation Pol

1 0.880 GHz Azimuth Elevation Single-pol

Performance Data—Smith Chart @ 920MHz



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
Gain = 1.08571 dB
Max far-field (global) = -33.66057 dB, Max far-field (plot) = -33.66058 dB
Normalization: Reference, Network offset = 0.000 dB
Hpeak at: 212.000 deg, Vpeak at: 0.000 deg
Plot centering: on

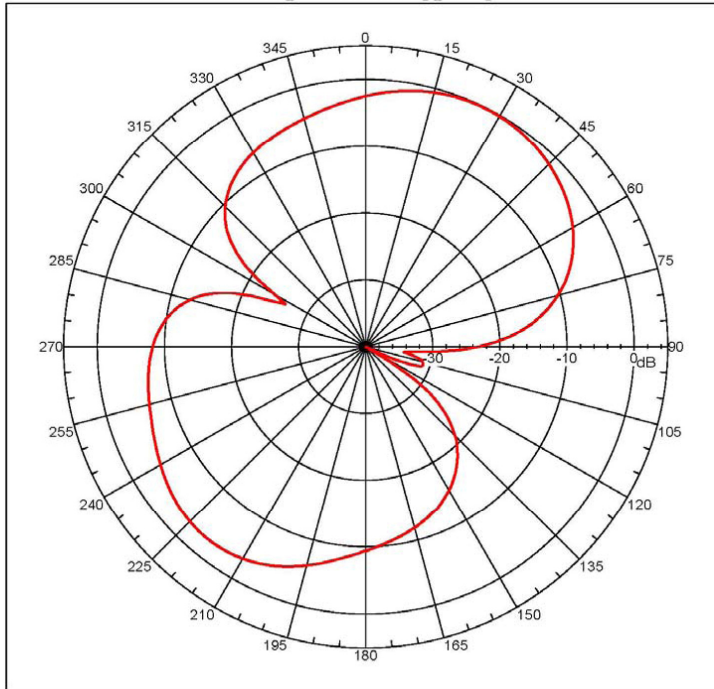
NSI2000 V4.0.116, Filename: C:\Documents and Settings\Administrator\Desktop\bill\gps+gsm01.nsi
Measurement date/time: 11/26/2009 8:04:08 PM, Filetype: NSI-97
Far-field Cut Analysis:
Avg value: -0.512 dB
-3. dB beam width: 51.85 deg
-6. dB beam width: 72.16 deg
-10. dB beam width: 105.26 deg
Left sidelobe: -5.98 dB at -135.734 deg
Right sidelobe: -4.99 dB at 173.967 deg
Far-field display setup
Azimuth (deg)
Span = 360.00001 deg, Center = 180.00001 deg, #pts = 181
Start = 0.000 deg, Stop = 360.00001 deg, Delta = 2.000 deg
Elevation (deg)
Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 9
Beam Frequency Azimuth Elevation Pol

2 0.920 GHz Azimuth Elevation Single-pol

Performance Data—Smith Chart @ 960MHz

Far-field amplitude of gps+gsm01.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = -9.12529 dBi
 Max far-field (global) = -35.22531 dB, Max far-field (plot) = -35.22531 dB
 Normalization: Reference, Network offset = 0.000 dB
 Hpeak at: 200.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\bill\gps+gsm01.nsi
 Measurement date/time: 11/26/2009 8:04:08 PM, Filetype: NSI-97

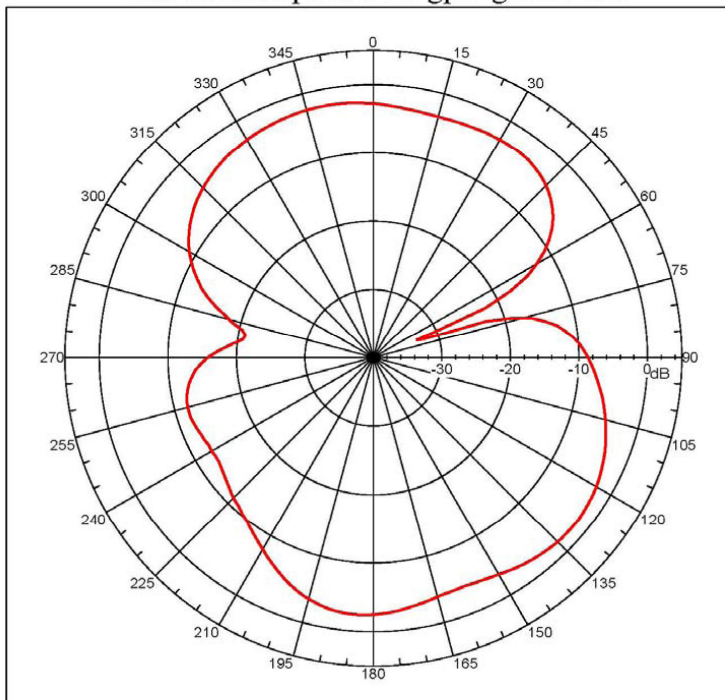
Far-field Cut Analysis:
 Avg value: -7.290 dB
 -3. dB beam width: 59.19 deg
 -6. dB beam width: 93.33 deg
 -10. dB beam width: 119.60 deg
 Left Sidelobe: -2.66 dB at -139.777 deg
 Right Sidelobe: -30.90 dB at 109.609 deg

Far-field display setup
 Azimuth (deg)
 Span = 360.00001 deg, Center = 100.00001 deg, #pts = 181
 Start = 0.000 deg, Stop = 360.00001 deg, Delta = 2.000 deg
 Elevation (deg)
 Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 9
 Beam Frequency Azimuth Elevation Pol
 3 0.960 GHz Azimuth Elevation Single-pol

Performance Data—Smith Chart @ 1710MHz

Far-field amplitude of gps+gsm01.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg
 Gain = -1.89386 dBi
 Max far-field (global) = -41.61911 dB, Max far-field (plot) = -41.61911 dB
 Normalization: Reference, Network offset = 0.000 dB
 Hpeak at: 309.99999 deg, Vpeak at: 0.000 deg
 Plot centering: On

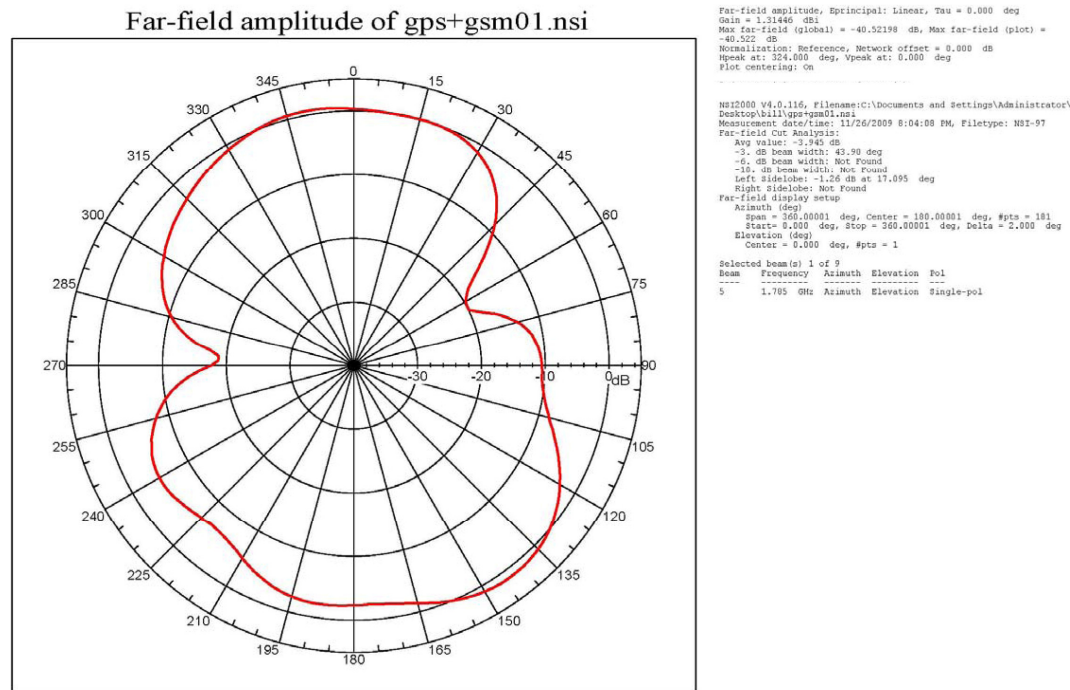
NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\bill\gps+gsm01.nsi
 Measurement date/time: 11/26/2009 8:04:08 PM, Filetype: NSI-97

Far-field Cut Analysis:
 Avg value: -5.957 dB
 -3. dB beam width: Not Found
 -6. dB beam width: Not Found
 -10. dB beam width: Not Found
 Left Sidelobe: -1.21 dB at 35.196 deg
 Right Sidelobe: Not Found

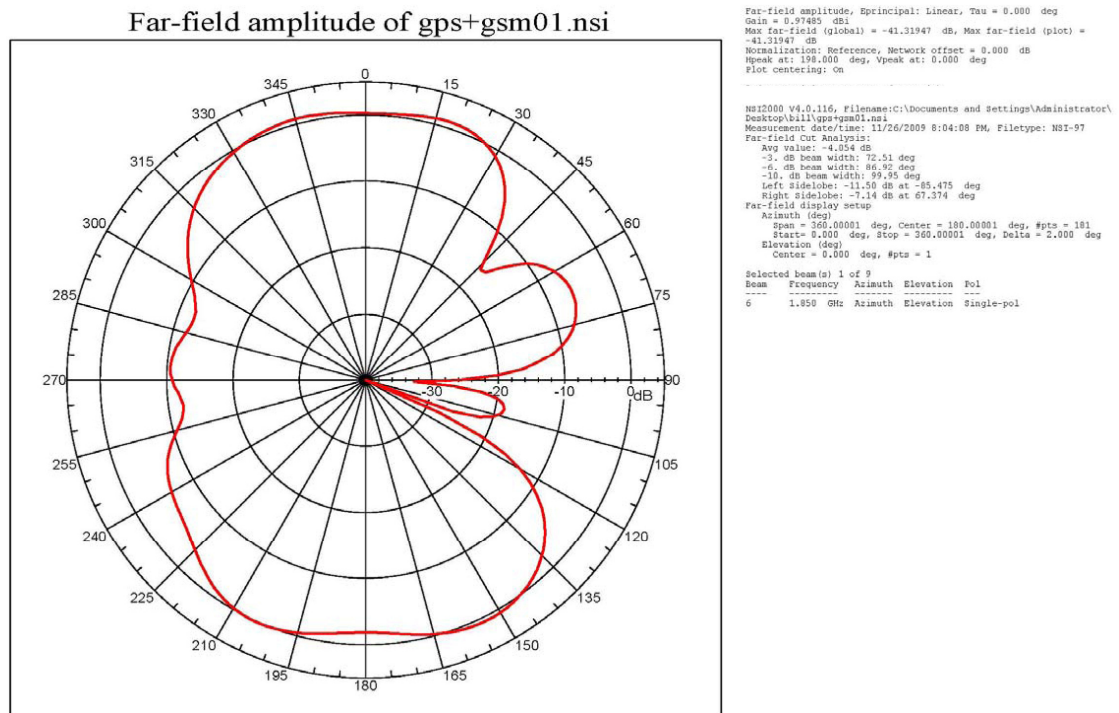
Far-field display setup
 Azimuth (deg)
 Span = 360.00001 deg, Center = 100.00001 deg, #pts = 181
 Start = 0.000 deg, Stop = 360.00001 deg, Delta = 2.000 deg
 Elevation (deg)
 Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 9
 Beam Frequency Azimuth Elevation Pol
 4 1.710 GHz Azimuth Elevation Single-pol

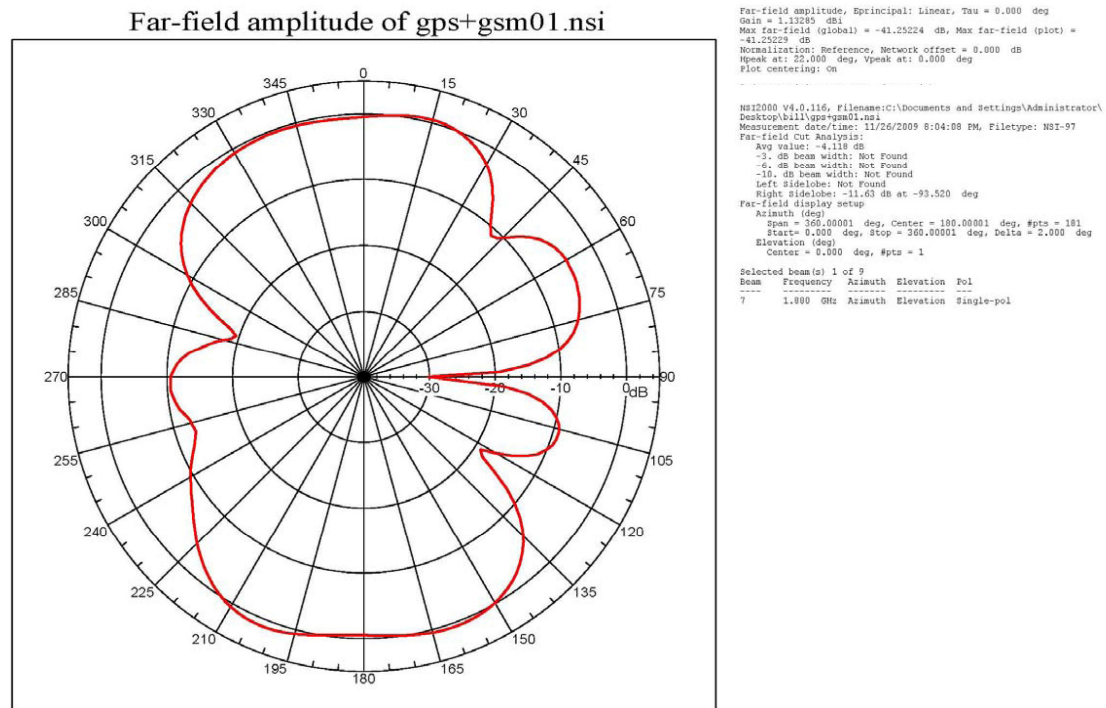
Performance Data—Smith Chart @ 1785MHz



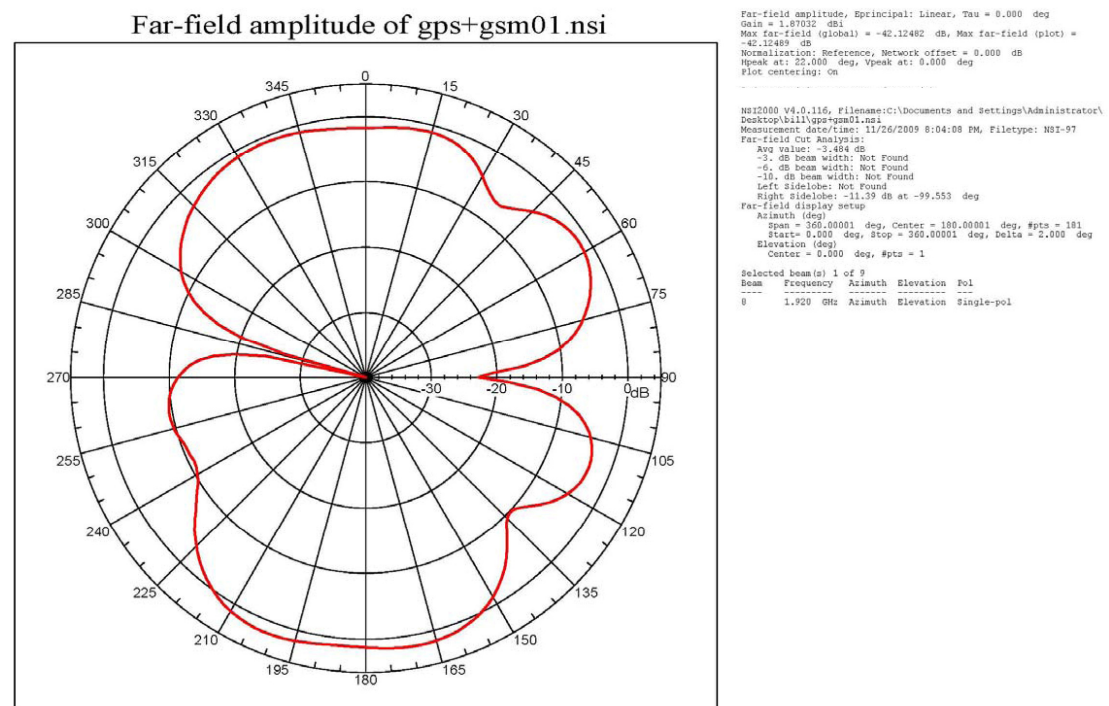
Perfor



Performance Data—Smith Chart @ 1880MHz

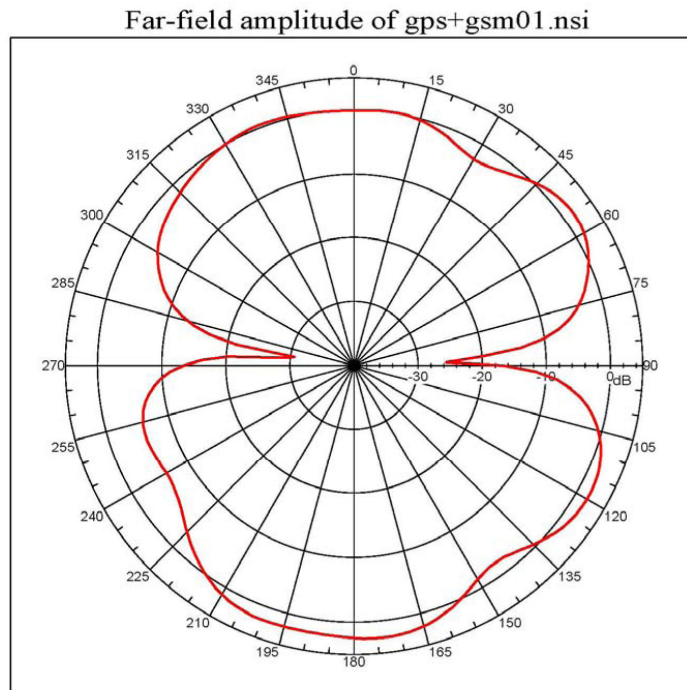


Performance Data—Smith Chart @ 1920MHz



Antenna PCB4242

Performance Data—Smith Chart @ 1990MHz



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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 fulfils its WEEE obligations by membership of an approved compliance scheme.
Environment Agency producer registration number WEE/JB0104WV

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.

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