



Test report is for reference only.

TEST REPORT
For
LB-SJ-10100



Technical Specification

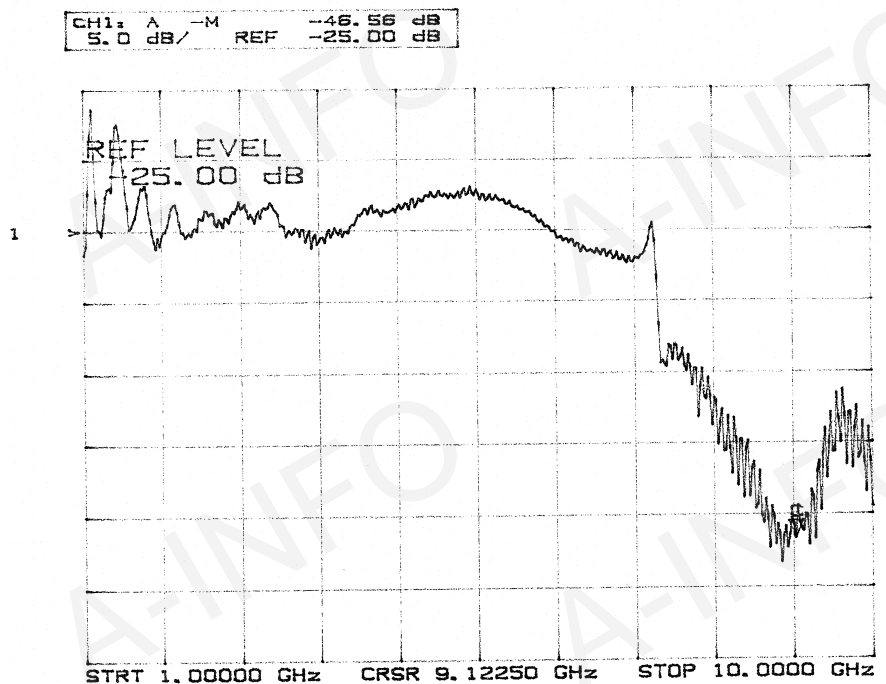
Frequency Range(GHz)	1-10
Polarization	Dual Polarization
VSWR	3:0:1 Typ.
Gain(dBi)	2-18
Vertical/Horizontal 3dB Beamwidth(°)	40-30
Polarization Isolation(dB)	15 min
Power(W)	20 CW
Connector	SMA –Female x 2
Size(mm)	177 × 358.5
Net Weight(Kg)	1.69 Around

Test Results

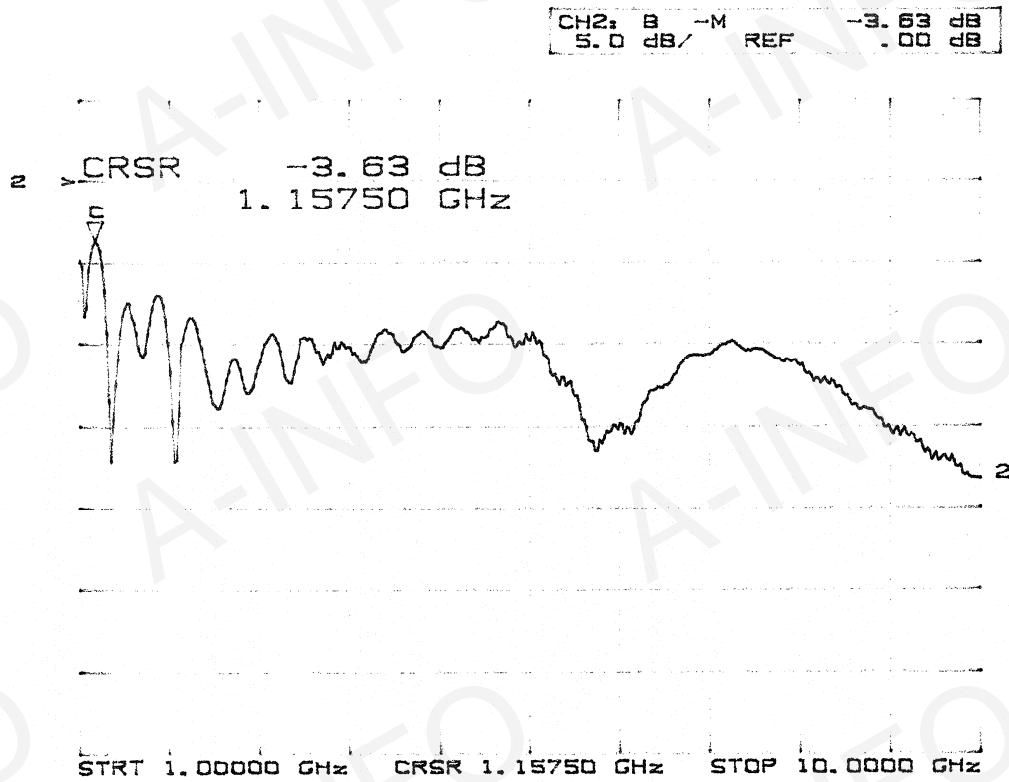
Gain

Frequency(GHz)	Gain(dBi)	3dB Beamwidth(°)	VSWR		Polarization Isolation(dB)
			A Port	B Port	
1	5.47	105.2/72.9	-3.63 dB	-4.27 dB	-16.5
2	8.72	46.7/77.5			
4	12.8	40.8/34.6			
6	13.6	41.4/28.2			
8	15.2	35.3/22.9			
10	18.5	22.7/16.7			

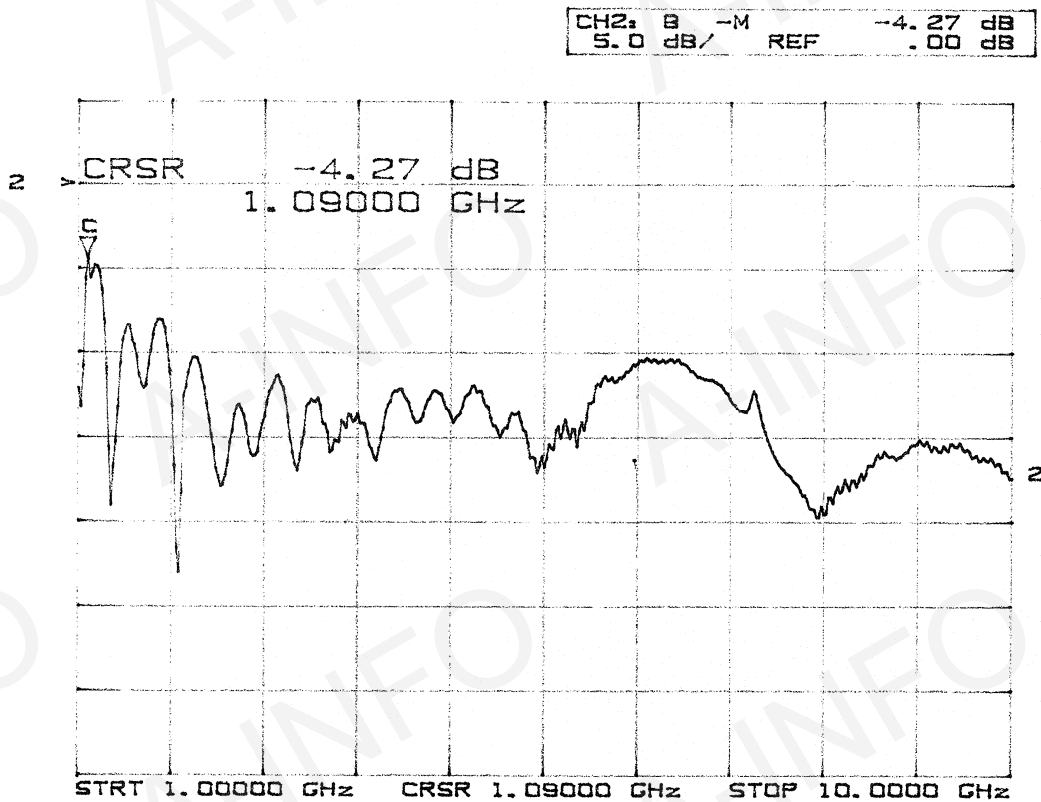
Polarization Isolation



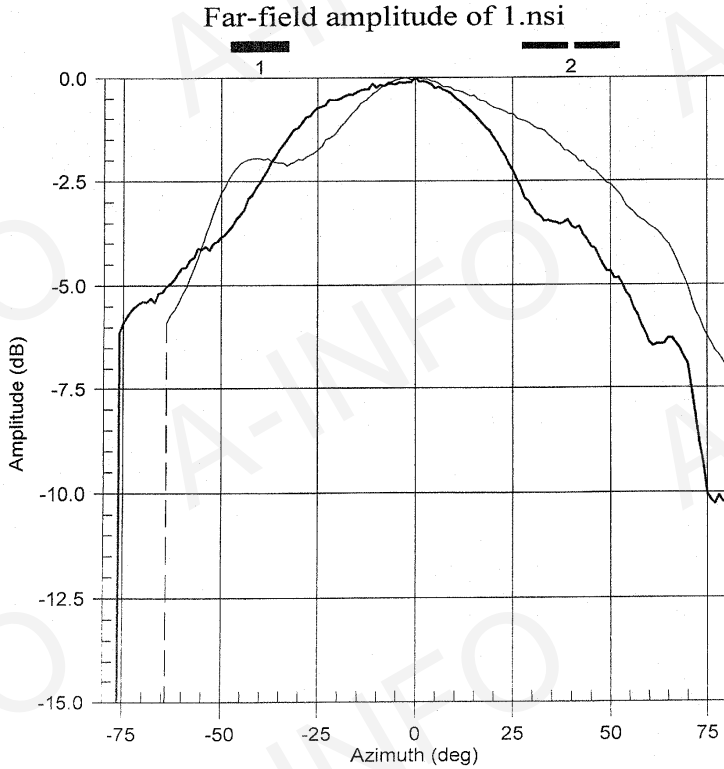
A Port VSWR



B Port VSWR



1GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -19.33745 dB, Max far-field (plot) = -19.33745 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Mpeak at: -4.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename:D:\Data\cjs5t\New Folder\1.nsi
 Measurement date/time: 2007-9-7 16:41:06, filetype: NSI-97

Far-field Cut Analysis:

Avg value: -3.131 dB
 -3. dB beam width: 72.80 deg
 -6. dB beam width: 134.48 deg
 -10. dB beam width: 151.91 deg
 Left Sidelobe: Not Found
 Right Sidelobe: Not Found

Selected beam(s) 1 of 10

Beam	Frequency	Azimuth	Elevation	Pol axis
1	1.000 GHz	Azimuth	Elevation	Single-pol

Measured data:

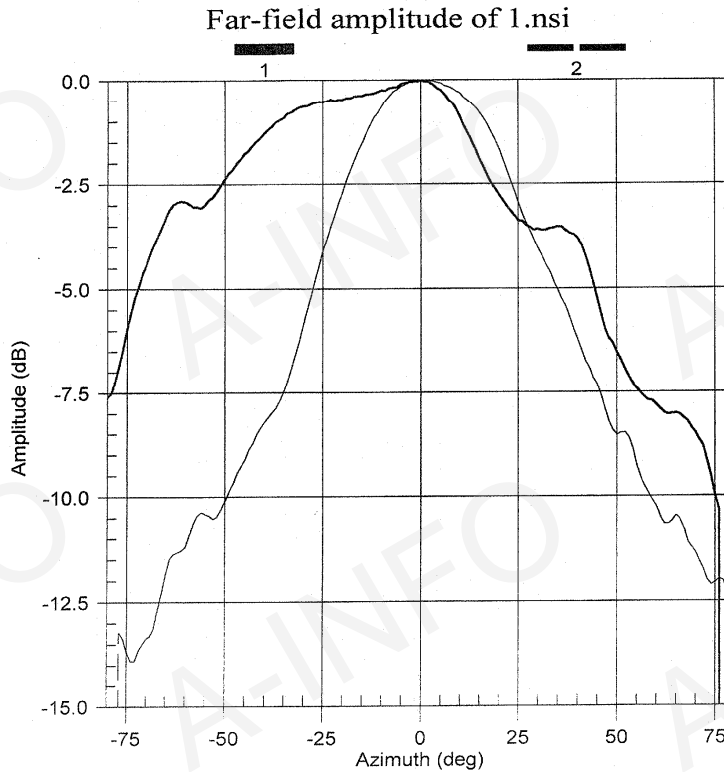
X (meters):
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg

Y (meters):
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-EI
 Scan options: CV Off, CP On, Bi-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 mSec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg

2GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -18.19789 dB, Max far-field (plot) = -18.19789 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Mpeak at: 4.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename:D:\Data\cjs5t\New Folder\1.nsi
 Measurement date/time: 2007-9-7 16:41:06, filetype: NSI-97

Far-field Cut Analysis:

Avg value: -3.069 dB
 -3. dB beam width: 77.46 deg
 -6. dB beam width: 123.95 deg
 -10. dB beam width: Not Found
 Left Sidelobe: Not Found
 Right Sidelobe: Not Found

Selected beam(s) 1 of 10

Beam	Frequency	Azimuth	Elevation	Pol axis
2	2.000 GHz	Azimuth	Elevation	Single-pol

Measured data:

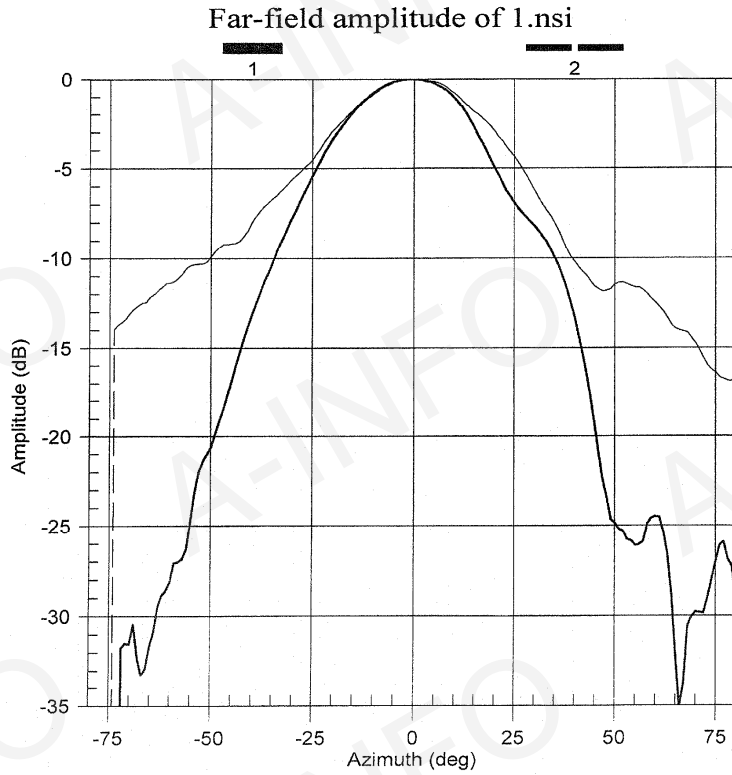
X (meters):
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg

Y (meters):
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-EI
 Scan options: CV Off, CP On, Bi-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 mSec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg

4GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -17.15417 dB, Max far-field (plot) = -17.15417 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Hpeak at: -8.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename: D:\Data\c\jst\New Folder\1.nsi
 Measurement date/time: 2007-8-7 16:41:06, Filetype: NSI-97
 Far-field Cut Analysis:
 Avg value: -2.146 dB
 -3. dB beam width: 34.56 deg
 -6. dB beam width: 49.00 deg
 -10. dB beam width: 70.13 deg
 Left Sidelobe: -30.45 dB at -68.931 deg
 Right Sidelobe: -24.47 dB at 69.881 deg
 Selected beam(s) 1 of 10

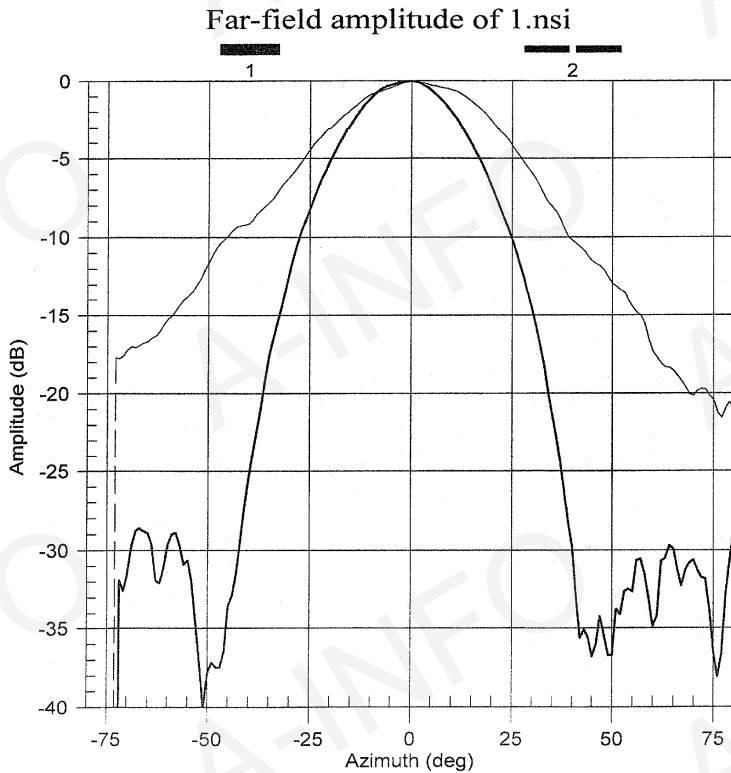
Beam	Frequency	Azimuth	Elevation	Pol axis
4	4.000 GHz	Azimuth	Elevation	Single-pol

Measured data:
 X (meters):
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg
 Y (meters):
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-EI
 Scan options: CV Off, CP On, Bi-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 msec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg

6GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -20.11332 dB, Max far-field (plot) = -20.11332 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Hpeak at: -8.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename: D:\Data\c\jst\New Folder\1.nsi
 Measurement date/time: 2007-8-7 16:41:06, Filetype: NSI-97
 Far-field Cut Analysis:
 Avg value: -11.343 dB
 -3. dB beam width: 28.19 deg
 -6. dB beam width: 40.37 deg
 -10. dB beam width: 52.71 deg
 Left Sidelobe: -30.65 dB at -54.843 deg
 Right Sidelobe: -34.20 dB at 47.709 deg
 Selected beam(s) 1 of 10

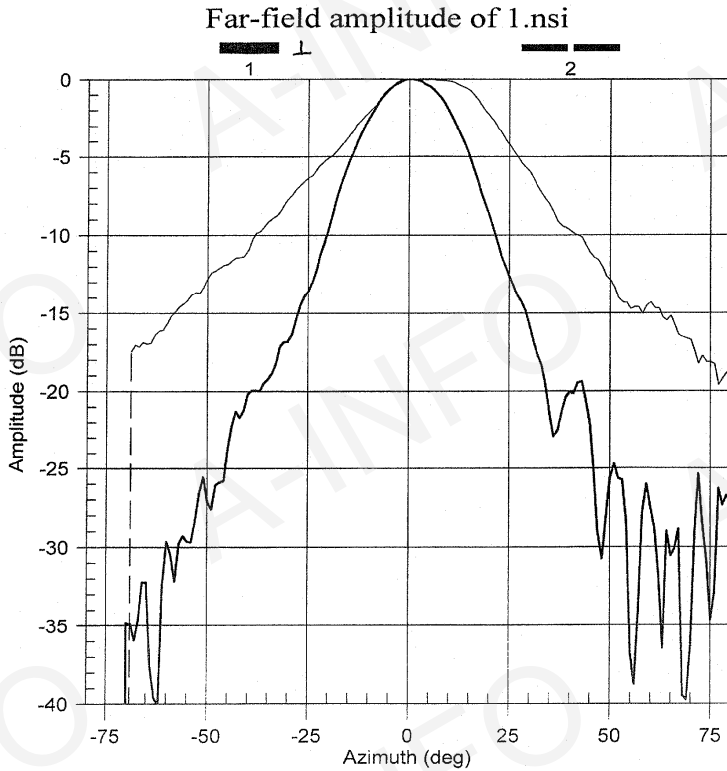
Beam	Frequency	Azimuth	Elevation	Pol axis
6	6.000 GHz	Azimuth	Elevation	Single-pol

Measured data:
 X (meters):
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg
 Y (meters):
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-EI
 Scan options: CV Off, CP On, Bi-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 msec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg

8GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -22.92652 dB, Max far-field (plot) = -22.92652 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Hpeak at: -10.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename: D:\Data\cjs5t\New Folder\1.nsi
 Measurement date/time: 2007-8-7 16:41:06, Filetype: NSI-97

Far-field Cut Analysis:

Avg value: -19.715 dB
 -3. dB beam width: 22.91 deg
 -6. dB beam width: 22.44 deg
 -10. dB beam width: 42.24 deg
 Left Sidelobe: -20.57 dB at -50.818 deg
 Right Sidelobe: -20.06 dB at 40.755 deg

Selected beam(s) 1 of 10

Beam	Frequency	Azimuth	Elevation	Pol axis
8	8.000 GHz	Azimuth	Elevation	Single-pol

Measured data:

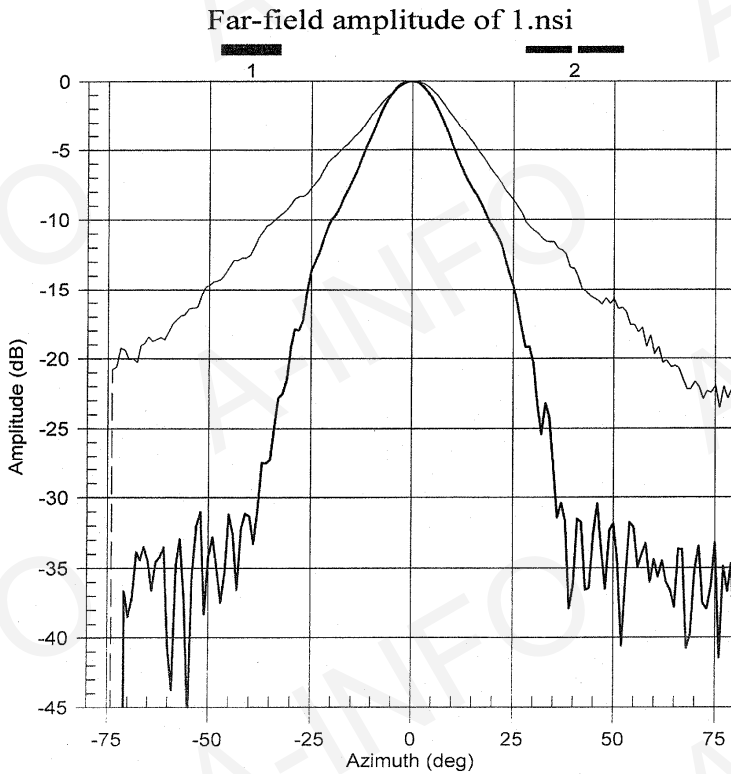
X (meters)
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg

Y (meters)
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-El
 Scan options: CV Off, CP On, BI-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 mSec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg

10GHz 3dB Beamwidth



Far-field amplitude, RHCP, Tau = 0 deg
 Gain = None Max far-field (global) = -22.04709 dB, Max far-field (plot) = -22.04709 dB
 Normalization: Peak (Global), Network offset = 0.000 dB
 Hpeak at: -9.000 deg, Vpeak at: 0.000 deg
 Plot centering: On

113 Measurement

NSI2000 V4.2.7, Filename: D:\Data\cjs5t\New Folder\1.nsi
 Measurement date/time: 2007-8-7 16:41:06, Filetype: NSI-97

Far-field Cut Analysis:

Avg value: -14.015 dB
 -3. dB beam width: 16.70 deg
 -6. dB beam width: 23.00 deg
 -10. dB beam width: 39.12 deg
 Left Sidelobe: -31.12 dB at -40.755 deg
 Right Sidelobe: -23.22 dB at 33.711 deg

Selected beam(s) 1 of 10

Beam	Frequency	Azimuth	Elevation	Pol axis
10	10.000 GHz	Azimuth	Elevation	Single-pol

Measured data:

X (meters)
 Span = 160.000 deg, Center = 0.000 deg, #pts = 161
 Start = -80.000 deg, Stop = 80.000 deg, Delta = 1.000 deg

Y (meters)
 Center = 0.000 deg, #pts = 1
 Far-field distance: 10.000 m

Measurement type: FF Spherical Az-over-El
 Scan options: CV Off, CP On, BI-dir On, V-scan
 Beamset smear: 1.000 deg

RF system:
 Integration time: 1.000 mSec
 Scan speed: 5.21921 deg/sec
 Drift during scan (final - initial)
 Amp/Phase initial = -16.50 dB, -44.7 deg
 Amp/Phase drift = 0.05 dB, 0.1 deg