

# 2.4G Antenna

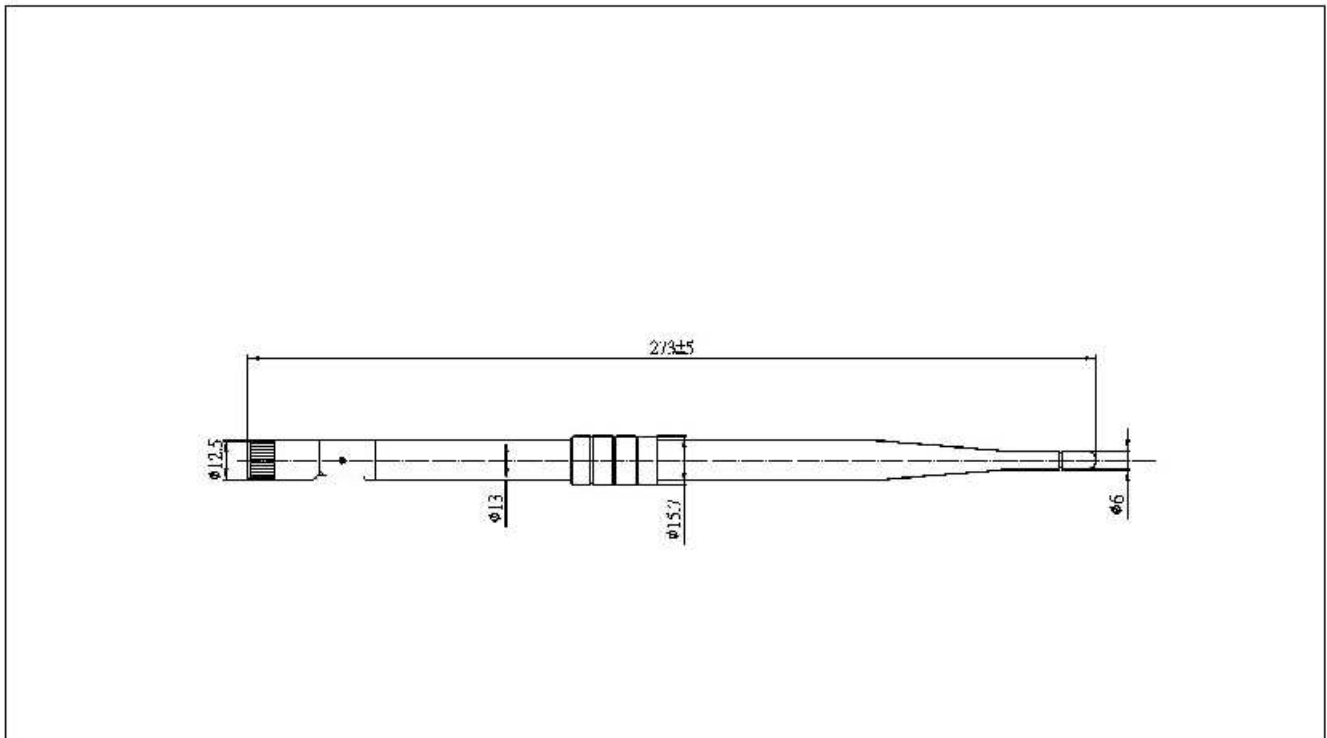
**MODEL: TH-247**



## Specifications:

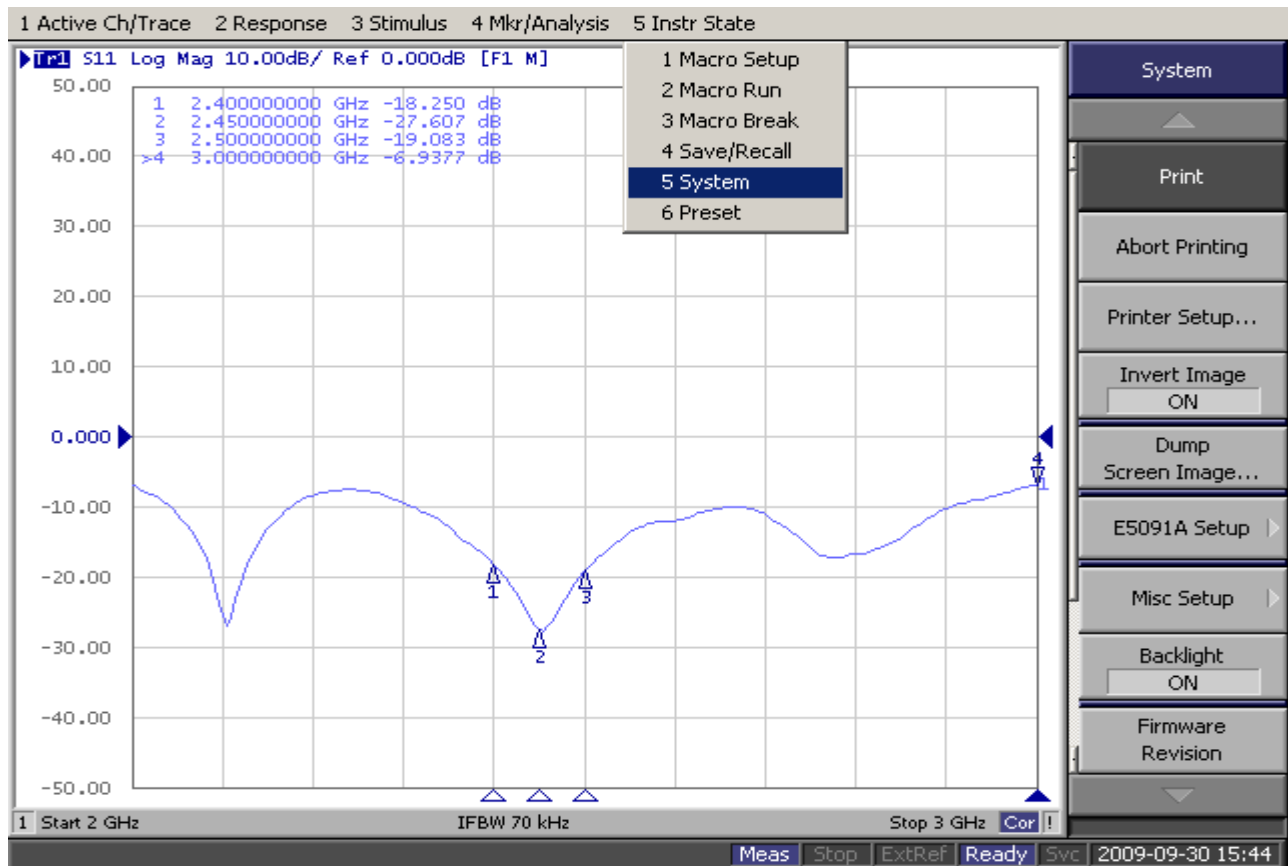
<b>1.</b>	<b>WORKING FREQUENCY</b>	<b>2.4~2.5GHz</b>
<b>2.</b>	<b>ELECTRIC WAVE</b>	<b>DIPOLE</b>
<b>3.</b>	<b>IMPEDANCE</b>	<b>50 Ohm , Nominal</b>
<b>4.</b>	<b>V.S.W.R</b>	<b>2.0:1</b>
<b>5.</b>	<b>GAIN</b>	<b>7.0 dBi</b>
<b>6</b>	<b>Connector</b>	<b>RSMA</b>
<b>7.</b>	<b>RADIATION</b>	<b>Omni</b>
<b>8.</b>	<b>POLARIZATION</b>	<b>VERTICAL</b>
<b>9.</b>	<b>POWER HANDLING</b>	<b>1 W MAX</b>
<b>10.</b>	<b>OPERATING TEMPERATURE</b>	<b>-20°C -- +50°C</b>

This specification is subject to change without prior notice

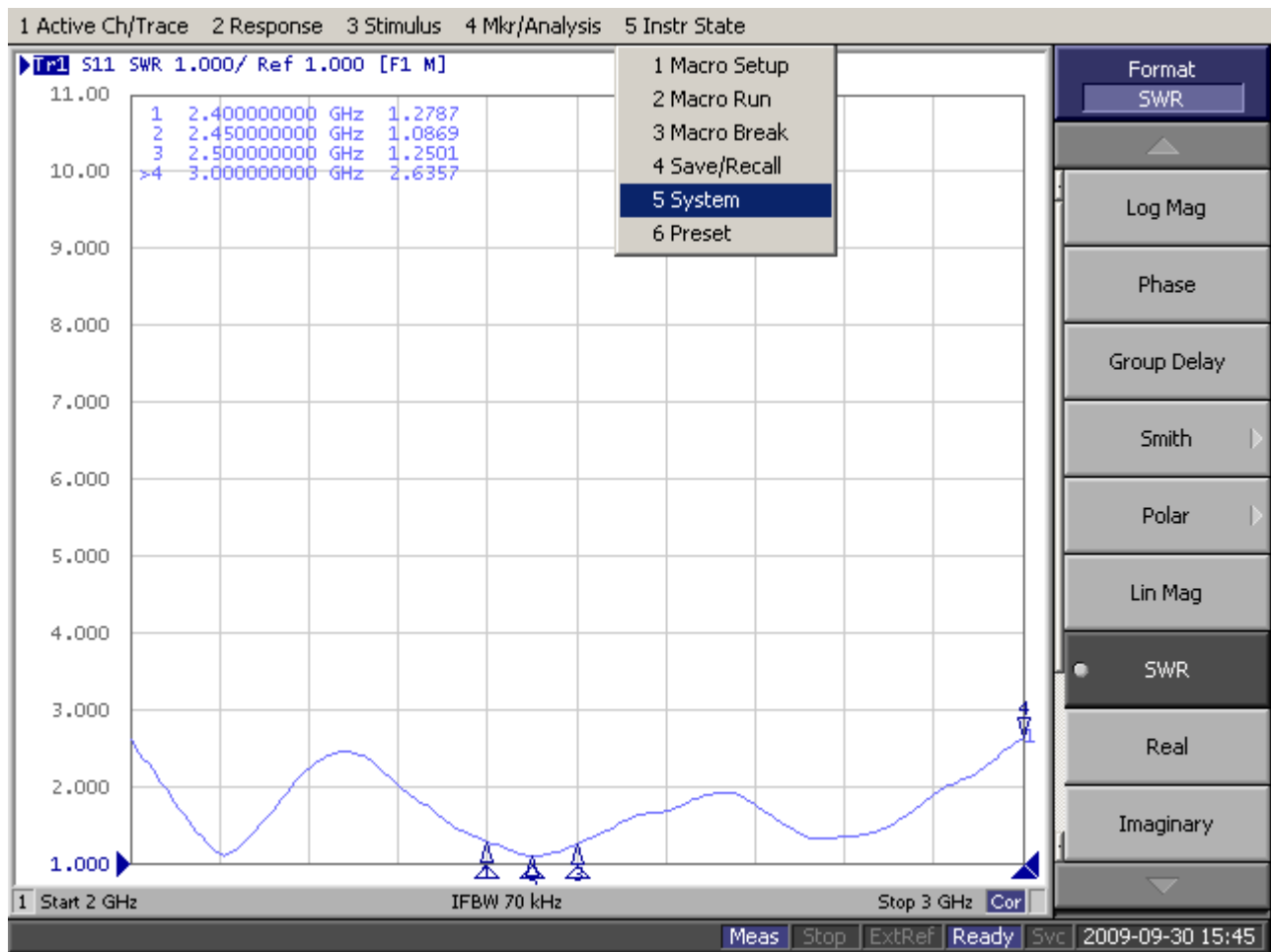


公差表/Tolerance(mm)				客戶編號/Customer's Part Number	機殼編號/Product Number	圖名/Name	圖號/Version	
Range	Cable	Metal	Plastic	 圖樣單位/Unit mm	比例/Scale 1:1.5	圖名/Name 成品圖	圖號/Version V1	
0-10	±0.1	±0.05	±0.2					
11-20	±0.1	±0.1	±0.2	承認/Approval 審核/Check 設計/Design 製圖/Draw 日期/Date	主要檢驗項目/Inspected Check Item Δ			
21-30	±0.5	±0.1	±0.2					
31-100	±0.5	±1	±1					
101-300	±0.5	±1	±2					
301-1000	±1.0	±1.5	±3					
1001~	±2.0	±1.0	±1.0					

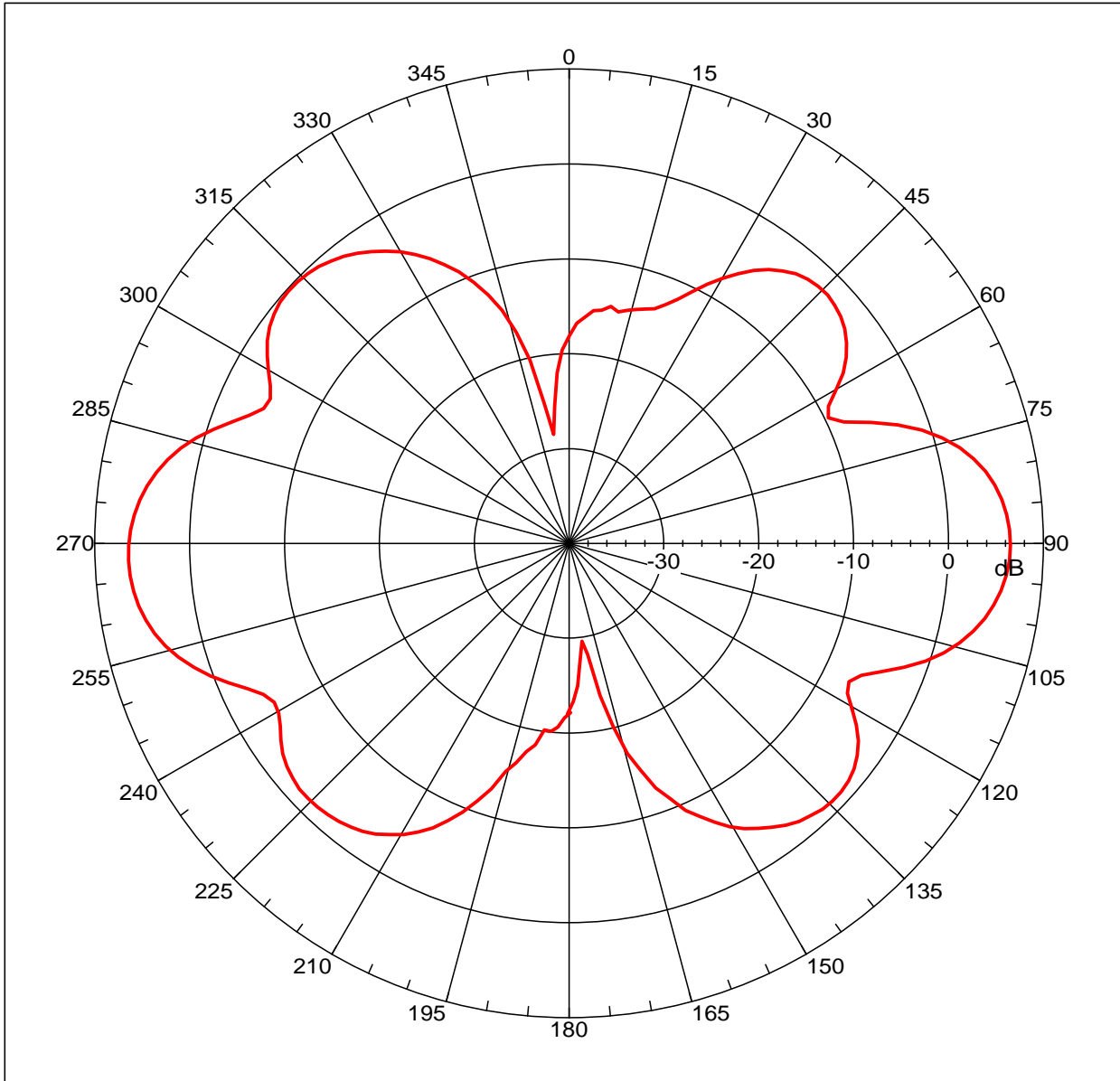
S11 RETURE LOSS



S11 VSWR



# Far-field amplitude of 7dbi-e-01.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
 Gain = 6.50375 dBi  
 Max far-field (global) = -39.04953 dB, Max far-field (plot) = -39.04955 dB  
 Normalization: Reference, Network offset = 0.200 dB  
 Hpeak at: 270.24999 deg, Vpeak at: 0.000 deg  
 Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-e-01.nsi  
 Measurement date/time: 10/9/2009 6:58:42 PM, Filetype: NSI-97

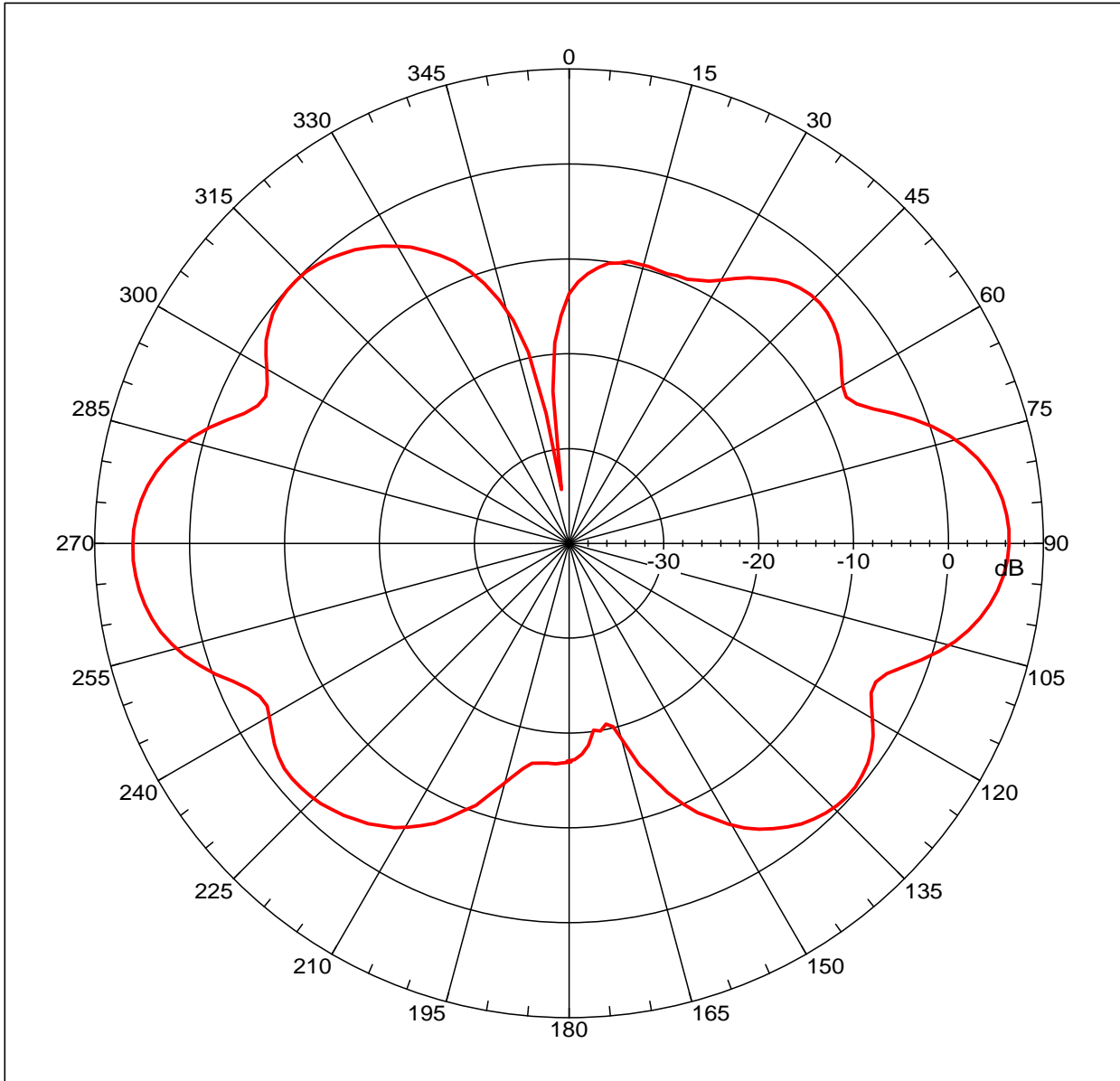
Far-field Cut Analysis:  
 Avg value: -2.581 dB  
 -3. dB beam width: 24.51 deg  
 -6. dB beam width: 33.47 deg  
 -10. dB beam width: 41.72 deg  
 Left Sidelobe: -8.72 dB at 47.394 deg  
 Right Sidelobe: -7.66 dB at 136.131 deg

Far-field display setup  
 Azimuth (deg)  
 Span = 361.000 deg, Center = 180.00001 deg, #pts = 181  
 Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 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 7dbi-e-01.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
Gain = 6.40048 dBi  
Max far-field (global) = -39.43742 dB, Max far-field (plot) = -39.4375 dB  
Normalization: Reference, Network offset = 0.200 dB  
Hpeak at: 268.24445 deg, Vpeak at: 0.000 deg  
Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

NSI2000 V4.0.116, Filename: C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-e-01.nsi  
Measurement date/time: 10/9/2009 6:58:42 PM, Filetype: NSI-97

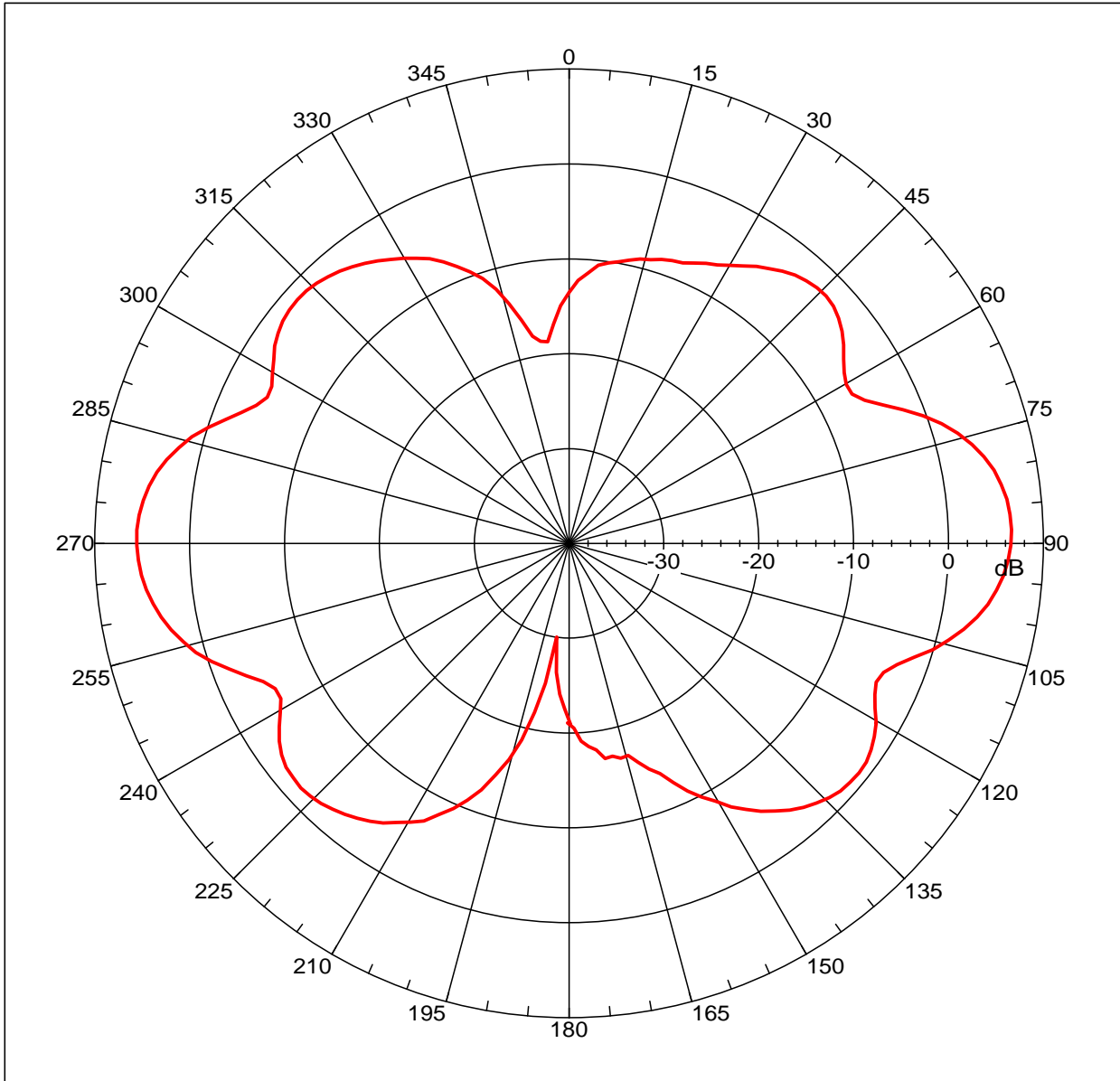
Far-field Cut Analysis:  
Avg value: -2.392 dB  
-3. dB beam width: 24.62 deg  
-6. dB beam width: 34.32 deg  
-10. dB beam width: 44.54 deg  
Left Sidelobe: -9.78 dB at 47.394 deg  
Right Sidelobe: -6.77 dB at 134.115 deg

Far-field display setup  
Azimuth (deg)  
Span = 361.000 deg, Center = 180.00001 deg, #pts = 181  
Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 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 7dbi-e-01.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
Gain = 6.65322 dBi  
Max far-field (global) = -39.31989 dB, Max far-field (plot) = -39.31993 dB  
Normalization: Reference, Network offset = 0.200 dB  
Hpeak at: 268.24445 deg, Vpeak at: 0.000 deg  
Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

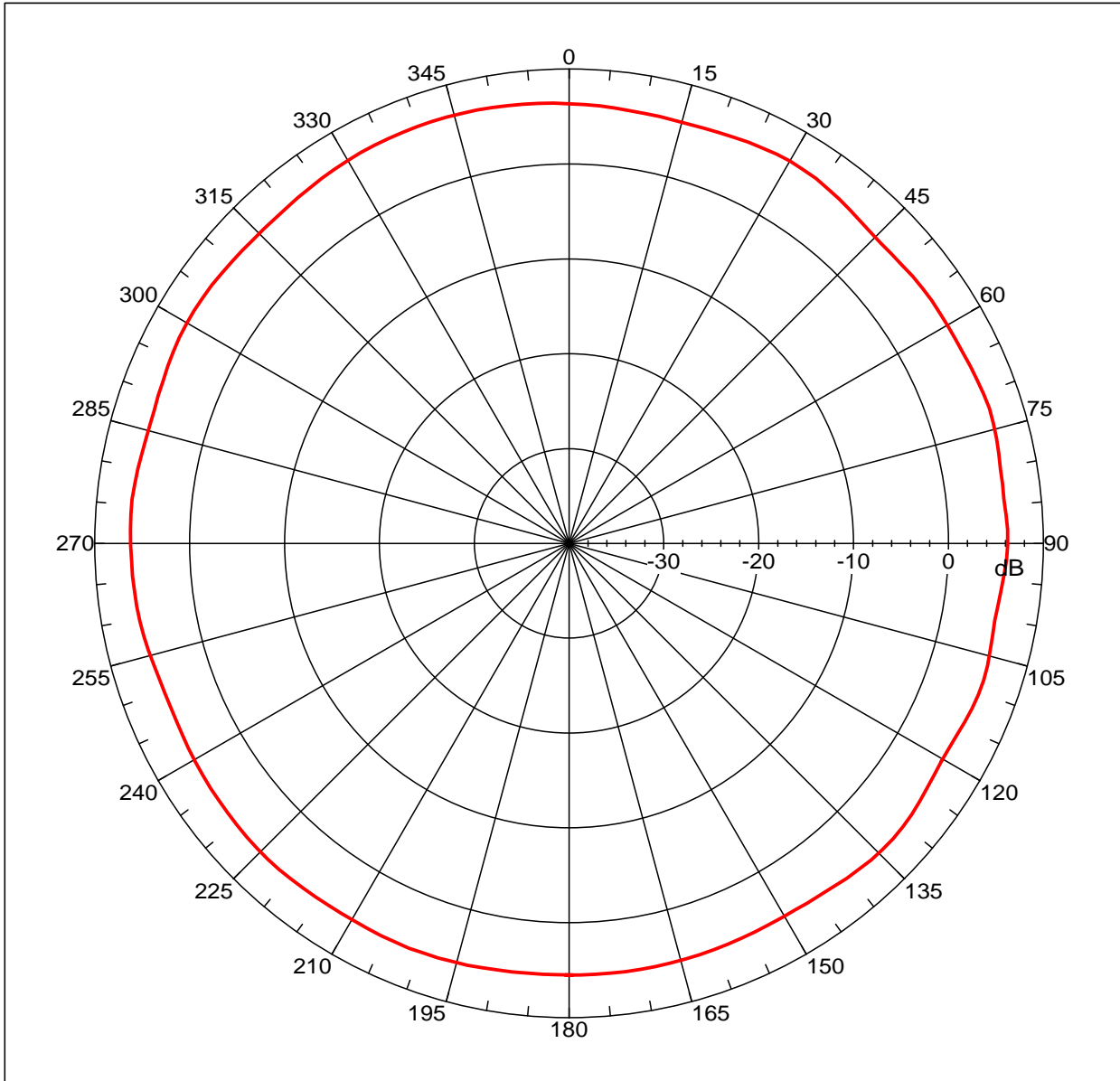
NSI2000 V4.0.116, Filename: C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-e-01.nsi  
Measurement date/time: 10/9/2009 6:58:42 PM, Filetype: NSI-97

Far-field Cut Analysis:  
Avg value: -2.717 dB  
-3. dB beam width: 24.42 deg  
-6. dB beam width: 33.94 deg  
-10. dB beam width: 44.19 deg  
Left Sidelobe: -9.06 dB at 47.394 deg  
Right Sidelobe: -7.68 dB at 130.081 deg  
Far-field display setup  
Azimuth (deg)  
Span = 361.000 deg, Center = 180.00001 deg, #pts = 181  
Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 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 7dbi-h-02.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
 Gain = 6.74699 dBi  
 Max far-field (global) = -38.60629 dB, Max far-field (plot) = -38.6063 dB  
 Normalization: Reference, Network offset = 0.000 dB  
 Hpeak at: 159.94444 deg, Vpeak at: 0.000 deg  
 Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

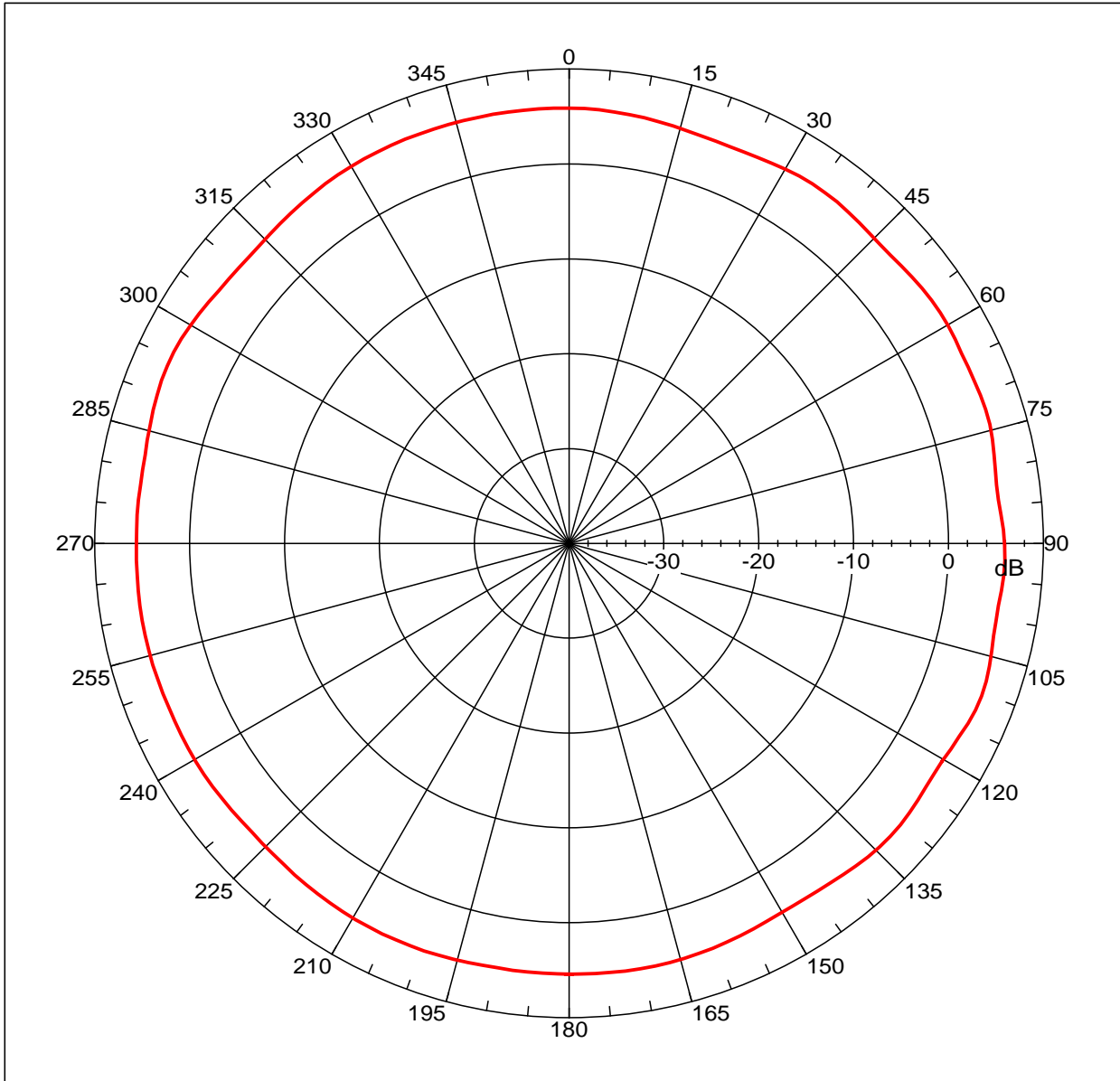
NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-h-02.nsi  
 Measurement date/time: 10/9/2009 7:02:39 PM, Filetype: NSI-97

Far-field Cut Analysis:  
 Avg value: 6.002 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 = 361.000 deg, Center = 180.00001 deg, #pts = 181  
 Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 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 7dbi-h-02.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
Gain = 6.36555 dBi  
Max far-field (global) = -39.27235 dB, Max far-field (plot) = -39.2724 dB  
Normalization: Reference, Network offset = 0.000 dB  
Hpeak at: 290.30555 deg, Vpeak at: 0.000 deg  
Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-h-02.nsi  
Measurement date/time: 10/9/2009 7:02:39 PM, Filetype: NSI-97

Far-field Cut Analysis:  
Avg value: 5.639 dB  
-3. dB beam width: Not Found  
-6. dB beam width: Not Found  
-10. dB beam width: Not Found  
Left Sidelobe: -0.08 dB at -65.545 deg  
Right Sidelobe: Not Found

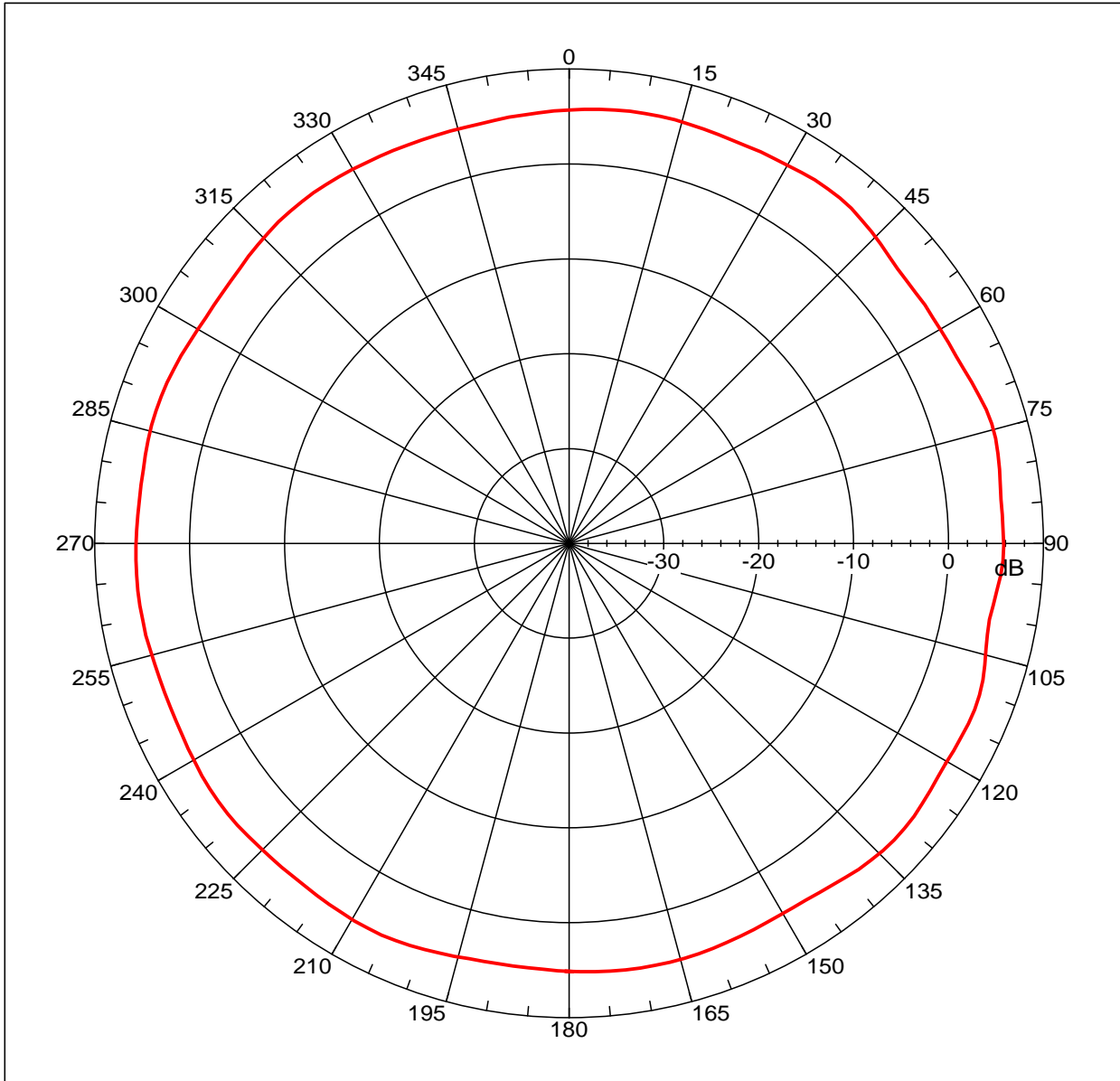
Far-field display setup  
Azimuth (deg)  
Span = 361.000 deg, Center = 180.00001 deg, #pts = 181  
Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 deg  
Elevation (deg)  
Center = 0.000 deg, #pts = 1

Selected beam(s) 1 of 3

Beam	Frequency	Azimuth	Elevation	Pol
2	2.450 GHz	Azimuth	Elevation	Single-pol



# Far-field amplitude of 7dbi-h-02.nsi



Far-field amplitude, Eprincipal: Linear, Tau = 0.000 deg  
Gain = 6.40338 dBi  
Max far-field (global) = -39.36973 dB, Max far-field (plot) = -39.36977 dB  
Normalization: Reference, Network offset = 0.000 dB  
Hpeak at: 310.36109 deg, Vpeak at: 0.000 deg  
Plot centering: On

2.4 GHz trial AP antenna of UNI-Link

NSI2000 V4.0.116, Filename:C:\Documents and Settings\Administrator\Desktop\jerry\7dbi-h-02.nsi  
Measurement date/time: 10/9/2009 7:02:39 PM, Filetype: NSI-97

Far-field Cut Analysis:  
Avg value: 5.601 dB  
-3. dB beam width: Not Found  
-6. dB beam width: Not Found  
-10. dB beam width: Not Found  
Left Sidelobe: -0.10 dB at 77.645 deg  
Right Sidelobe: Not Found  
Far-field display setup  
Azimuth (deg)  
Span = 361.000 deg, Center = 180.00001 deg, #pts = 181  
Start = -0.500 deg, Stop = 360.50001 deg, Delta = 2.00556 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