
863 MHz – 870 MHz Dipole 2 dBi Antenna for RP SMA



ORDERING INFORMATION

Order Number	Description
001-0028	868 MHz Dipole Antenna for Reverse Polarity SMA Connector
080-0001	U.FL to SMA Bulkhead Cable, 1.13mm dia, 105mm long

Table 1 Orderable Part Numbers

SPECIFICATIONS

Specification	Value
Gain	+2 dBi
Impedance	50 ohms
Type	Dipole
Polarization	Linear Vertical
VSWR	$\leq 2.0 : 1$
Frequency	863 - 870 MHz
Weight	27g
Size	197 mm x 13 mm
Antenna Color	Black
Operating Temp	-20°C to +65°C

Table 2 Specifications

PHYSICAL DIMENSIONS (MM)

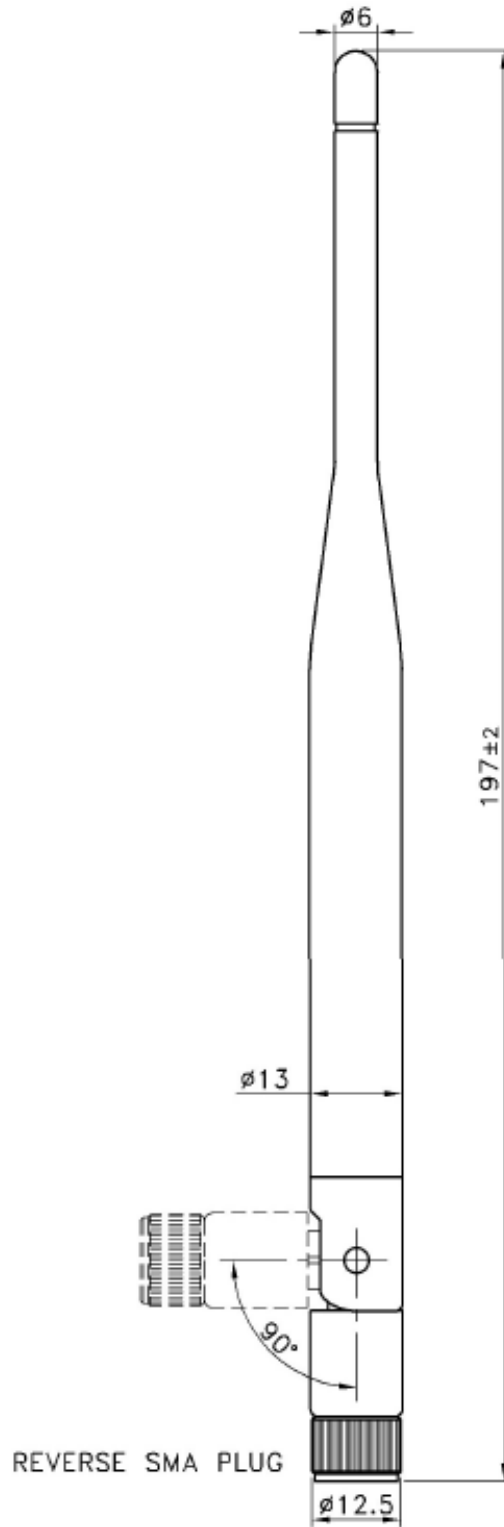


Figure 1 Physical Dimensions

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TEST SETUP

Antenna measurements such as VSWR were measured with an Agilent E5071C Vector Network Analyzer. Radiation patterns were measured with a CMT Planar 804/1 Vector Network Analyzer in a Howland Company 3100 Chamber equivalent. Phase Center is 9 inches above the Phi positioner.

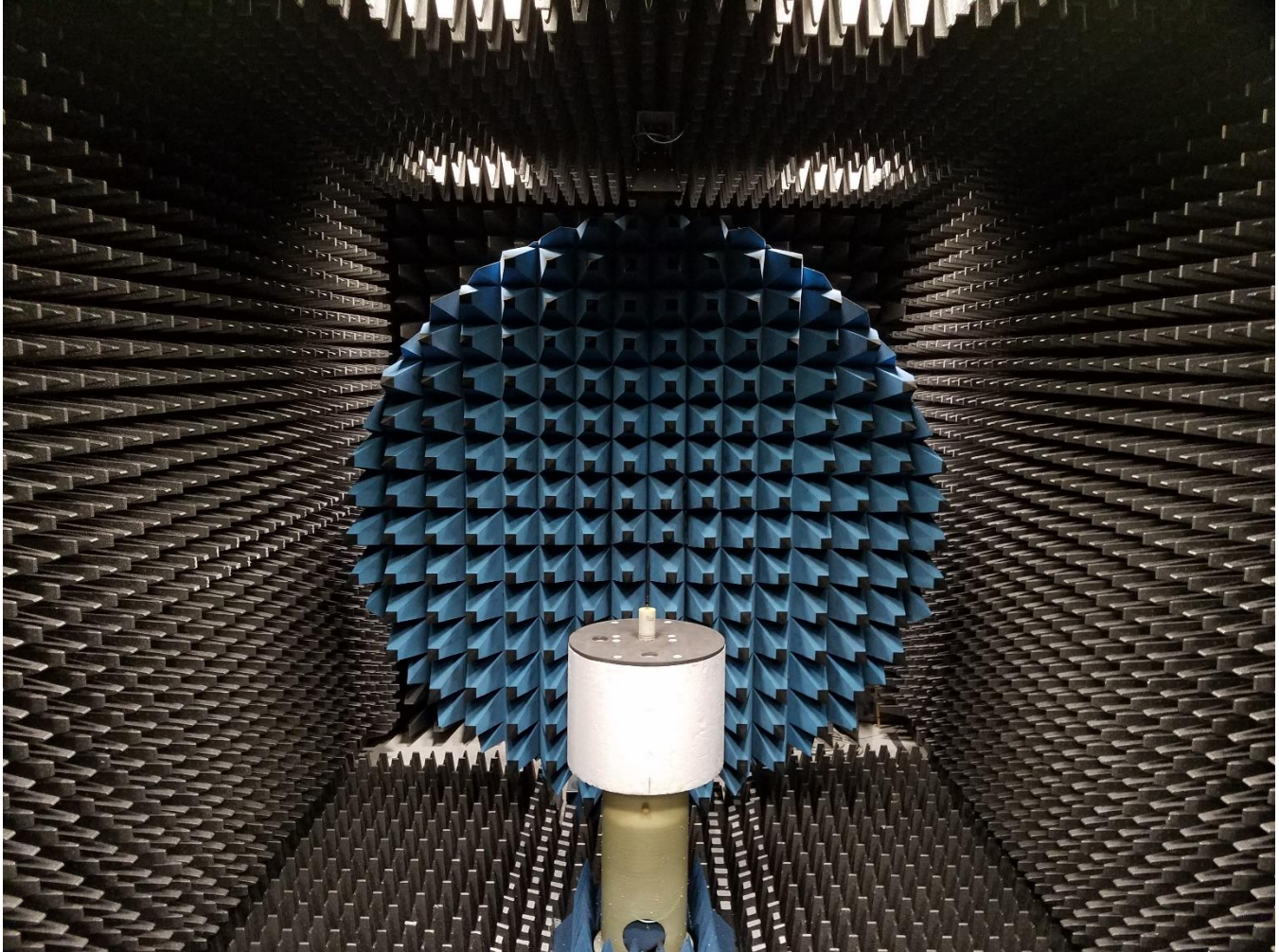


Figure 2 Antenna Chamber

TYPICAL ANTENNA REFLECTION PERFORMANCE

Straight Position

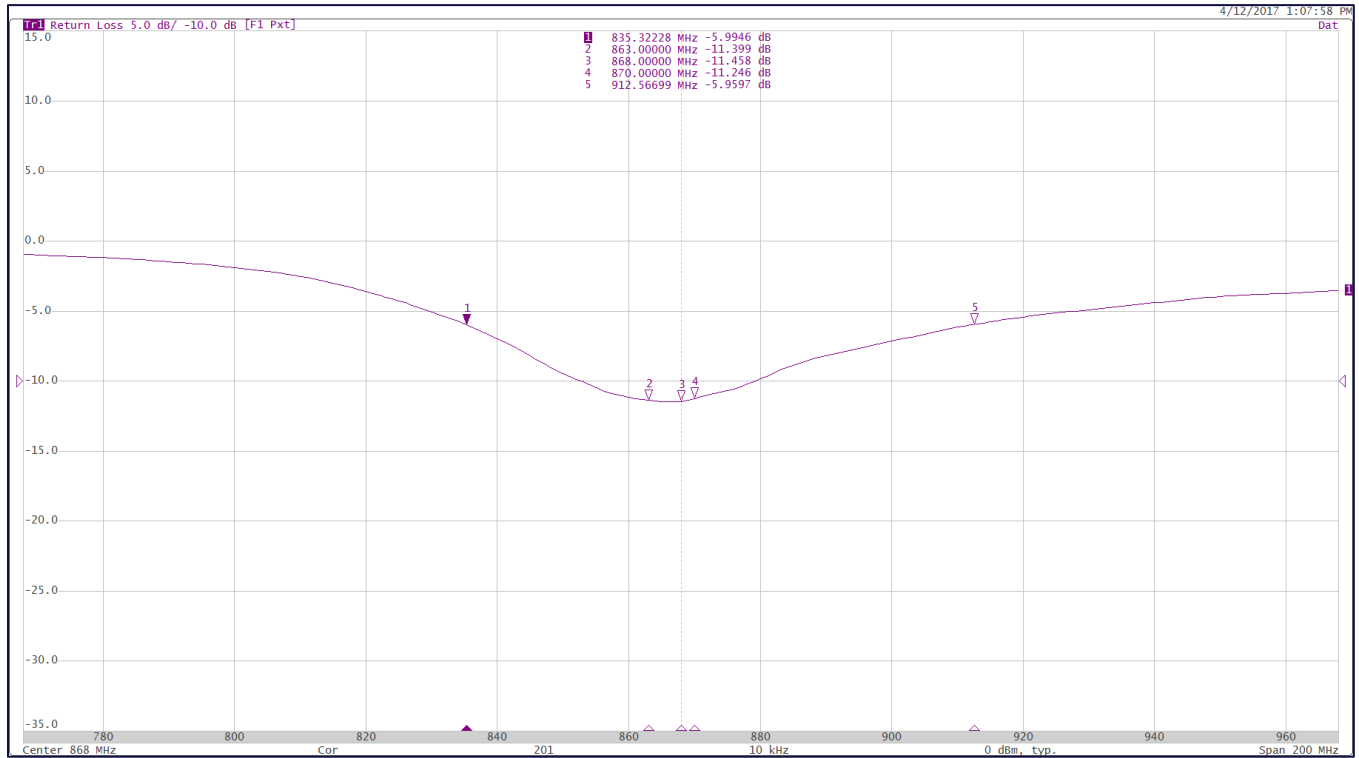


Figure 3 Typical Antenna Reflection Performance

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Bent Position

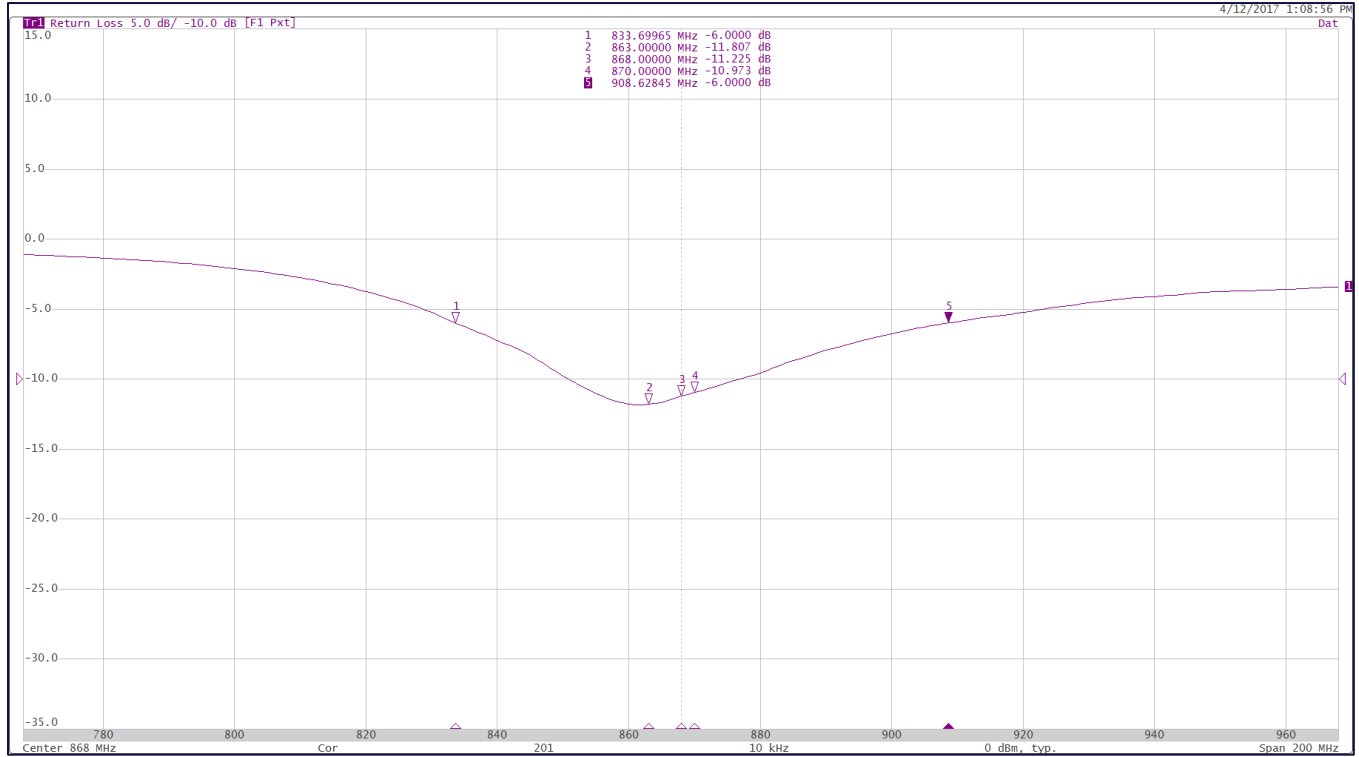


Figure 4 Typical Antenna Reflection Performance

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TYPICAL ANTENNA RADIATION PERFORMANCE

Antenna Measurement Setup:

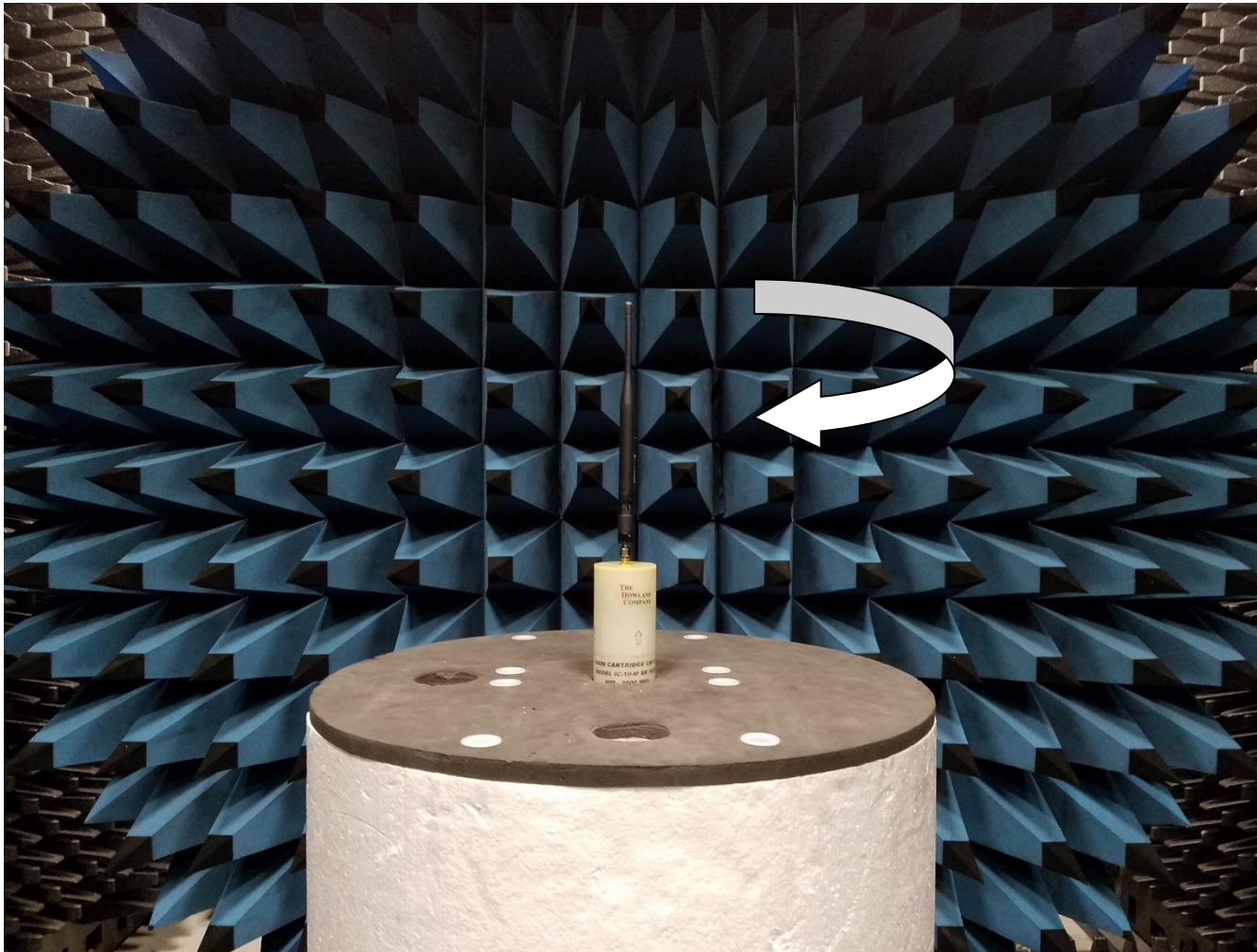


Figure 5 Straight Position Test Set-Up

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Straight Position

Azimuth Conical Cuts at 868 MHz:

Azimuth Gain Pattern Cuts - Total Gain at 868 MHz

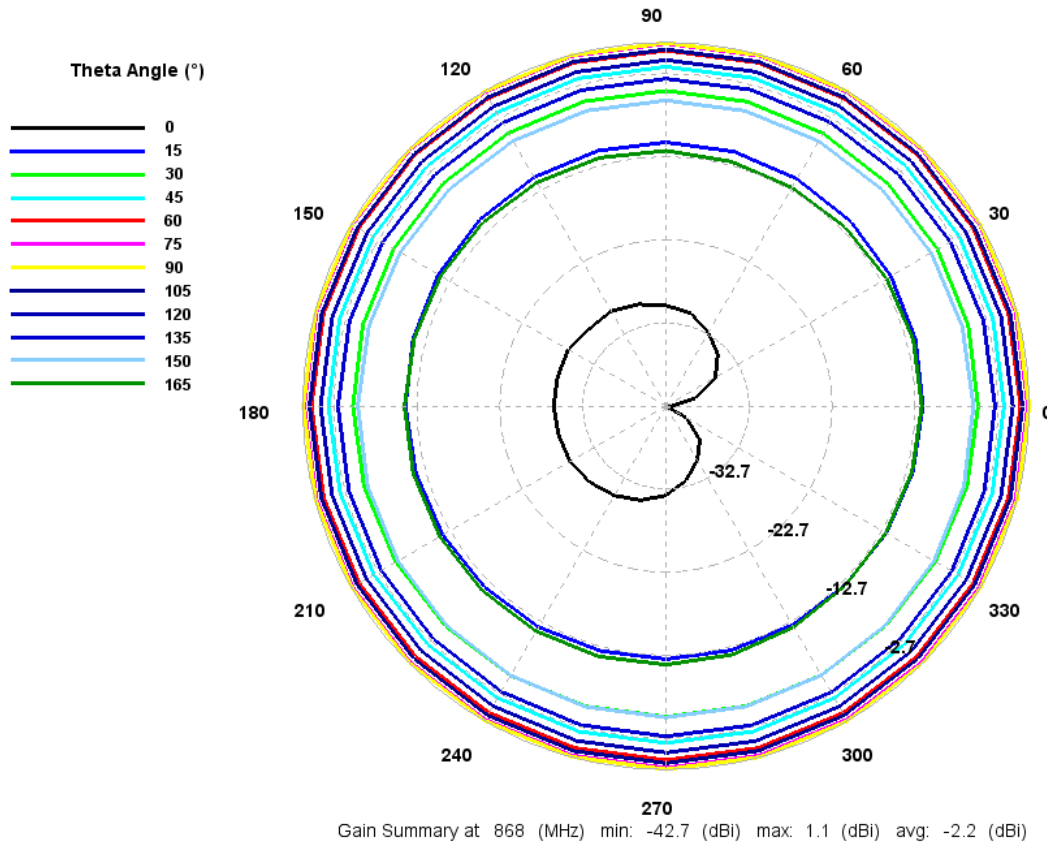


Figure 6 Total Gain Pattern

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3D Plots at 868 MHz:

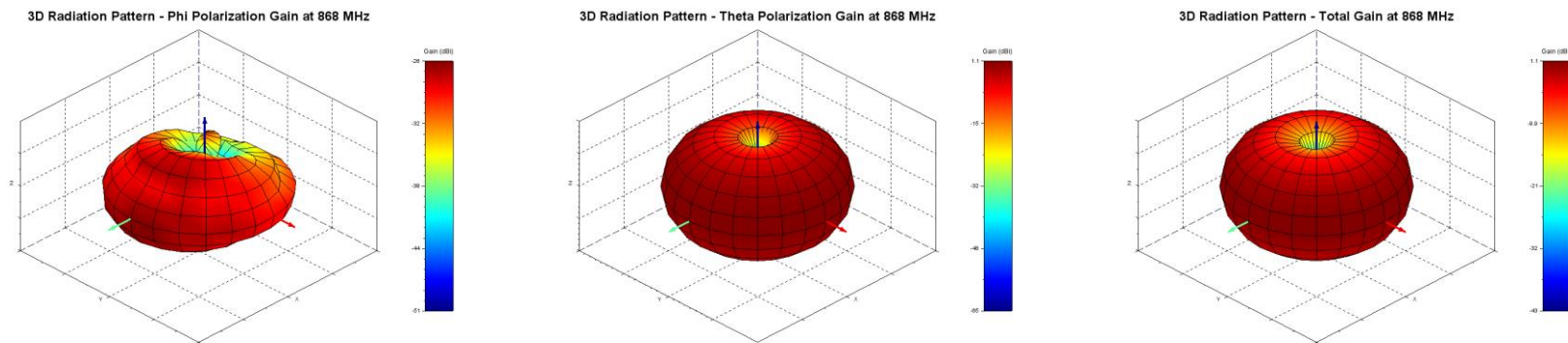


Figure 7 Phi, Theta, and Total Gain Plots

Antenna Measurement Setup:

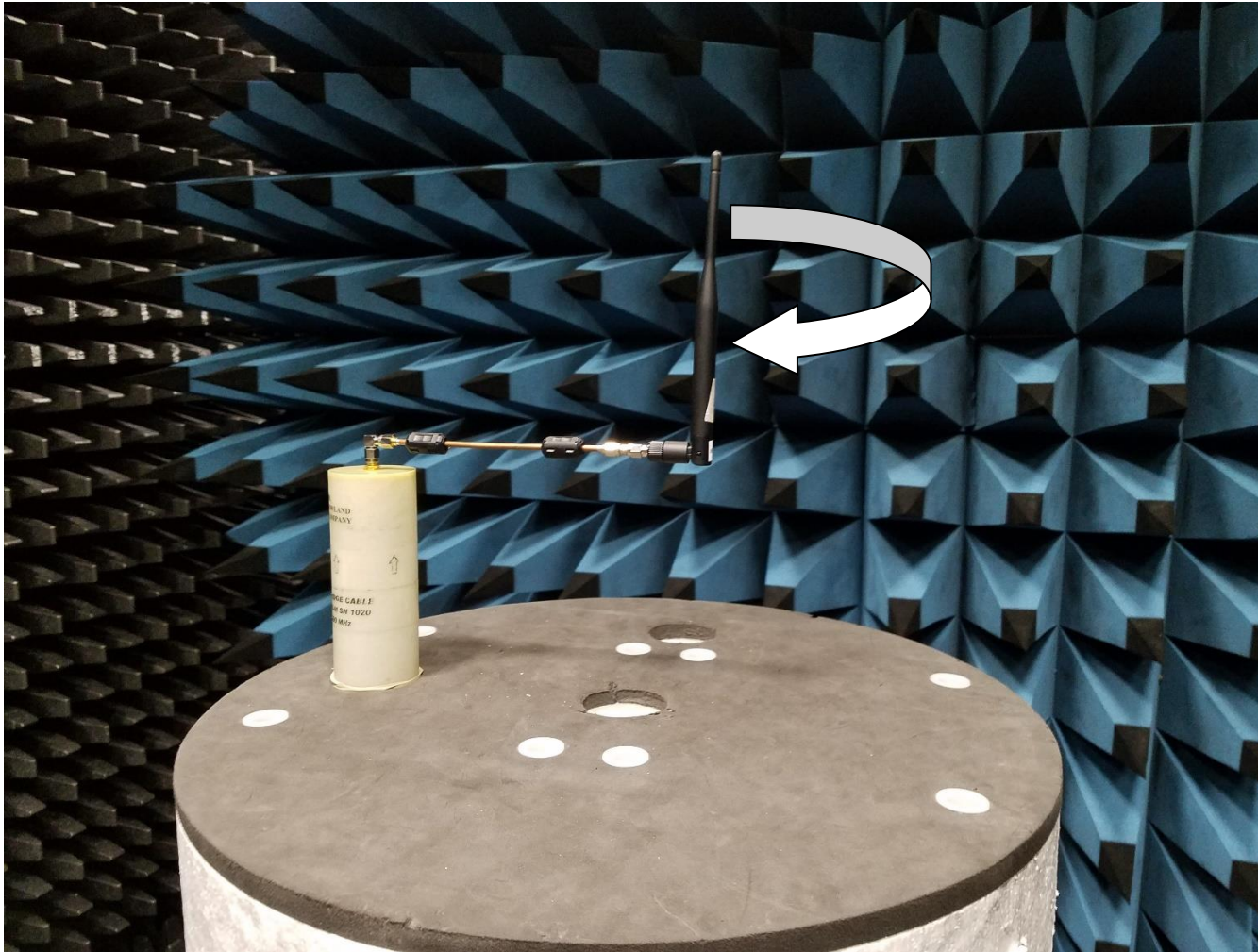


Figure 8 Bent Position Test Set-Up

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Bent Position

Azimuth Conical Cuts at 868 MHz:

Azimuth Gain Pattern Cuts - Total Gain at 868 MHz

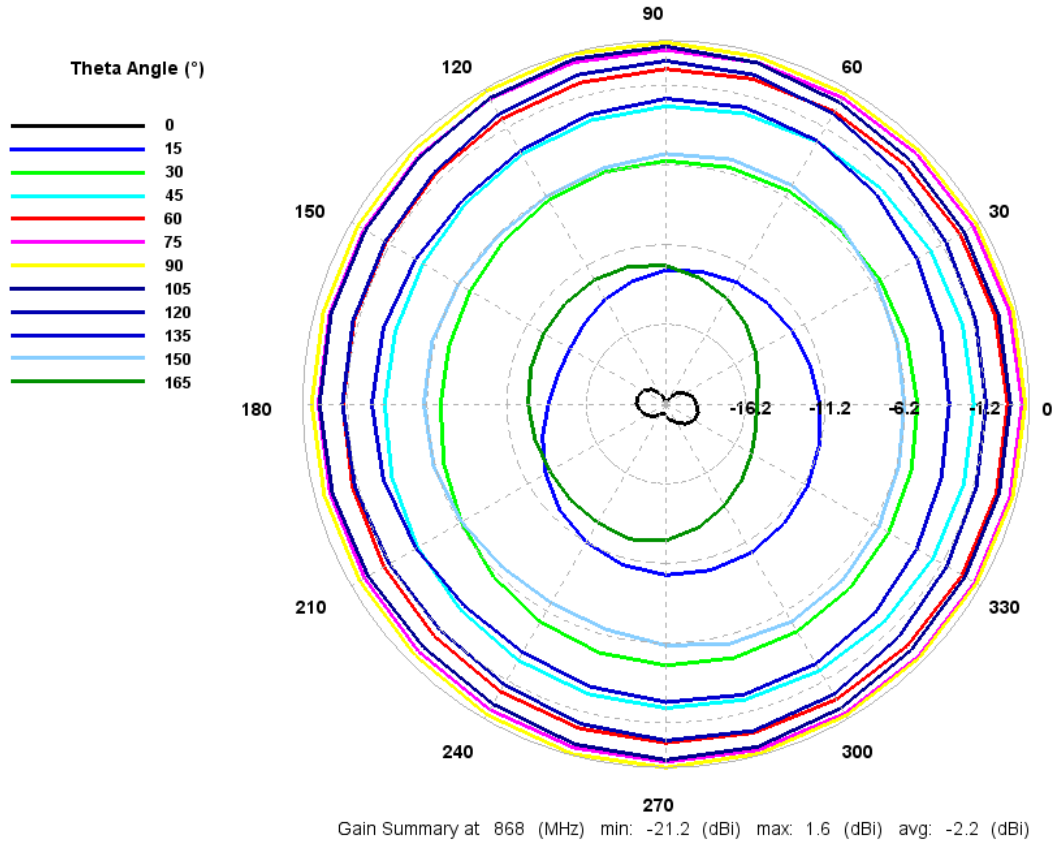


Figure 9 Total Gain Pattern

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3D Plots at 868 MHz:

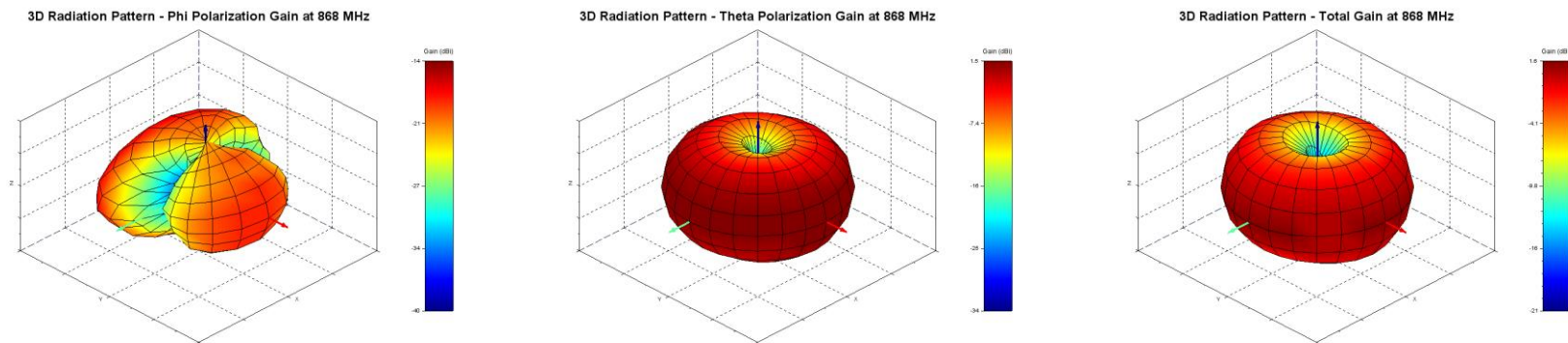


Figure 10 Phi, Theta, and Total Gain Plots

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