

Antenna Gain and Pattern Measurement Report

Model Name: SMCO500V

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Test Report Revision History				
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1. Test Methodology

The 3D passive antenna pattern is measured using a two-axis dual-polarization pattern measurement setup, with the step size for both axes set to 15° and the axis measurement mode set to “stepped.”

2. Test and Measurement Equipment

Description	Manufacturer	Model	Serial No.	Calibration Date
Vector Network Analyzer	Anritsu	MS46522B	1903101	2/27/2025
OTA Test Chamber	ETS-Lindgren	AMS8050		4/12/2025
OTA Test Software	ETS-Lindgren	EMQuest V1.16 Build 24230		

3. Device Under Test Information

- Model name: SMC0500V
- Test Frequency (MHz): 909.00, 913.32, 922.92
- Antenna type: Printed PCB antenna.

4. Result Summary

SMCO500V PCB Antenna	Frequency (MHz)		
	909.00	913.32	922.92
TRP (dBm)	-5.85	-6.16	-6.87
EIRP (dBm)	-2.39	-2.75	-3.63
Efficiency (dB)	-5.85	-6.16	-6.87
Efficiency (%)	27.22	25.30	21.49
Gain (dBi)	-2.39	-2.75	-3.63

5. Plots

5.1 Antenna – 909.00 MHz 3D Passive

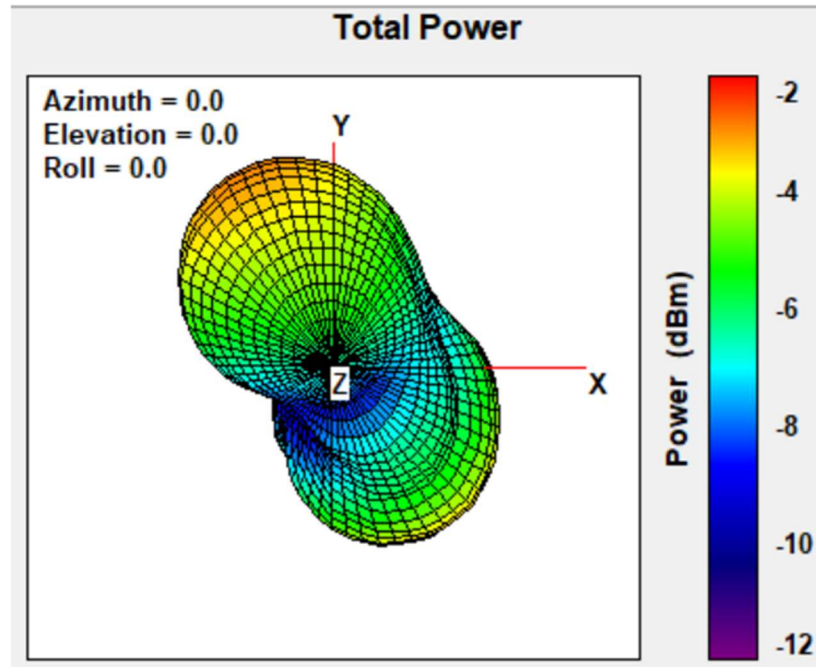


Figure 1. SMC0500V Antenna 909.00 MHz Front View

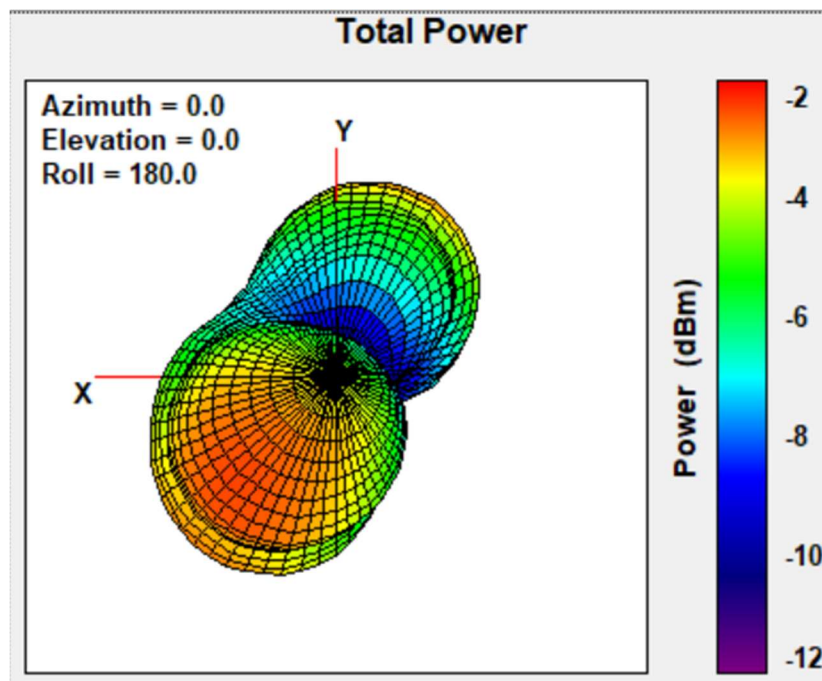


Figure 2. SMC0500V Antenna 909.00 MHz Back View

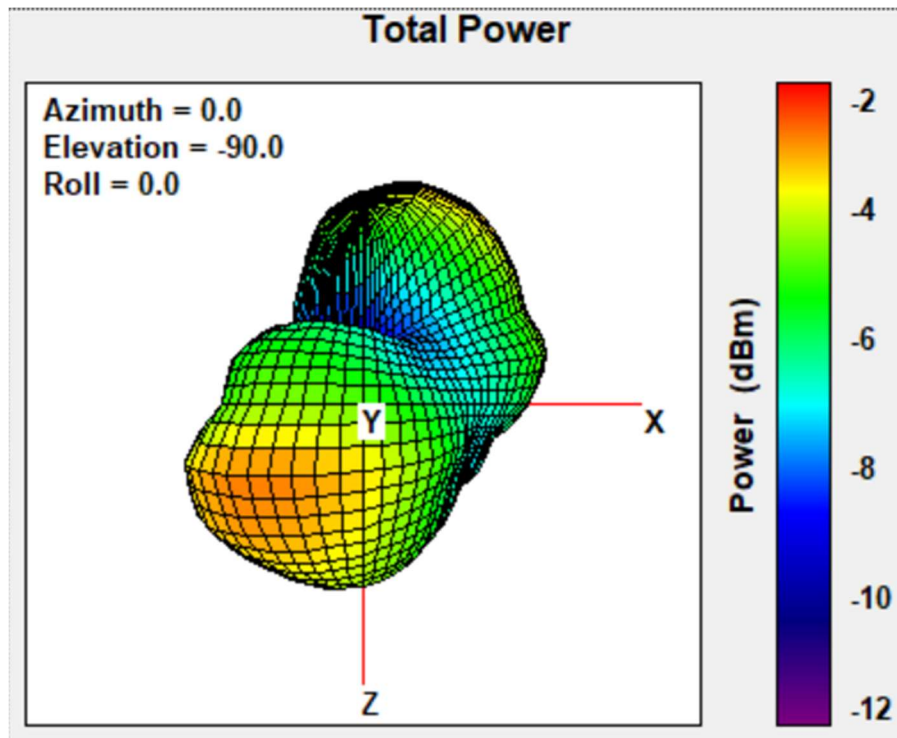


Figure 3. SMCO500V Antenna 909.00 MHz Top View

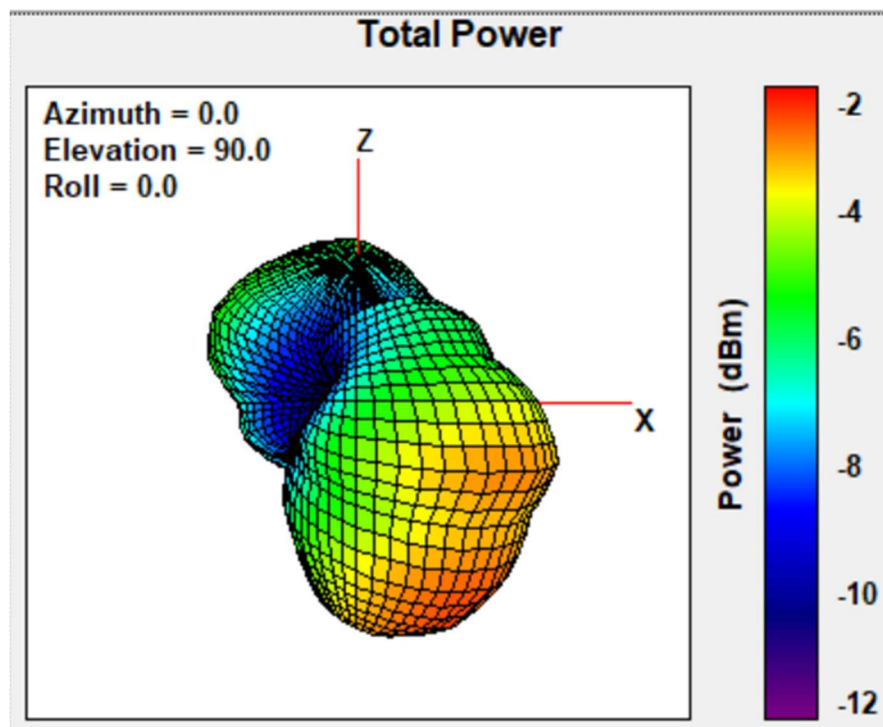


Figure 4. SMCO500V Antenna 909.00 MHz Bottom View

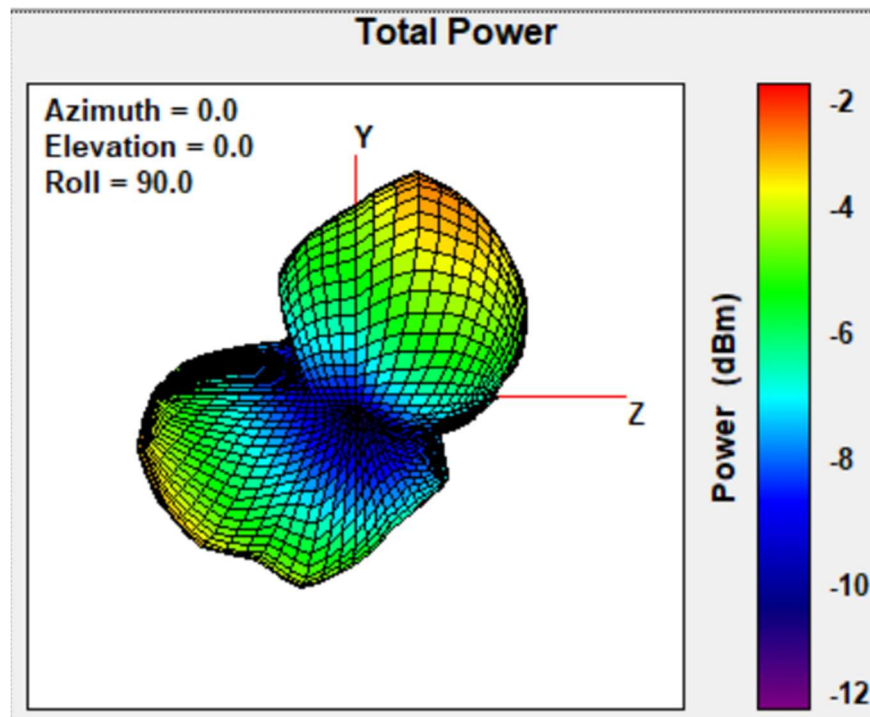


Figure 5. SMC0500V Antenna 909.00 MHz Left Side View

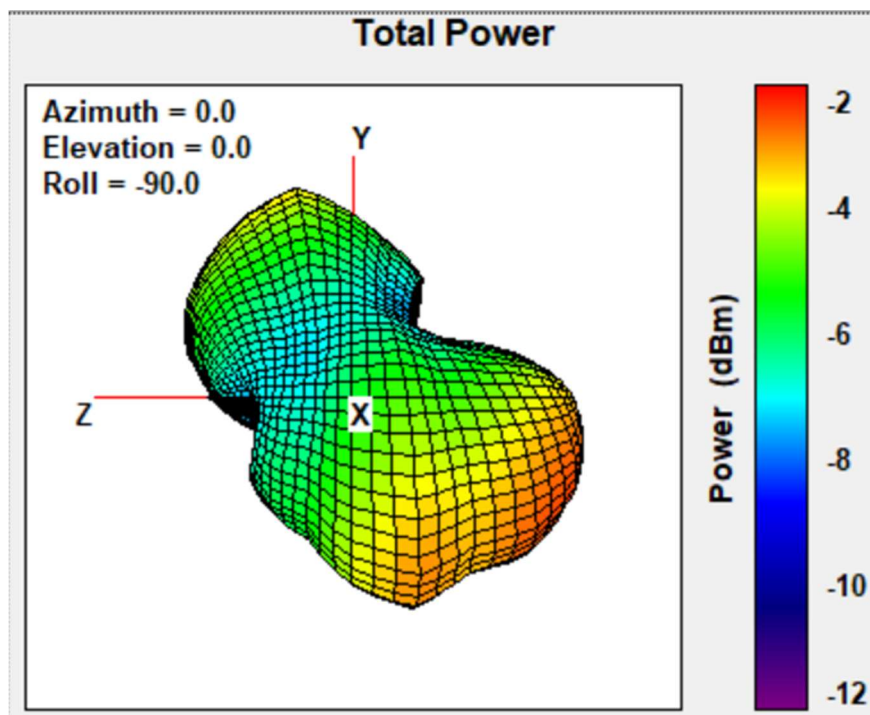


Figure 6. SMC0500V Antenna 909.00 MHz Right Side View

5.2 Antenna – 913.32 MHz 3D Passive

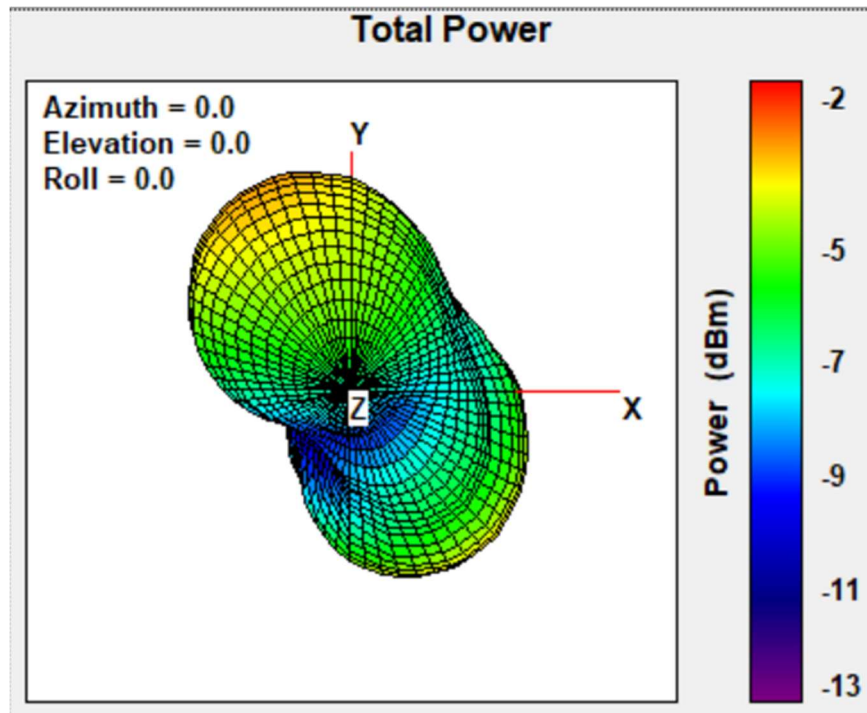


Figure 7. SMC0500V Antenna 913.32 MHz Front View

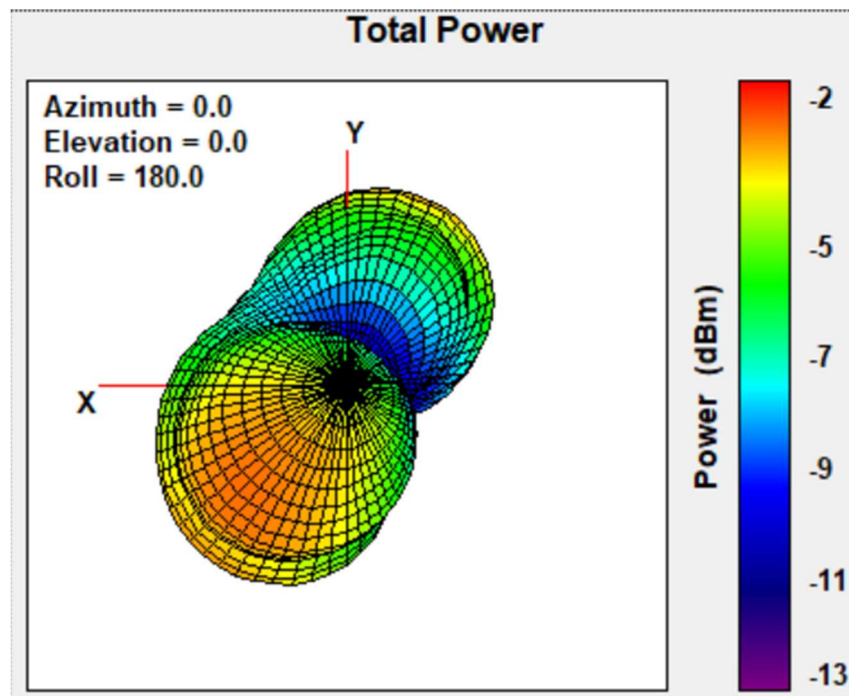


Figure 8. SMC0500V Antenna 913.32 MHz Back View

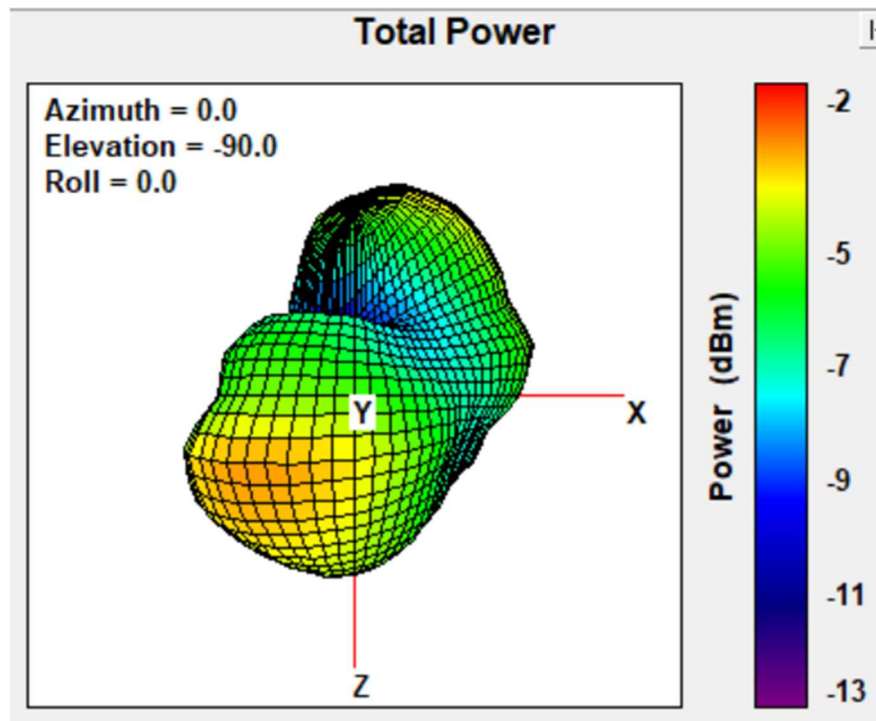


Figure 9. SMC0500V Antenna 913.32 MHz Top View

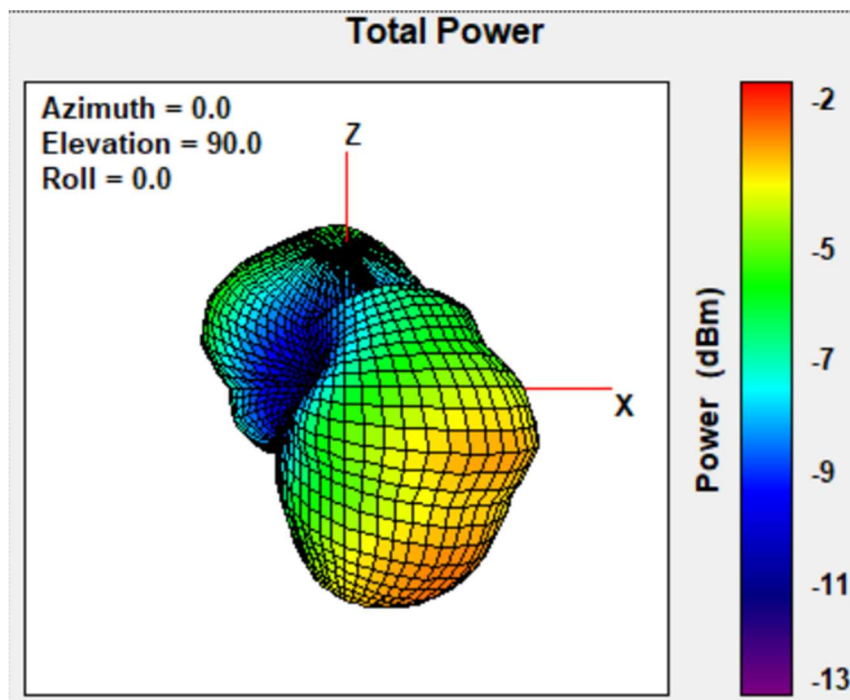


Figure 10. SMC0500V Antenna 913.32 MHz Bottom View

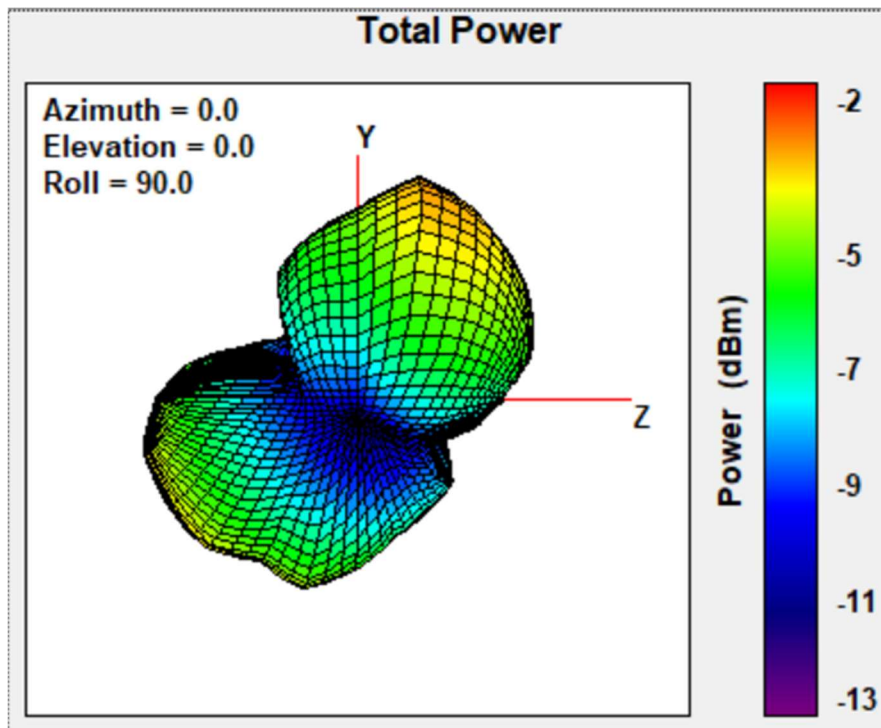


Figure 11. SMC0500V Antenna 913.32 MHz Left Side View

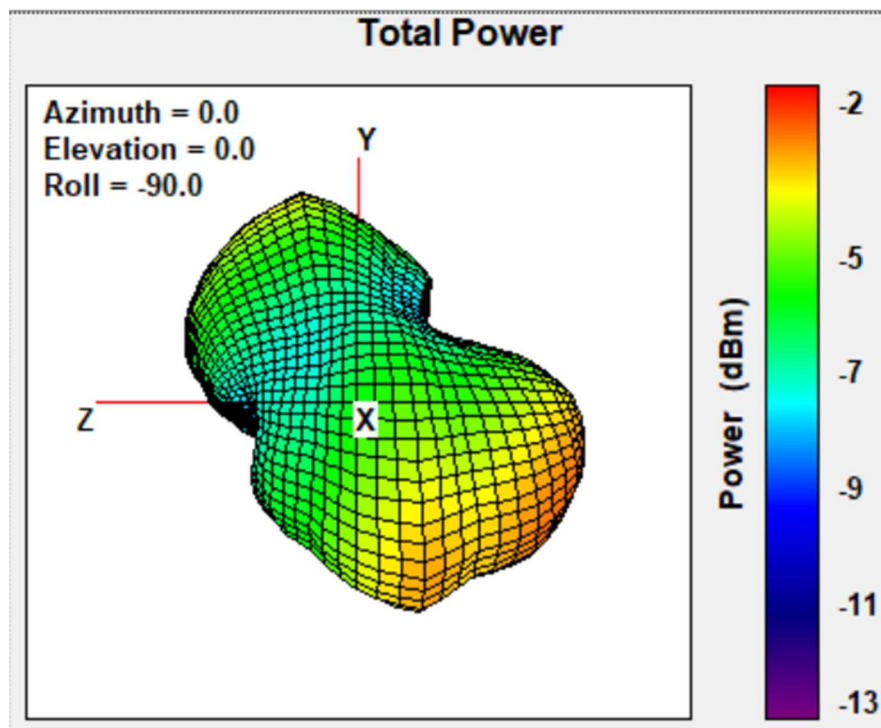


Figure 12. SMC0500V Antenna 913.32 MHz Right Side View

5.3 Antenna – 922.92 MHz 3D Passive

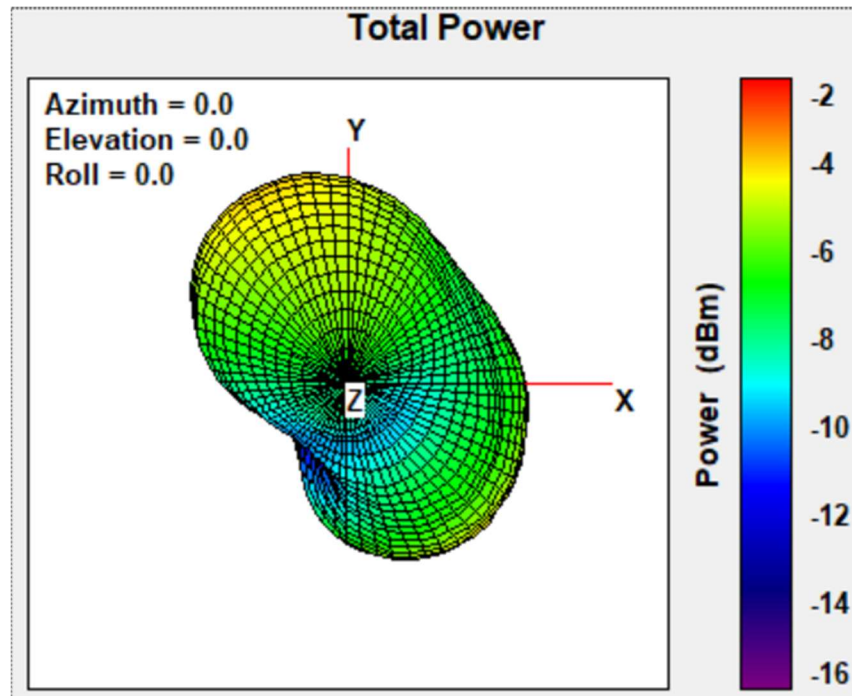


Figure 13. SMCO500V Antenna 922.92 MHz Front View

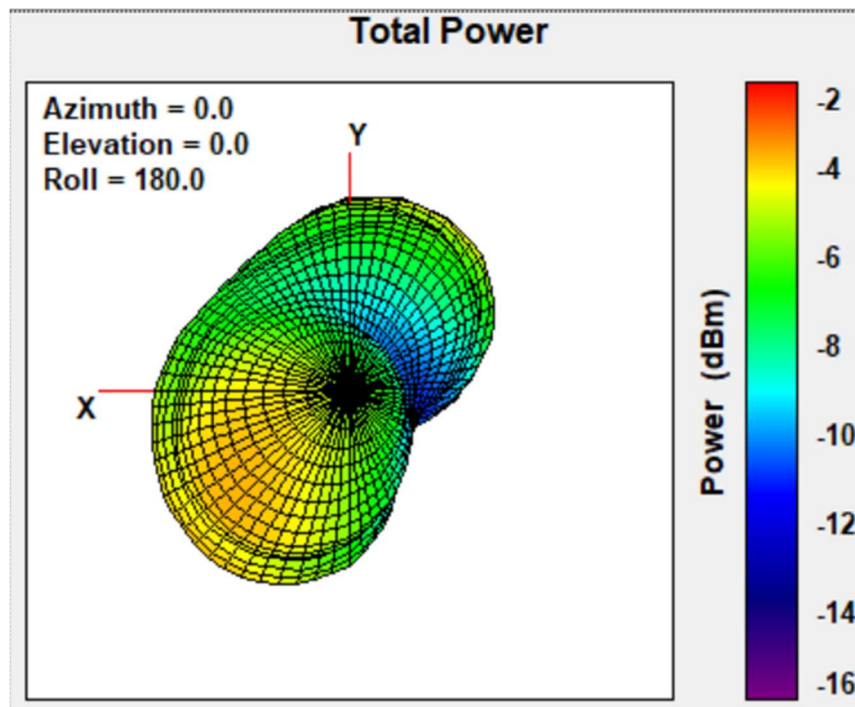


Figure 14. SMCO500V Antenna 922.92 MHz Back View

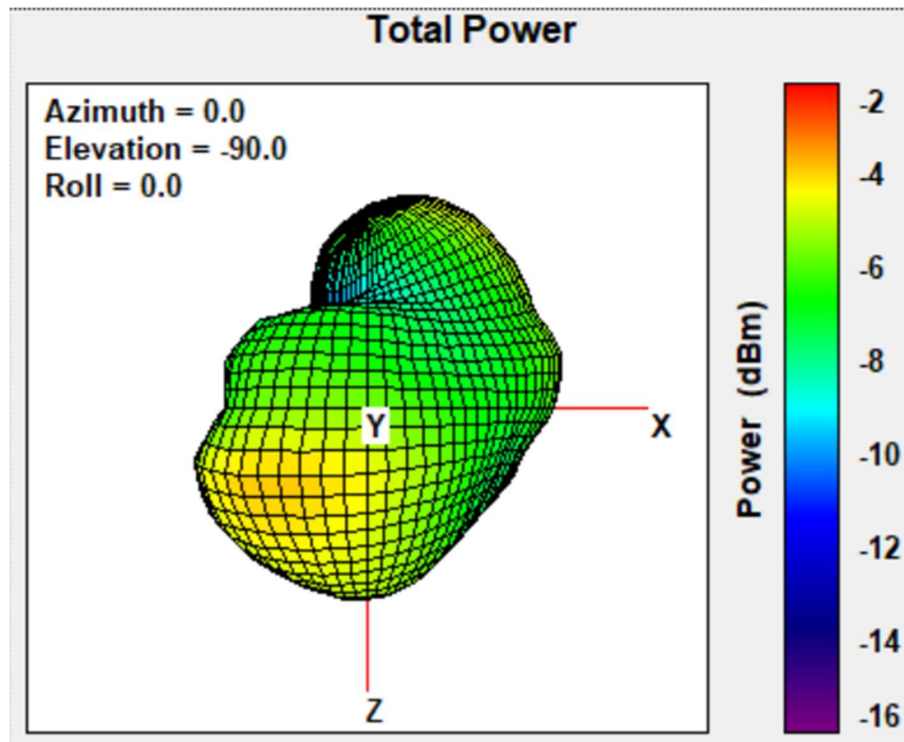


Figure 15. SMC0500V Antenna 922.92 MHz Top View

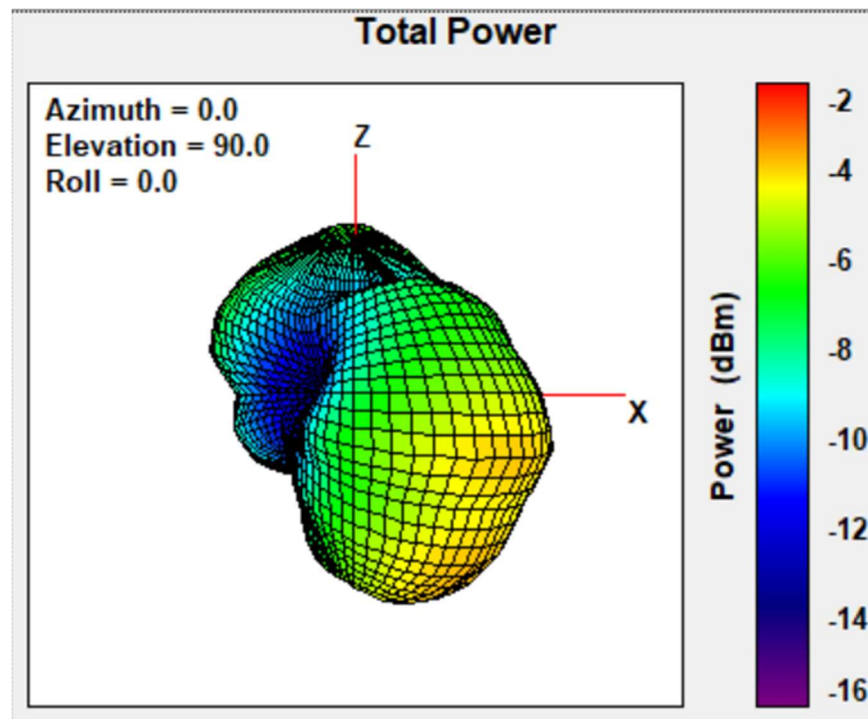


Figure 16. SMC0500V Antenna 922.92 MHz Bottom View

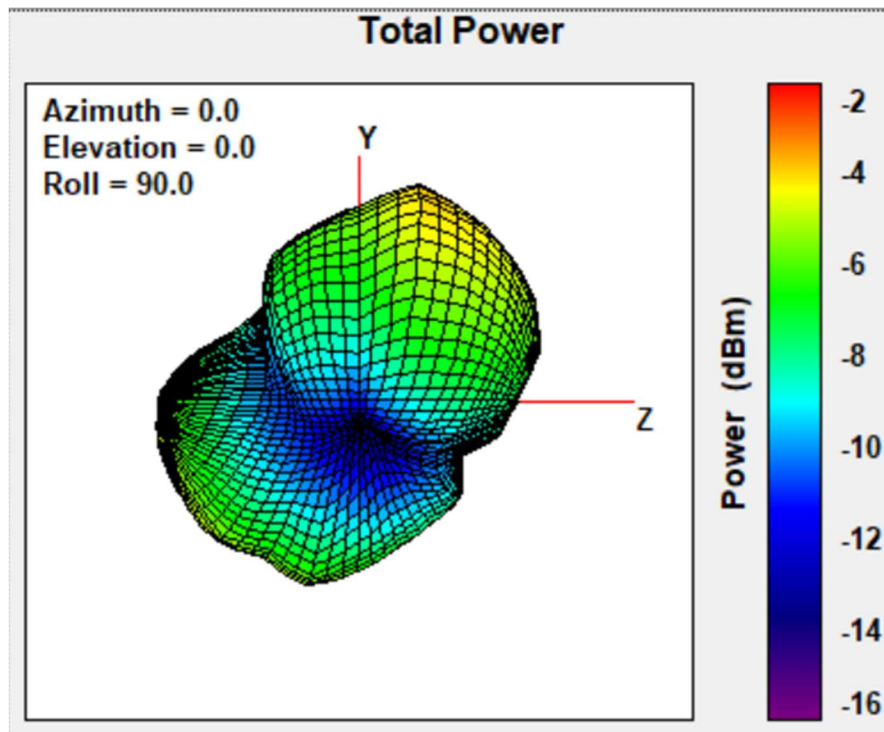


Figure 17. SMCO500V Antenna 922.92 MHz Left Side View

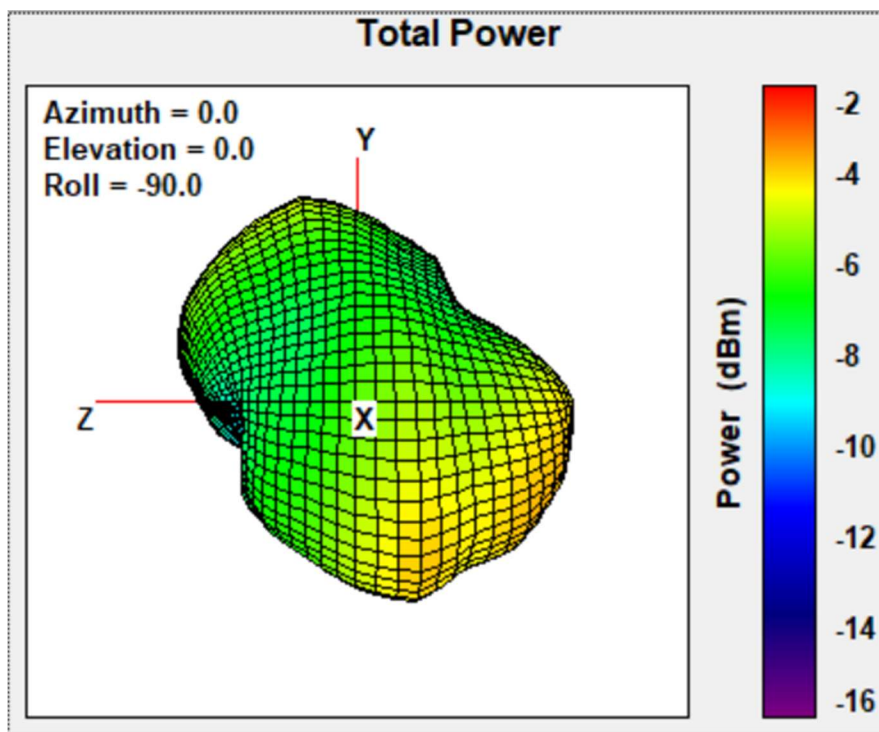


Figure 18. SMCO500V Antenna 922.92 MHz Right Side View

6. Test Setup

