

Antenna Gain and Pattern Measurement Report

Model Name: TOMCAT

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Test Report Revision History				
Revision	Tested and prepared by	Reviewed and Approved By	Revision Detail	Release Date
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Reviewed and Approved By: Anthony xu.

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Test Methodology

The 3D Passive antenna pattern is performed using Dual-Polarization Pattern Measurement system and phi step size is set to 15°, theta step size is set to 15°.

1. Test and Measurement Equipment

Description	Manufacturer	Model	Serial No.	Calibration Date
Vector Network Analyzer	R&S	ZNB8	106670	7/26/2022
OTA Test Chamber	R&S	TS8991		2/5/2023
OTA Test Software	R&S	AMS32 Version 10.60.10		

2. Device Under Test Information

- Model name: TOMCAT
- Test Frequency (MHz): 908, 912, 916, 920.
- Antenna type: Printed PCB antenna

3. Result Summary

TOMCAT PCB Antenna1	Frequency			
	908 MHz	912 MHz	916 MHz	920 MHz
TRP (dBm)	-5.33	-5.47	-5.62	-6.09
EIRP (dBm)	-0.74	-1.25	-0.94	-1.61
Efficiency (dB)	-5.33	-5.47	-5.62	-6.09
Efficiency (%)	29.3	28.41	27.41	24.58
Gain (dBi)	-0.74	-1.25	-0.94	-1.61

4. Plots

4.1 Antenna – Ant1 908 MHz 3D Passive

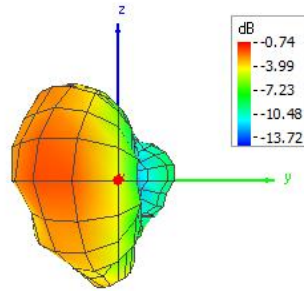


Figure 1.TOMCAT Antenna1 908 MHz Front View

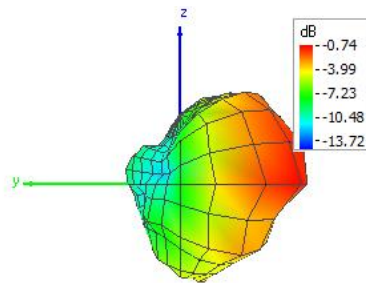


Figure 2.TOMCAT Antenna1 908 MHz Back View

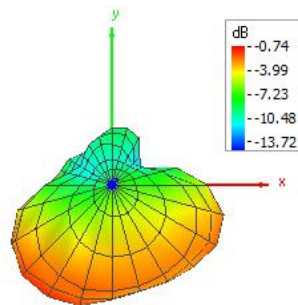


Figure 3.TOMCAT Antenna1 908 MHz Top View

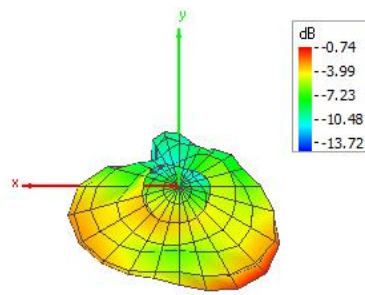


Figure 4.TOMCAT Antenna1 908 MHz Bottom View

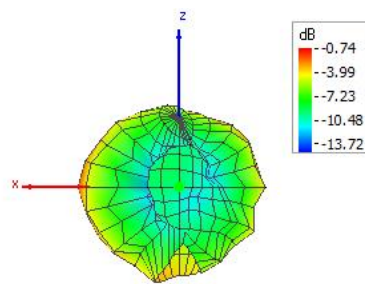


Figure 5.TOMCAT Antenna1 908 MHz Left Side View

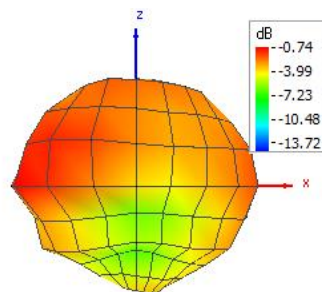


Figure 6.TOMCAT Antenna1 908 MHz Right Side View

4.2 Antenna 1– 912 MHz 3D Passive

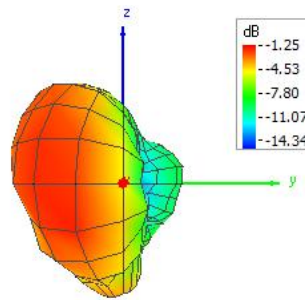


Figure 7.TOMCAT Antenna1 912 MHz Front View

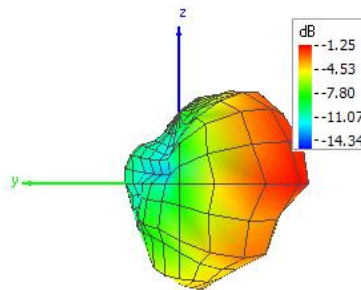


Figure 8.TOMCAT Antenna1 912 MHz Back View

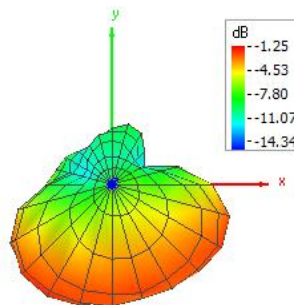


Figure 9.TOMCAT Antenna1 912 MHz Top View

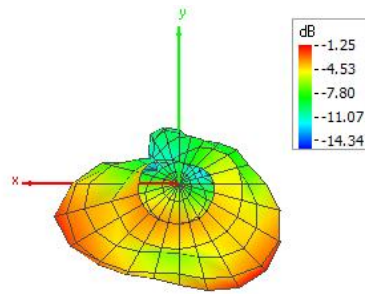


Figure 10.TOMCAT Antenna1 912 MHz Bottom View

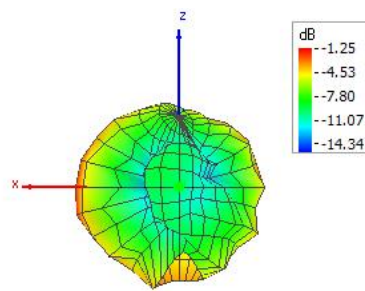


Figure 11.TOMCAT Antenna1 912 MHz Left View

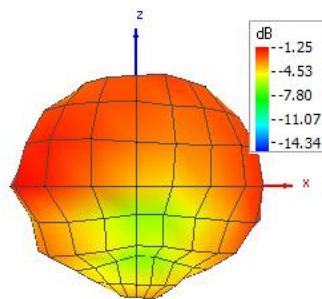


Figure 12.TOMCAT Antenna1 912 MHz Right View

4.3 Antenna1 – 916 MHz 3D Passive

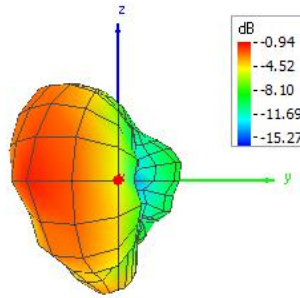


Figure 13. TOMCAT Antenna1 916 MHz Front View

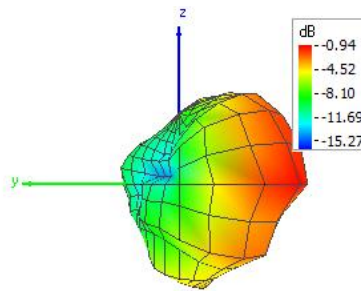


Figure 14. TOMCAT Antenna1 916 MHz Back View

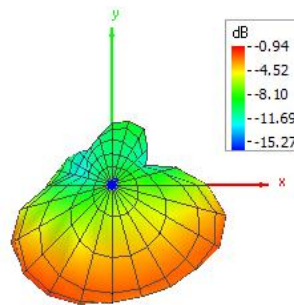


Figure 15. TOMCAT Antenna1 916 MHz Top View

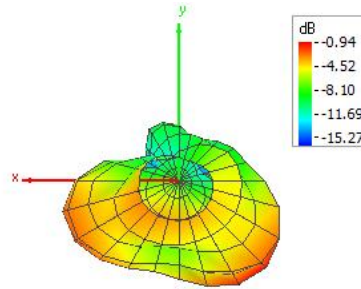


Figure 16.TOMCAT Antenna1 916 MHz Bottom View

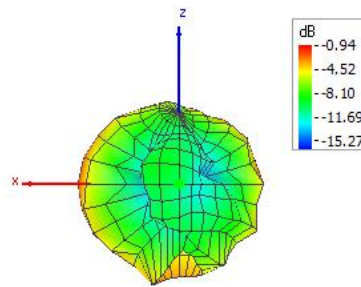


Figure 17.TOMCAT Antenna1 916 MHz Left View

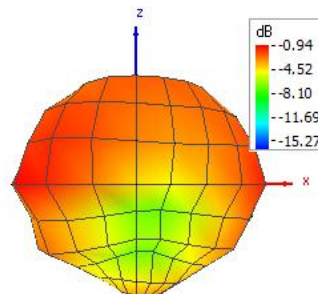


Figure 18.TOMCAT Antenna1 916 MHz Right View

4.4 Antenna – Ant1 920 MHz 3D Passive

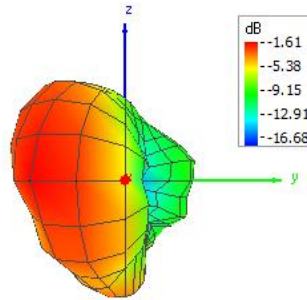


Figure 19. TOMCAT Antenna2 920 MHz Front View

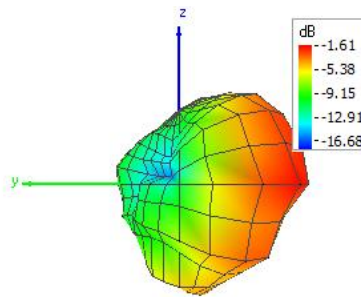


Figure 20. TOMCAT Antenna2 920 MHz Back View

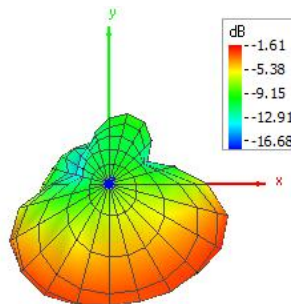


Figure 21. TOMCAT Antenna2 920 MHz Top View

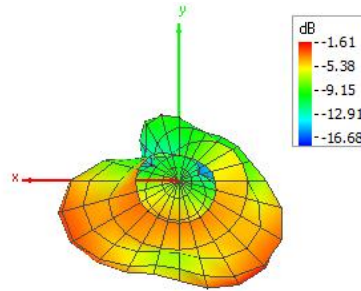


Figure 22. TOMCAT Antenna2 920 MHz Bottom View

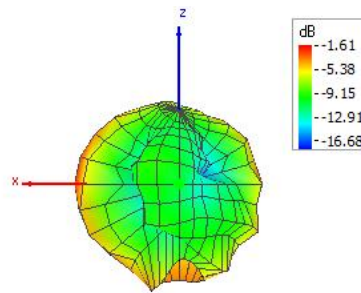


Figure 23. TOMCAT Antenna2 920 MHz Left Side View

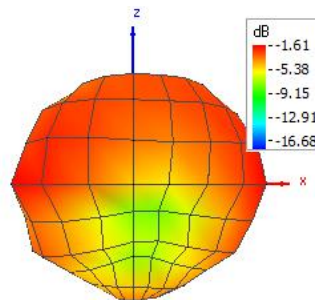


Figure 24. TOMCAT Antenna2 920 MHz Right Side View

5. Test Setup

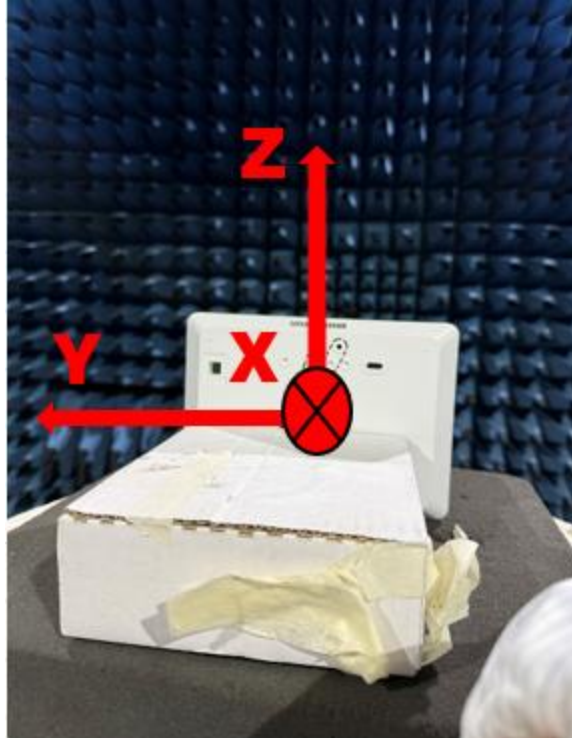


Figure25.TOMCAT Location reference definition

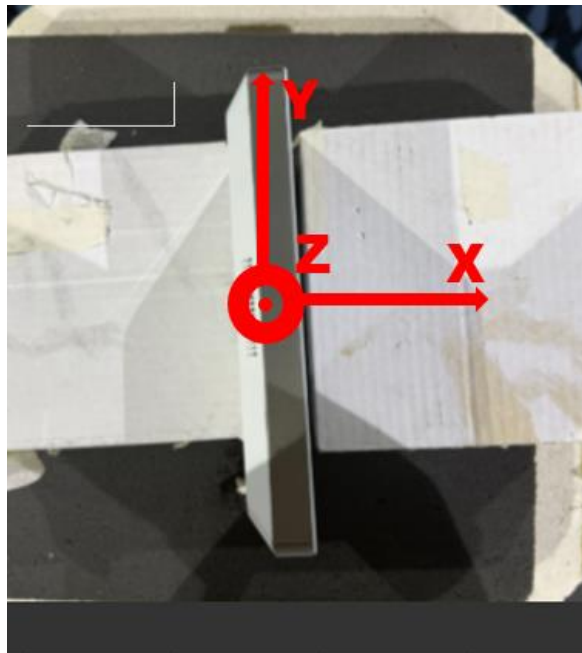


Figure26.TOMCAT TOP View definition

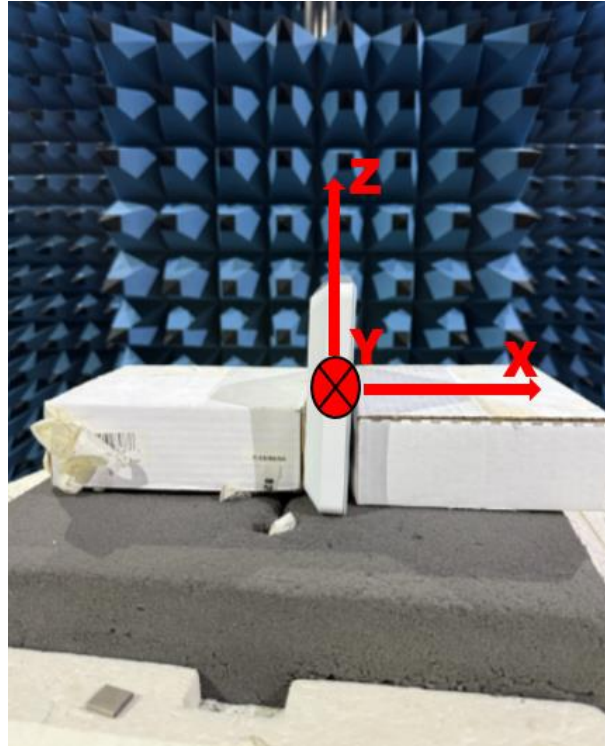


Figure27.TOMCAT right View definition

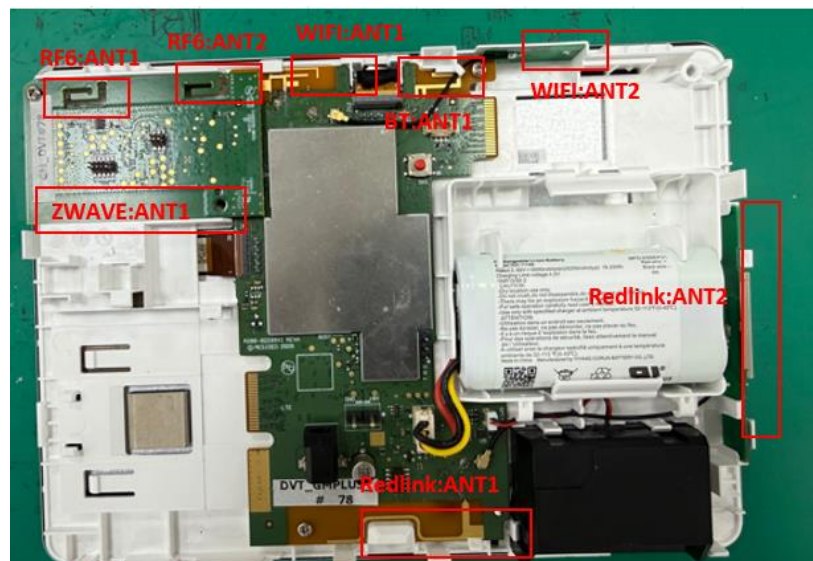


Figure28.TOMCAT ANT1/2 definition

