

Antenna Gain and Pattern Measurement Report

Model Name: Tomcat

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Test Report Revision History				
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Reviewed and Approved By: Anthony xu.

Luo Yi

Anthony, xu

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1. 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° .

2. 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		

3. Device Under Test Information

- Model name: TOMCAT
- Test Frequency (MHz): 2405, 2440, 2475.
- Antenna type: Printed PCB antenna

4. Result Summary

TOMCAT PCB Antenna1	Frequency		
	2405 MHz	2440 MHz	2475 MHz
TRP (dBm)	-4.03	-3.95	-3.59
EIRP (dBm)	1.08	1.44	1.63
Efficiency (dB)	-4.03	-3.95	-3.59
Efficiency (%)	39.54	40.31	43.74
Gain (dBi)	1.08	1.44	1.63

TOMCAT PCB Antenna2	Frequency		
	2405 MHz	2440 MHz	2475 MHz
TRP (dBm)	-3.04	-3.09	-3.12
EIRP (dBm)	0.38	0.58	0.7
Efficiency (dB)	-3.04	-3.09	-3.12
Efficiency (%)	49.61	49.14	48.74
Gain (dBi)	0.38	0.58	0.7

5. Plots

5.1 Antenna – Ant1 2405 MHz 3D Passive

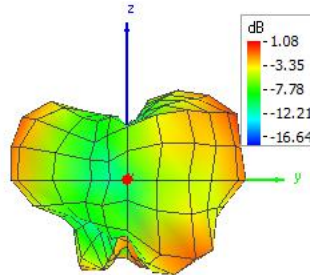


Figure 1.TOMCAT Antenna1 2405 MHz Front View

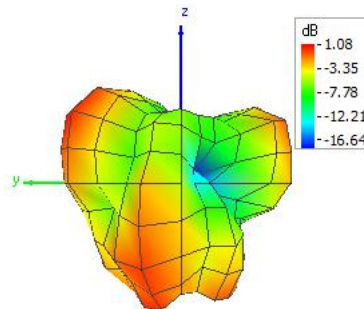


Figure 2.TOMCAT Antenna1 2405 MHz Back View

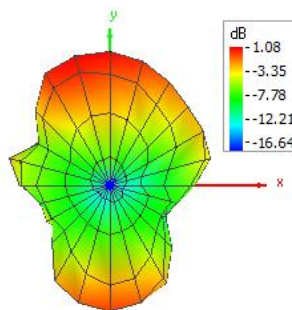


Figure 3.TOMCAT Antenna1 2405 MHz Top View

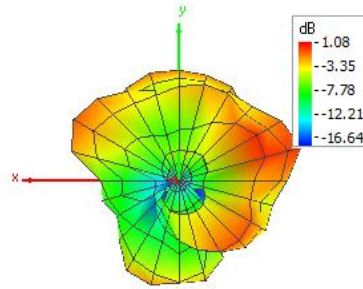


Figure 4.TOMCAT Antenna1 2405 MHz Bottom View

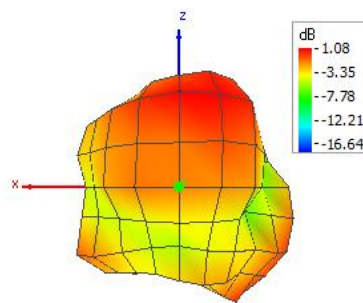


Figure 5.TOMCAT Antenna1 2405 MHz Left Side View

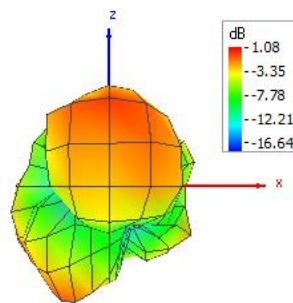


Figure 6.TOMCAT Antenna1 2405 MHz Right Side View

5.2 Antenna 1– 2440 MHz 3D Passive

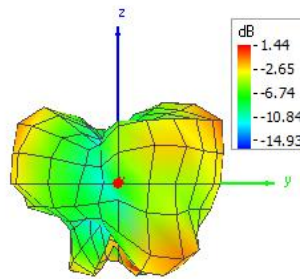


Figure 7.TOMCAT Antenna1 2440 MHz Front View

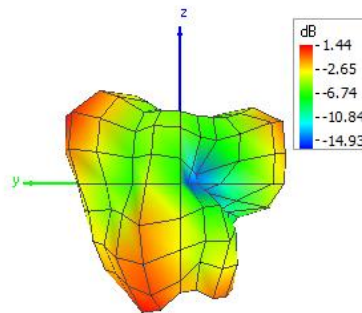


Figure 8.TOMCAT Antenna1 2440 MHz Back View

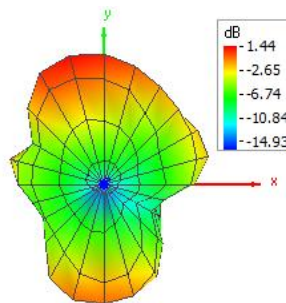


Figure 9.TOMCAT Antenna1 2440 MHz Top View

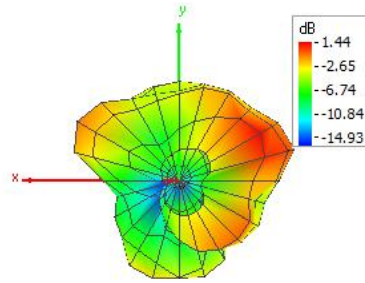


Figure 10.TOMCAT Antenna1 2440 MHz Bottom View

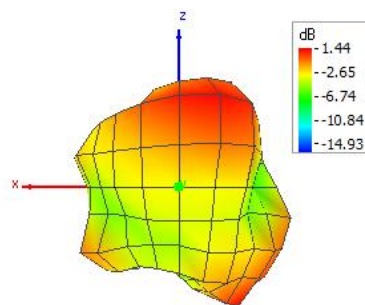


Figure 11.TOMCAT Antenna1 2440 MHz Left View

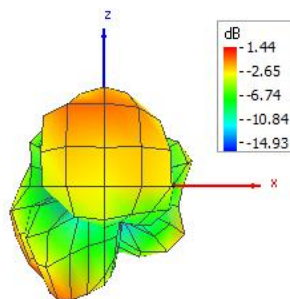


Figure 12.TOMCAT Antenna1 2440 MHz Right View

5.3 Antenna1 – 2475 MHz 3D Passive

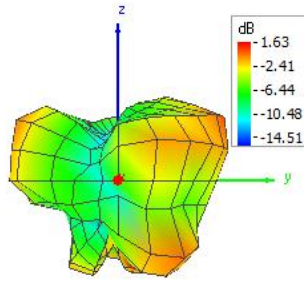


Figure 13.TOMCAT Antenna1 2475 MHz Front View

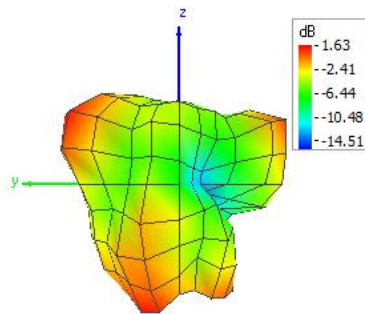


Figure 14.TOMCAT Antenna1 2475 MHz Back View

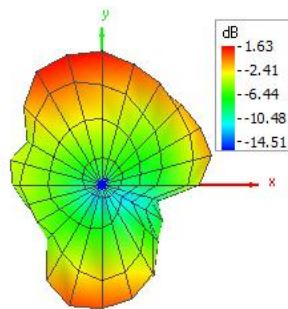


Figure 15.TOMCAT Antenna1 2475 MHz Top View

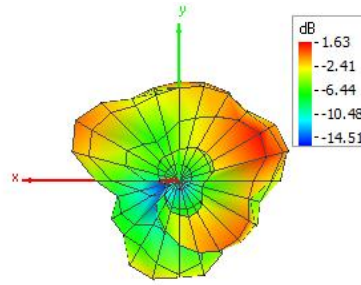


Figure 16.TOMCAT Antenna1 2475 MHz Bottom View

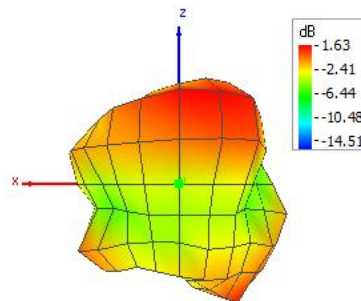


Figure 17.TOMCAT Antenna1 2475 MHz Left View

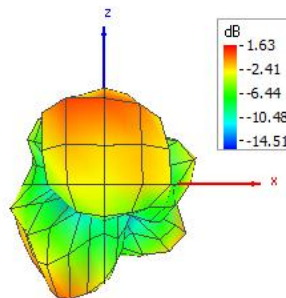


Figure 18.TOMCAT Antenna1 2475 MHz Right View

5.4 Antenna – Ant2 2405 MHz 3D Passive

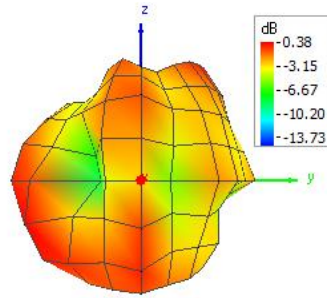


Figure 19.TOMCAT Antenna2 2405 MHz Front View

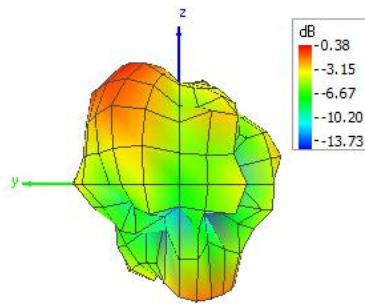


Figure 20.TOMCAT Antenna2 2405 MHz Back View

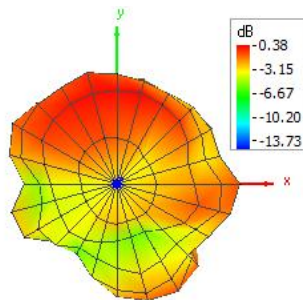


Figure 21.TOMCAT Antenna2 2405 MHz Top View

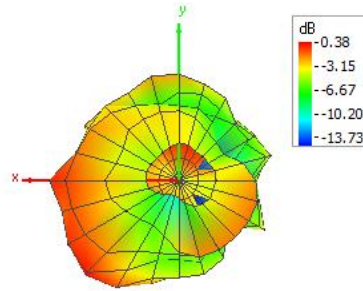


Figure 22.TOMCAT Antenna2 2405 MHz Bottom View

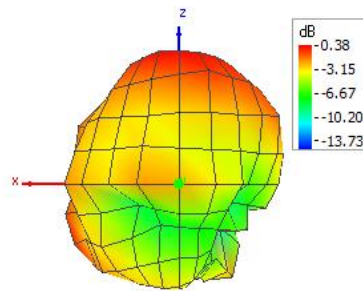


Figure 23.TOMCAT Antenna2 2405 MHz Left Side View

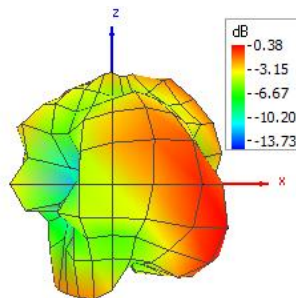


Figure 24.TOMCAT Antenna2 2405 MHz Right Side View

5.5 Antenna 2– 2440 MHz 3D Passive

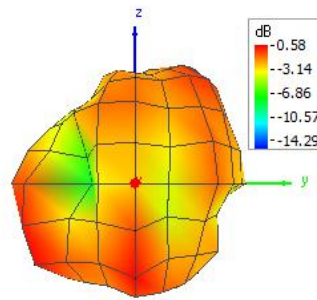


Figure 25. TOMCAT Antenna2 2440 MHz Front View

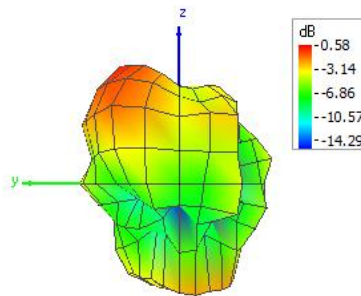


Figure 26. TOMCAT Antenna2 2440 MHz Back View

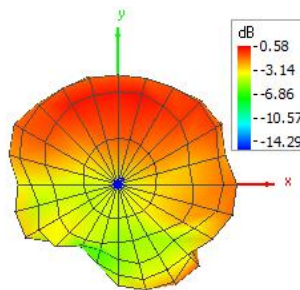


Figure 27. TOMCAT Antenna2 2440 MHz Top View

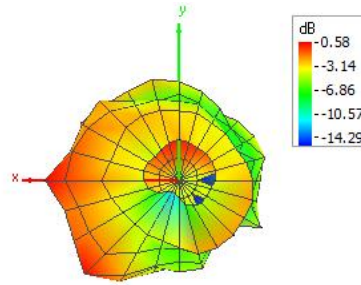


Figure 28.TOMCAT Antenna2 2440 MHz Bottom View

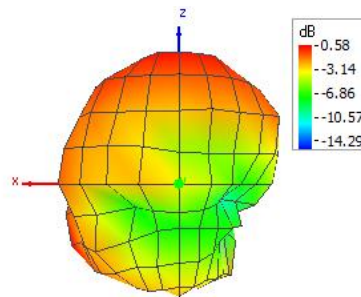


Figure 29.TOMCAT Antenna2 2440 MHz Left View

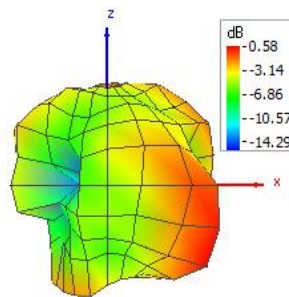


Figure 30.TOMCAT Antenna2 2440 MHz Right View

5.6 Antenna2 – 2475 MHz 3D Passive

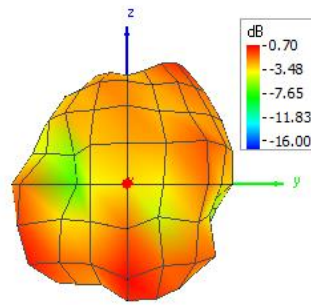


Figure 31. TOMCAT Antenna2 2475 MHz Front View

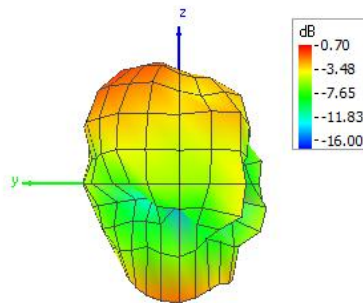


Figure 32. TOMCAT Antenna2 2475 MHz Back View

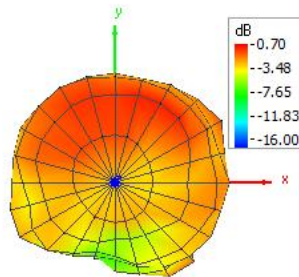


Figure 33. TOMCAT Antenna2 2475 MHz Top View

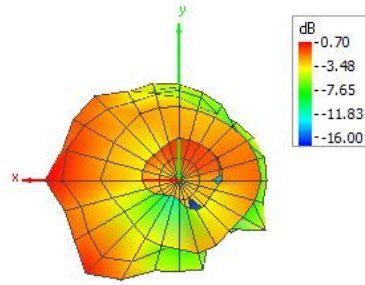


Figure 34.TOMCAT Antenna2 2475 MHz Bottom View

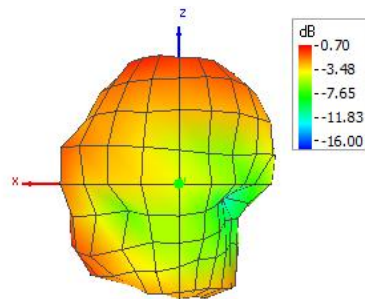


Figure 35.TOMCAT Antenna2 2475 MHz Left View

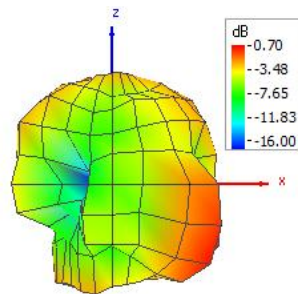


Figure 36.TOMCAT Antenna2 2475 MHz Right View

6. Test Setup

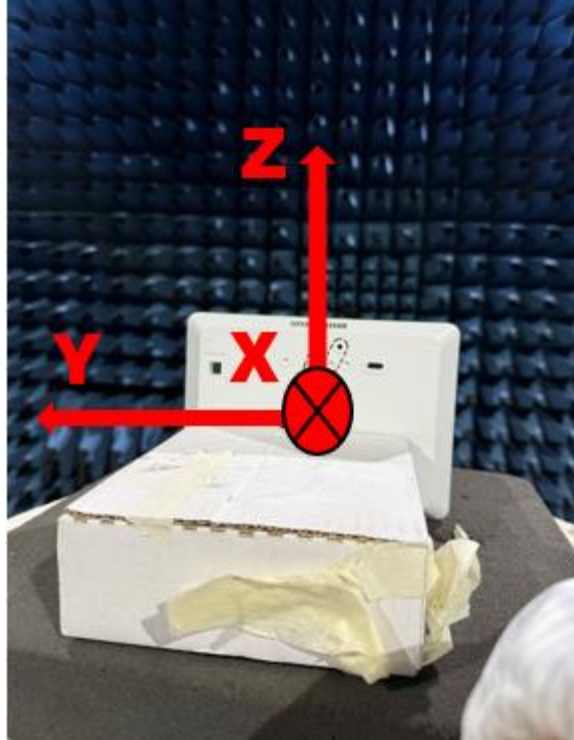


Figure37.TOMCAT Location reference definition

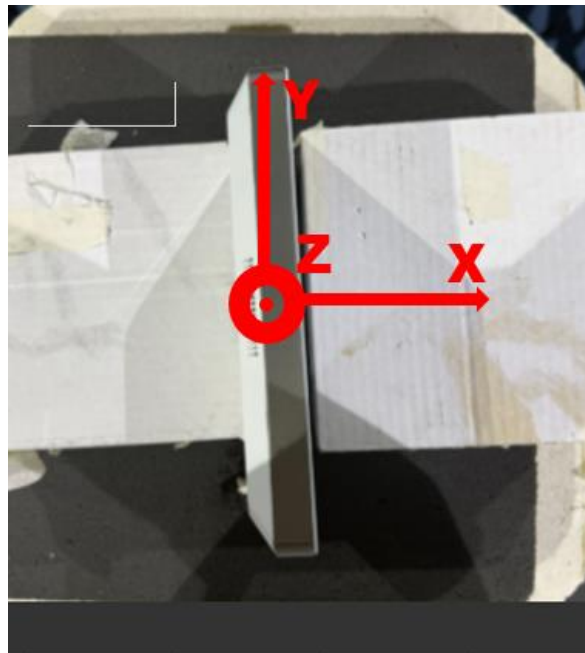


Figure38.TOMCAT TOP View definition

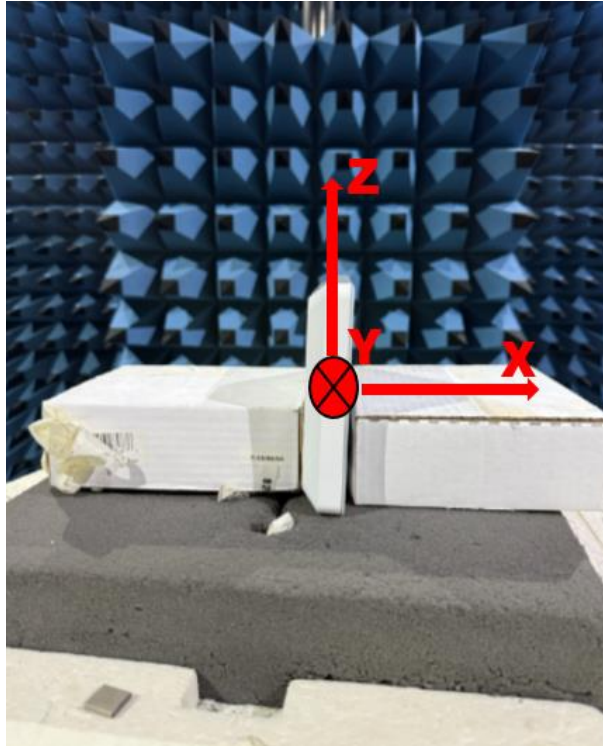


Figure 39. TOMCAT right View definition

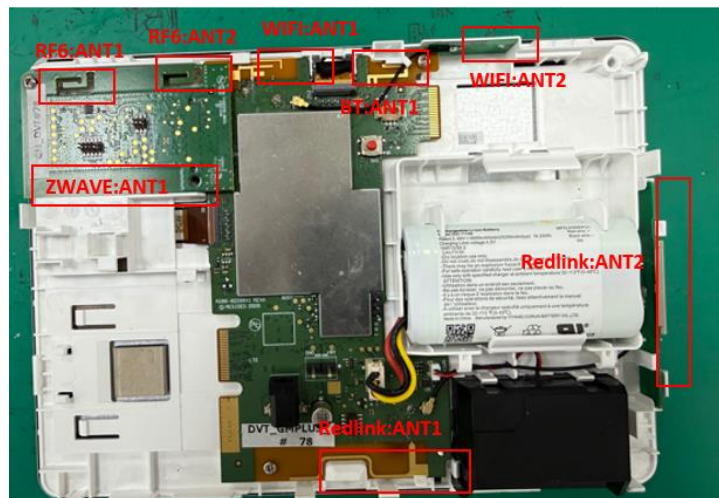


Figure 37. TOMCAT ANT1/2 definition