

Antenna Gain and Pattern Measurement Report

Model Name: SIXCOVA

DATA TESTED: Jan 30th, 2024.

REPORT ISSUED: Feb 21st, 2024.

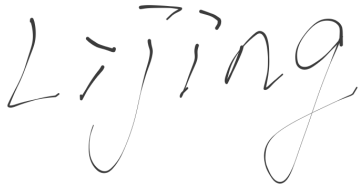
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Test Report Revision History				
Revision	Tested and prepared by	Reviewed and Approved By	Revision Detail	Release Date
A	Li Jing	Anthony Xu	Original Release	Feb 21 st , 2024

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Reviewed and Approved By: 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 30°*, theta step size is set to 15°.

*For antenna passive characterization, the phi step size of 30° does not impact the test accuracy compared with a phi step size of 15°. All the non-swept points will be extrapolated. The difference is totally negligible.

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

4. Result Summary

SIXCOVA PCB Antenna1	Frequency		
	2405 MHz	2440 MHz	2475 MHz
TRP (dBm)	-4.69	-5.02	-5.04
EIRP (dBm)	1.49	1.14	1.39
Efficiency (dB)	-4.69	-5.02	-5.04
Efficiency (%)	34	31.5	31.32
Gain (dBi)	1.49	1.14	1.39

SIXCOVA PCB Antenna2	Frequency		
	2405 MHz	2440 MHz	2475 MHz
TRP (dBm)	-4.08	-3.75	-3.36
EIRP (dBm)	1.77	1.59	1.92
Efficiency (dB)	-4.08	-3.75	-3.36
Efficiency (%)	39.12	42.14	46.16
Gain (dBi)	1.77	1.59	1.92

5. Plots

5.1 Antenna – Ant1 2405 MHz 3D Passive

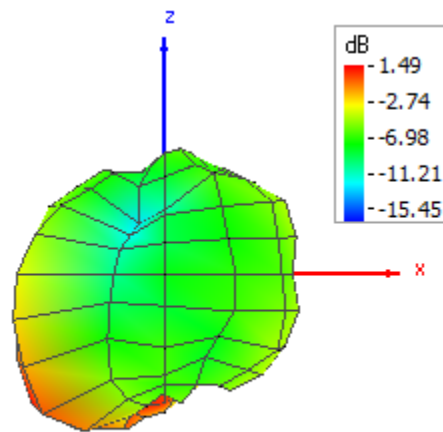


Figure 1.SIXCOVA Antenna1 2405 MHz Front View

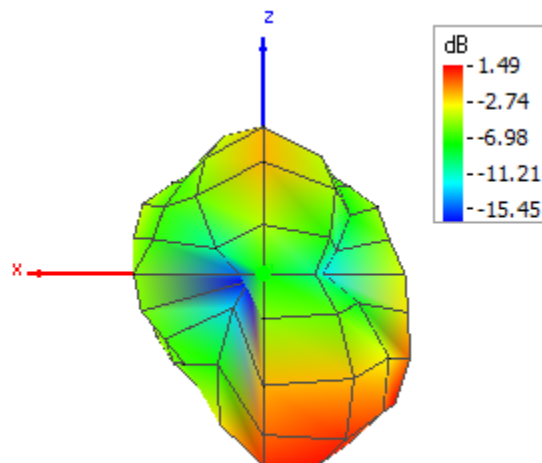


Figure 2.SIXCOVA Antenna1 2405 MHz Back View

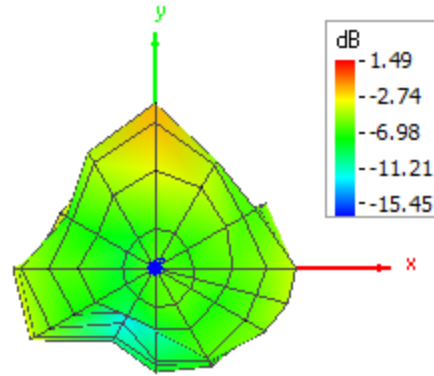


Figure 3.SIXCOVA Antenna1 2405 MHz Top View

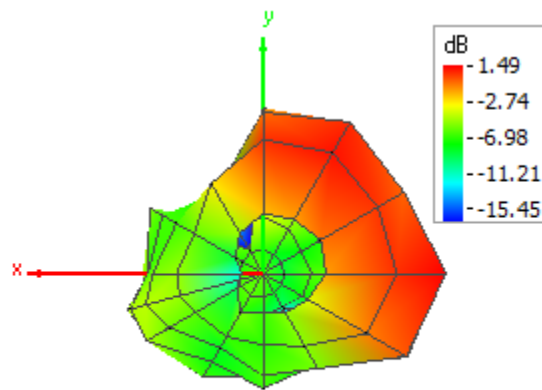


Figure 4.SIXCOVA Antenna1 2405 MHz Bottom View

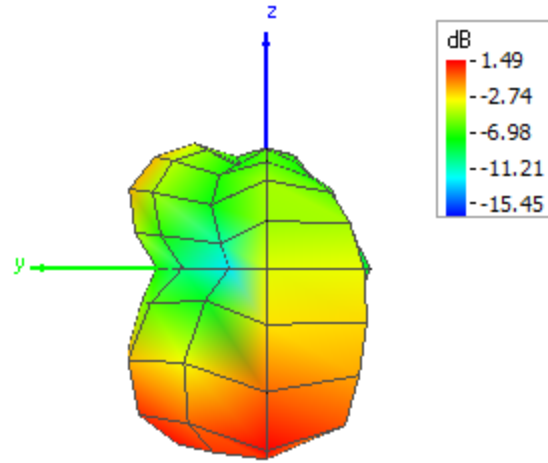


Figure 5.SIXCOVA Antenna1 2405 MHz Left Side View

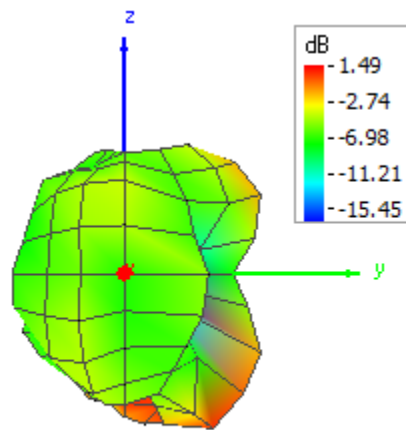


Figure 6.SIXCOVA Antenna1 2405 MHz Right Side View

5.2 Antenna 1– 2440 MHz 3D Passive

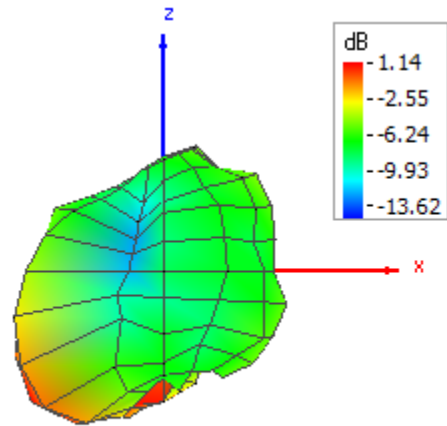


Figure 7.SIXCOVA Antenna1 2440 MHz Front View

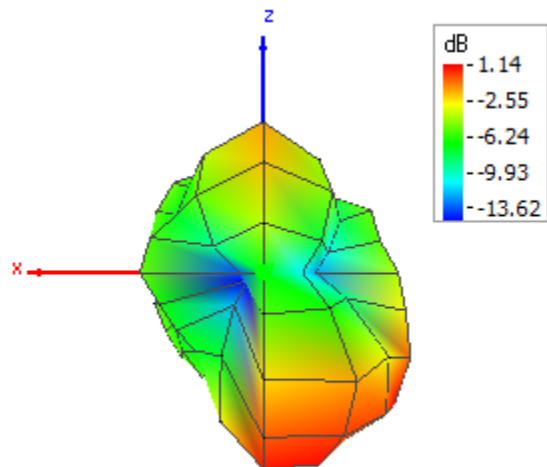


Figure 8.SIXCOVA Antenna1 2440 MHz Back View

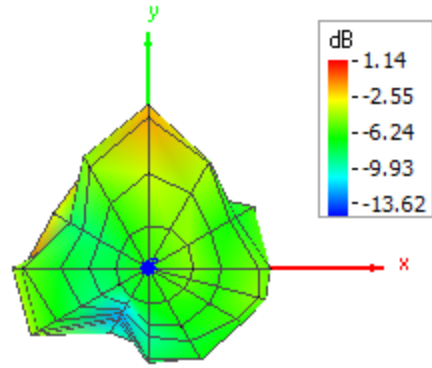


Figure 9.SIXCOVA Antenna1 2440 MHz Top View

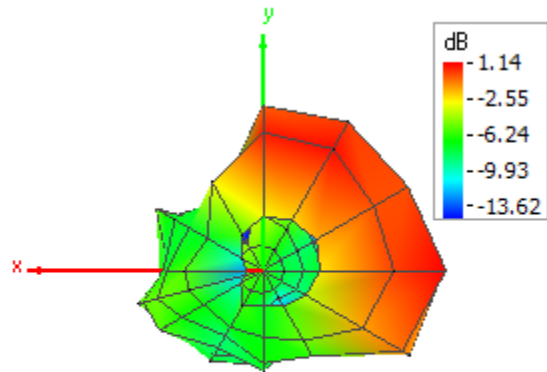


Figure 10.SIXCOVA Antenna1 2440 MHz Bottom View

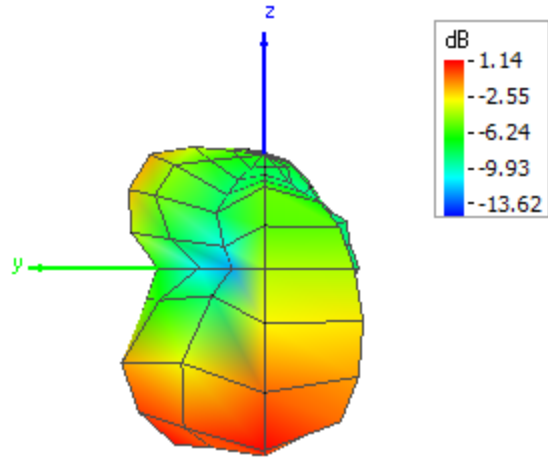


Figure 11.SIXCOVA Antenna1 2440 MHz Left View

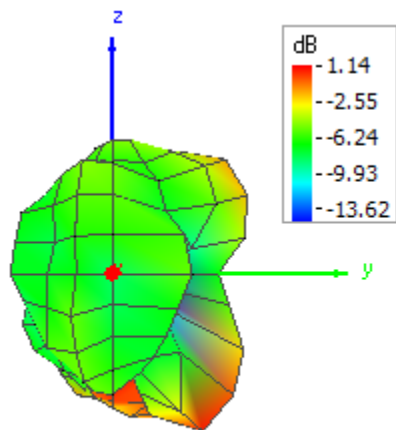


Figure 12.SIXCOVA Antenna1 2440 MHz Right View

5.3 Antenna1 – 2475 MHz 3D Passive

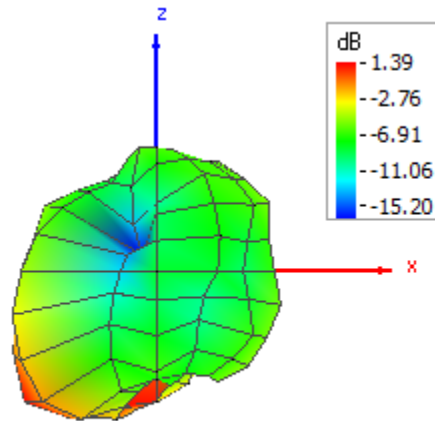


Figure 13.SIXCOVA Antenna1 2475 MHz Front View

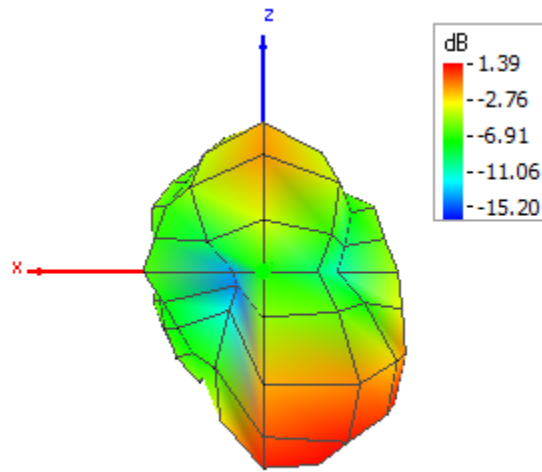


Figure 14.SIXCOVA Antenna1 2475 MHz Back View

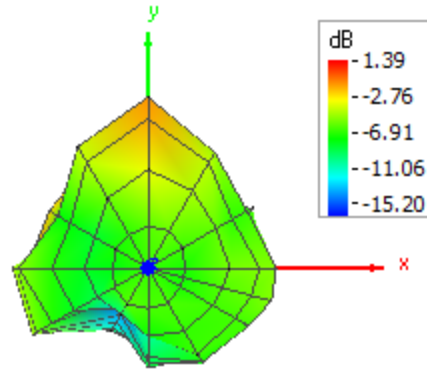


Figure 15.SIXCOVA Antenna1 2475 MHz Top View

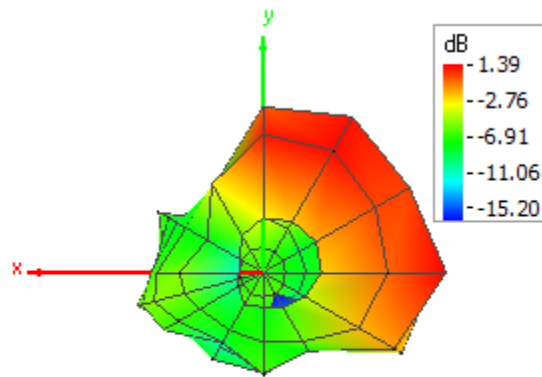


Figure 16.SIXCOVA Antenna1 2475 MHz Bottom View

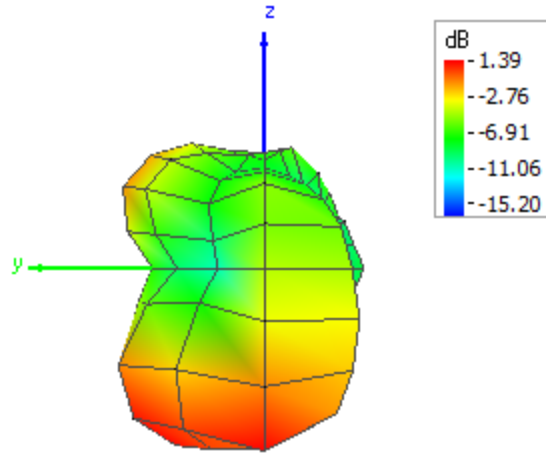


Figure 17.SIXCOVA Antenna1 2475 MHz Left View

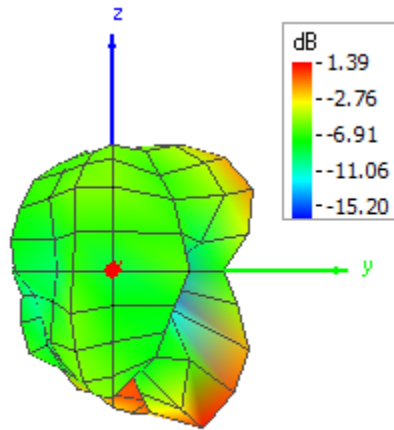


Figure 18.SIXCOVA Antenna1 2475 MHz Right View

5.4 Antenna – Ant2 2405 MHz 3D Passive

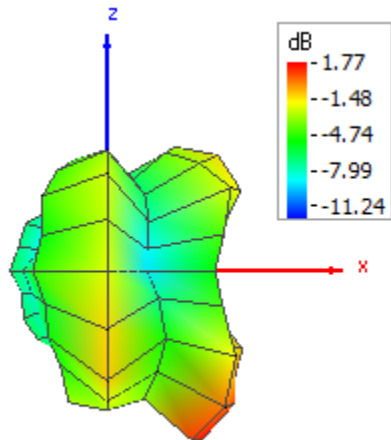


Figure 19.SIXCOVA Antenna2 2405 MHz Front View

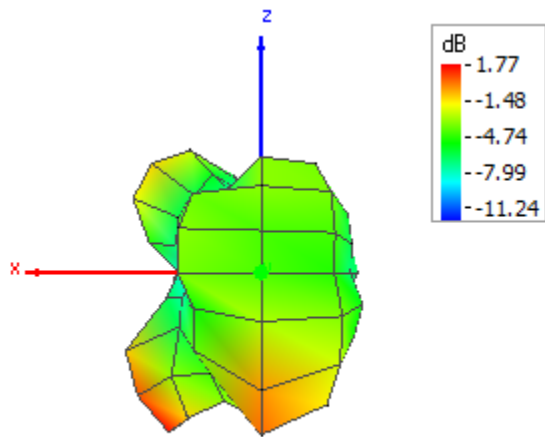


Figure 20.SIXCOVA Antenna2 2405 MHz Back View

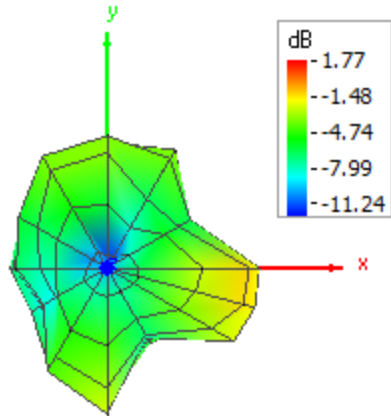


Figure 21.SIXCOVA Antenna2 2405 MHz Top View

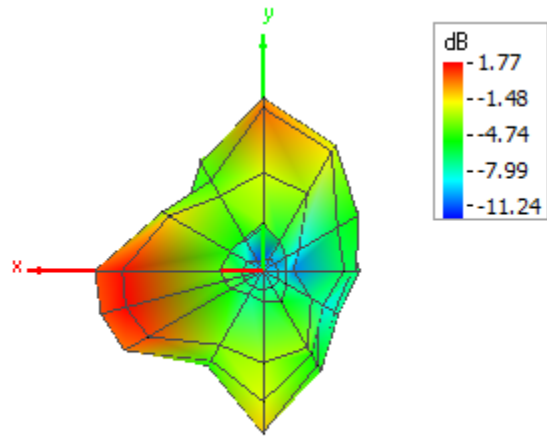


Figure 22.SIXCOVA Antenna2 2405 MHz Bottom View

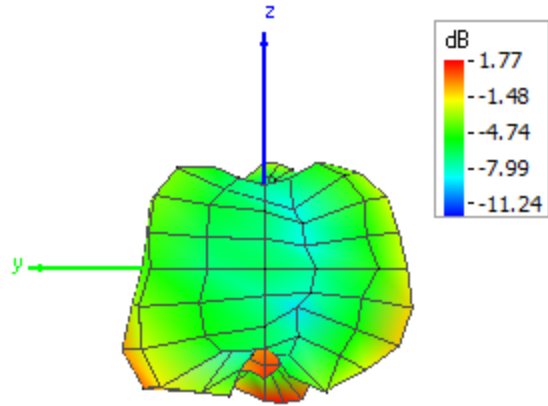


Figure 23.SIXCOVA Antenna2 2405 MHz Left Side View

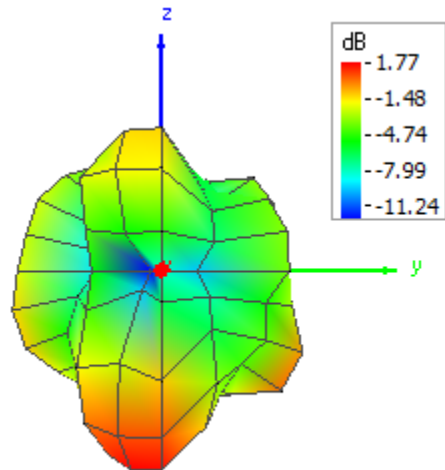


Figure 24.SIXCOVA Antenna2 2405 MHz Right Side View

5.5 Antenna 2– 2440 MHz 3D Passive

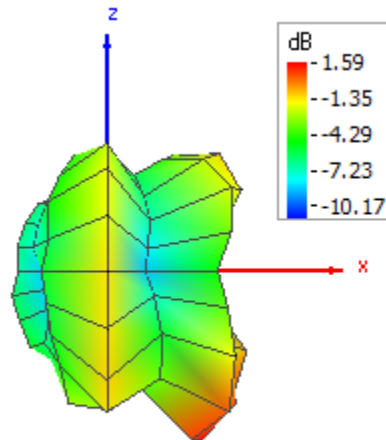


Figure 25.SIXCOVA Antenna2 2440 MHz Front View

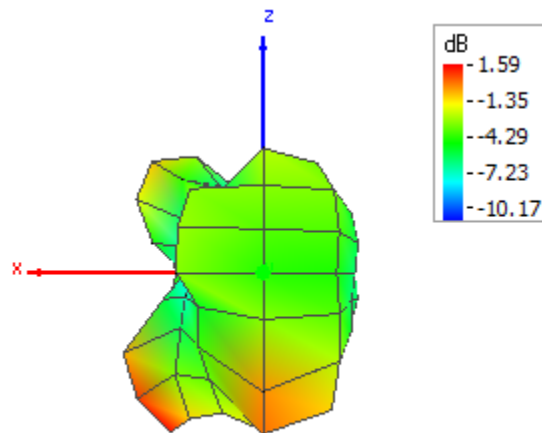


Figure 26.SIXCOVA Antenna2 2440 MHz Back View

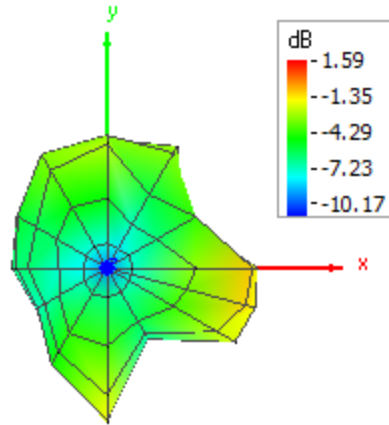


Figure 27.SIXCOVA Antenna2 2440 MHz Top View

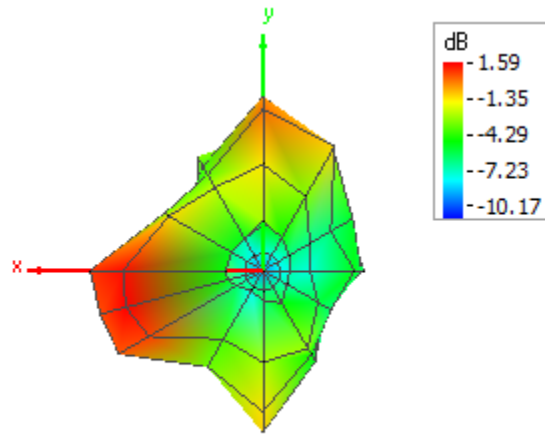


Figure 28.SIXCOVA Antenna2 2440 MHz Bottom View

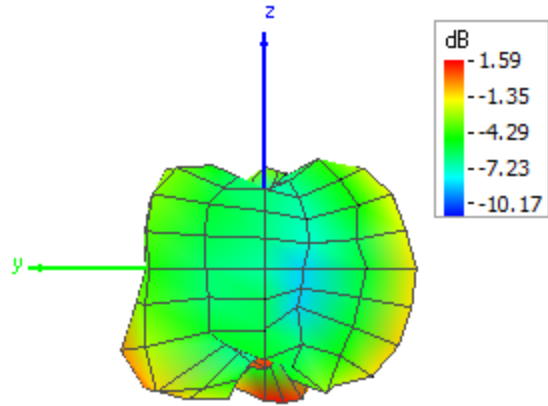


Figure 29.SIXCOVA Antenna2 2440 MHz Left View

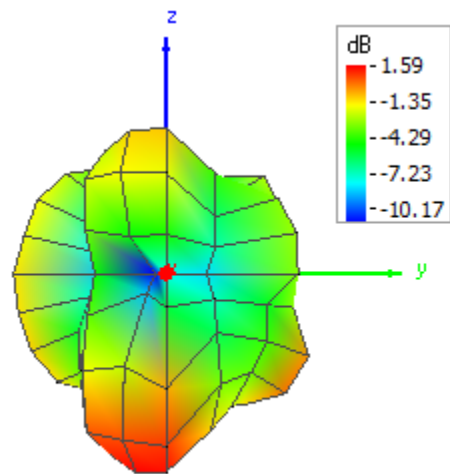


Figure 30.SIXCOVA Antenna2 2440 MHz Right View

5.6 Antenna2 – 2475 MHz 3D Passive

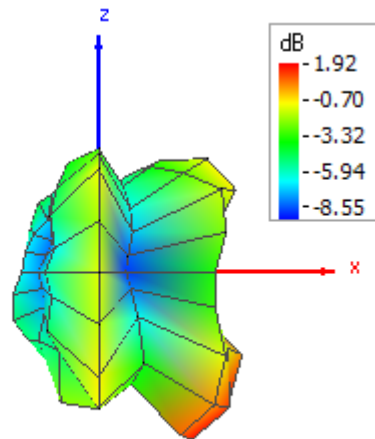


Figure 31.SIXCOVA Antenna2 2475 MHz Front View

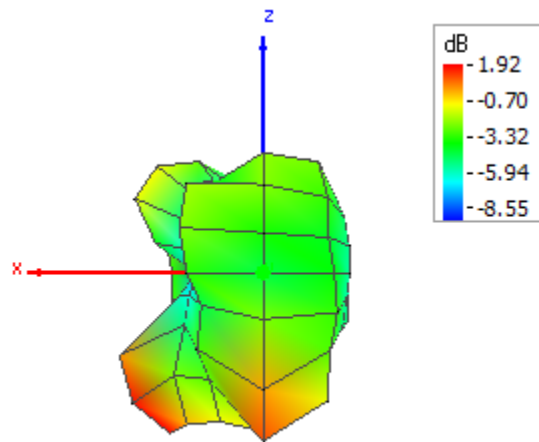


Figure 32.SIXCOVA Antenna2 2475 MHz Back View

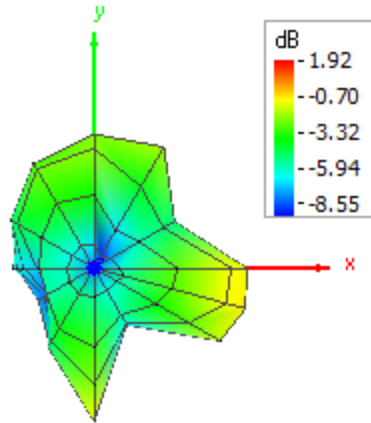


Figure 33.SIXCOVA Antenna2 2475 MHz Top View

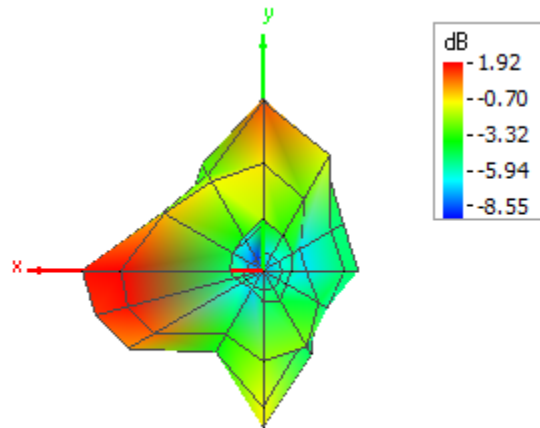


Figure 34.SIXCOVA Antenna2 2475 MHz Bottom View

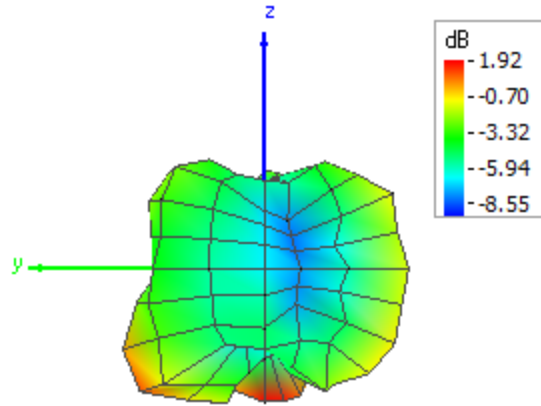


Figure 35.SIXCOVA Antenna2 2475 MHz Left View

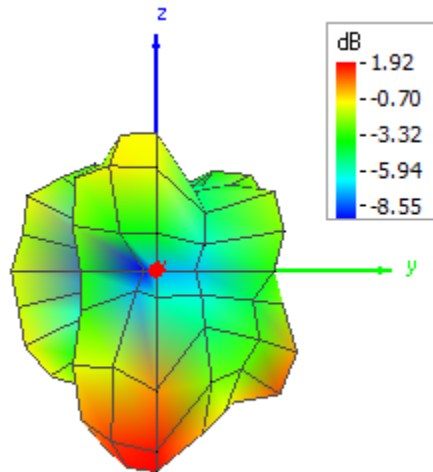


Figure 36.SIXCOVA Antenna2 2475 MHz Right View



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6. Test Setup

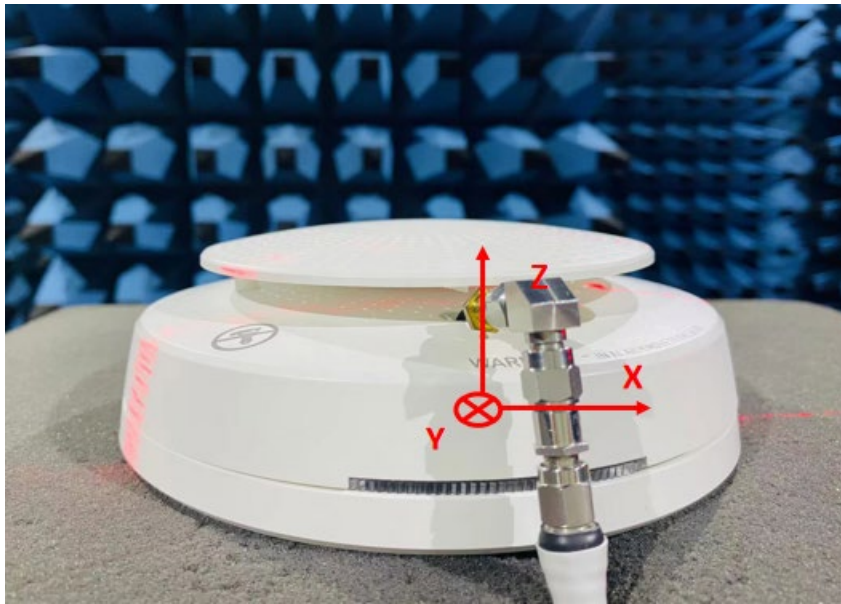


Figure 37.SIXCOVA Front View definition

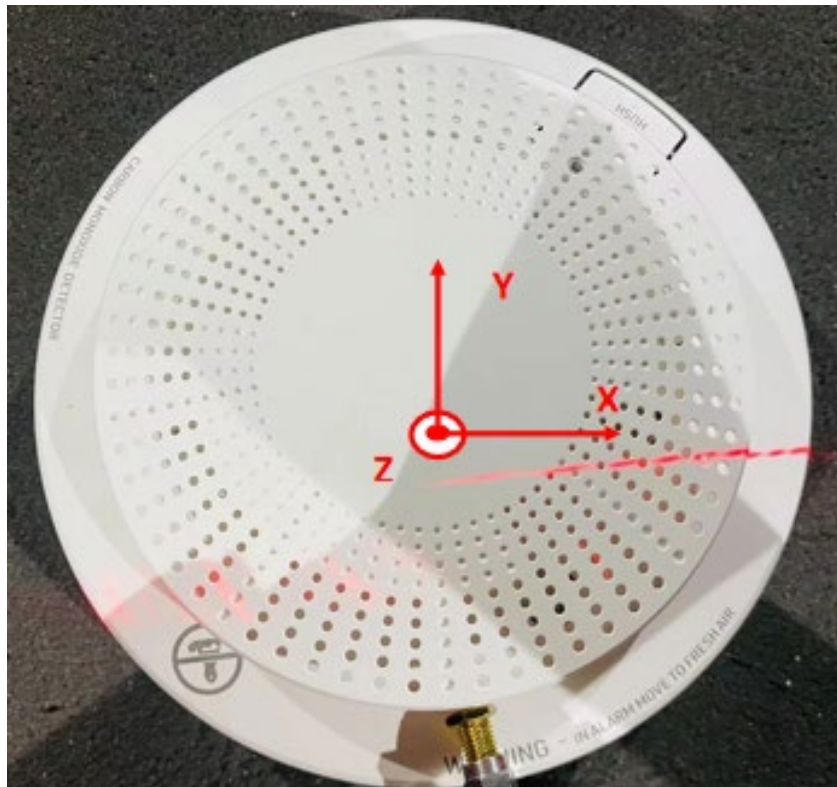


Figure 38.SIXCOVA TOP View definition

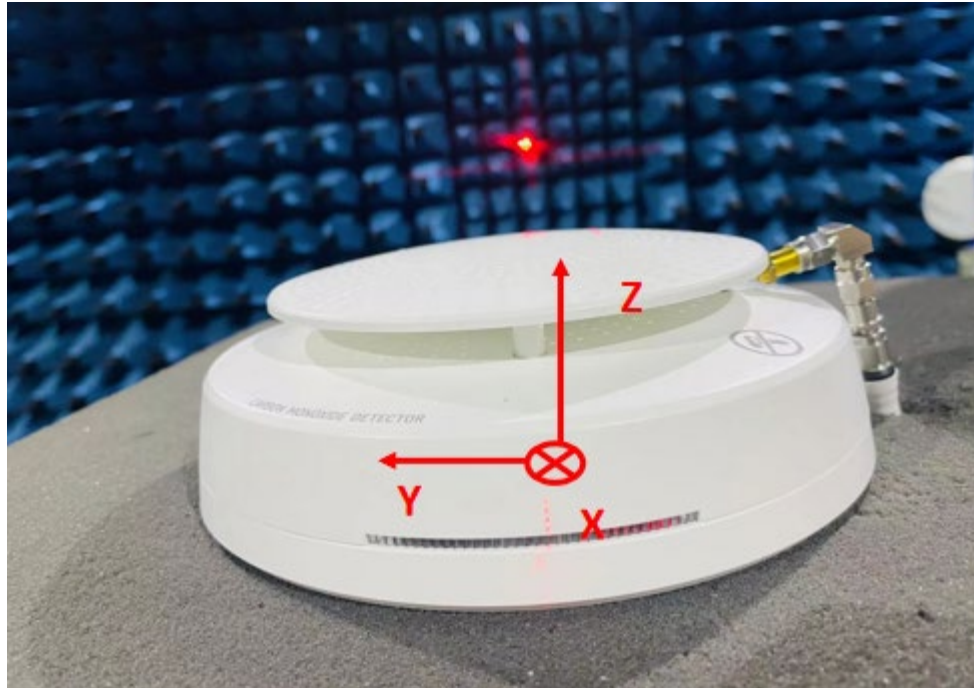


Figure 39.SIXCOVA Left View definition

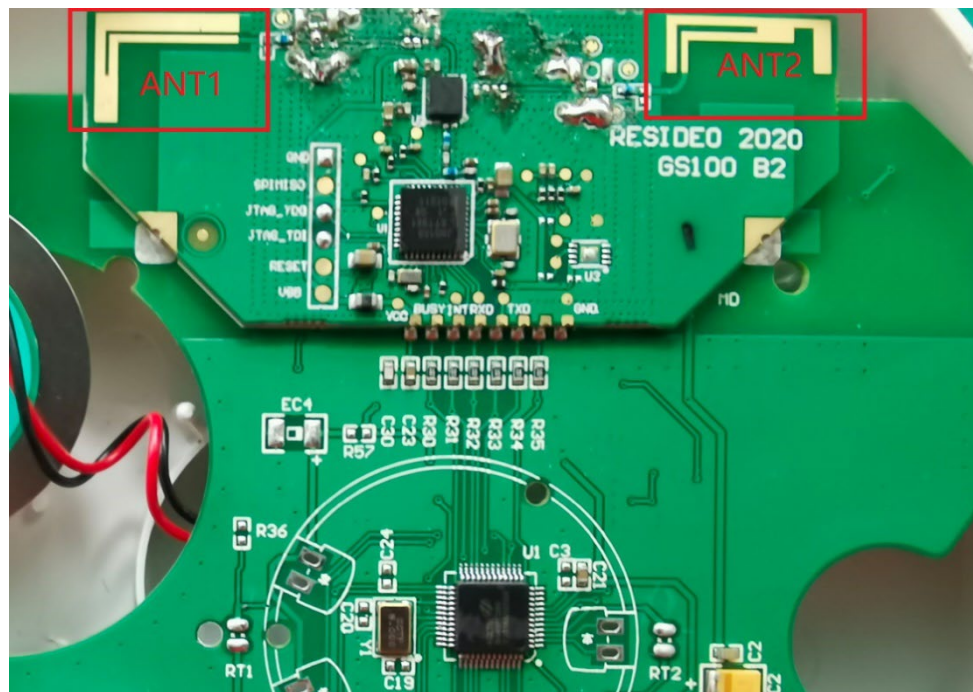


Figure 40.SIXCOVA ANT1/2 definition