S6707X Project WBG Antenna Report

1 Overview

This document is the S6707X project WBG antenna acknowledgement;

The antenna operates in the frequency band of 1575MHz;

2400MHz~2500MHz;5150MHz~5850MHz

2 Manufacturere and its address

Company name: Haidemen Electronics Co., Ltd

Address: Zhongxing Industrial Park, Tangyan South Road, Yanta District, Xi 'an City, Shaanxi Province

The model and type of antenna

Antenna model: SN509-NUU-G+W (FPC) antenna

Antenna type: IFA

4 Antenna test environment

4.1 Antenna test lab, test instrument, and calibration date/due date

Antenna input characteristics are tested using the Agilent E5071C vector network analyzer.

Calibration date	Due Date
2024.4.27	2025.04.26

The antenna radiation characteristics test uses the GTS RayZone 2800 3D near-field anechoic chamber. The test coordinate system is shown in Figure 4.1.1.

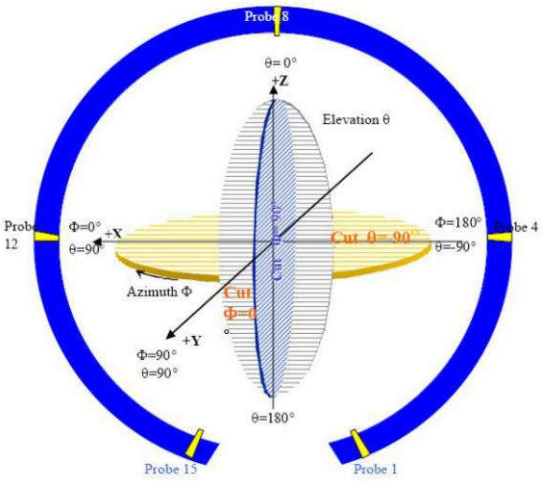


Figure 4.1.1 3D anechoic chamber test coordinate system (back view)

4.2 The tester uses the SP9500(5G)& CMW500(4G) & Agilent 8960 SERIES 10 (2G&3G).

The antenna radiation characteristics test uses the GTS RayZone 2800 3D near-field anechoic chamber. The test coordinate system is shown in Figure 4.2.1.

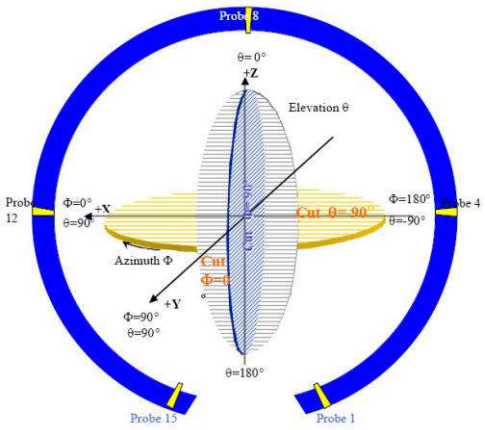
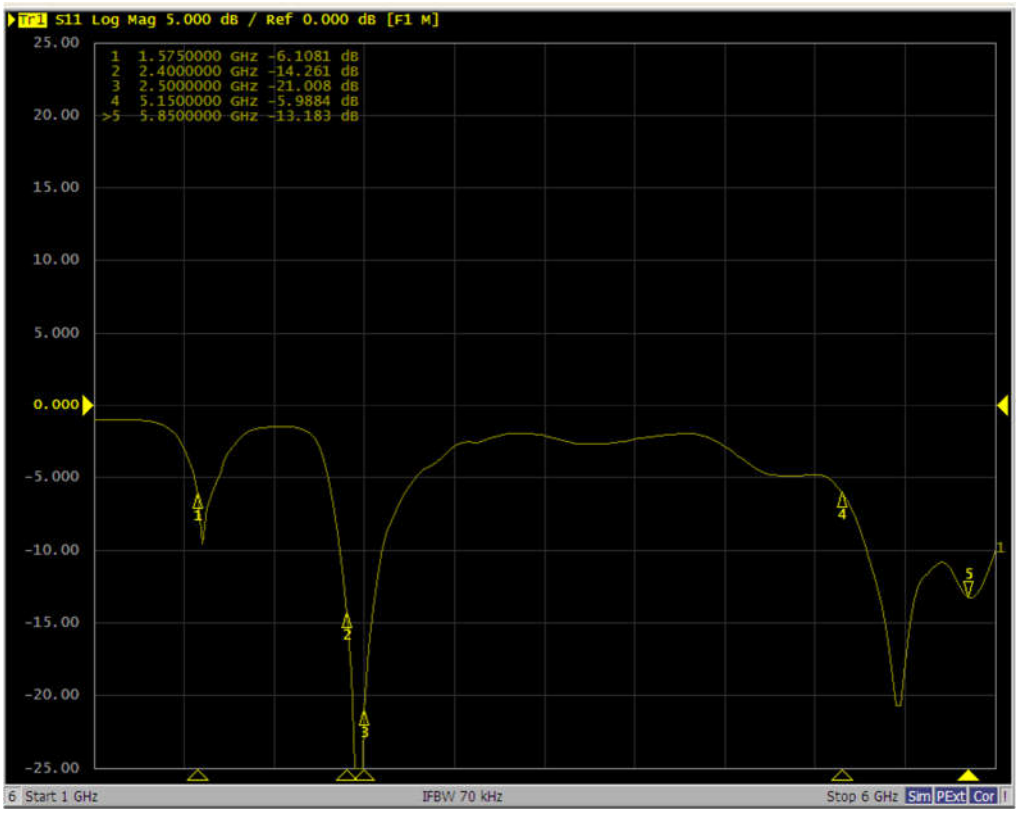


Figure 4.2.1 3D anechoic chamber test coordinate system (back view)

4.3 GTS RayZone 2800 calibration date &due date

Calibration date	Due date
2024.4.28	2025.04.27

5 Reflection loss



WBG S11

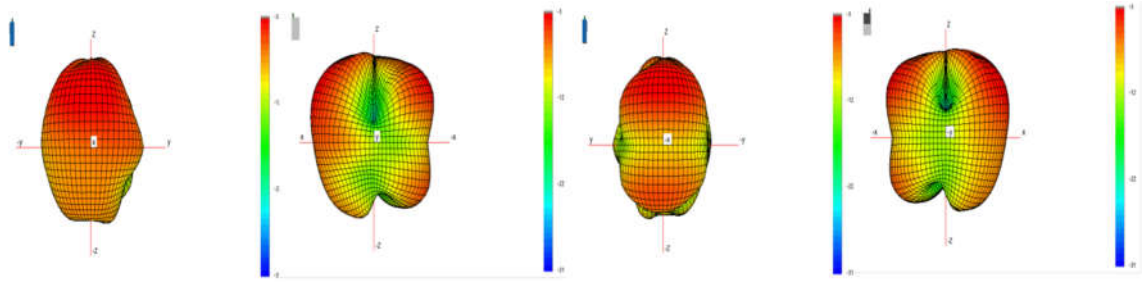
6 Antenna gain and 2D or 3D Pattern diagram:

Band	Efficiency	Gain

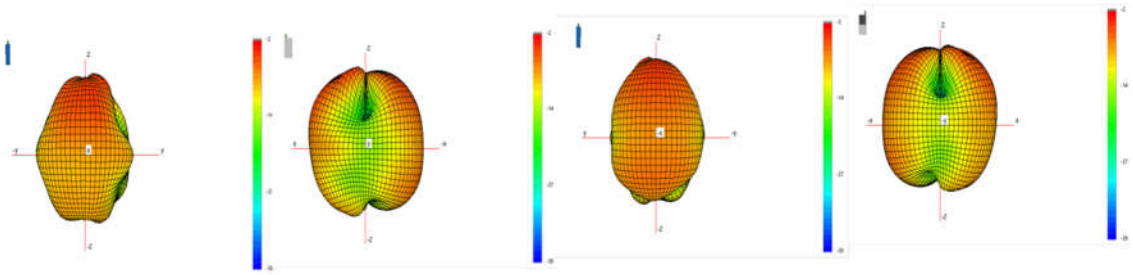
Frequency/MHz	Efficiency/dB	Gain/dBi
1575	-4.28	-0.61
2400	-3.75	-0.55
2420	-3.83	-0.34
2440	-4	-0.30
2460	-4.08	-0.39
2480	-4.2	-0.36
2500	-4.3	-0.37
5150	-5.32	-0.61
5200	-4.77	-0.50
5250	-4.36	-0.63
5300	-4.4	-0.20
5350	-3.6	-0.41
5400	-3.8	-0.59
5450	-3.56	-0.67
5500	-3.53	-0.65
5550	-4.27	-0.50
5600	-3.86	-0.68
5650	-4.45	-0.89
5700	-4.67	-1.01
5750	-4.44	-1.10
5800	-4.9	-1.39
5850	-4.36	-1.50

6.1 Antenna gain and 2D or 3D pattern diagram:

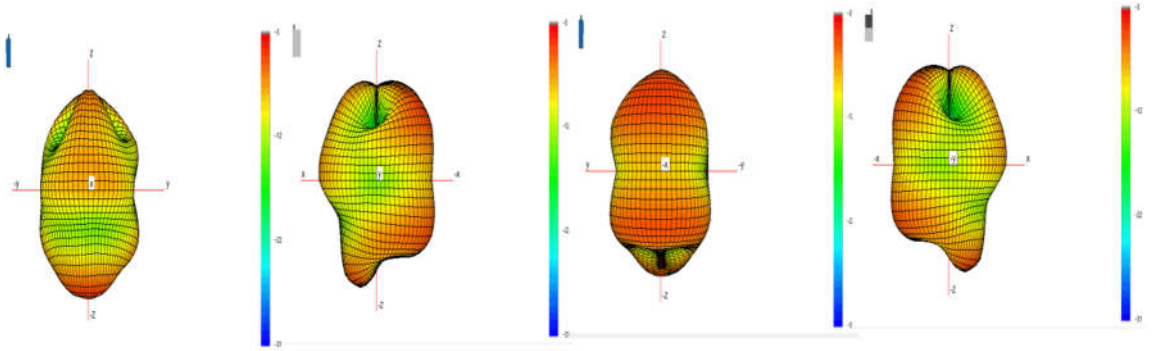
GPS (1575 MHz)



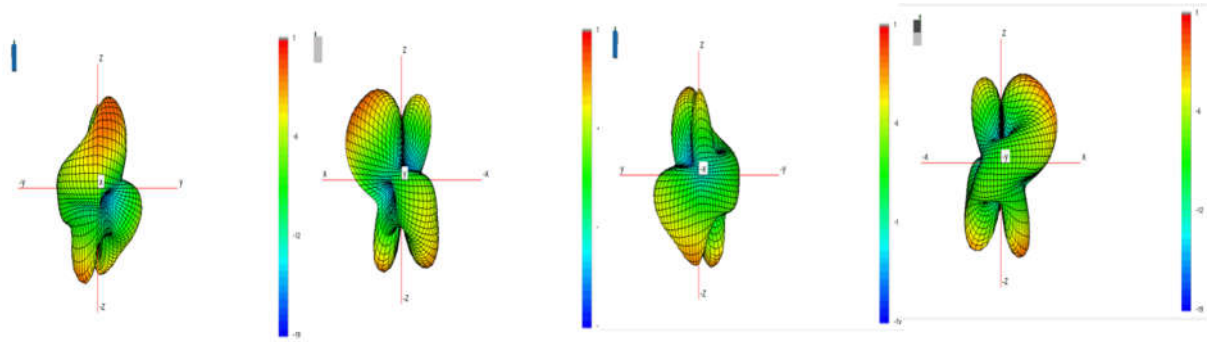
WIFI 2.4G (2410 MHz)



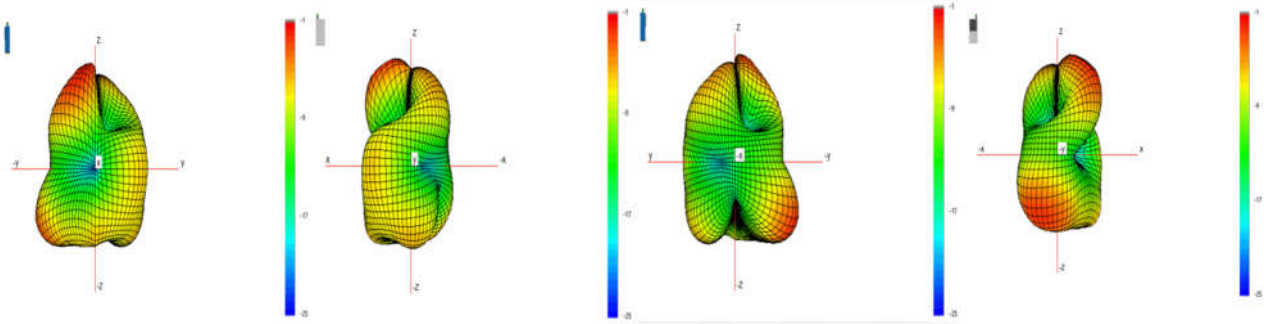
WIFI 2.4G (2480 MHz)



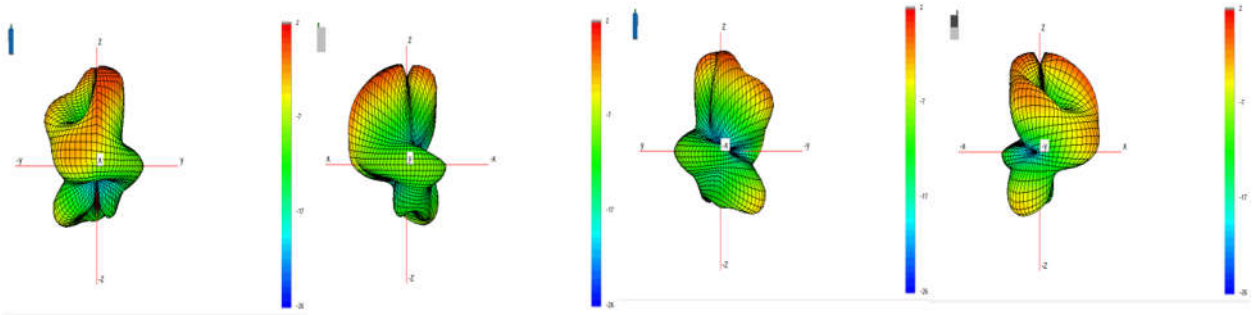
WIFI 5G (5200 MHz)



WIFI 5G (5280 MHz)



WIFI 5G (5785 MHz)



8.Test software GTS MaxSign-RayZone2800C_Z

9.Signature: