

## Antenna Gain Test Report

Equipment: Mobile Phone

Brand Name: OPPO

Model Name: CPH2695

Manufacturer:

Guangdong OPPO Mobile Telecommunications Corp.,  
Ltd.

NO.18 Haibin Road, Wusha Village, Chang'an Town,  
Dongguan City, Guangdong, China

Issue Date: Sept 29th, 2024

Project Engineer: chungui Xu

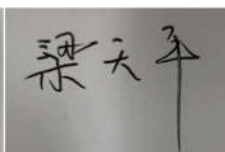
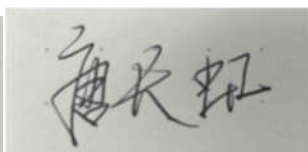
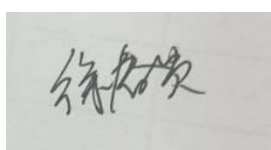
Date: 2024/9/29

Checked by: changhong Tang

Date: 2024/9/29

Approved by: tianping Liang

Date: 2024/9/29



### Antenna Gain and Antenna Type specification:

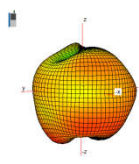
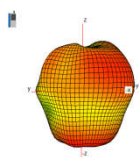
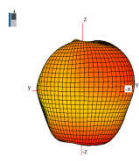
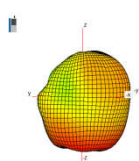
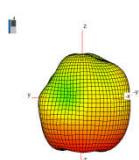
Band		Ant	Antenna Gain (dBi)	Antenna model	Antenna Type	Manufacturer
2.4G WIFI	2400~2483.5MHz	Ant8	0.5	AC237-Top-COVER	IFA Antenna	Zhongwei Presicion Technology Co.,Ltd/ Hongjig Precision Injection Molding & Tooling (Dongguan) Co.,Ltd/ Guangdong PinMei Group Co.,Ltd
5G WIFI	5150~5250 MHz	Ant8	1	AC237-Top-COVER	IFA Antenna	
	5250~5350 MHz	Ant8	1.5	AC237-Top-COVER	IFA Antenna	
	5470~5725 MHz	Ant8	1.5	AC237-Top-COVER	IFA Antenna	
	5725~5850 MHz	Ant8	1.5	AC237-Top-COVER	IFA Antenna	
BT	2400~2483.5MHz	Ant8	0.5	AC237-Top-COVER	IFA Antenna	
NFC	13.56MHz	/	/	AC237-NFC	FPC + Metal Antenna	Shenzhen Sunway Communication Co., Ltd

Table1 Antenna Gain and Antenna Type specification

Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

According to Test standard: IEEE Std 149-2021, we measure antenna gain.

### Antenna Radiation Pattern:

	2.4G&5G	
WIFI2.4G/BT	<div><div>Total Frequency: 2412 Power: 100 Gain: 0 Unit: dBi Gain Scale: 0 10 20 30 40</div><div></div></div>	
WIFI5G B1 (5150~5250 MHz)	<div><div>Total Frequency: 5180 Power: 100 Gain: 0 Unit: dBi Gain Scale: 0 10 20 30 40</div><div></div></div>	
WIFI5G B2 (5250~5350 MHz)	<div><div>Total Frequency: 5280 Power: 100 Gain: 0 Unit: dBi Gain Scale: 0 10 20 30 40</div><div></div></div>	
WIFI5G B3 (5470~5725 MHz)	<div><div>Total Frequency: 5600 Power: 100 Gain: 0 Unit: dBi Gain Scale: 0 10 20 30 40</div><div></div></div>	
WIFI5G B4 (5725~5850 MHz)	<div><div>Total Frequency: 5785 Power: 100 Gain: 0 Unit: dBi Gain Scale: 0 10 20 30 40</div><div></div></div>	

## List of Test and Measurement Instruments

### TEST EQUIPMENT

NO.	Equipment	Manufacturer	Model No.	Cal date	Due date	Test Software
1	AMS-8923	ETS-Lingen	SN1702	2024/3/2 2	2025/5/22	EMQuest
2	Network Analyzer E5071C	Keysight	MY469057 5	2024/3/2 2	2025/5/22	

## I. Measurement Setup:

### A. Reflection Coefficient Measurement:

**Instrument:** Network Analyzer (Keysight E5071C).

#### Setup:

1. Calibrate the Network Analyzer by one port calibration using Keysight 85093C Electronic calibration module.
2. Connect the antenna under test to the Network Analyzer.
3. Measure the S11(reflection coefficient), Return Loss....

### B. Pattern Measurement:

A Fully Anechoic Chamber is used to simulate free-space conditions.

A Fully Anechoic Chamber is a shielded room lined with RF/microwave absorber on all walls, ceiling, and floor.

RF/microwave absorber reduces reflections from the inner walls of the shield.

Absorber performance depends on the depth and design of the absorber and the angle of incidence of the field.

Normal incidence is best, shallower angles are worse.

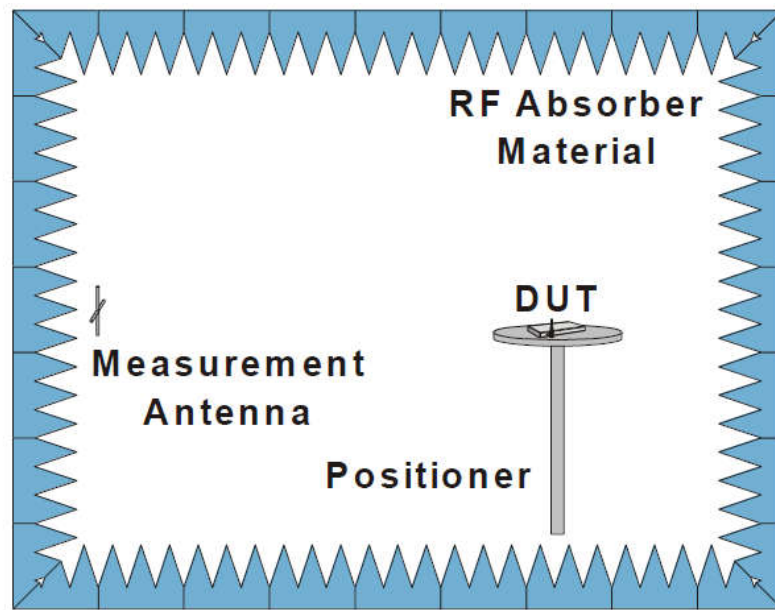


Fig. 4. The fully anechoic chamber