

Antenna Gain Test Report

Manufacturer:

Guangdong OPPO Mobile Telecommunications Corp., Ltd.

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

Antenna Gain and Antenna Type specification:

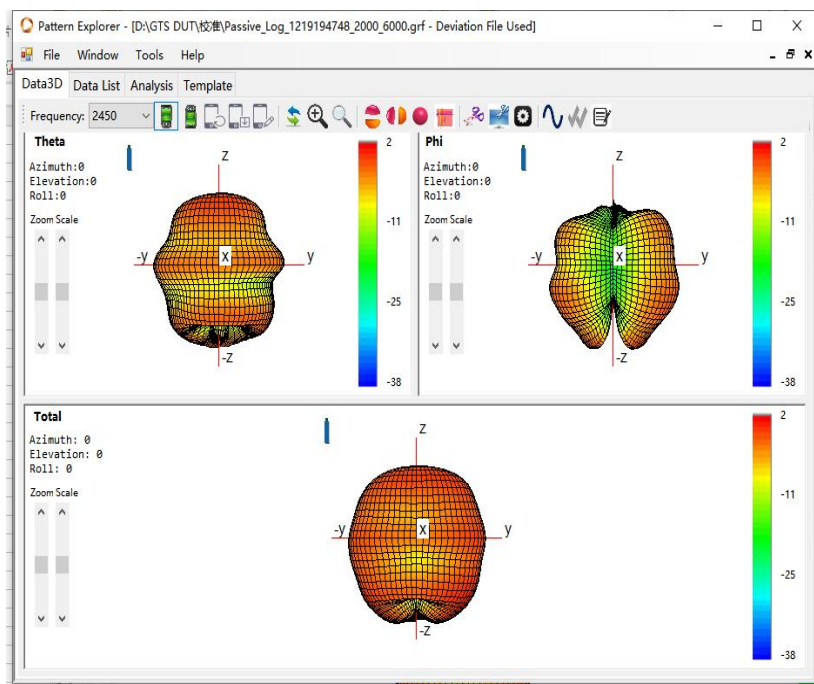
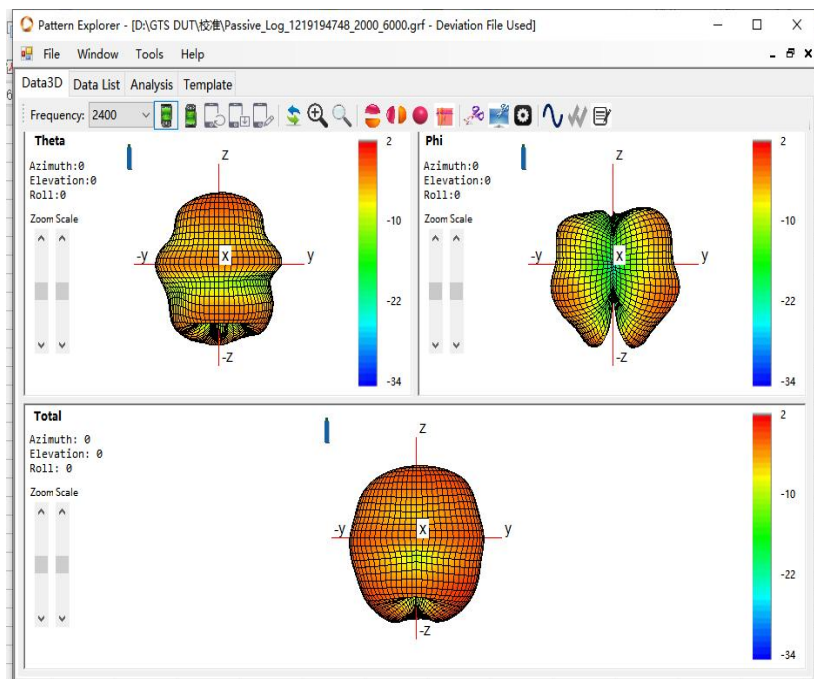
Band		Ant	Antenna Gain (dBi)	Antenna model	Antenna Type	Manufacturer
2.4G WIFI	2400~2483.5MHz	Ant3	1.2	AC237-Top-COVER	IFA Metal Antenna	Zhongwei Presicion Technology Co.,Ltd/ Hongjig Precision Injection Molding & Tooling (Dongguan) Co.,Ltd/ Guangdong PinMei Group Co.,Ltd
5G WIFI	5150~5250 MHz	Ant3	1.1	AC237-Top-COVER	IFA Metal Antenna	
	5250~5350 MHz	Ant3	1.7	AC237-Top-COVER	IFA Metal Antenna	
	5470~5725 MHz	Ant3	2.2	AC237-Top-COVER	IFA Metal Antenna	
	5725~5850 MHz	Ant3	2.4	AC237-Top-COVER	IFA Metal Antenna	
BT	2400~2483.5MHz	Ant3	1.2	AC237-Top-COVER	IFA Metal Antenna	

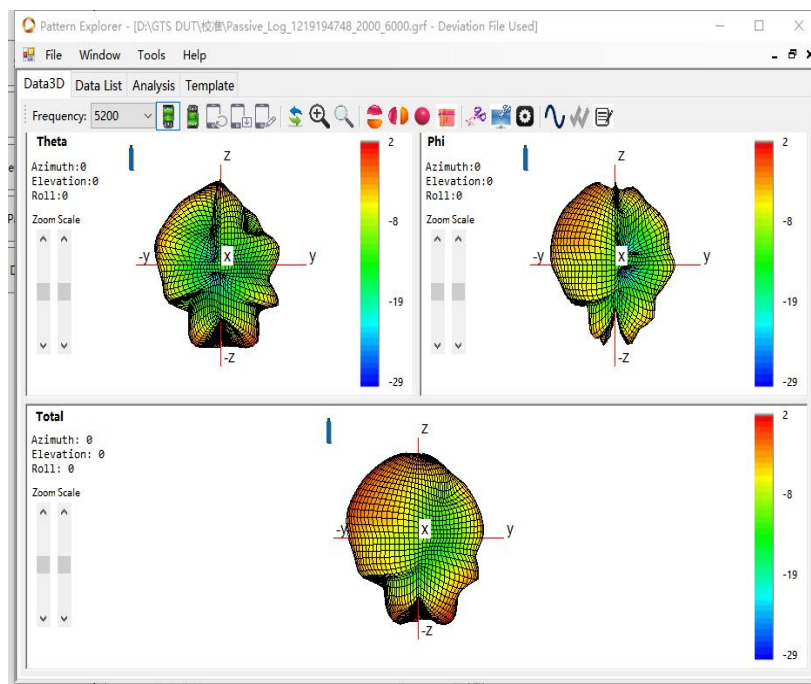
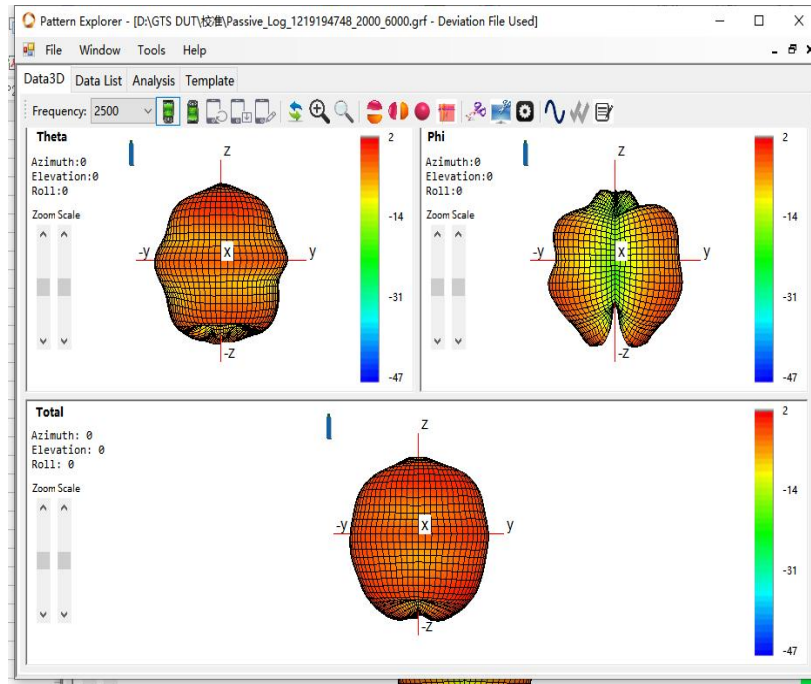
Table1 Antenna Gain and Antenna Type specification

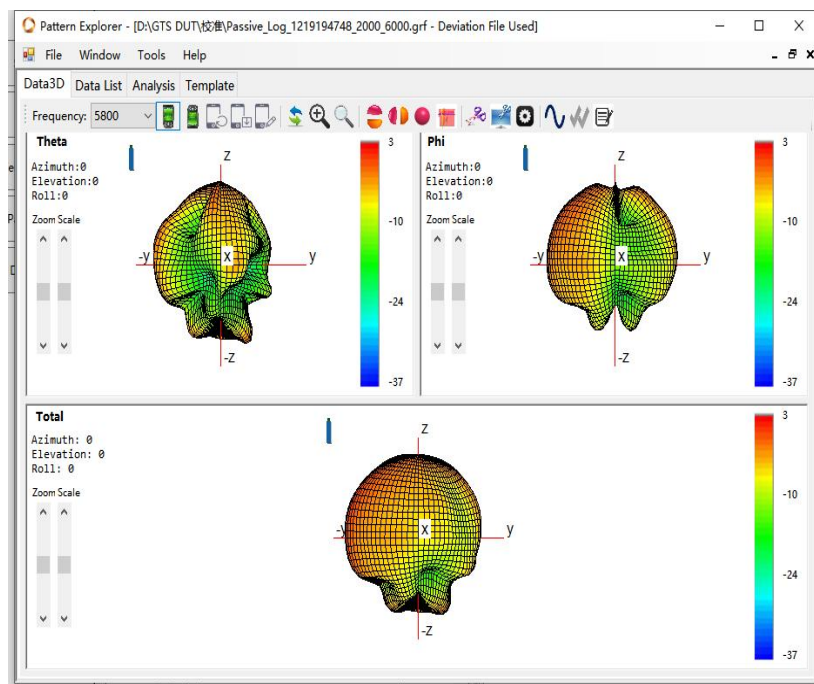
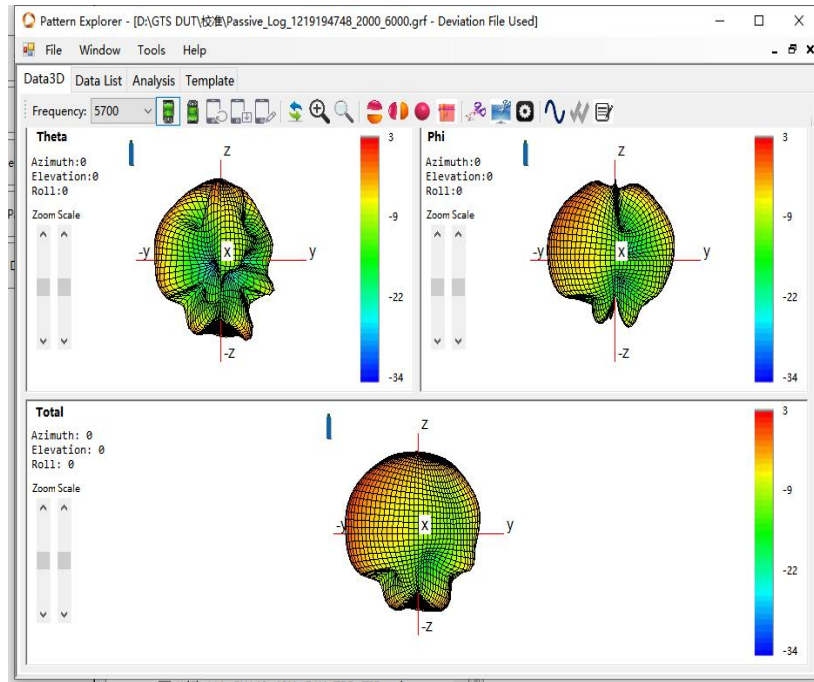
Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

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

Antenna Radiation Pattern:







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	MY46905 75	2024/3/2 2	2025/5/22	



Fig 2 dipole model 3126-2500 frequency 2500 MHz



Fig 3 model 3126-5500 frequency 5500 MHz

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.

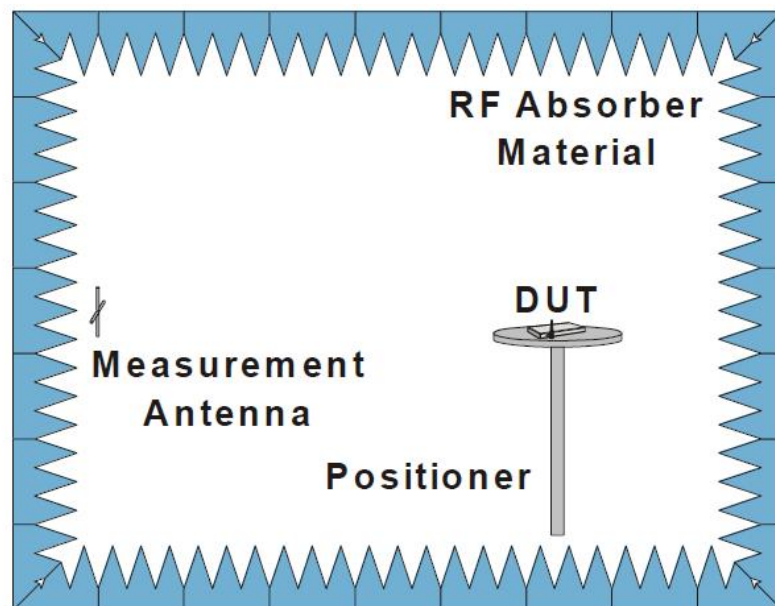


Fig. 4. The fully anechoic chamber