

Antenna Data Sheet

Equipment: Mobile Phone

Brand Name: OPPO

Model Name: CPH2797

Manufacturer:

Guangdong OPPO Mobile Telecommunications Corp.,
Ltd.

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

Issue Date: August 22, 2025

Project Engineer: Sheng He

Checked by: Hao Wu Date:2025/8/22

Approved by: Mo Xiancong Date: 2025/8/22

Sheng He Hao Wu Moxiancong

Antenna Location&dimension:

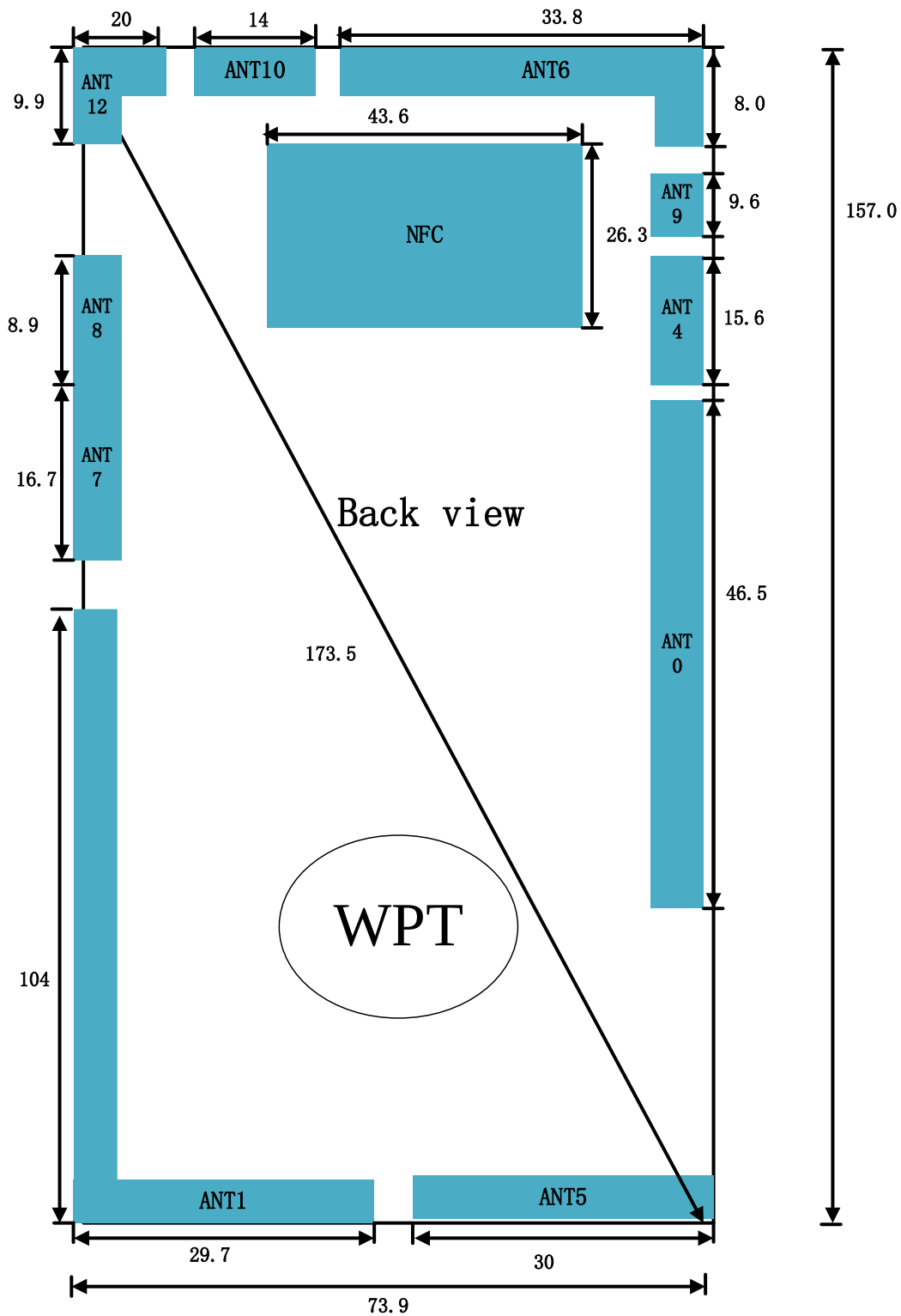


Fig 1 Antenna location&dimension

Antenna Gain and Antenna Type specification:

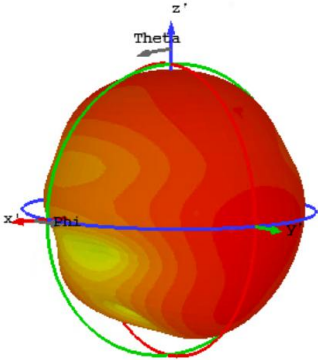
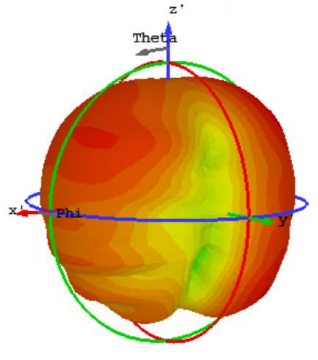
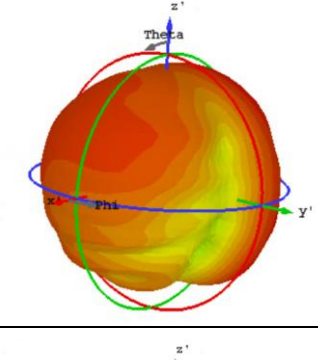
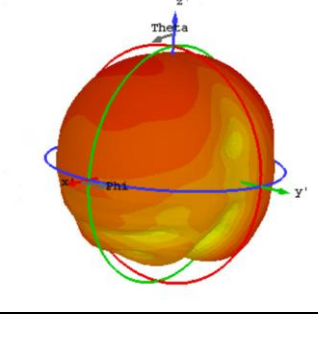
Antenna Gain (dBi)		Chain0/Chain1	Antenna Type	Antenna model	Manufacturer
2.4G WiFi	2400~2483.5MHz	-2/-2.5	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
5G Wifi	5150~5250 MHz	0/-3	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
	5250~5350 MHz	-1/-4.5	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
	5470~5725 MHz	-1.5/-5	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
	5725~5850 MHz	-1.5/-5.5	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
BT	2400~2483.5MHz	-2/-2.5	IFA(Inverted F Antenna)	AC175-TOP-COVER	OPPO
NFC	13.56MHz	/	IFA(Inverted F Antenna)	AC175-SXA1XX	OPPO
WPT	110.1kHz~148.5kHz	/	Loop(Antenna)	AC287	OPPO

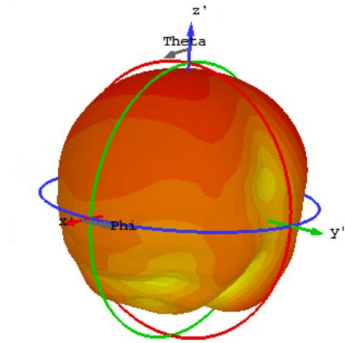
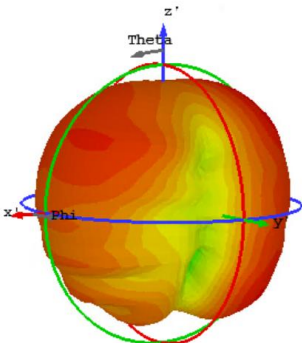
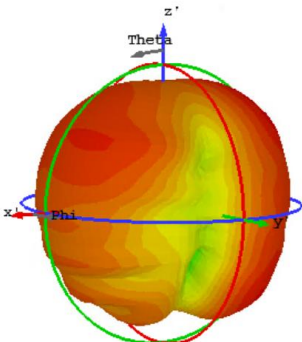
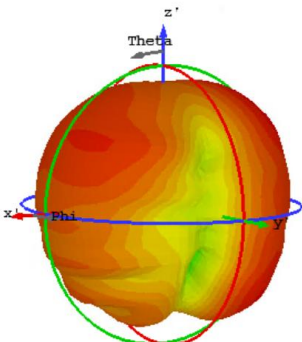
Table1 Antenna Gain and Antenna Type specification

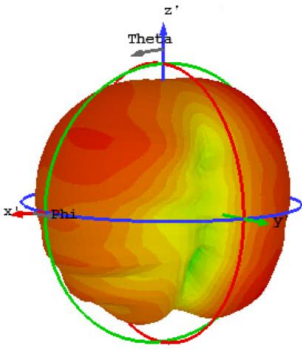
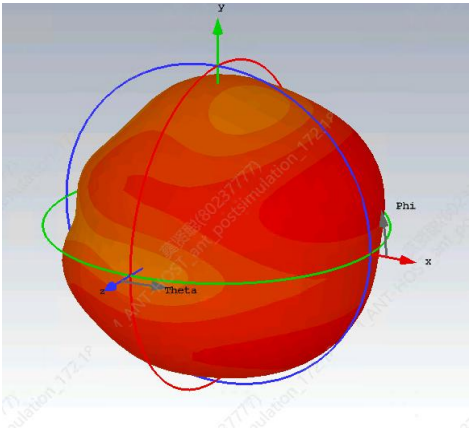
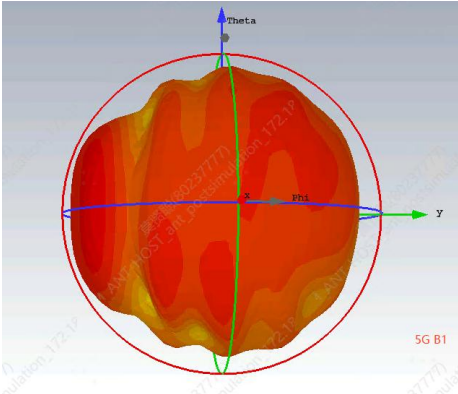
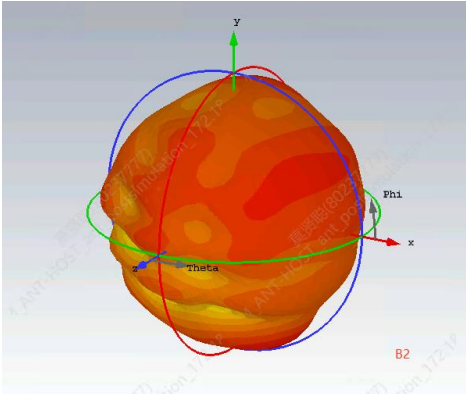
Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

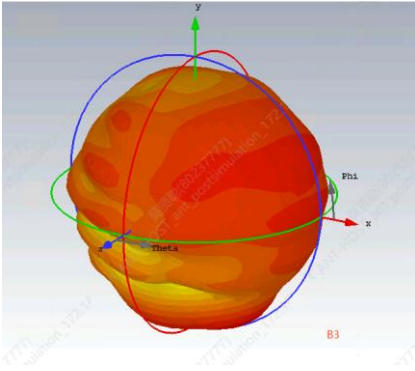
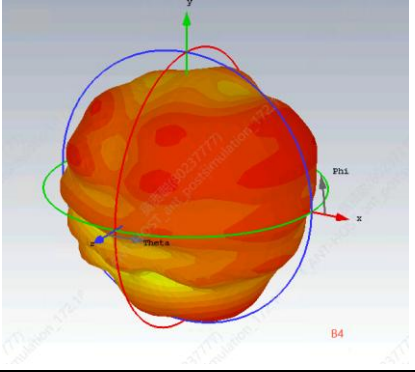
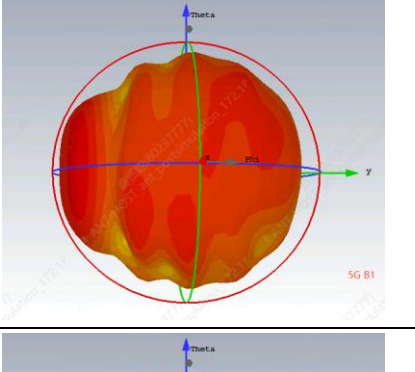
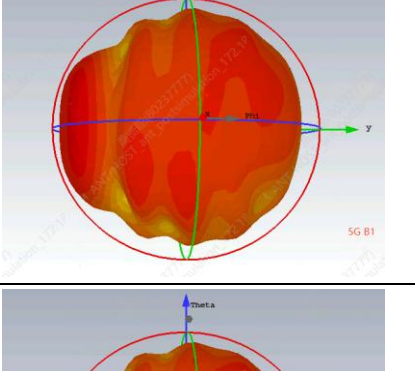
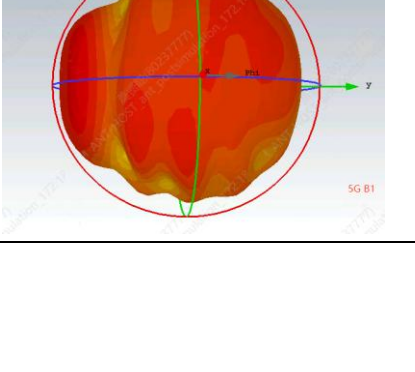
According to Test standard: IEEE Std 149-2021, we measure antenna gain .

Antenna Radiation Pattern:

	ANT12 Chain0
WIFI2.4G/BT	
	ANT10 Chain0
WIFI5G b1 (5150~5250 MHz)	
WIFI5G b2 (5250~5350 MHz)	
WIFI5G b3 (5470~5725 MHz)	

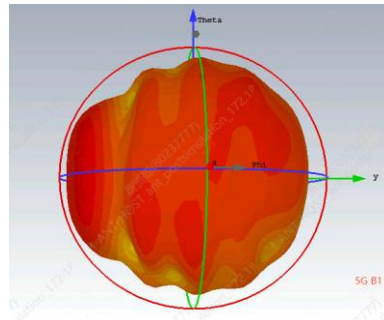
WIFI5G b4 (5725~5850 MHz)	
WIFI6G B5 (5925~6425 MHz)	
WIFI6G B6 (6425~6525 MHz)	
WIFI6G B7 (6525~6875 MHz)	

WIFI6G B8 (6875~7125 MHz)	
	ANT7 Chain1
WIFI2.4G/BT	
	ANT8 Chain1
WIFI5G b1 (5150~5250 MHz)	
WIFI5G b2 (5250~5350 MHz)	

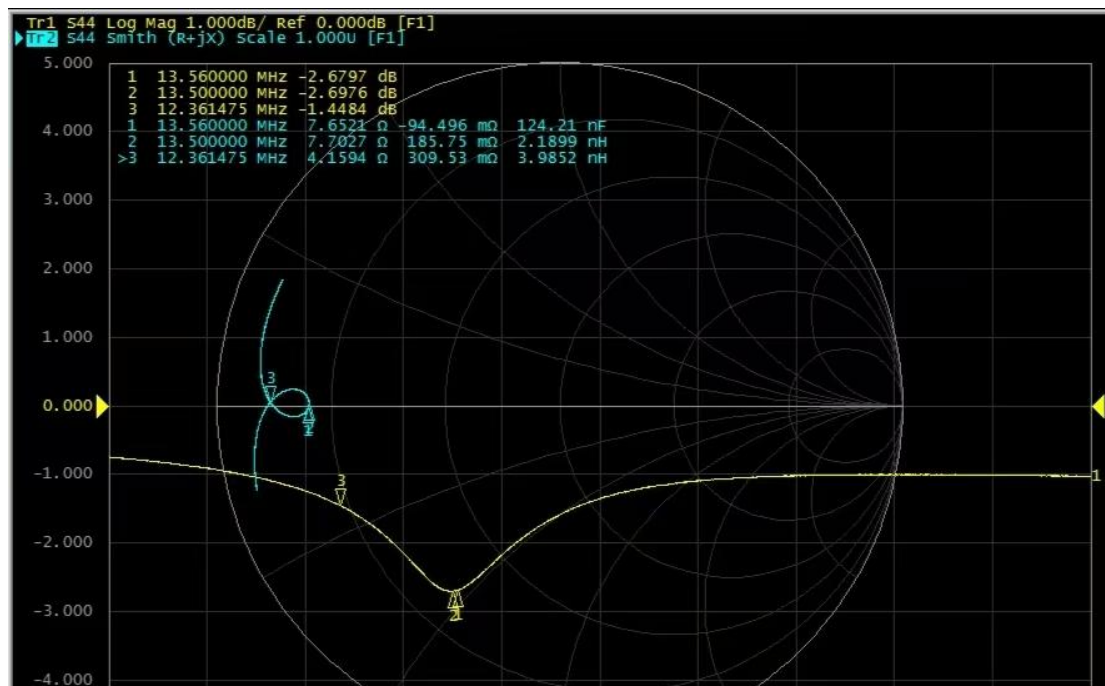
WIFI5G b3 (5470~5725 MHz)	
WIFI5G b4 (5725~5850 MHz)	
WIFI6G B5 (5925~6425 MHz)	
WIFI6G B6 (6425~6525 MHz)	
WIFI6G B7 (6525~6875 MHz)	

WIFI6G B8

(6875~7125 MHz)


NFC passive impedance on phone

Zload@13.56MHz		BW(-3dB)
7.6521Ω-0.094Ω		/


List of Test and Measurement Instruments
TEST EQUIPMENT

NO.	Equipment	Manufacturer	Model No.
1	AMS-8923	ETS-Lingen	SN1702
2	Network Analyzer E5071C	Kesight	MY4690575

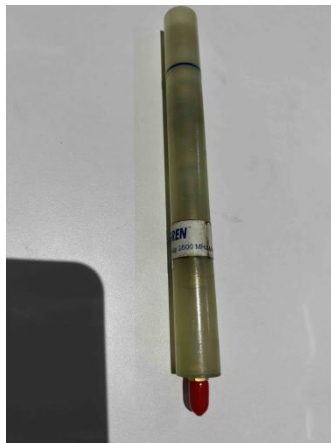


Fig 2 dipole model 3126-2500 frequency 2500 MHz



Fig 3 model 3126-5500 frequency 5500 MHz

I. Measurement Setup:

A. Reflection Coefficient Measurement:

Instrument: Network Analyzer (Kesight E5071C).

Setup:

1. Calibrate the Network Analyzer by one port calibration using Kesight 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.

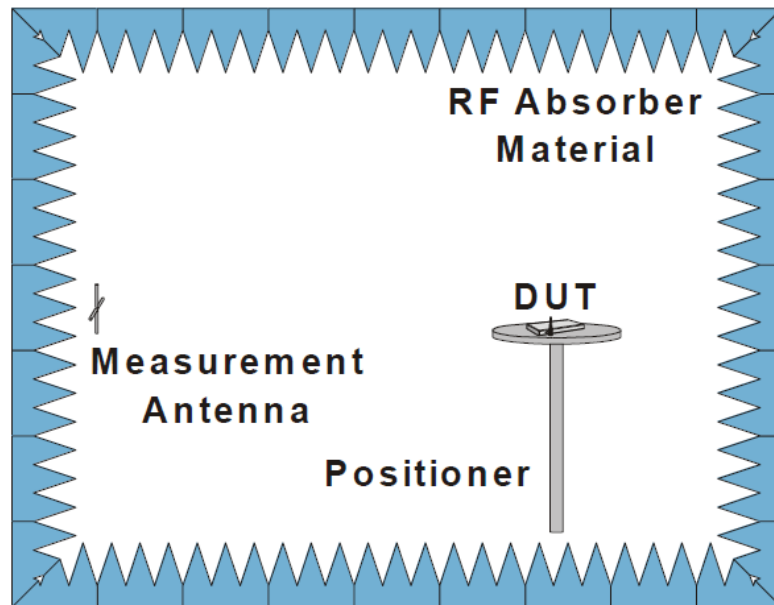


Fig. 4. The fully anechoic chamber