

Antenna Specification

Customer Name Coosea Group Co.,Ltd.

Product Name BL-S50

Specification FPC

Reference Standard: *GB/T 9410-2008; ANSI/IEEE Std 149-1979*

Engineer: Mingyi Zhong Date:2025.6-21

Auditor: ZeFeng Jiang Date:2025.6-21

Approver: Yi Liang Date:2025.6-21

Version No	Date	Description	Formulate	Approval
AO	2025.6-21	For the first time.	shengpeng zhuo	Yi Liang

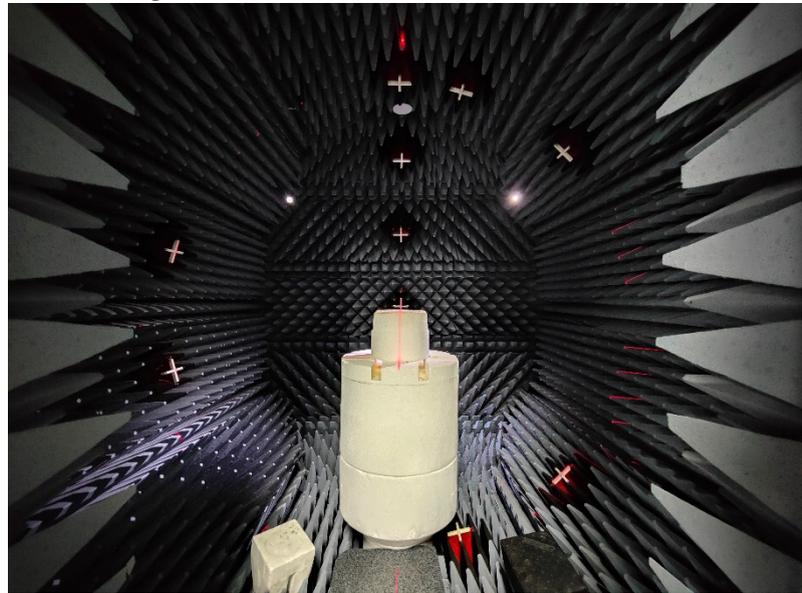
1.General Information

1.1 General information of testing institutions

Name Address	shenzhen Fu Bang Wireless Technical Limited Company 3th Floor, Building T1, Lianjian Industrial Park,Huaxing Road, longhuadalang District,Shenzhen
Tel	13691727201
E-mail	eting2007@163.com
Equipment	GTS2800

1.2 Testing principle

Multi-Probe OTA Measurement System



1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
16 probe microwave chamber	3*3*29	RFI-LAB-RF-A00	SUNYIELD	2023.8.2	2024.8.1
Network Analyzer	E5071C	RFI-LAB-RF-A02	Agilent	2023.10.8	2024.10.7

1.4 Test environment

Temperature	24.6V
Humidity	59%RH
Pressure	100.12kPa

1.5 Statement

- (1) The test results in the report are only applicable to the tested sauries and the tested samples work under the environment described in the rq) ort.
- (2) Only Shenzhen FB-LAB Communication Technology Co., Ltd. have the right to modify the report, and the modification information shall be annotated in the revision fbnn.
- (3) Any objection to this report shall be raised within 30 days after formal confirmation of the report.
- (4) This report is invalid if there is any evidence that the sample information provided is falsified.
- (5) The report is invalid without the signature of the auditor and approver.

2. Sample Information

2.1 Client information

Name	Coosea Group Co.,Ltd.	
Address	9th Floor,	Tower 1,Foresea Life Center,Xingye Road, Bao'an District,Shenzhen
Contacts	Guang sheng Yu	
Tel	13714909565	/
E-mail	yuguangsheng@cooseagroup.com	

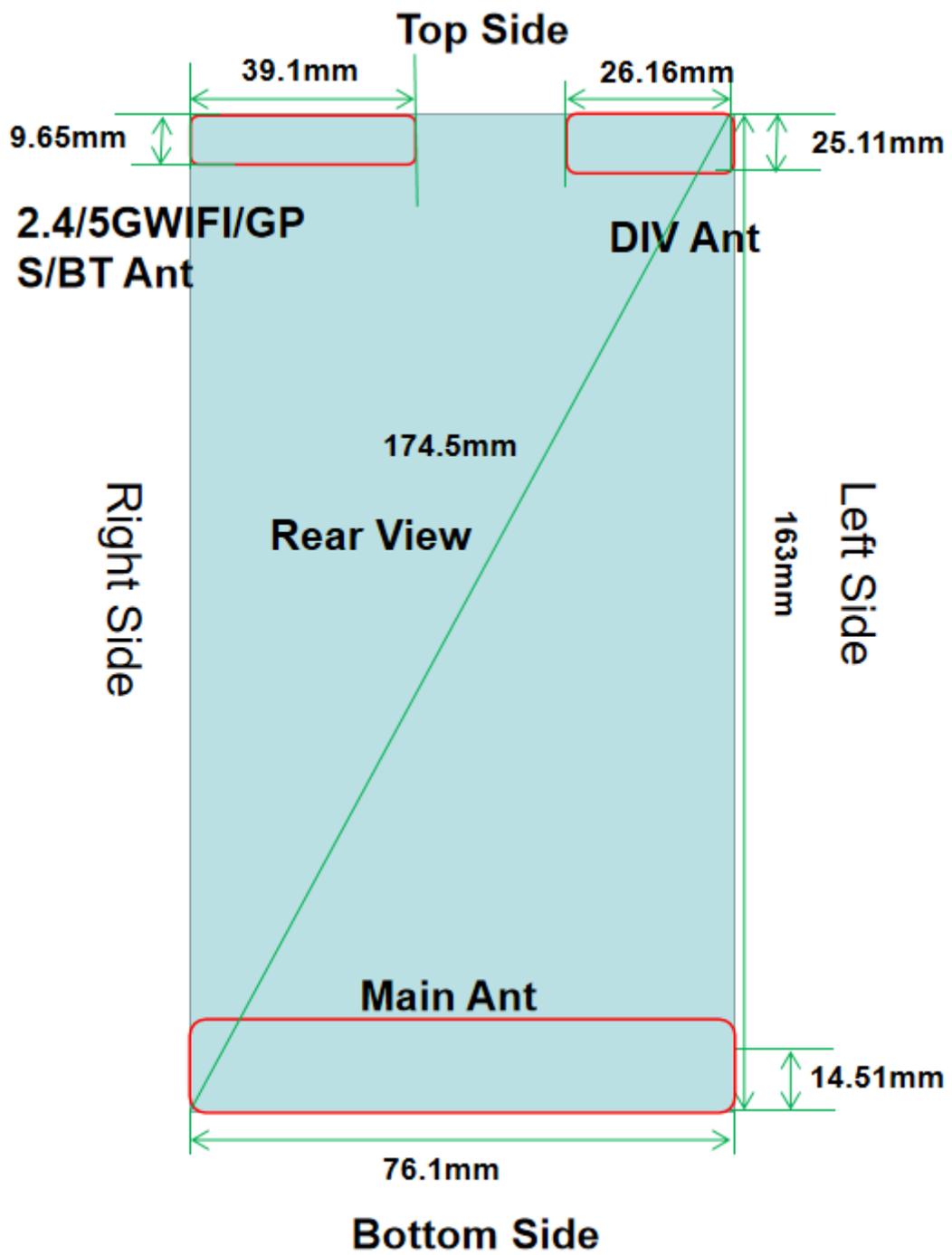
2.2 Description of EUT(S)

Product Name	BL-S50-Antenna
Sample Model	
Antenna Type	PIFA Antenna
Serial No.	
Test Item	Gain; Radiation pattern
Frequency Range	617-2700 MHZ
Received Date	2025.6-21
Test Date	2025.6-21
Remark	

2.3 EUT appearance



ANT0	GPSL1/WIFI2. 4G/5G/BT
ANT1	2G:GSM TRX B2/3, DRX B5/8 3G:WCDMA TRX B1/2/4, DRX B5/8 4G:FDD TRX B1/2/3/4/7/66, DRX B5/8/12/13/17/28A/28B/71
ANT2	2G:GSM DRX B2/3, TRX B5/8 3G:WCDMA DRX B1/2/4, TRX B5/8 4G:FDD DRX B1/2/3/4/7/66, TRX B5/8/12/13/17/28A/28B/71





GPS/WIFI天线尺寸: 32.8*9.4mm

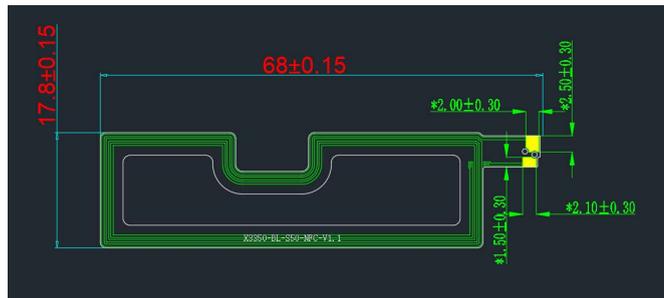


DIV天线尺寸: 53.6*6.25mm



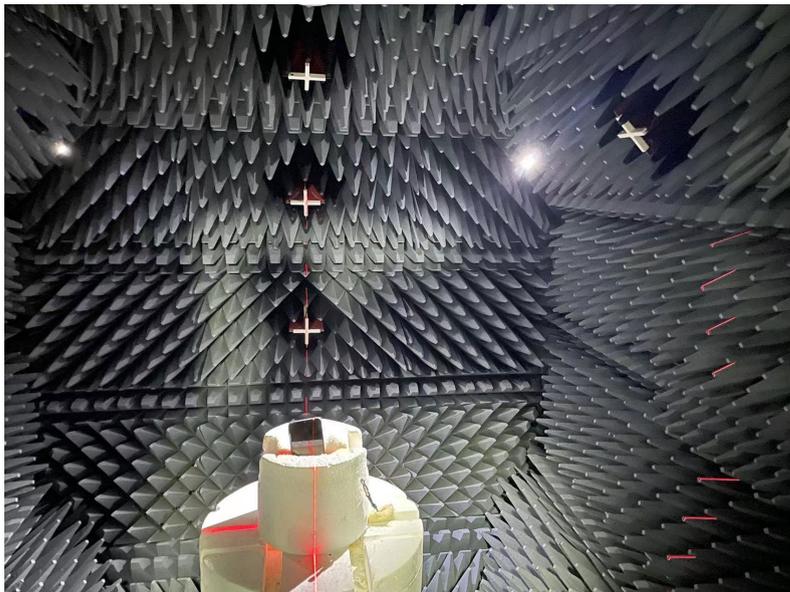
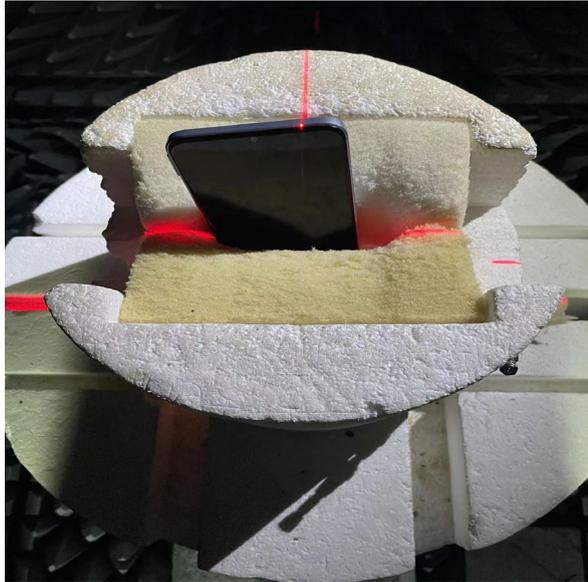
Main天线尺寸: 85.0*10.63mm

unit:mm NFC Ant



2.4 DUT setup photo of free space OTA testing

Planform



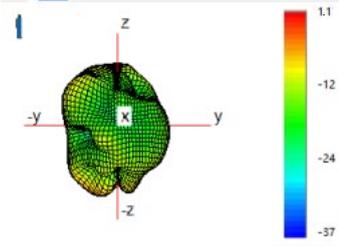
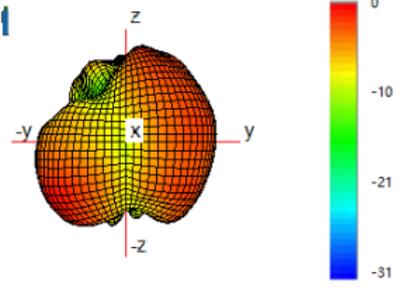
3.3 Test data

BL-S50 RF Antenna Gain

BL-S50 天线增益								
Antenna	Pattern	Gain(dBi)						
ANT0 TX	PIFA	GPS	WIFI-2.4G	WIFI5.15G-5.25G	WIFI5.25G-5.35G	WIFI5.47G-5.725G	WIFI5.725G-5.85G	
		0.2	1.1	-0.14	-0.3	-2.25	-2.5	
ANT1 TX	PIFA	B1	B2	B3	B4	B7	B66	
		-0.9	-0.11	-1.8	-1.8	-2.1	-1.8	
ANT2 TX	PIFA	B5	B8	B12	B13	B17	B28	B71
		-3.5	-2.7	-3.1	-3.3	-3.4	-3.48	-3.8

● Radiation Pattern

There is Radiation Pattern due to passive measurement with MTG chamber.

	2.4GHz-5GHz	
(Frequency Band)	BT/WiFi 2.4GHz	WIFI 5G
3D Radiation Pattern	 <p>A 3D radiation pattern plot for BT/WiFi 2.4GHz. The plot shows a complex, multi-lobed radiation pattern in a 3D coordinate system with x, y, and z axes. A color scale on the right ranges from 1.1 (red) to -37 (blue). The pattern is centered around the origin and shows a primary lobe along the z-axis.</p>	 <p>A 3D radiation pattern plot for WIFI 5G. The plot shows a more spherical radiation pattern in a 3D coordinate system with x, y, and z axes. A color scale on the right ranges from 0 (red) to -31 (blue). The pattern is centered around the origin and shows a primary lobe along the z-axis.</p>