

## Antenna Gain test report

FCC ID: 2AUYFRMX3710

Equipment: Mobile Phone

Brand Name: relame

Model Name: RMX3710

Manufacturer:

Realme Chongqing Mobile Telecommunications Corp.,  
Ltd.

No.178 Yulong Avenue, Yufengshan, Yubei District,  
Chongqing.China

Issue Date: December 27, 2022

Project Engineer: pengtao Nan      Date:2022/12/27

Checked by: yunpan Wei              Date:2022/12/27

Approved by:wei Li                    Date:2022/12/27

**Antenna Location&dimension:**

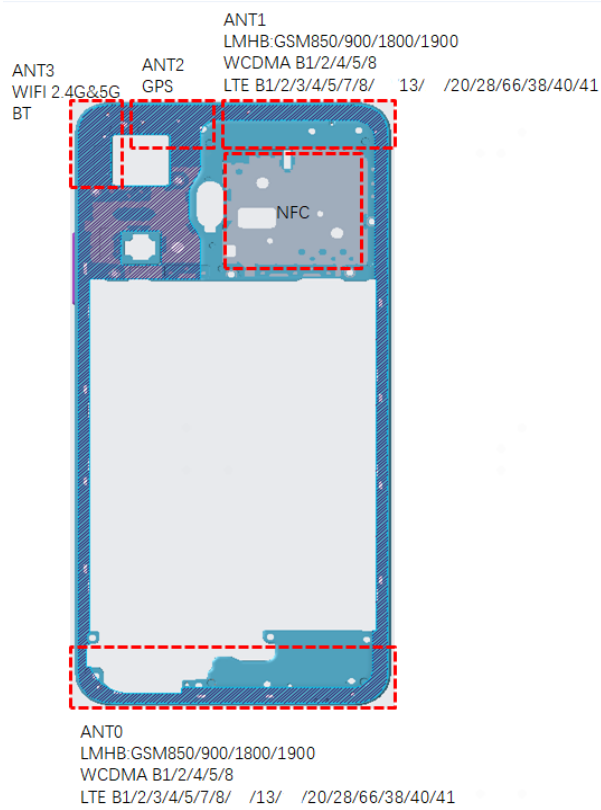


Fig 1 Antenna location&dimension

**Antenna Gain and Antenna Type specification:**

Antenna Gain (dBi)		Ant 3	Antenna Type
2.4G WiFi	2400~2483.5M Hz	-1.11	IFA(Inverted F Antenna)
5G Wifi	5150~5250 MHz	-0.84	IFA(Inverted F Antenna)
	5250~5350 MHz	-0.81	IFA(Inverted F Antenna)
	5470~5725 MHz	-0.48	IFA(Inverted F Antenna)
	5725~5850 MHz	-1.82	IFA(Inverted F Antenna)
BT	2400~2483.5M Hz	-1.11	IFA(Inverted F Antenna)

Table1 Antenna Gain and Antenna Type specification

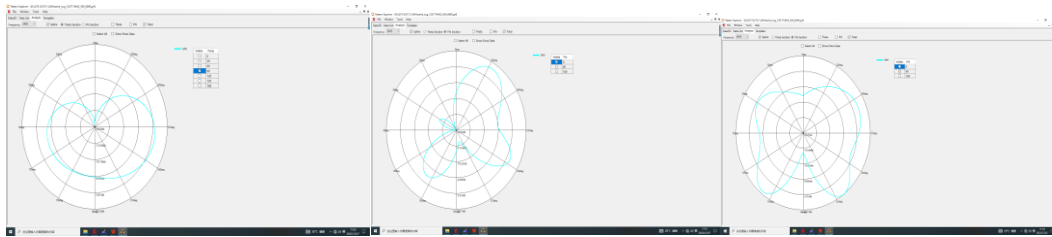
Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

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

**Antenna pattern:**

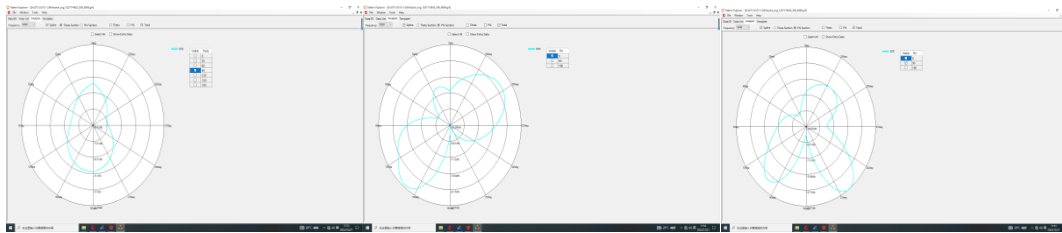
**ANT3**

**2.4GWIFI/BT**

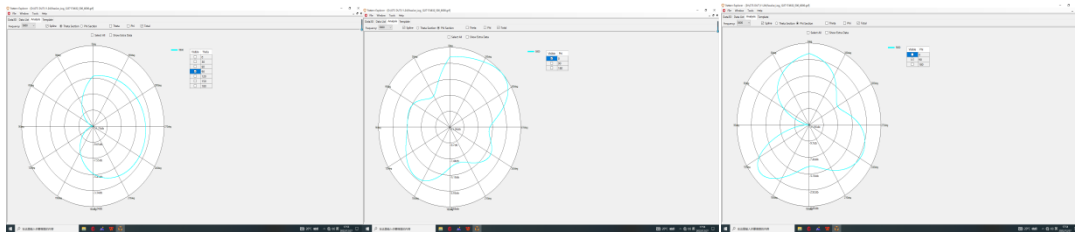


**5GWIFI**

**5.2G**



**5.8G**



**List of Test and Measurement Instruments**

**TEST EQUIPMENT**

<b>NO.</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>
<b>1</b>	<b>AMS-8923</b>	<b>ETS-Lingen</b>	<b>SN1702</b>
<b>2</b>	<b>Network Analyzer</b>	<b>Kesight</b>	<b>MY4690575</b>

	E5071C		
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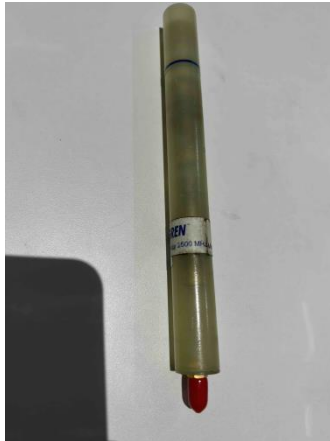


Fig 2 dipole model 3126-2500 frequency 2500 MHz



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.

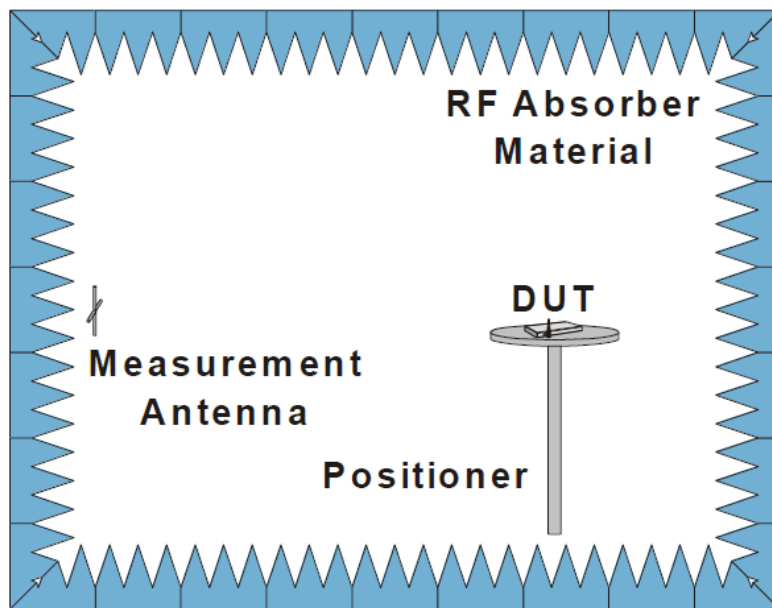


Fig. 4. The fully anechoic chamber

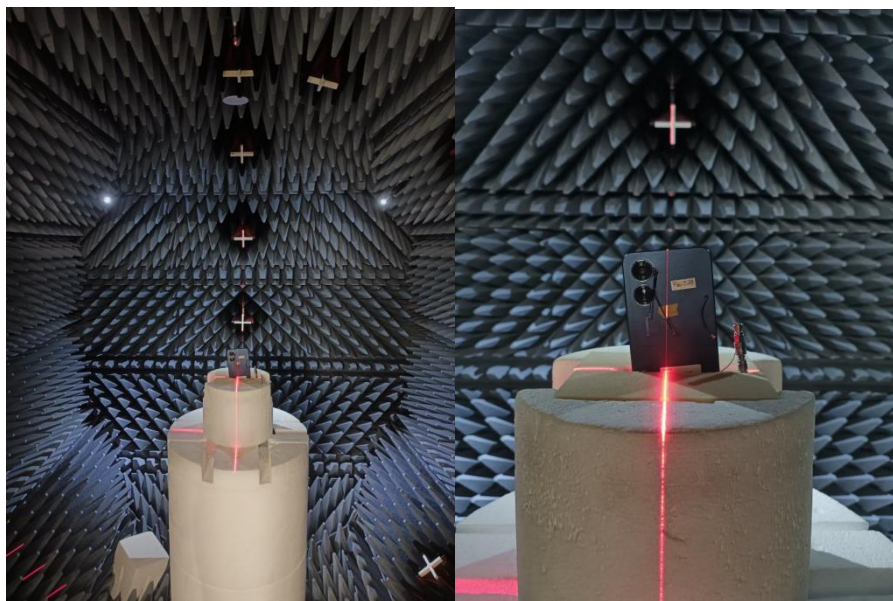


Fig.5. The DUT in the fully anechoic chamber