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# Antenna Reports

Company: Realme

Model name: RMX3943

Issue date: 2024/9/18

Documented by: \_\_\_\_\_

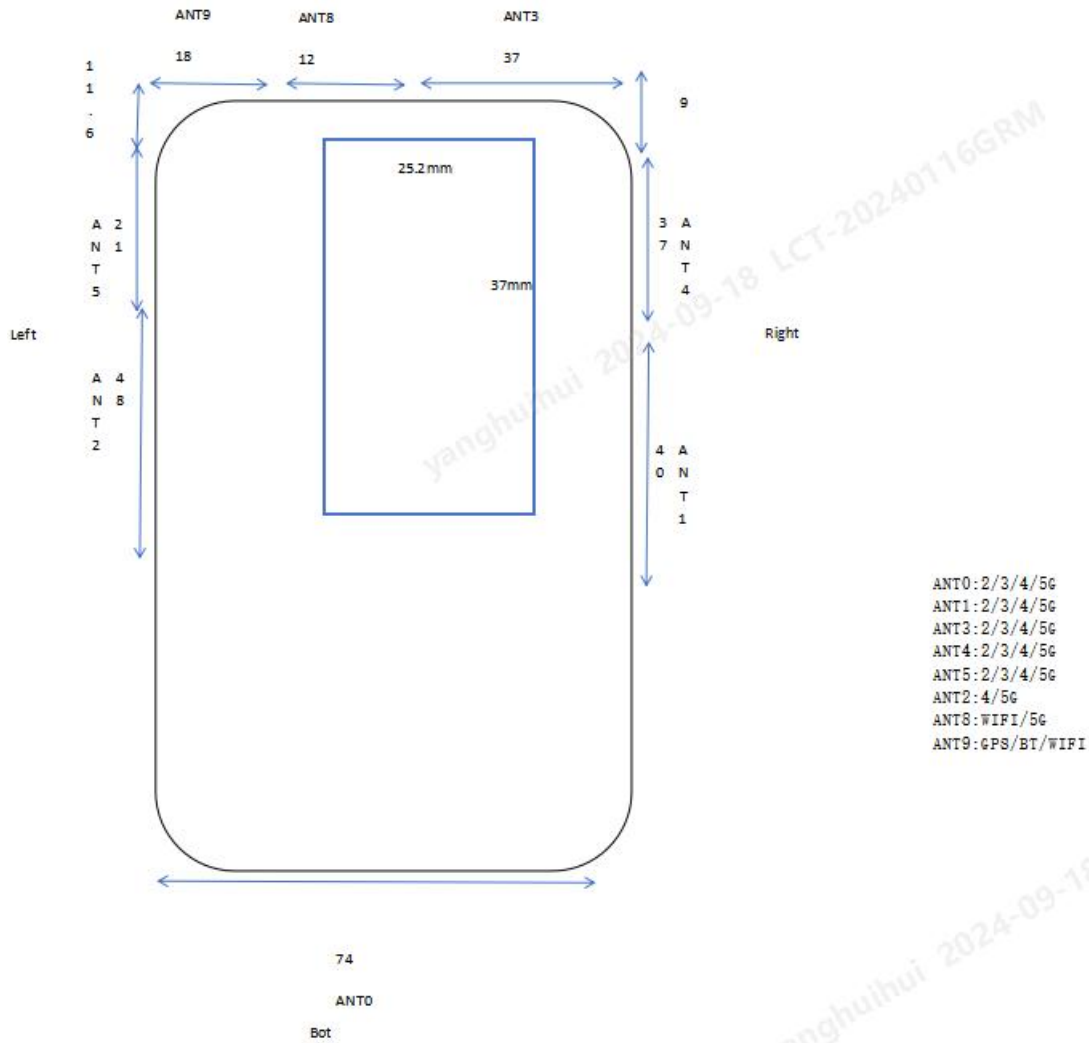
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## Antenna Summary Table

Check items	Information
Provided by lab	RayZone2800 (GTS)
Manufacturer/ Brand name	Realme
Product Model Name	RMX3943
Antenna Model name	M392
List of calibrated test equipment	GTS2800 with calibrated date: 2024/9/18
Antenna detail info.	Show WLAN/BT/ IFA type antenna.
Antenna gain test data	Included antenna frequency, gain pattern
Antenna Manufacturer Address	Building 8, 1st-3rd Floor, Tongfu Village Industrial Zone, Xinshi Community, Dalang Street, Longhua District, Shenzhen City, Guangdong Province  101, Building 7, Zijing Innovation and Entrepreneurship Park, Dalang Street, Longhua District, Shenzhen

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

## Antenna Location & dimension:



## Antenna Test data:

Antenna model name: M392

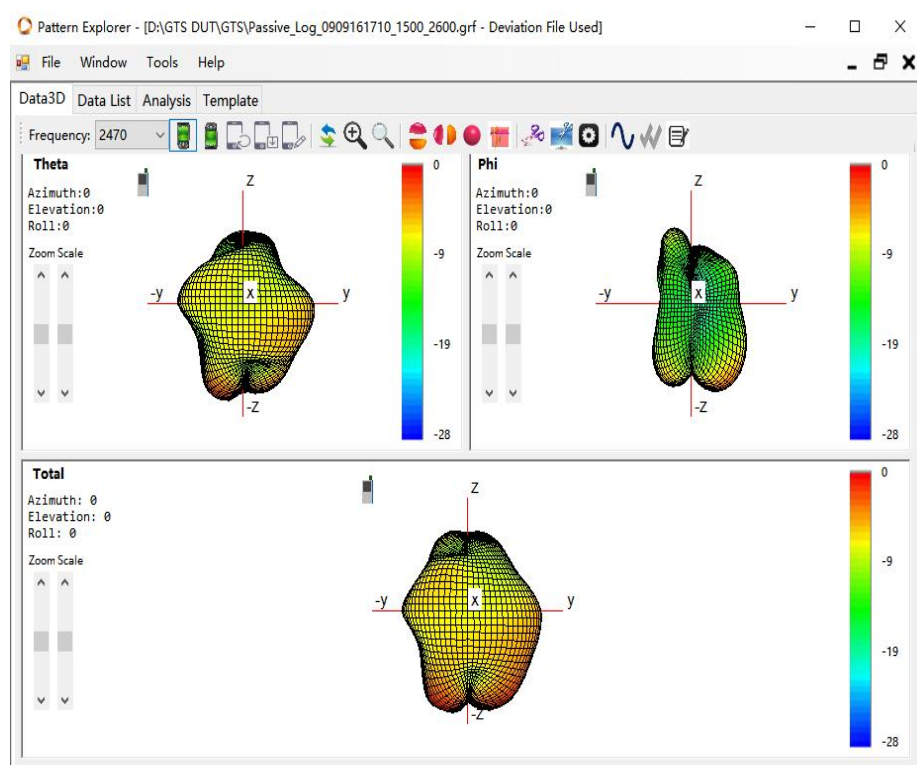
Antenna type: IFA

## Antenna Gain and Antenna Type specification:

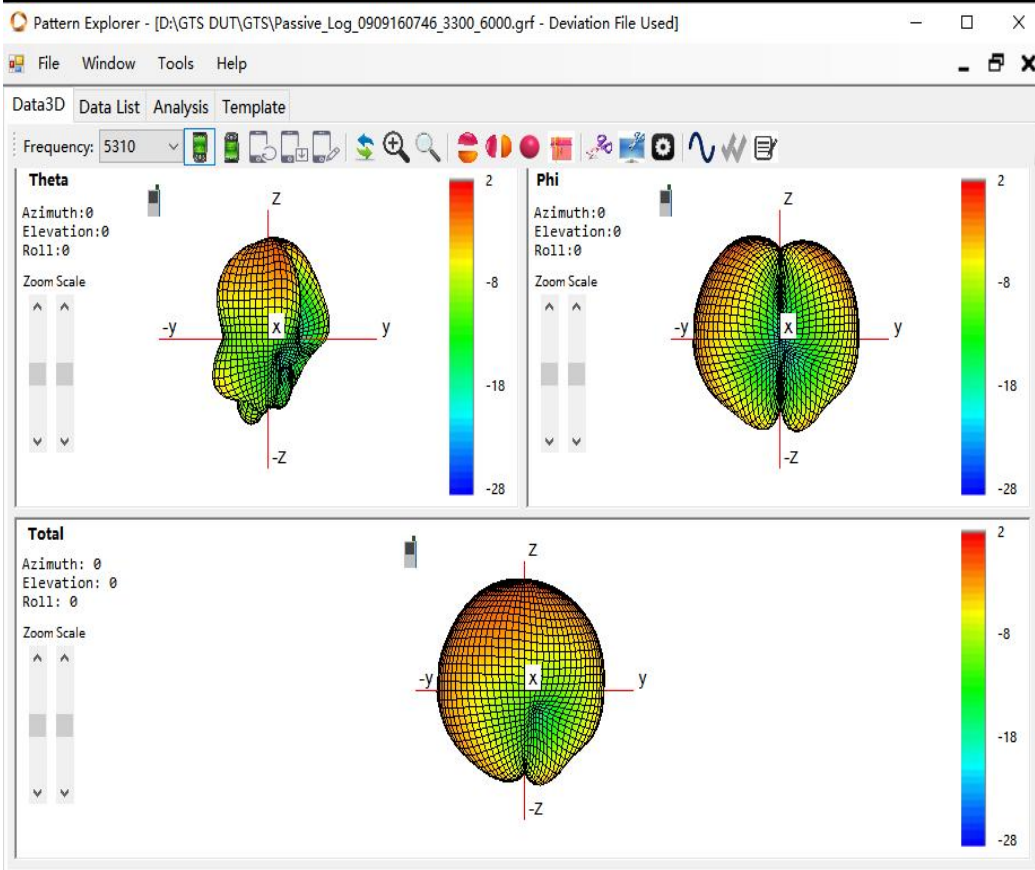
Antenna Gain (dBi)		Ant 8	ANT9	Antenna Type
2.4G WiFi	2400~2483.5MHz		-0.2	IFA(Inverted F Antenna)
5G Wifi	5150~5250 MHz	1.62		IFA(Inverted F Antenna)
	5250~5350 MHz	1.52		IFA(Inverted F Antenna)
	5470~5725 MHz	1.97		IFA(Inverted F Antenna)
	5725~5850 MHz	1.98		IFA(Inverted F Antenna)
BT	2400~2483.5MHz		-0.2	IFA(Inverted F Antenna)
NFC	13.56MHz	/	/	LOOP Antenna

Antenna Gain (dBi)		Ant 0	Ant 1	ANT8	ANT3	ANT4	ANT5	Antenna Type
WCDMA 、 LTE	700~800MHz	-3.8	-6.6					IFA(Inverted F Antenna)
	800~894MHz	-3.4	-5.5					IFA(Inverted F Antenna)
	880~960MHz	-2.9	-6.1					IFA(Inverted F Antenna)
	1710~1880 MHz	-1.4			-1.1			IFA(Inverted F Antenna)
	1880~2170 MHz	-0.5			-1.7			IFA(Inverted F Antenna)
LTE	2300~2400MHz	1.2			-1.7			IFA(Inverted F Antenna)
LTE、 NR	2490~2690MHz	1.6			-0.7			IFA(Inverted F Antenna)
5GNR	3300~4200MHz			-0.9	1.66	-1	-3	IFA(Inverted F Antenna)

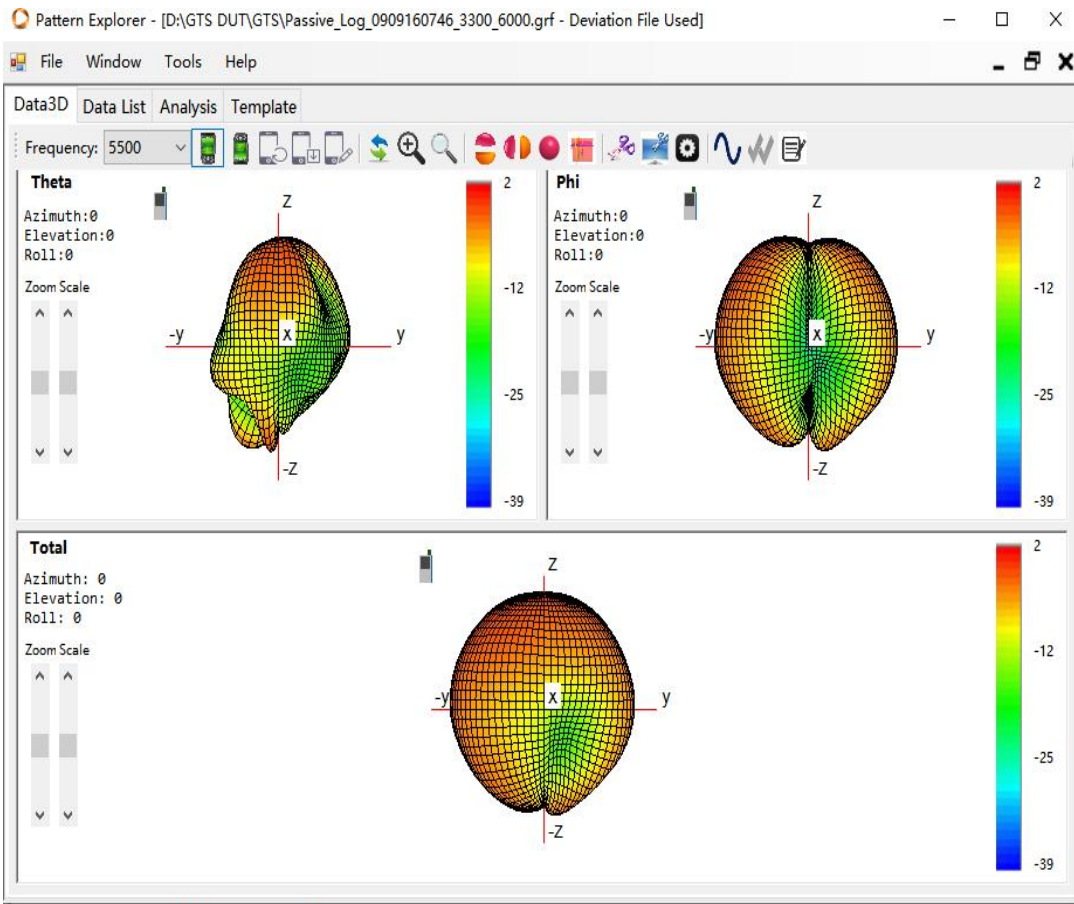
## WIFI 2.4G ( 2442MHz)



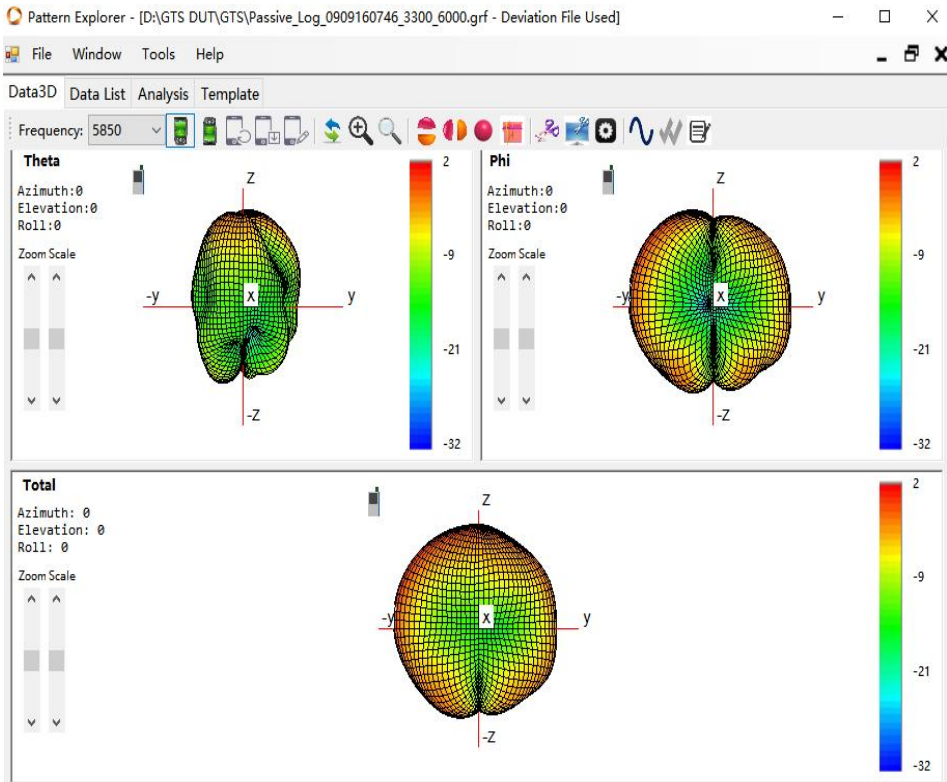
## WIFI 5G B1/2 ( 5150~5350)



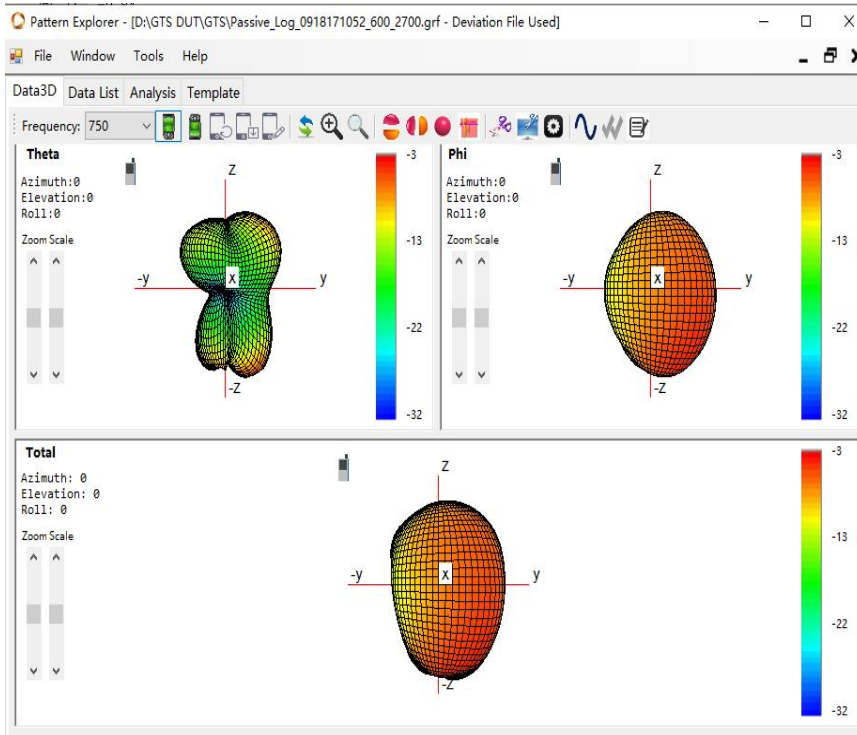
WIFI 5G B3 (5470~5725)



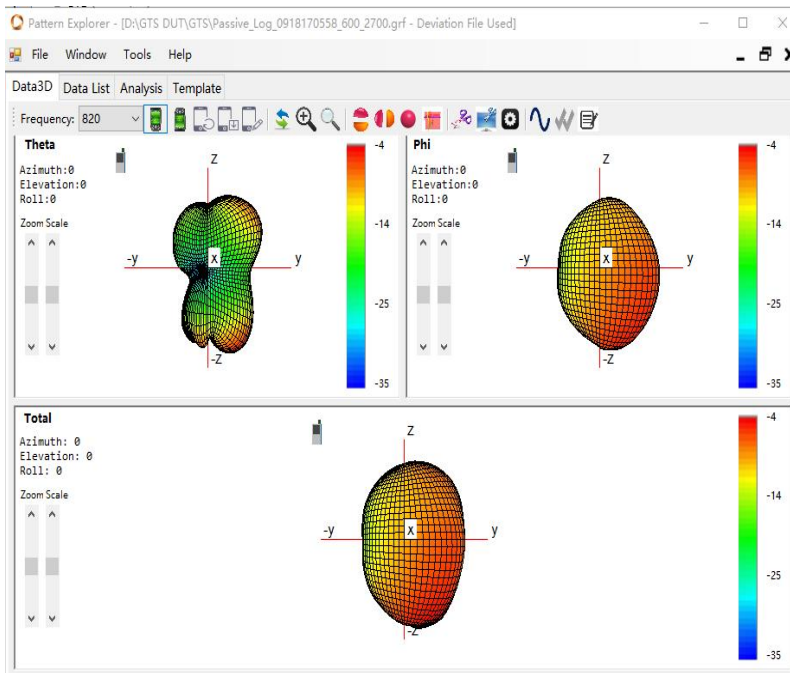
## WIFI 5G B4 (5725~5850)



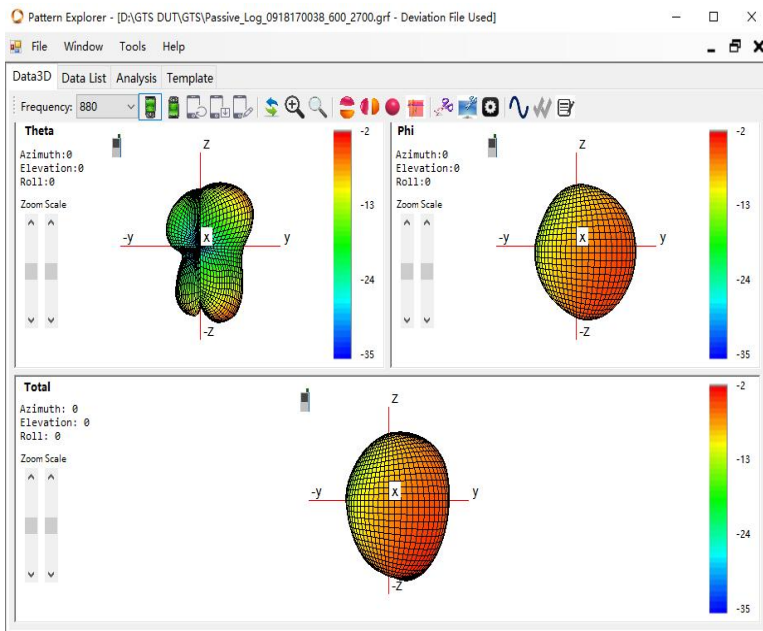
## WCDMA、LTE ANT0 (700~800)



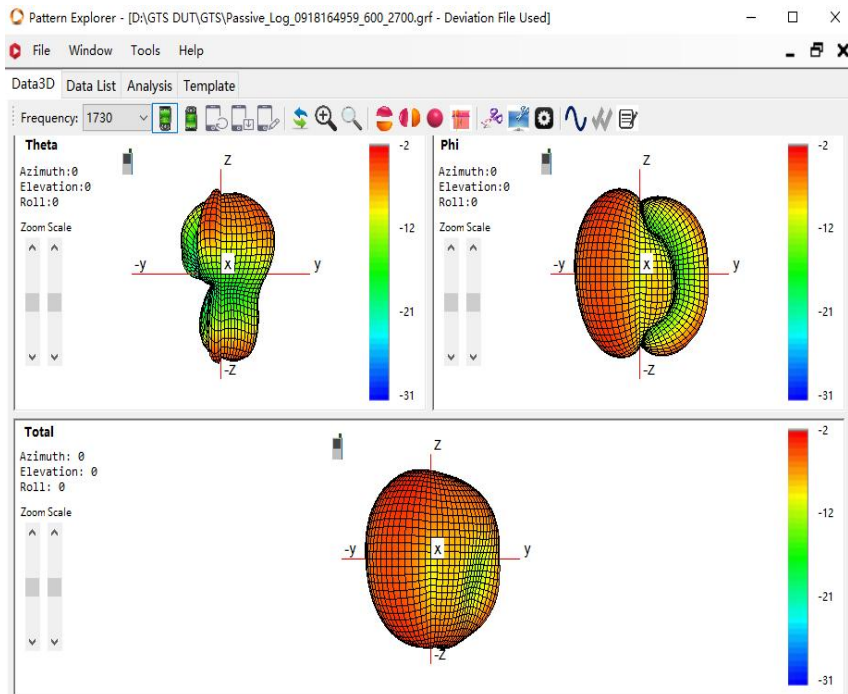
## WCDMA、LTE ANT0 (800~894)



## WCDMA、LTE ANT0 (880~960)

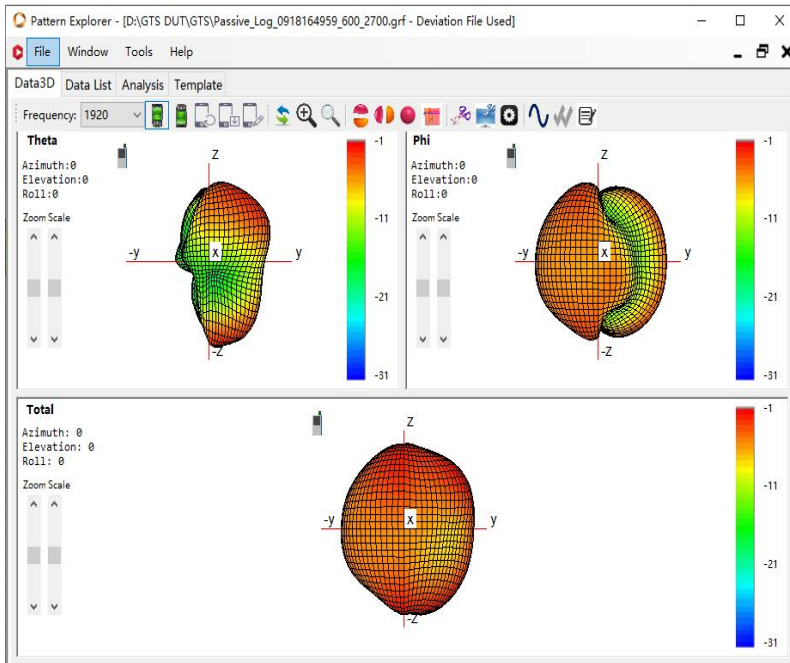


## WCDMA、LTE ANT0 (1710~1880)

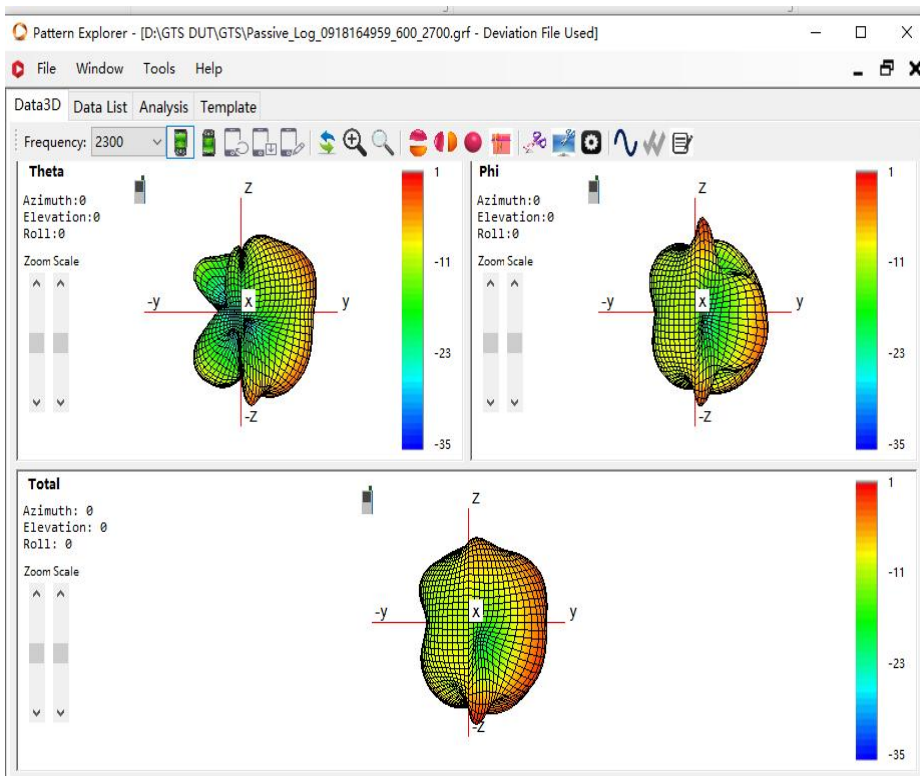


## WCDMA、LTE ANT0 (1880~2170)

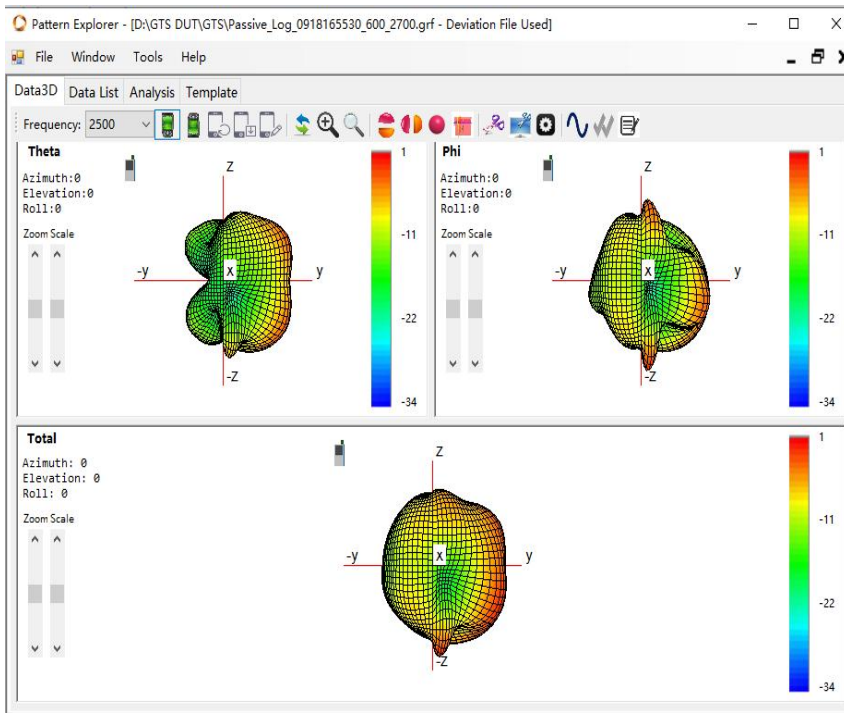




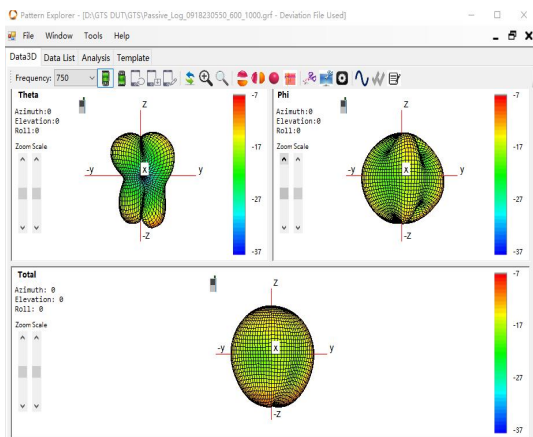
## LTE ANT0 (2300~2400)



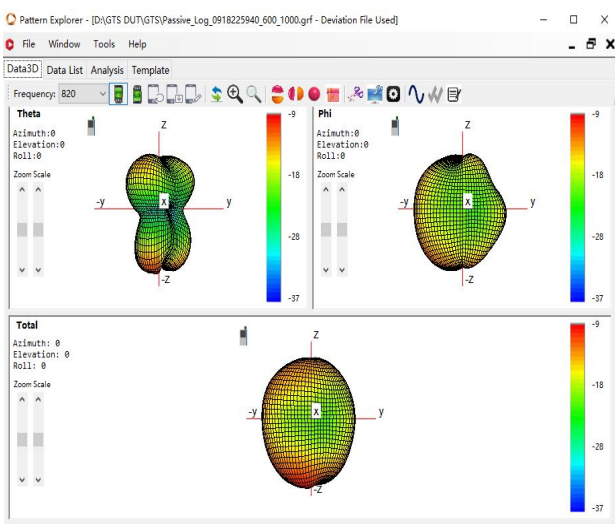
## LTE、NR ANT0 (2490~2690)



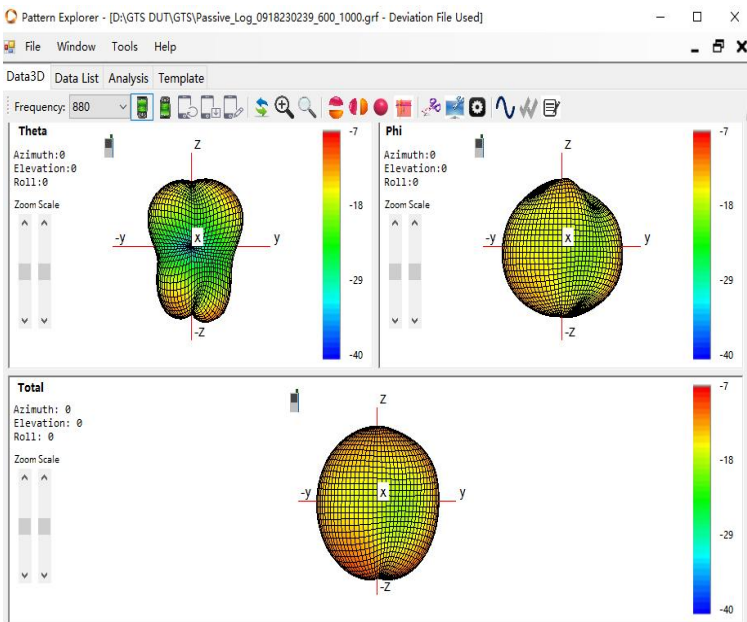
## WCDMA、LTE ANT1 (700~800)



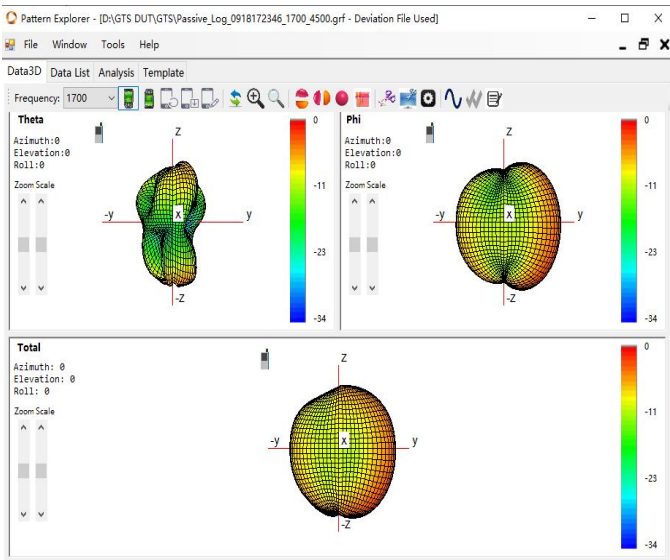
## WCDMA、LTE ANT1 (800~894)



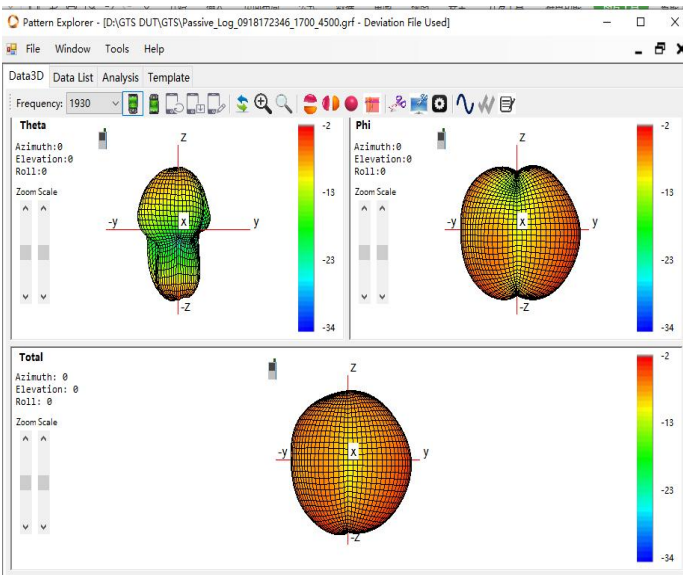
## WCDMA、LTE ANT1 (880~960)

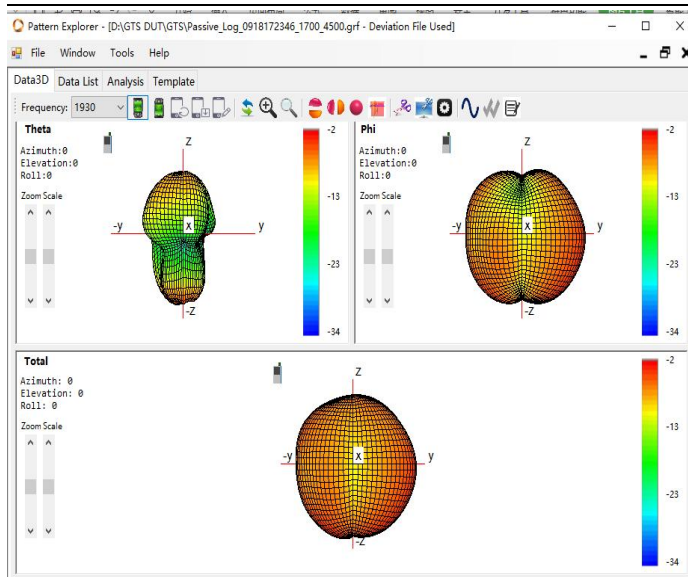


## WCDMA、LTE ANT3 (1710~1880)

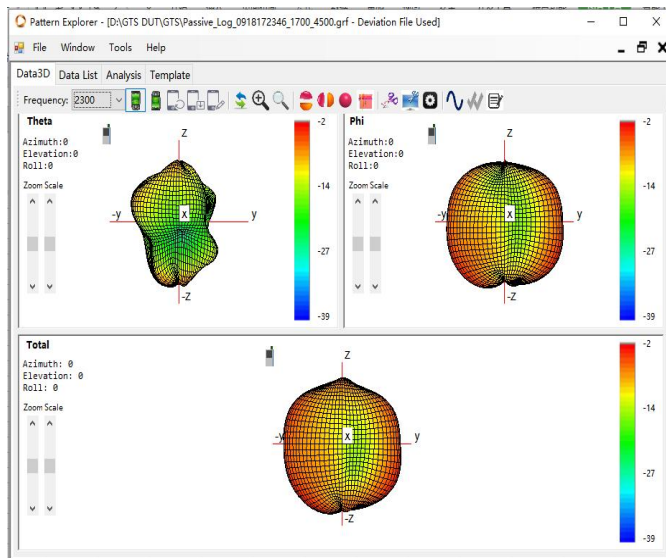


## WCDMA、LTE ANT3 (1880~2170)

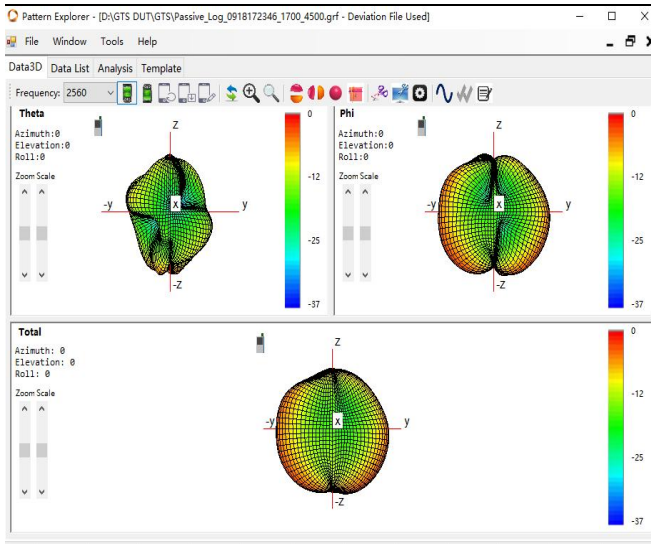




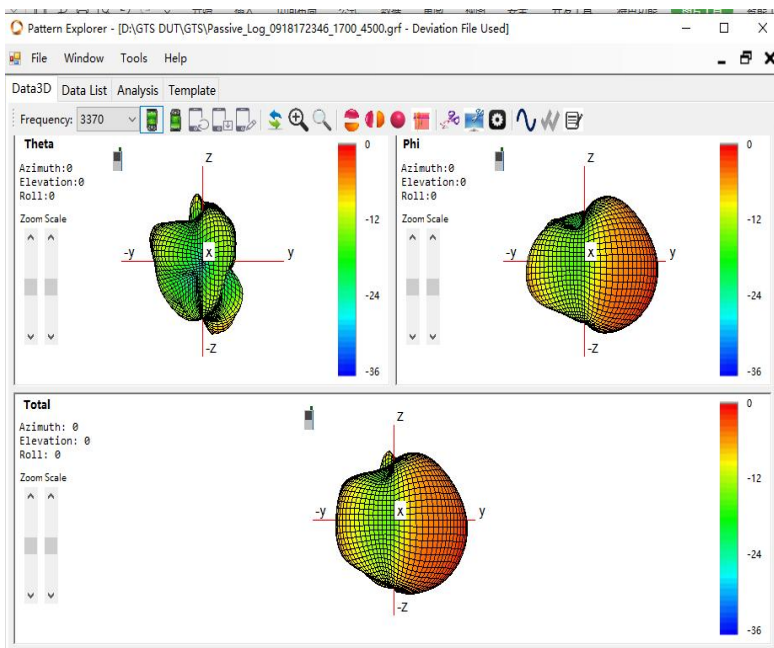
## LTE ANT3 (2300~2400)



## LTE、NR ANT3 (2490~2690)

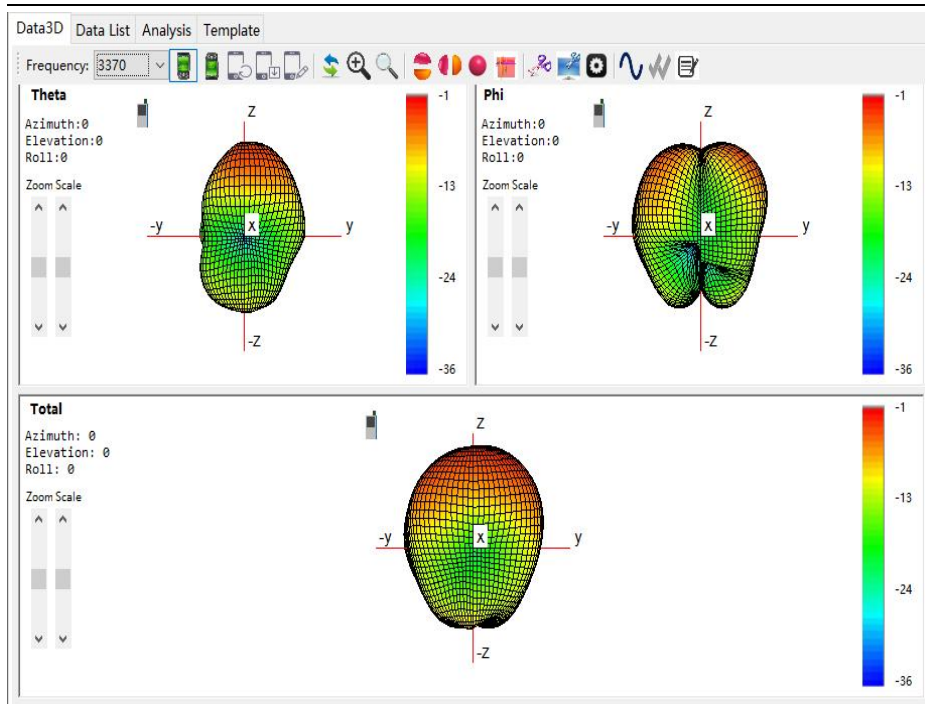


## LTE、NR ANT3 (3300~3800)

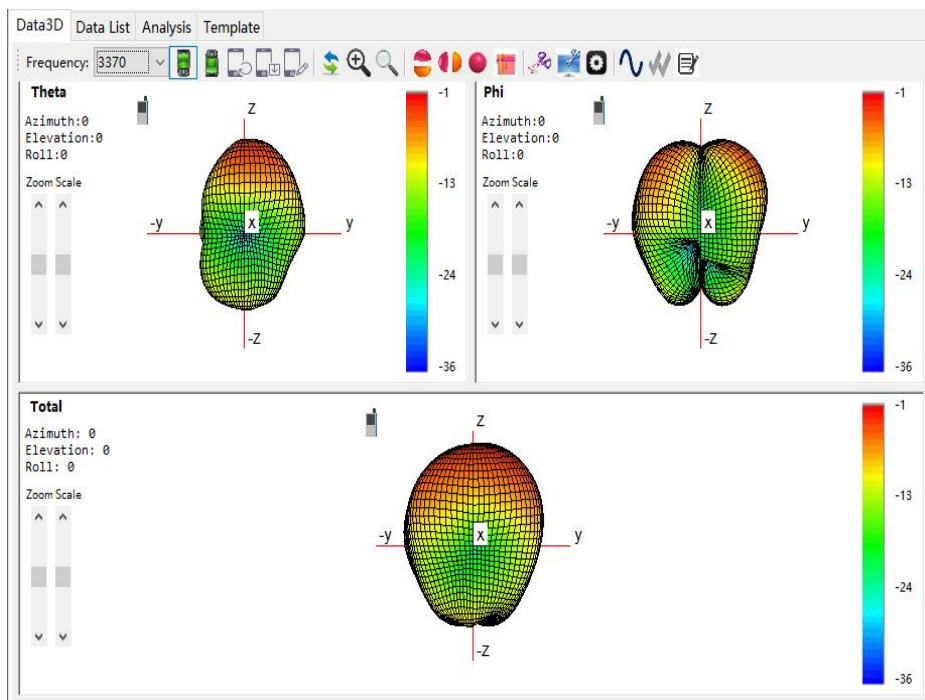


## NR ANT4 (3300~4200)

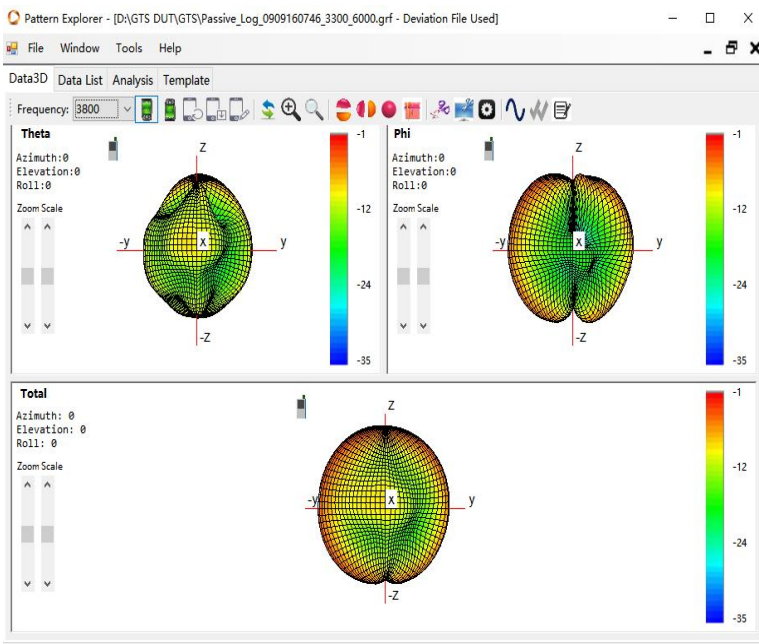




NR ANT5 (3300~3800)



NR ANT8 (3300~4200)



Tset equipment software

GTS MaxSign-Libra

Documented by: 杨辉辉(请测试工程师签名)

List of Test and Measurement Instruments

NO.	Equipment	Manufacturer	Model No.
1	RayZone2800	GTS	CT10121160B50 66
2	Network Analyzer E5071C	Kesight	MY46736598



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.

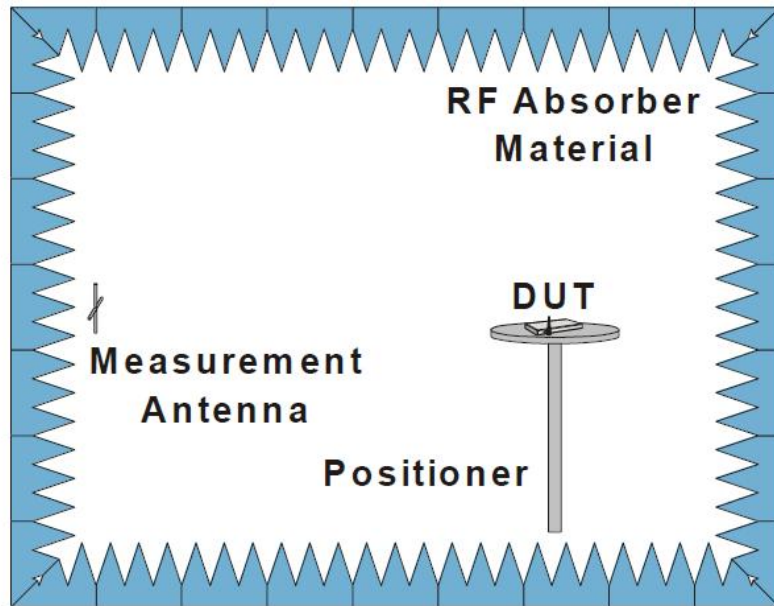


Fig. 4. The fully anechoic chamber

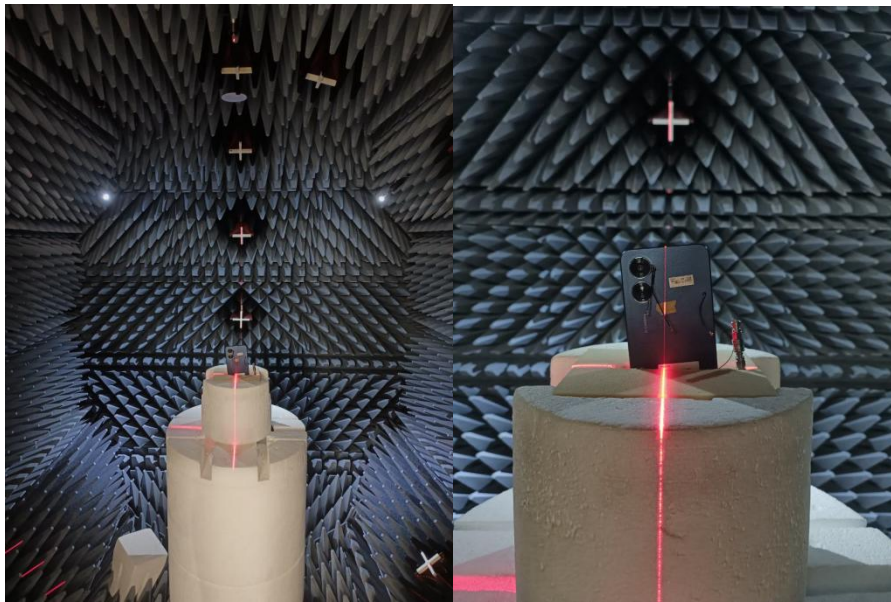


Fig.5. The DUT in the fully anechoic chamber

天线 0(主集天线)	M392	AB750 压延铜 FPC+背胶 黑色	昆山睿翔讯通通信技术有限公司
天线 1(分集天线)	M392	SUS301-HT+背胶	昆山睿翔讯通通信技术有限公司
天线 3 (MHB+N77/78 天线)	M392	AB750 压延铜 FPC+背胶 黑色	深圳威尔创通讯科技有限公司
天线 4 (MHB+N77/78 天线)	M392	AB750 压延铜 FPC+背胶 黑色	深圳威尔创通讯科技有限公司
天线 5 (MHB+N77/78 天线)	M392	AB750 压延铜 FPC+背胶 黑色	昆山睿翔讯通通信技术有限公司
天线 8 (N77/78/5GWiFi 天 线)	M392	AB750 压延铜 FPC+背胶 黑色	深圳威尔创通讯科技有限公司
天线 9 (GPS/BT/WiFi2.4G 天 线)	M392	AB750 压延铜 FPC+背胶 黑色	深圳威尔创通讯科技有限公司