Antenna SPEC

Company: Realme

Model name: RMX3871

Issue date: 2024/05/07

Antenna Summary Table

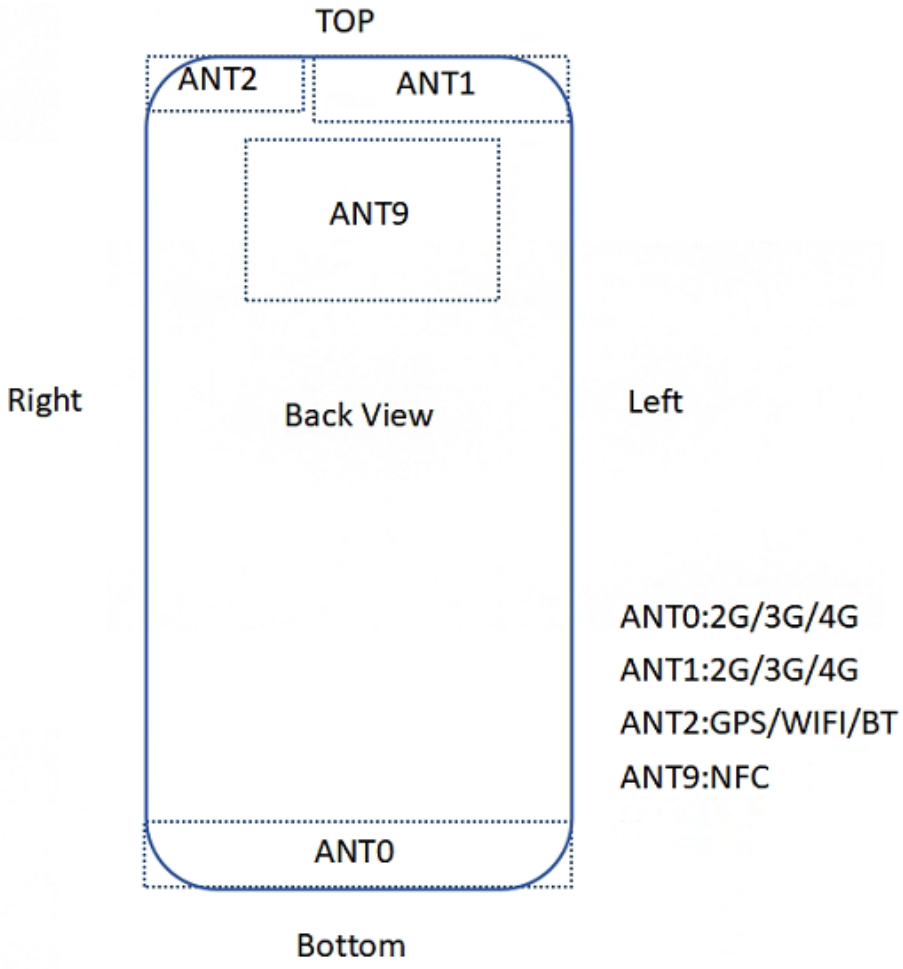
Check items	Information
Provided by lab	RayZone2800 (GTS)
Manufacturer/ Brand name	Realme
Model name	RMX3871
List of calibrated test equipment	GTS2800 with calibrated date: 2024/05/07
Antenna detail info.	Show WWAN/WLAN/BT/ IFA type antenna.
Antenna gain test data	Included antenna frequency, gain pattern

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

Manufacturer & Address：
ZHEJIANG HAITONG COMMUNICATIONS ELECTRONIC LIMITED BY SHARE LTD. 1st Floor,FengHuang Cheng Building,No.15 KeJiBei 1st Road, Nanshan District, Shenzhen Nanshan District.Shenzhenzhen

SHENZHEN SPEED WIRELESS TECHNOLOGY CO.,LTD
BUILDING A GUOREN DASHA Yuehai district,Shenzhen Nanshan District, Guangdong Province, China.

Antenna Location & dimension:



Antenna Test data:

Antenna model name:M725

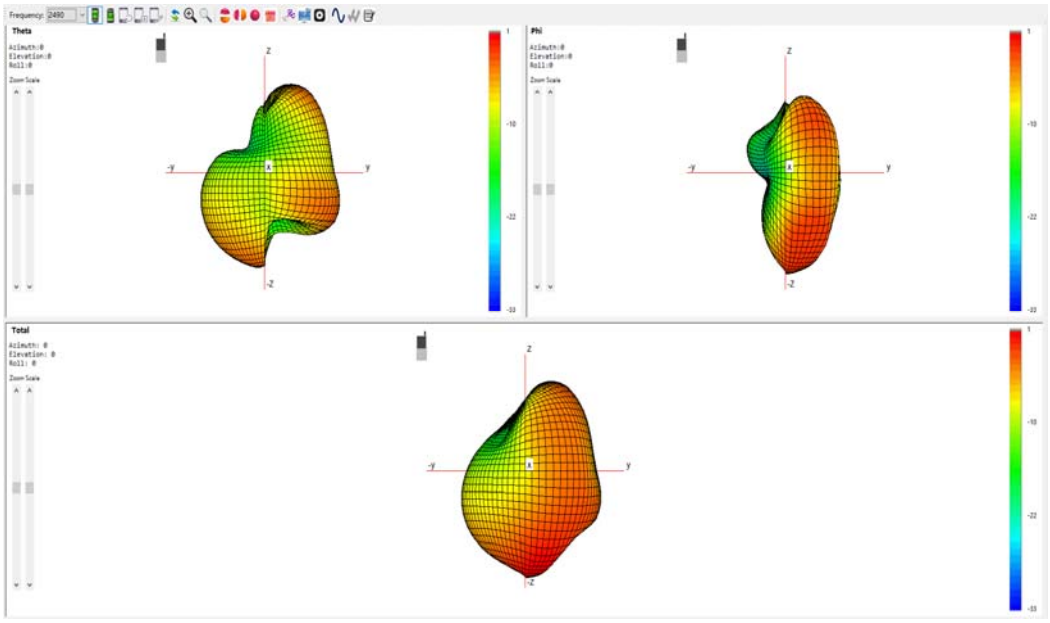
Antenna type: IFA

Antenna Gain and Antenna Type specification:

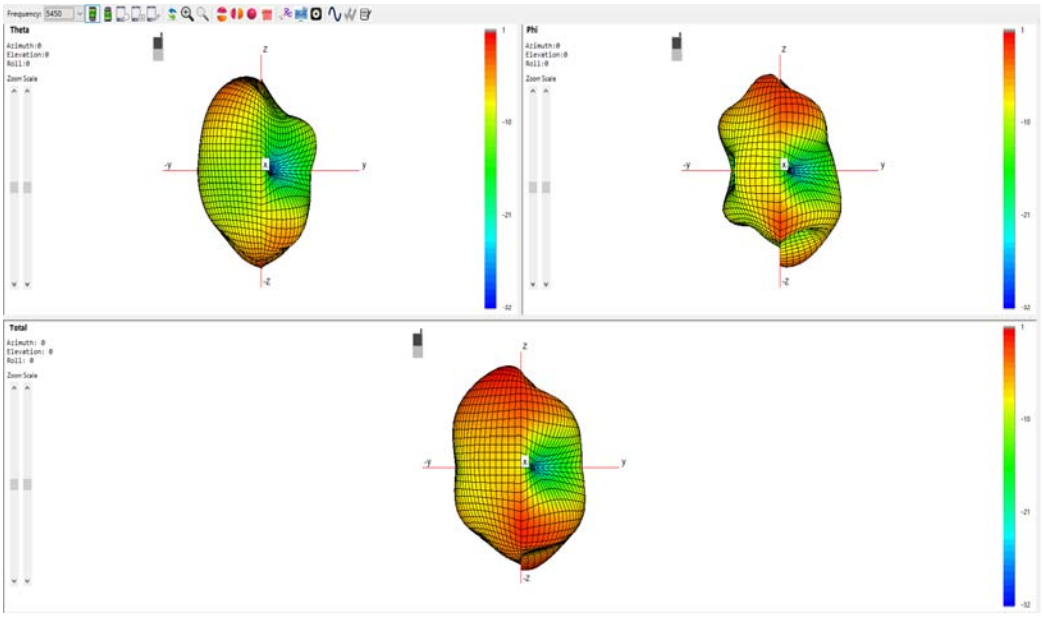
Antenna Gain (dBi)		Ant 2	Antenna Type
2.4G WiFi	2400~2483.5MHz	0.33	IFA(Inverted F Antenna)
5G Wifi	5150~5250 MHz	0.31	IFA(Inverted F Antenna)
	5250~5350 MHz	-0.03	IFA(Inverted F Antenna)
	5470~5725 MHz	0.66	IFA(Inverted F Antenna)
	5725~5850 MHz	-0.86	IFA(Inverted F Antenna)
BT	2400~2483.5MHz	0.33	IFA(Inverted F Antenna)
NFC	13.56MHz	ANT9	Loop Antenna

Antenna Gain (dBi)		Ant 0	Ant 1	Antenna Type
GSM、WCDMA、LTE	700~800MHz	-4.00	-7.61	IFA(Inverted F Antenna)
	800~894MHz	-5.63	-6.28	IFA(Inverted F Antenna)
	880~960MHz	-5.71	-6.13	IFA(Inverted F Antenna)
	1710~1880 MHz	-1.07	-2.59	IFA(Inverted F Antenna)
	1880~2170 MHz	-1.18	1.09	IFA(Inverted F Antenna)
LTE	2300~2400MHz	-1.18	-1.6	IFA(Inverted F Antenna)
LTE	2490~2690MHz	0.14	-0.96	IFA(Inverted F Antenna)

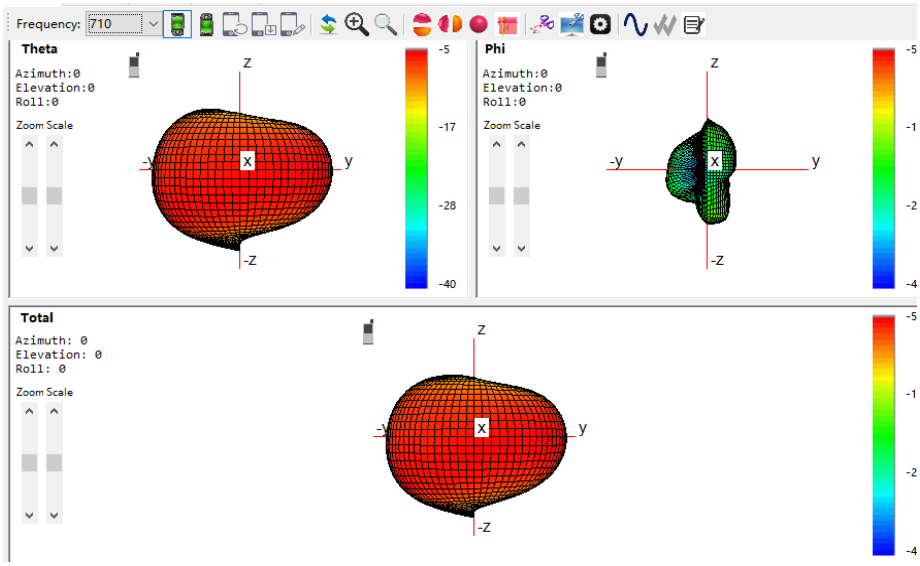
WIFI 2.4G (2450 MHz) ANT2



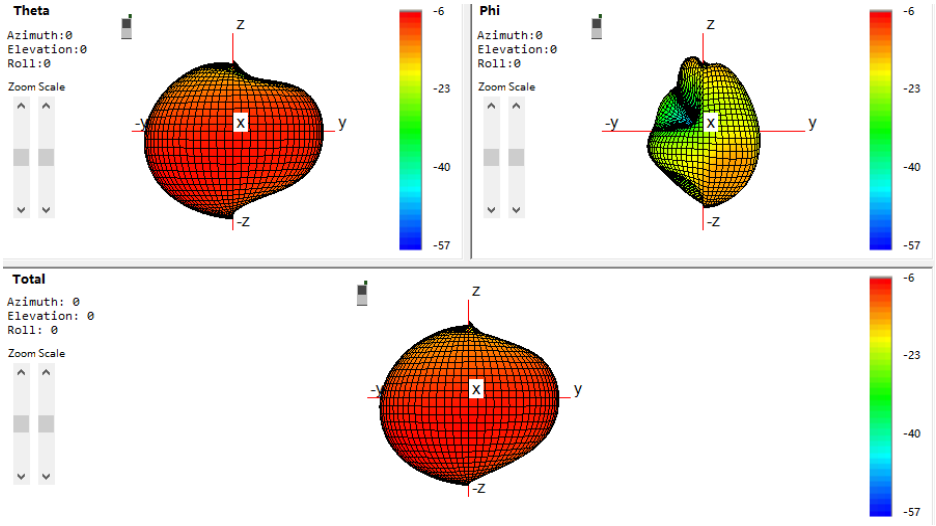
WIFI 5G (5150~5850MHz) ANT2



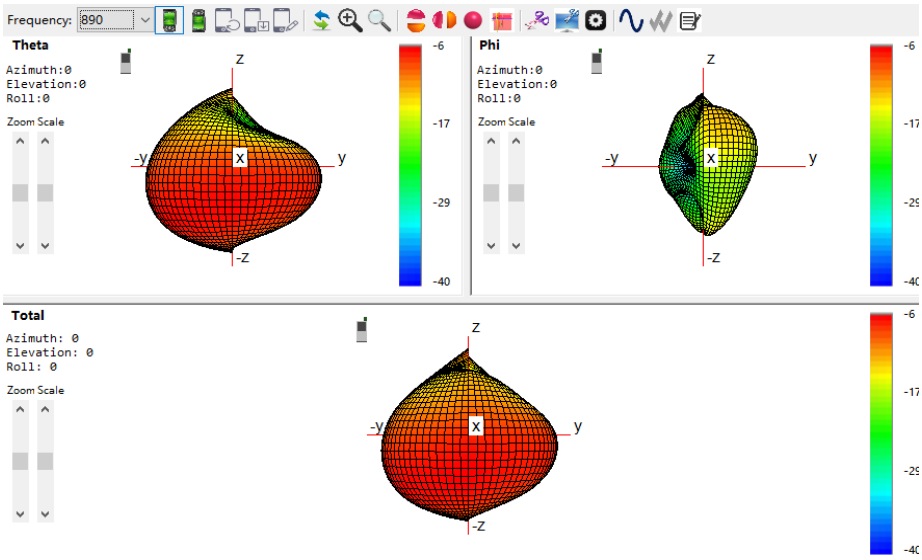
WCDMA、LTE ANT0 (700~800)



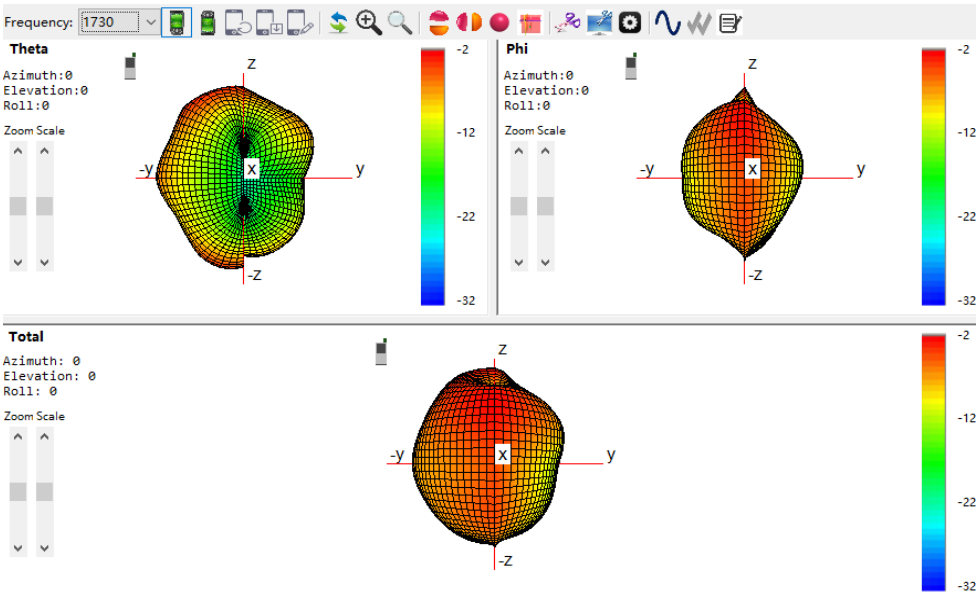
WCDMA、LTE ANT0 (800~894)



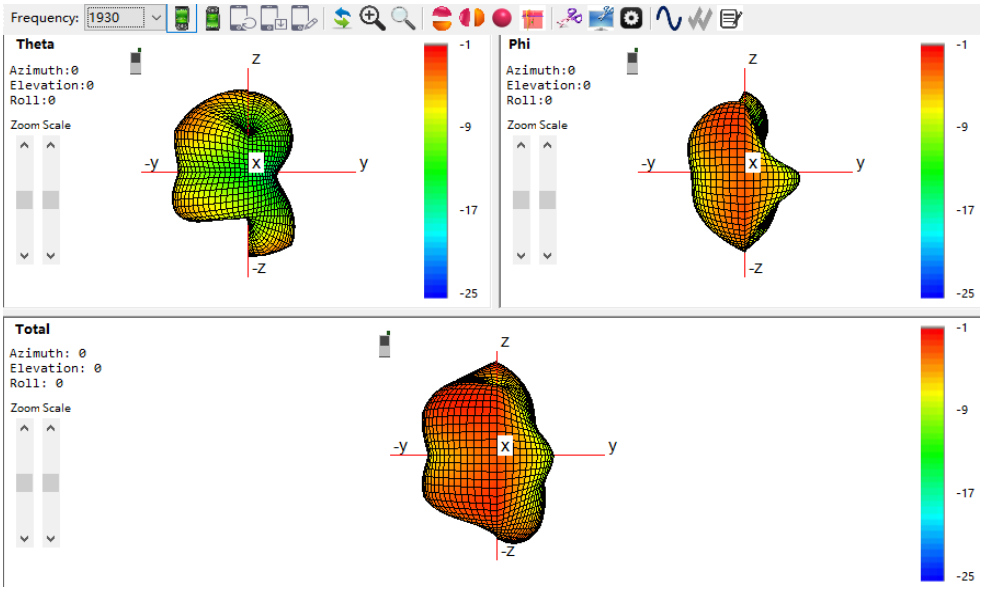
WCDMA、LTE ANT0 (880~960)



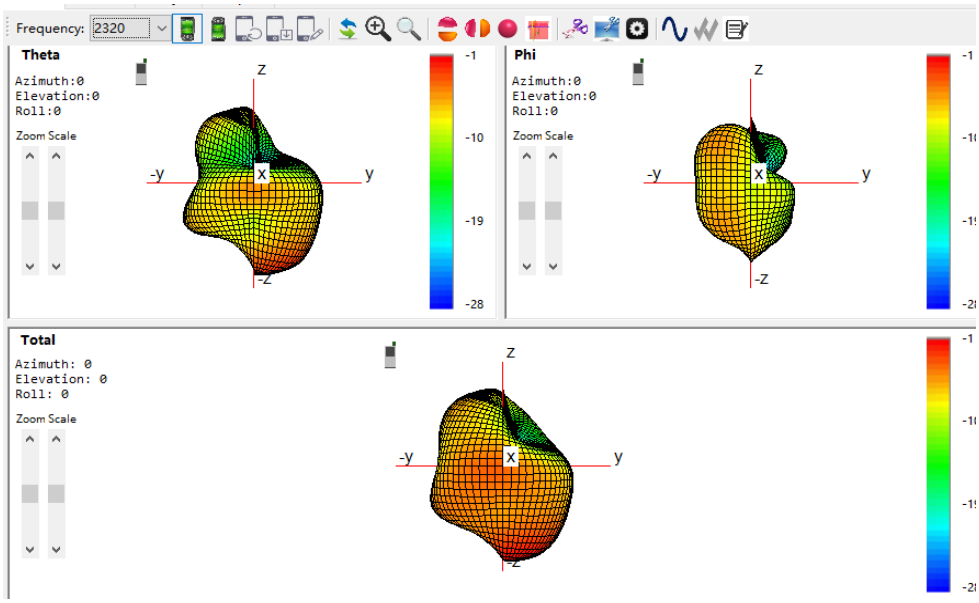
WCDMA、LTE ANT0 (1710~1880)



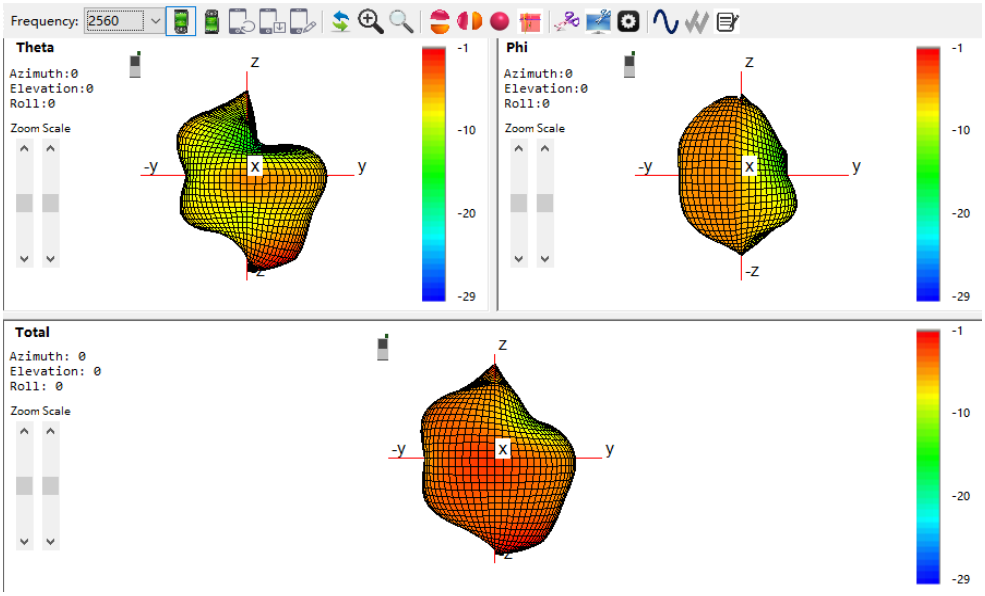
WCDMA、LTE ANT0 (1880~2170)



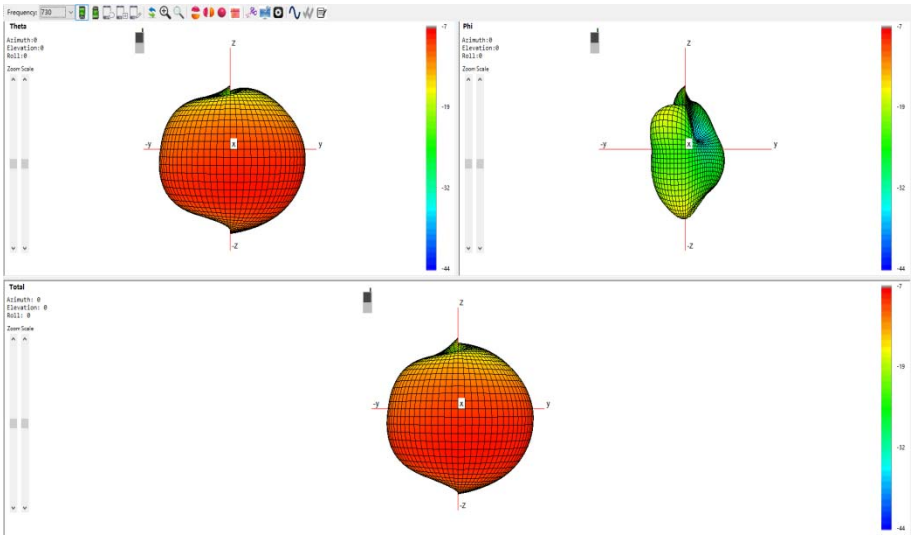
LTE ANT0 (2300~2400)



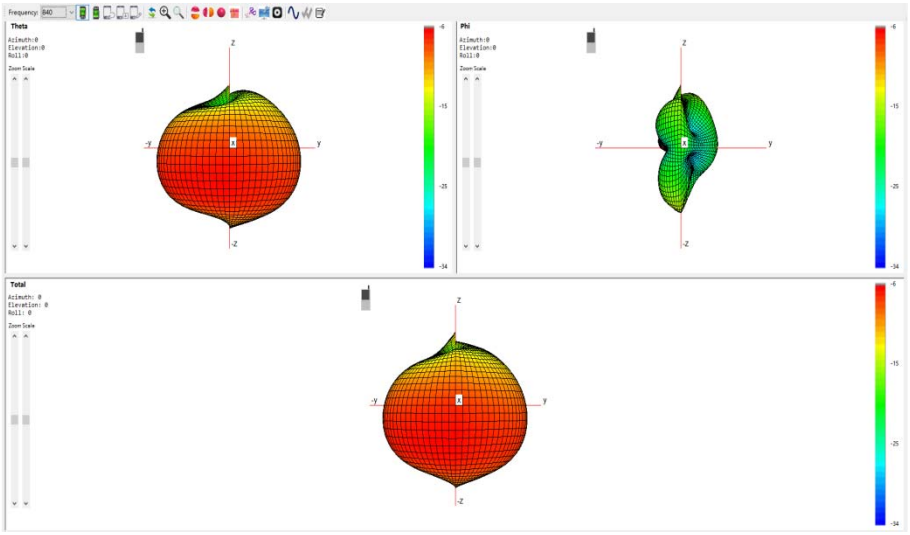
LTE、 ANT0 (2490~2690)



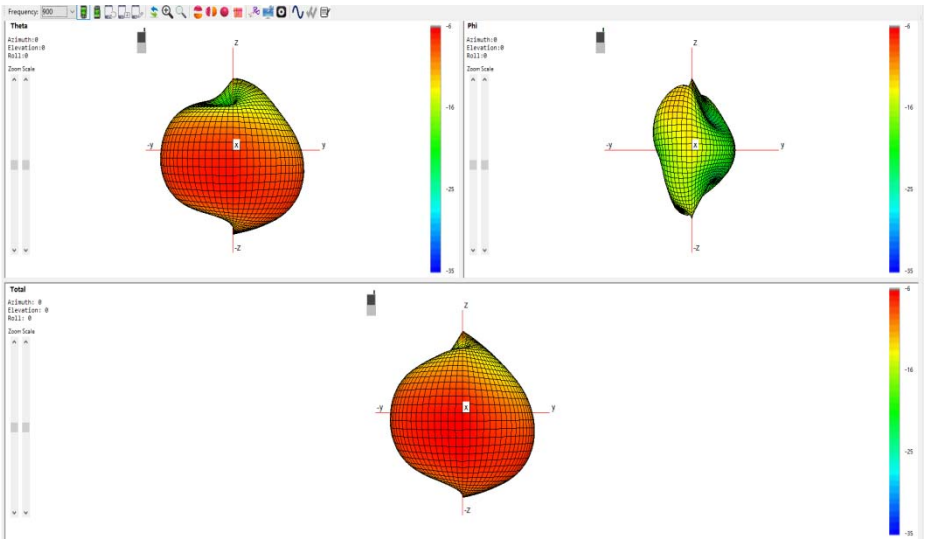
WCDMA、LTE ANT1 (700~800)



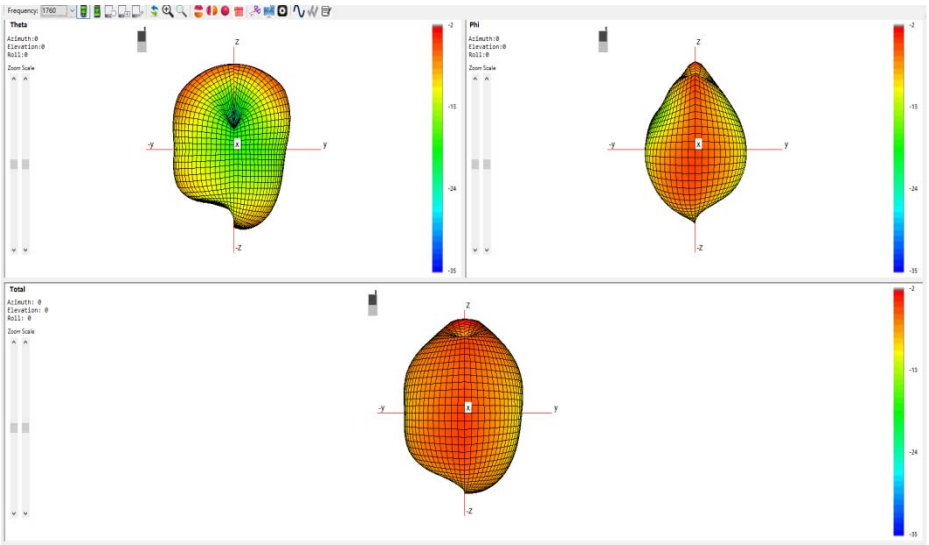
WCDMA、LTE ANT1 (800~894)



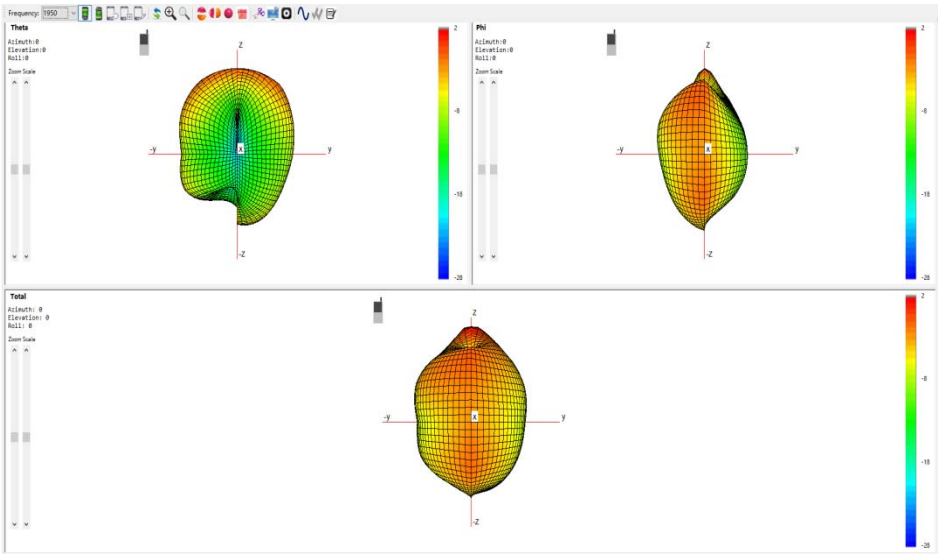
WCDMA、LTE ANT1 (880~960)



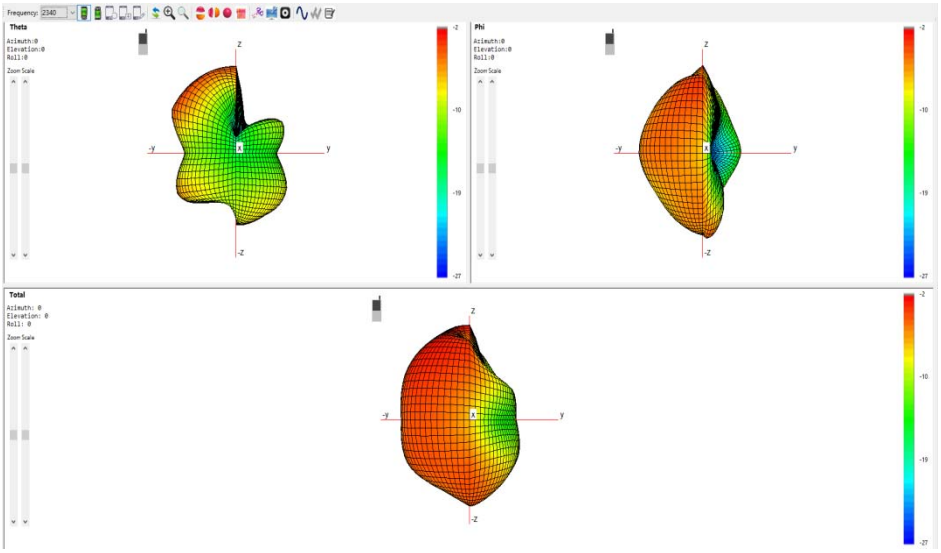
WCDMA、LTE ANT1 (1710~1880)



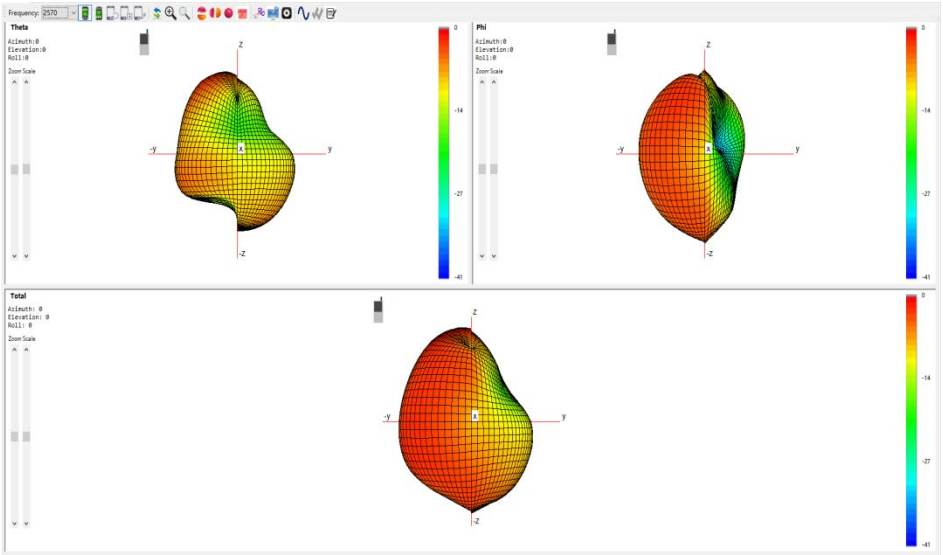
WCDMA、LTE ANT1 (1880~2170)



LTE ANT1 (2300~2400)



LTE ANT1 (2490~2690)



List of Test and Measurement Instruments

NO.	Equipment	Manufacturer	Model No.
1	RayZone2800	GTS	CT10121160B5066
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**.**

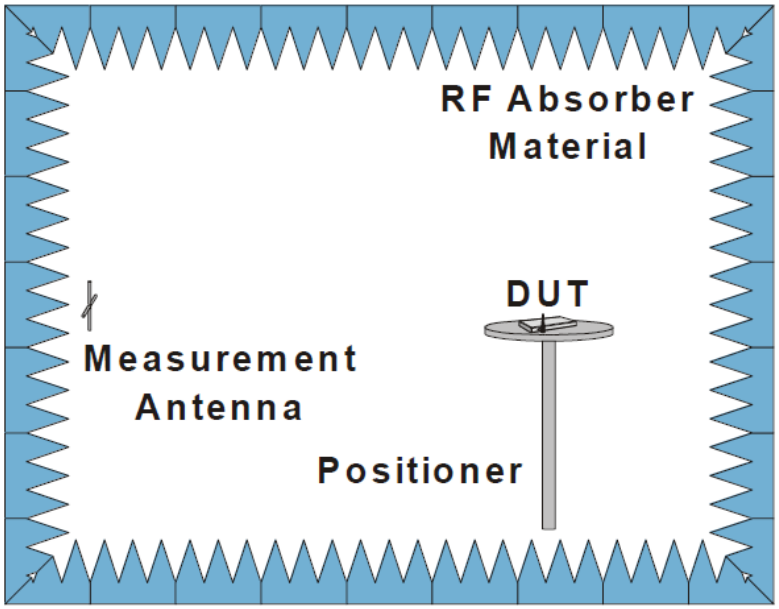


Fig. 4. The fully anechoic chamber

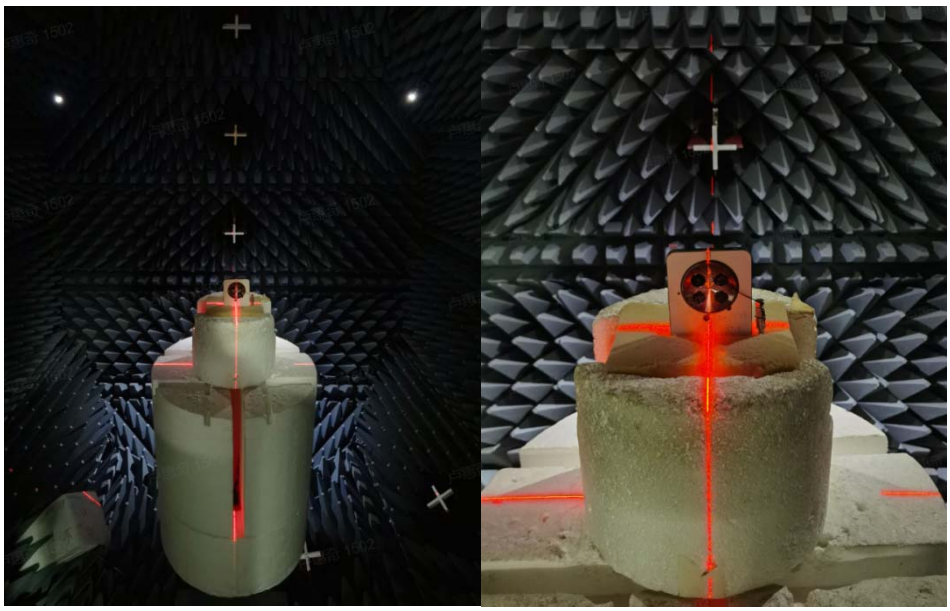


Fig.5. The DUT in the fully anechoic chamber