



Zhejiang Haitong Communicate Ltd.
(Shenzhen R&D)

Customer: TCL Communication Ltd.

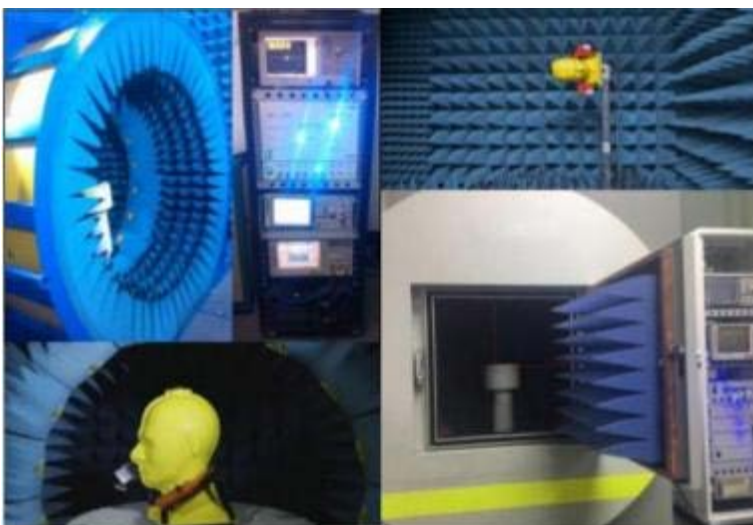
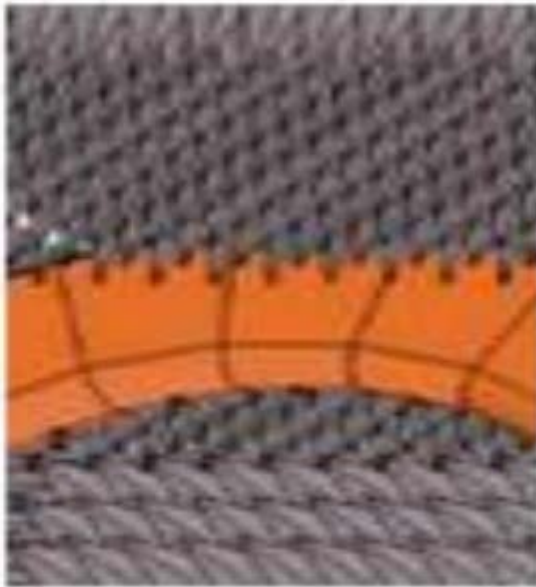
Project name: Bellona vision
WIFI

Product name: Bellona-WIFI antenna

Material: Stainless steel

Date: 2025.1.12

1: chamber room introduction and testing scope

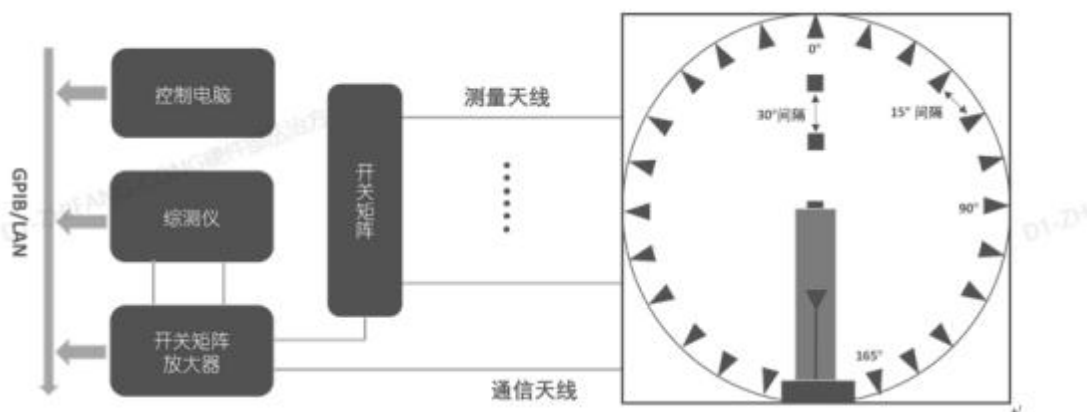


Our company has a number of OTA test darkrooms, ranging from 400MHz to

8.5ghz, which can provide passive test and active test (including OTA overall 2G,3G,4G,5GFR test, WiFi multi-mode test, GPS active test, Bluetooth active test, which can provide antenna gain and efficiency. 2D orientation and apple chart analysis and upper and lower hemisphere efficiency values, mutual disturbance correlation coefficient test items

WIFI a/b/g/n/ac/ax

2：test system introduction:

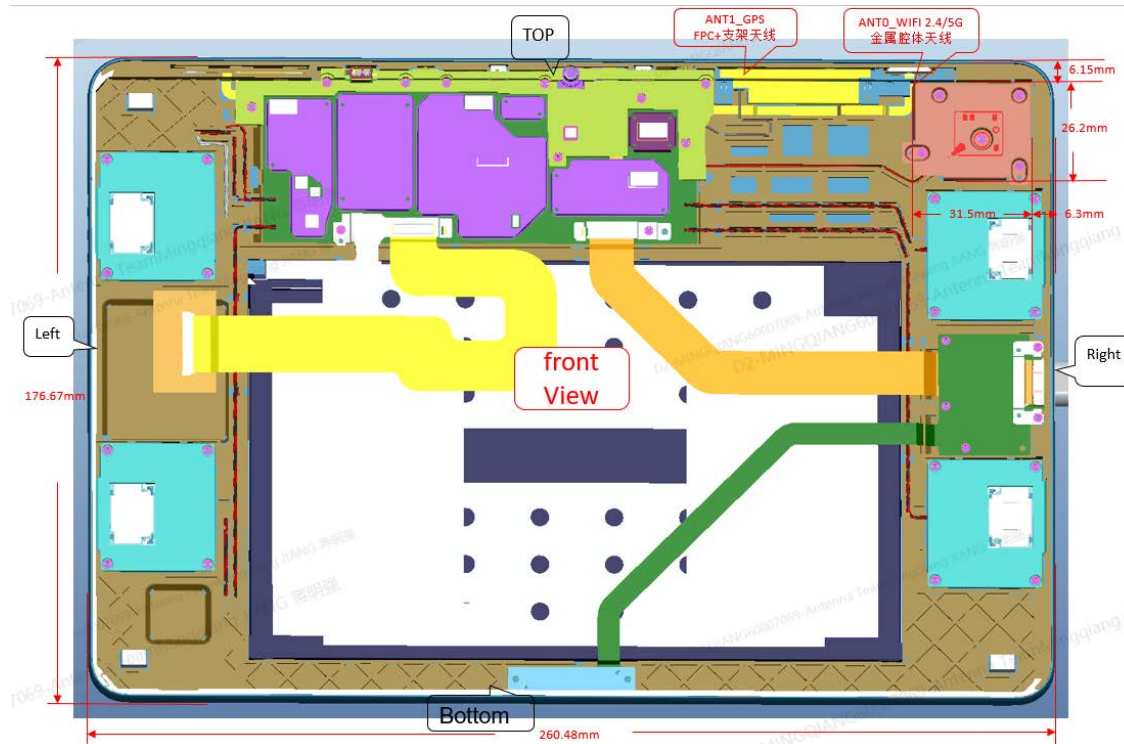


The figure above shows the connection and control process between the darkroom of our company and the testing system and computer. The testing system has the characteristics of accurate, fast and simple testing

The operation interface is simple and humanized

3: Test result

Antenna placement:



S11:

WiFi 2.4G&5G&BT



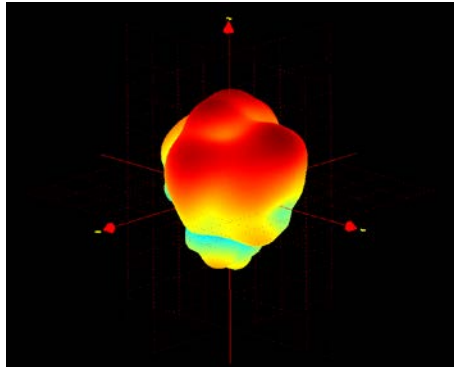
Effi, Gain:

WiFi 2.4G+5G

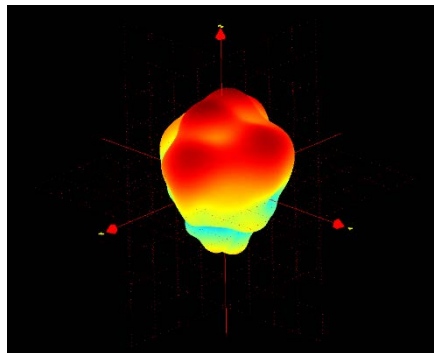
Fre(MHz)	Effi	Effi(dB)	Peak Gain
2400	33%	-4.8	-1.80
2410	36%	-4.5	-1.72
2420	37%	-4.3	-1.71
2430	39%	-4.1	-1.60
2440	38%	-4.2	-1.71
2450	36%	-4.4	-1.73
2460	35%	-4.6	-1.77
2470	34%	-4.7	-1.86
2480	31%	-5.1	-1.82
2490	29%	-5.3	-1.87
2500	28%	-5.6	-1.93
5150	26%	-5.8	-0.72
5200	27%	-5.7	-0.64
5250	28%	-5.5	-0.60
5300	29%	-5.3	-0.57
5350	30%	-5.2	-0.51
5400	25%	-6.0	-0.61
5450	22%	-6.6	-0.75
5500	20%	-6.9	-0.94
5550	20%	-7.0	-0.86
5600	26%	-5.8	-0.71
5650	31%	-5.2	-0.50
5700	30%	-5.2	-0.52
5750	27%	-5.6	-0.68
5800	24%	-6.3	-0.79
5850	20%	-6.9	-0.88

3D Pattern

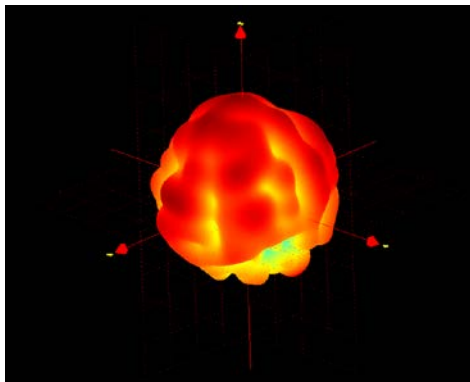
Frequency=2450MHz



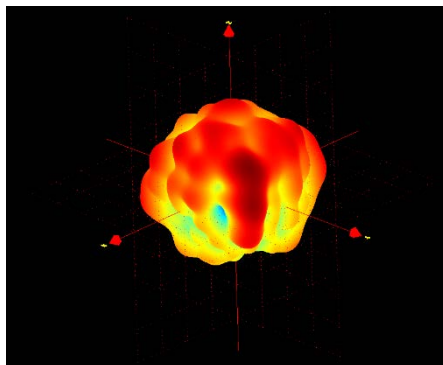
Frequency=2500MHz



Frequency=5150MHz



Frequency=5550MHz



Frequency=5850MHz

