

Haitong Communication Electronics Co., Ltd

Customer: TCL Communication Ltd.

Project name: T451A

Product name: T451A- WiFi Antenna

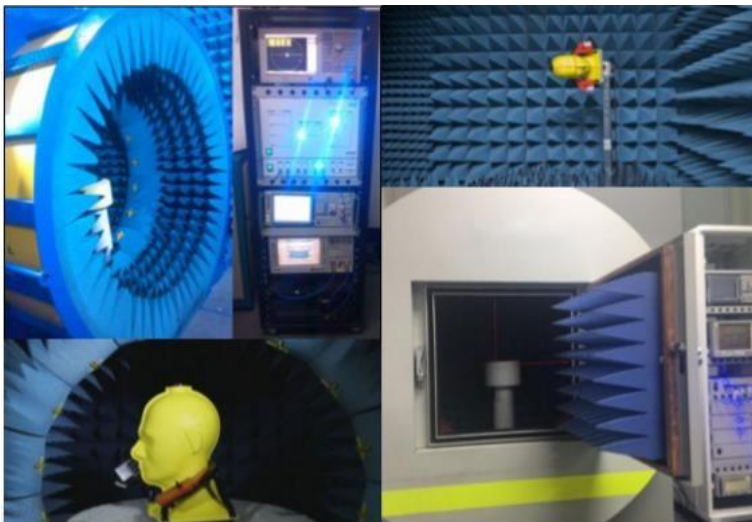
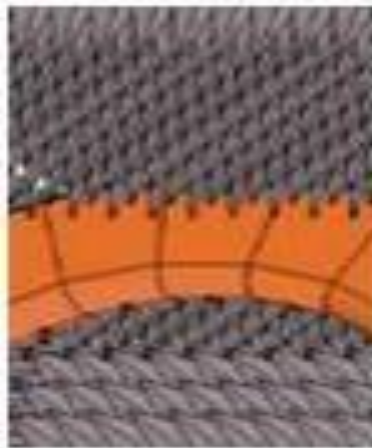
Material: FPC

Date: 2025.1.15

Manufacturer: Shenzhen Haitong

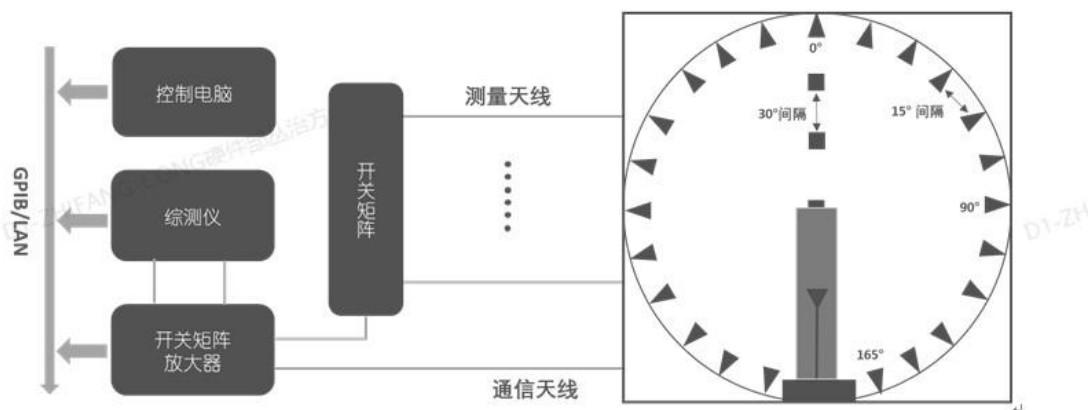
Manufacturer Address: Southern District, Phoenix Tower, 15 Nanshan District science and Technology North Road, Shenzhen, Guangdong.

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

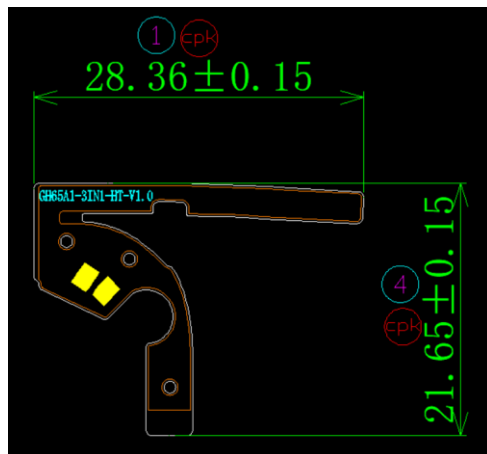
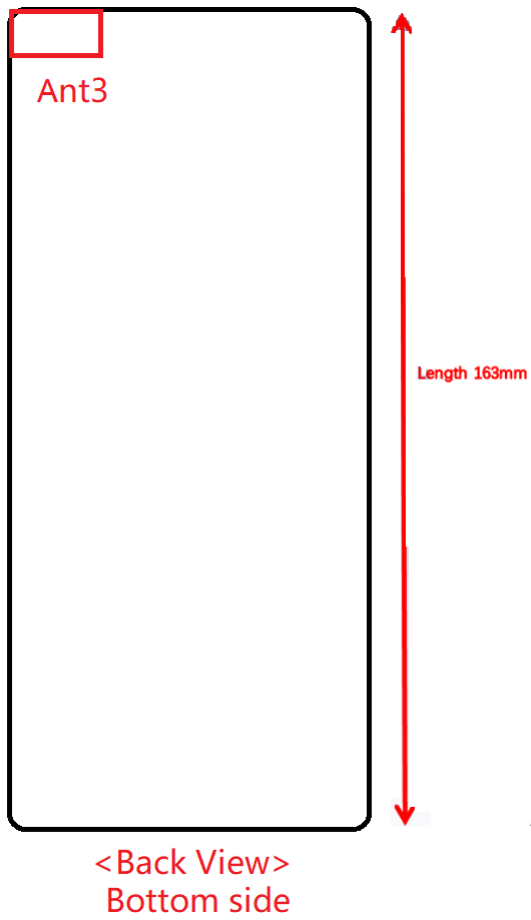
2: test system introduction:



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

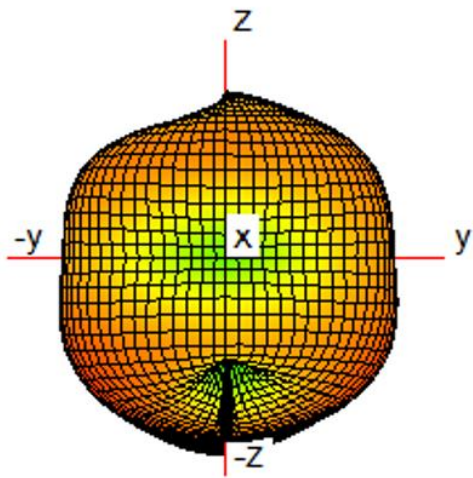
Antenna placement:



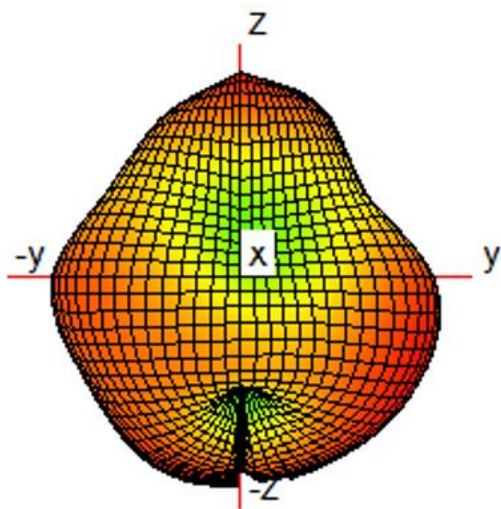
Antenna Gain:

ANT3			
Frequency	Efficiency	Efficiency(Db)	Gain(dBi)
1550	37.89	-4.21	0.53
1555	37.14	-4.30	0.52
1560	36.22	-4.41	0.48
1565	35.65	-4.48	0.49
1570	34.86	-4.58	0.46
1575	34.46	-4.63	0.52
1580	33.81	-4.71	0.59
1585	33.29	-4.78	0.70
1590	33.01	-4.81	0.79
1595	33.30	-4.78	0.89
1600	33.85	-4.71	0.94
2400	28.60	-5.44	-1.36
2410	29.73	-5.27	-1.10
2420	30.23	-5.20	-1.02
2430	31.28	-5.05	-0.84
2440	32.37	-4.90	-0.65
2450	32.40	-4.90	-0.65
2460	31.97	-4.95	-0.74
2470	30.70	-5.13	-0.93
2480	29.38	-5.32	-1.25
2490	29.06	-5.37	-1.48
2500	27.99	-5.53	-1.65
AVG	32.6	-4.88	0.21

3D Pattern
(Frequency=1575MHz)



(Frequency=2400MHz)



(Frequency=2483MHz)

