



## Introduction to applied laboratory testing equipment

The company introduced the highest configuration of comprehensive tester CMW500  
Test 2G, 3G, 4G, WIFI, BT, NB-LOT





## Antenna testing equipment



/ GTS 3Dlaboratory:

It belongs to the near field testing lab

/ ETS 3Dlaboratory:

It belongs to the far-field test

/ Network Analyzer 5071C/A338/8753E (Test passive)

/ Comprehensive tester CWM500 (active test) 8852  
(conduction test)

/ 1 generation 2 generation head ear test  
model



TECHNICAL SERVICE



## GTS 3Dlaboratory





02

cellphone condition



# Environmental treatment



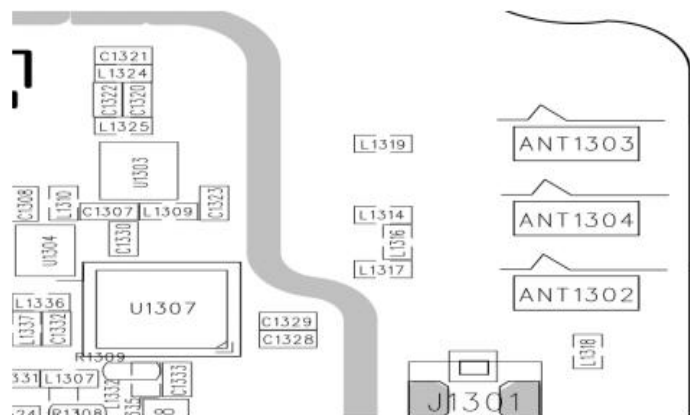
Please refer to WLAN Antenna specification-Test Setup Photos



03

Antenna matching circuit

## Matching Circuit



L1319	0Ω	L1317	NC
L1314	NC	L1318	0Ω
L1316	0Ω		

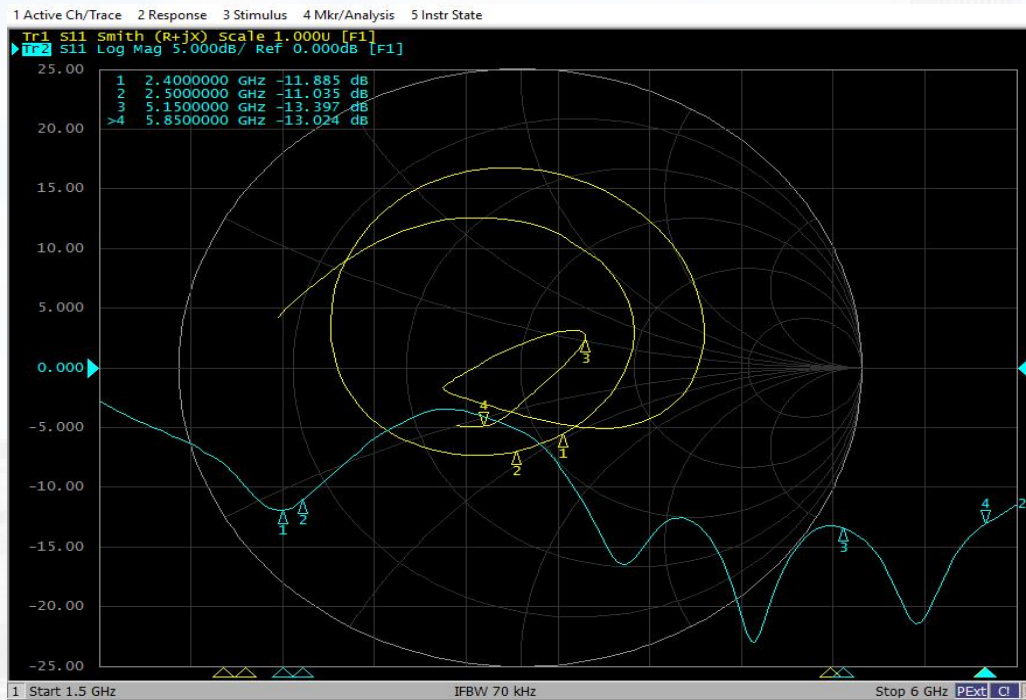


04

Antenna numerical



## BT/WIFI S11





# BT/WIFI Efficiency

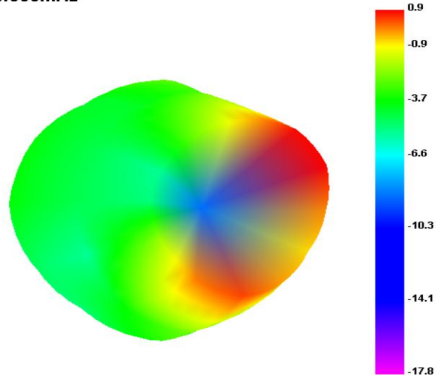


Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	35.64	-4.48	1.07	5150	37.77	-4.23	1.43	5500	36.16	-4.42	0.59
2410	40.24	-3.95	1.61	5160	35.71	-4.47	1.1	5520	34.41	-4.63	0.6
2420	39.61	-4.02	1.61	5170	35.53	-4.49	0.94	5530	35.39	-4.51	0.62
2430	37.77	-4.23	1.43	5180	36.06	-4.43	0.91	5540	33.76	-4.72	0.25
2440	35.71	-4.47	1.1	5190	37	-4.32	1.11	5550	36.8	-4.34	0.68
2450	35.53	-4.49	0.94	5200	37.48	-4.26	1.45	5560	37.76	-4.23	0.84
2460	36.06	-4.43	0.91	5210	30.35	-5.18	-0.03	5570	37.19	-4.3	0.58
2470	37	-4.32	1.11	5220	31.74	-4.98	0.19	5580	38.21	-4.18	0.87
2480	37.48	-4.26	1.45	5230	35.82	-4.46	0.61	5590	38.62	-4.13	0.94
2490	36.45	-4.38	1.4	5240	37.93	-4.21	0.82	5600	37.95	-4.21	0.82
2500	36.72	-4.35	1.23	5250	38.23	-4.18	0.85	5610	37.74	-4.23	0.91
				5260	39.86	-3.99	0.97	5620	35.89	-4.45	0.65
				5270	32.52	-4.88	0.06	5630	38.11	-4.19	0.92
				5280	36.91	-4.33	0.62	5640	38.02	-4.2	0.91
				5290	38.69	-4.12	0.86	5650	39.22	-4.06	1.07
				5300	37.87	-4.22	0.46	5660	37.78	-4.23	0.63
				5310	36.25	-4.41	0.35	5670	37.21	-4.29	0.36
				5320	34.58	-4.61	0.32	5680	36.81	-4.34	0.21
				5330	32.11	-4.93	-0.27	5690	36.96	-4.32	0.52
				5340	40.59	-3.92	0.87	5700	37.66	-4.24	0.84
				5350	40.89	-3.88	0.89	5710	38.72	-4.12	0.78
				5360	40.02	-3.98	1.01	5720	35.53	-4.49	0.35
				5370	39.66	-4.02	1.11	5730	34.77	-4.59	0.19
				5380	39.28	-4.06	0.92	5740	34.3	-4.65	0.21
				5390	33.16	-4.79	0.07	5750	35.12	-4.54	0.36
				5400	40.5	-3.93	1.01	5760	35.81	-4.46	0.38
				5410	41.44	-3.83	1.22	5770	37.28	-4.29	0.75
				5420	35.79	-4.46	0.36	5780	34.07	-4.68	0.33
				5430	37.15	-4.3	0.89	5790	32.29	-4.91	0.11
				5440	36.98	-4.32	0.66	5800	32.54	-4.88	0.2
				5450	36.4	-4.39	0.53	5810	33.89	-4.7	0.42
				5460	36.19	-4.41	0.51	5820	34.67	-4.6	0.52
				5470	33.58	-4.74	0.15	5830	33.74	-4.72	0.74
				5480	33.89	-4.7	0	5840	32.99	-4.82	0.55
				5490	39.69	-4.01	0.95	5850	34.63	-4.61	0.43

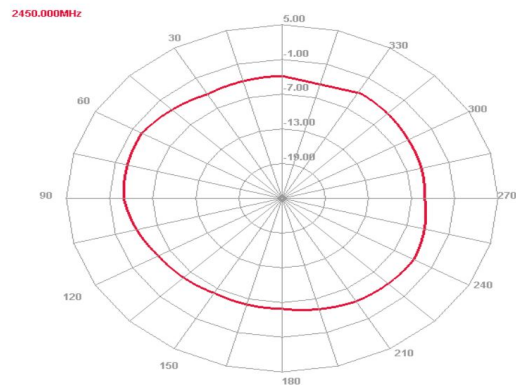


# BT/WIFI (2.4G) Antenna Pattern

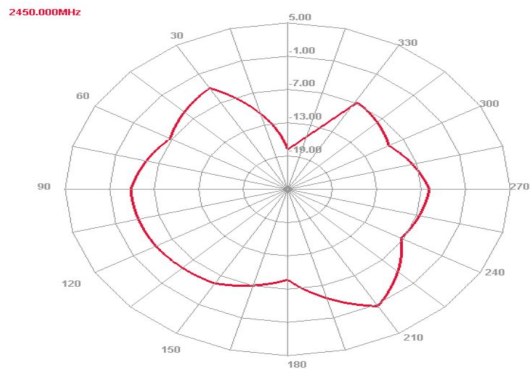
2450.000MHz



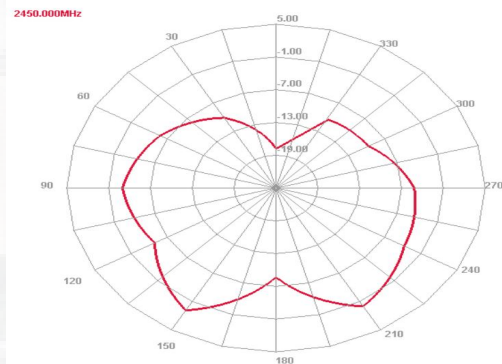
Horizontal



E1 Face



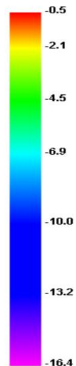
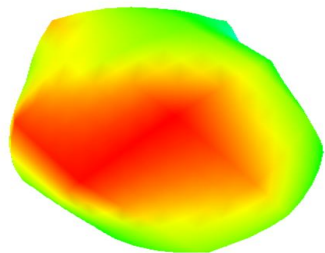
E2 Face





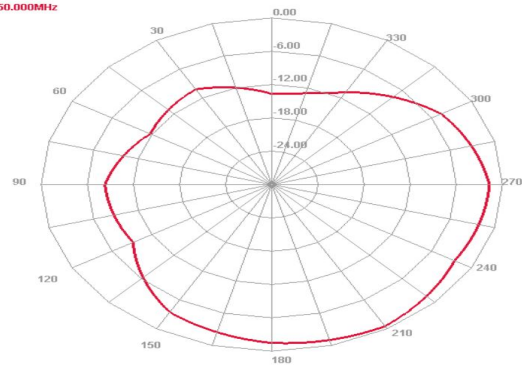
# WIFI (5G) Antenna Pattern

5150.000MHz



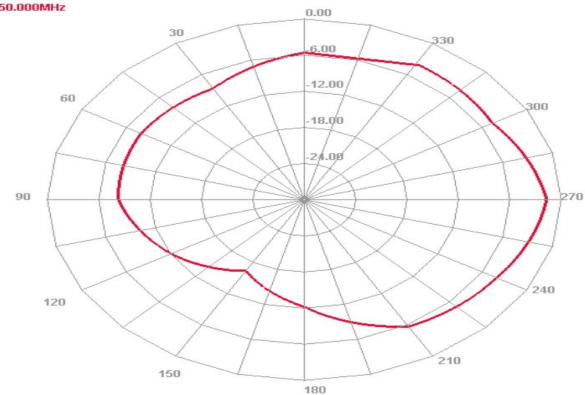
Horizontal

5150.000MHz



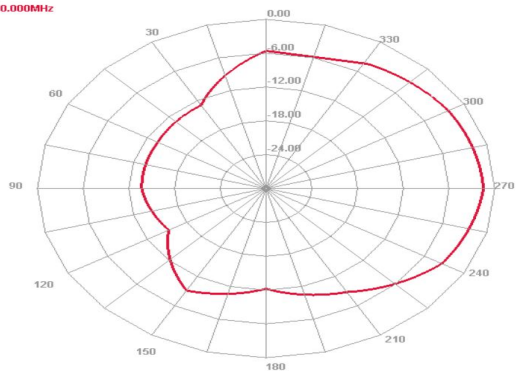
E2 Face

5150.000MHz



E1 Face

5150.000MHz





## BT/WIFI active data

WIFI				
BAND	CHANNEL	TRP	CHANNEL	TIS
2.4G-11B	1	12.26	1	-79.96
	6	13.39	6	-80.21
	11	12.71	11	-80.72
5G-A	40	10.49	40	-86.53
	56	10.48	56	-89.25
	157	10.29	157	-88.59

### BT

Talk and listen to music clearly without jamming  
distance of more than 10 meters



05

Antenna structural drawings



# antenna pattern

