

HONANT

Y11 Antenna RF R&D Report V1

The main purpose of this report is to conduct preliminary debugging of the antenna and obtain preliminary data through testing.

The main conclusions of this report are: the passive efficiency of this debugging is about 15%, and the head mode sensitivity is about -75dBm.

Key points of this report: None

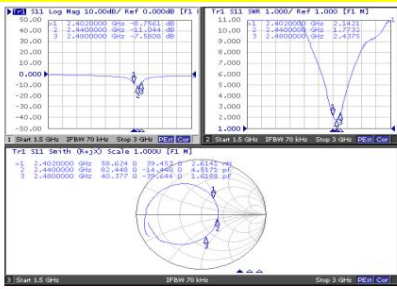
Motherboard chip transmission guide

Channel power sensitivity

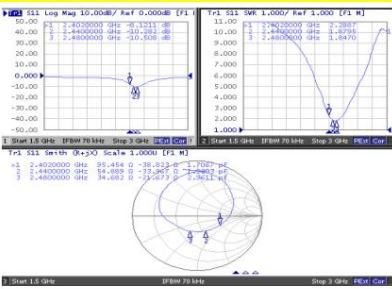
0	7.7	-90.5
39	7.9	-91
78	7.6	-91

Antenna impedance parameter test results

L



R



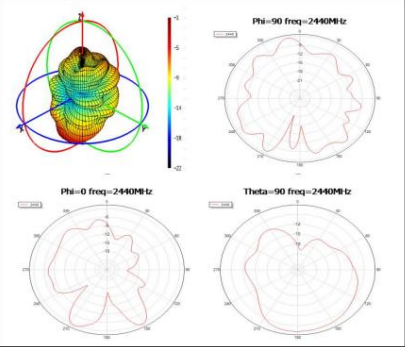
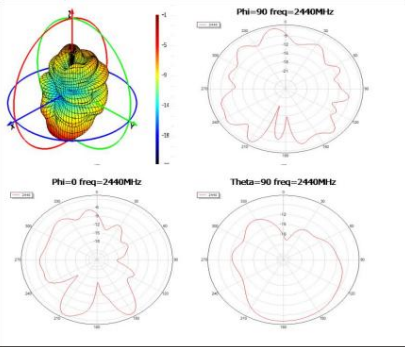
Antenna passive efficiency test results (with 3D & 2D directional diagrams)

L

Frequency MHz	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-2.8	-8.4	14.6
2410	-2.7	-8.4	14.4
2420	-2.7	-8.1	15.6
2430	-2.2	-7.9	16.1
2440	-2.0	-8.2	15.2
2450	-2.3	-7.9	16.2
2460	-2.4	-8.1	15.6
2470	-2.3	-8.1	15.4
2480	-2.5	-8.4	14.4
Average value	-2.43	-8.16	15.28

R

Frequency MHz	Gain (dBi)	Efficiency (dB)	Efficiency (%)
2400	-2.9	-8.0	15.7
2410	-2.6	-8.0	15.9
2420	-2.7	-8.2	15.1
2430	-2.5	-8.1	15.3
2440	-2.3	-7.8	16.6
2450	-2.1	-8.1	15.6
2460	-2.4	-8.2	15.1
2470	-2.2	-8.5	14.0
2480	-2.3	-8.7	13.4
Average value	-2.44	-8.19	15.19



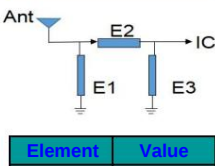
Active test data of the whole machine

Free Channel	TRP (dBm)	TIS (dBm)	
L	CH 0	-0.28	-80.62
	CH 39	0.55	-81.67
	CH 78	-0.62	-83.09
Head model Channel	TRP (dBm)	TIS (dBm)	
L	CH 0	-7.15	-74.45
	CH 39	-6.88	-74.89
	CH 78	-7.27	-75.52

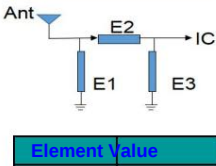
Free Channel	TRP (dBm)	TIS (dBm)	
R	CH 0	-0.77	-80.54
	CH 39	0.83	-82.16
	CH 78	-0.27	-82.68
Head model Channel	TRP (dBm)	TIS (dBm)	
R	CH 0	-7.62	-74.51
	CH 39	-7.59	-75.52
	CH 78	-7.14	-75.17

Antenna matching circuit

L



R



E1	N/C
E2	0y
E3	N/C

E1	N/C
E2	0y
E3	N/C

Environmental treatment



The batteries are placed as shown on the left.

Measured results

Test phone: Samsung S6
Distance 12 meters
Test site Huaqiang Ecological Park
Tester Peng Jianfeng

Summary

The passive efficiency of this debugging is about 15%, and the head mode sensitivity is about -75dBm.

Ant Structure

