



深圳市昱晟通讯设备有限公司

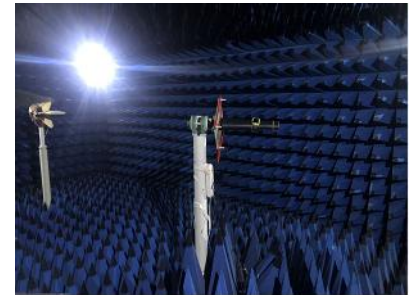
Yusheng Communications-equipment Co.,LTD

Felion LS2201 Whole machine test report

RF: 贺磊

Date: 2022-7-1

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1

Introduction to project debugging

2

Report version outline

3

Antenna active parameters

4

Antenna passive parameters

5

Antenna environment treatment and improvement

6

Summary & Additional Notes



Introduction to project debugging

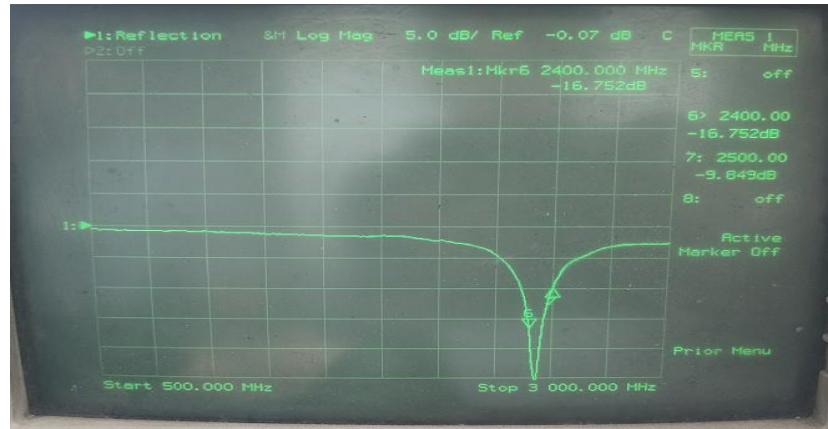
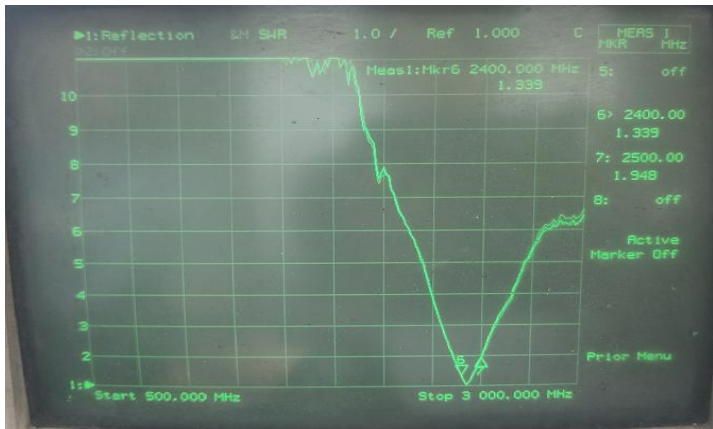
Model description:	Smart home_Smart light strip			
Motherboard model:				
Band and antenna material		Band		Material
	Main antenna	WIFI	2.400-2.500GHz	Onboard
The debugging phase	Active test reports			



Report version outline

Report version	Reporting time	The problem solved by this antenna research and development
V0.1	2022-7-1	Whole machine test report

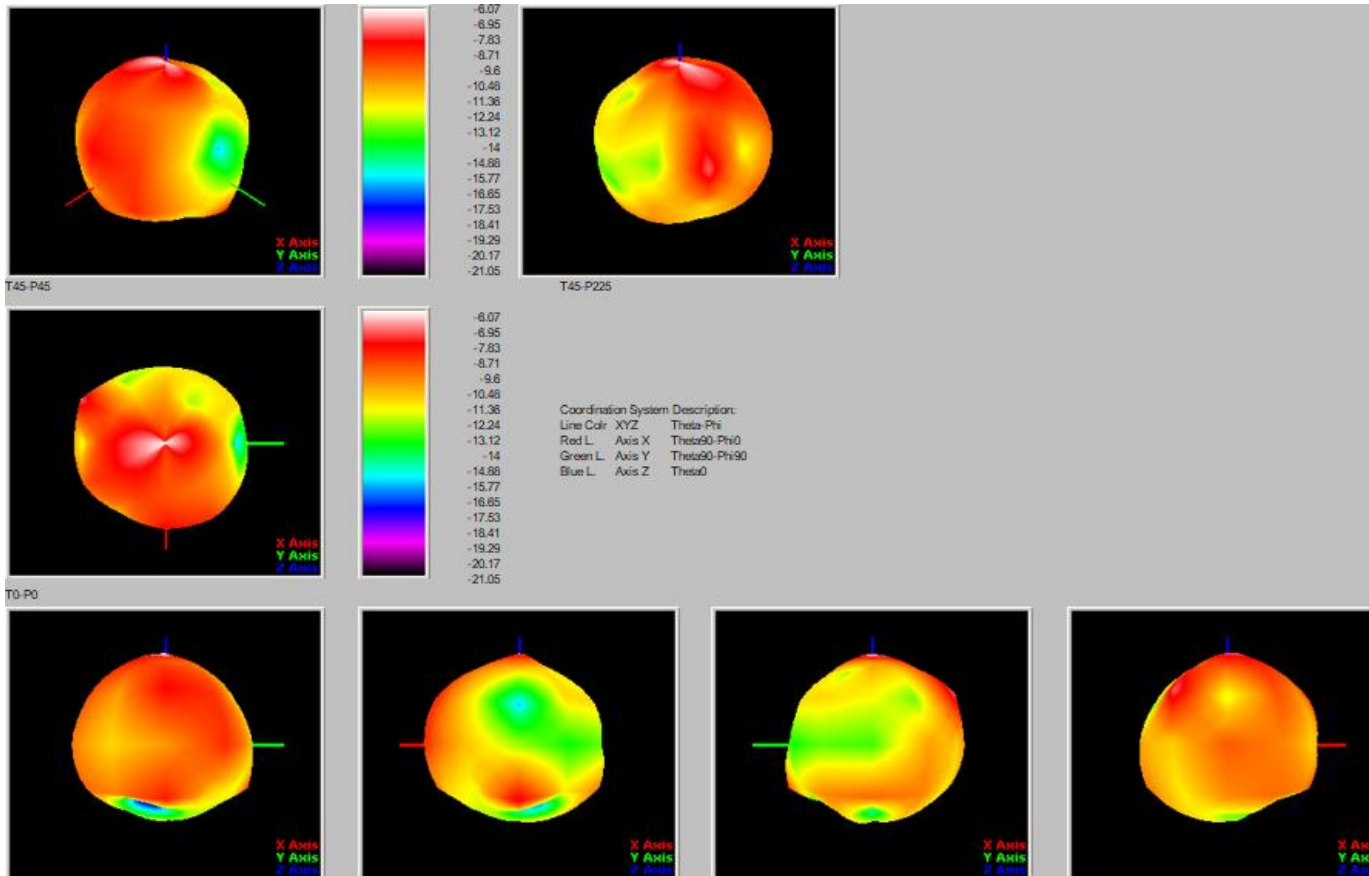
Antenna passive parameters (Picture file LOGMAG+VSWR+SMITH)



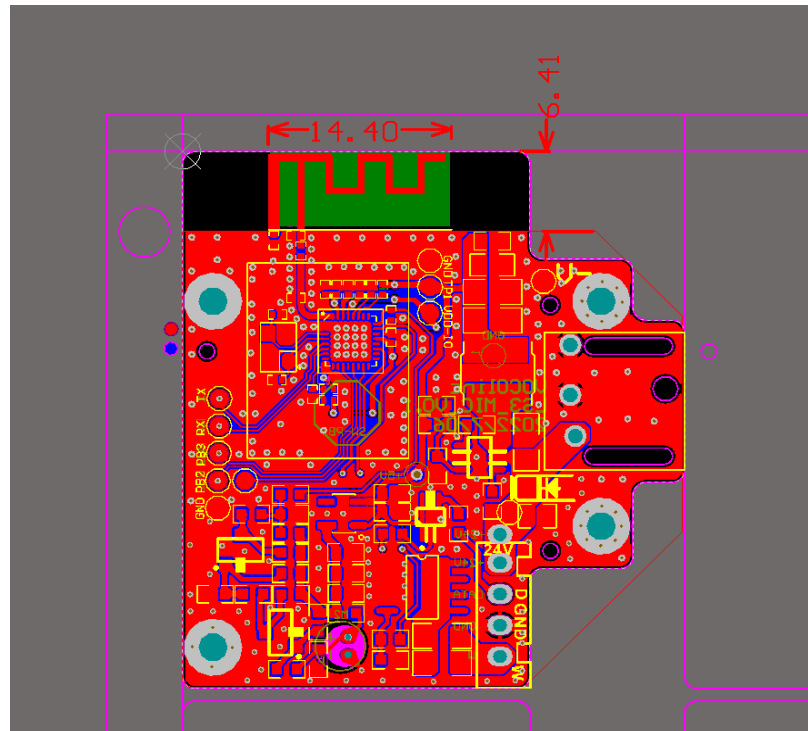
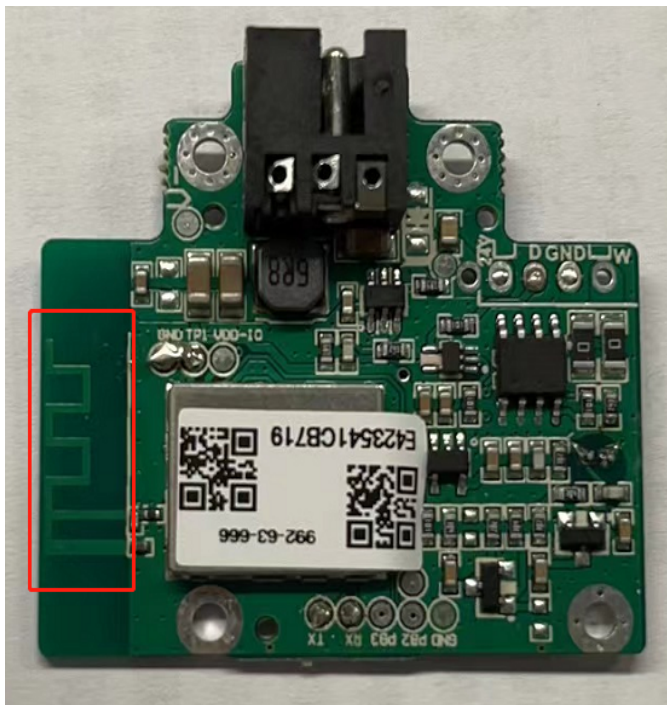
Antenna passive parameters—efficiency

Test Point ID	1	2	3	4	5	6	7	8	9	10	11
Freq. (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	1.55	1.69	1.77	1.85	2.03	2.15	1.89	1.81	1.68	1.63	1.52
Efficiency (%)	45.8%	46.9%	47.7%	49.1%	50.4%	51.4%	50.1%	48.5%	47.4%	46.8%	45.7%

Antenna passive map



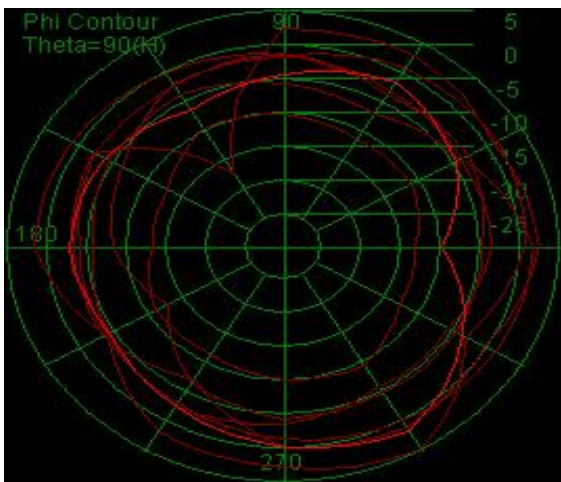
Antenna photos and antenna dimensions



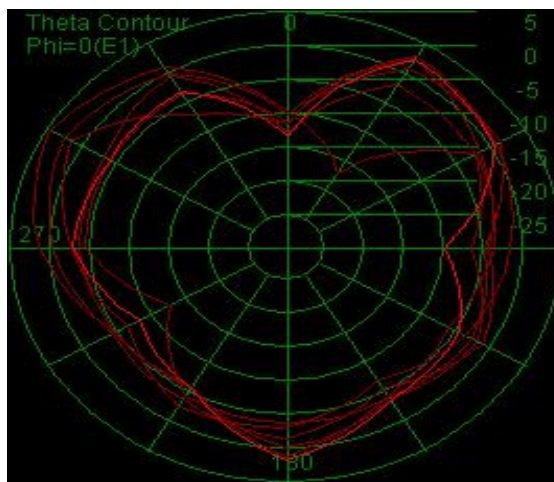
Antenna passive scene diagram

2.4GHz Directional map

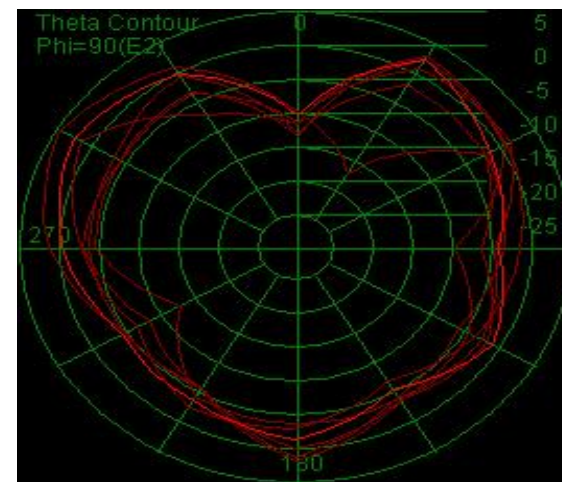
Horizontal plane
XY axis



Vertical face
XZ axis



Vertical face
YZ axis



Antenna active parameters-1#

Test	2.4WIFI B (11M)			2.4WIFI G (54M)		
Result	1	6	11	1	6	11
TRP (dBm)	13.42	13.52	13.63	12.04	11.57	11.32
TIS (dBm)	-84.23	-83.17	-84.04	-69.24	-69.38	-68.62

Test	2.4WIFI N (MCS7)		
Result	1	6	11
TRP (dBm)	11.17	11.22	11.49
TIS (dBm)	-67.74	-67.55	-67.31