



SPECIFICATION FOR APPROVAL

承認書

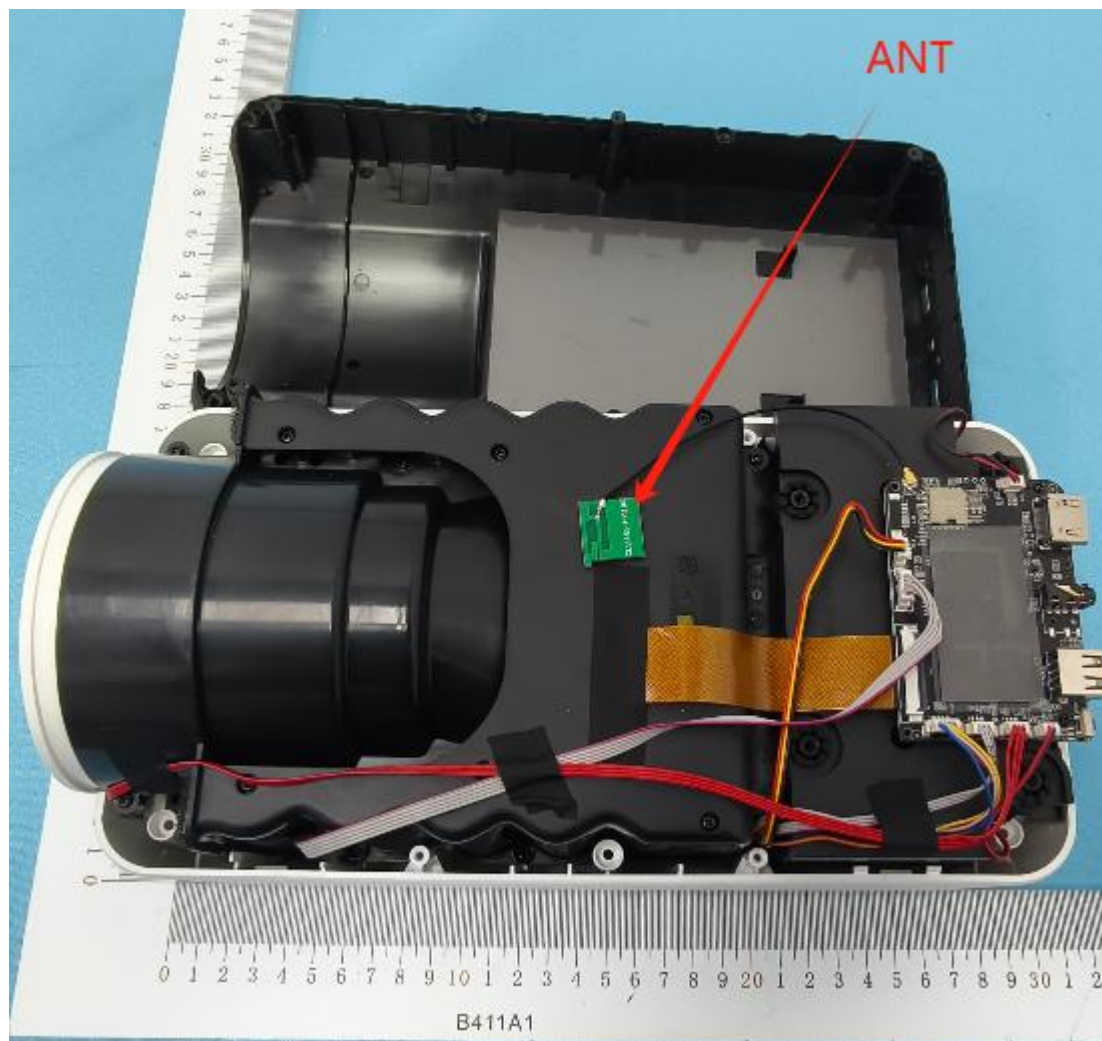
Customer Name	GuangDong SINOY Smart Technology CO., LTD
Product name	BT+WIFI ANT
Product number	05WIFIPCB800004
Prepared By	Tony-Men
Checked By	
Approved By	
Apply Date	2024 年 11 月 2 日

CUSTOMER SIGNATURE		
Prepared By	Checked By	Approved By
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频率范围 Frequency range	2400 ~ 2500 MHz 5150 ~ 5850 MHz
增益 Gain	3.75 dBi/Max@2400 ~ 2500 MHz 6.79dBi/Max@5150 ~ 5850 MHz
驻波比系数 VSWR	2.0/Max@2400 ~ 2500 MHz 2.0/Max@5150 ~ 5850 MHz
输入阻抗 Input Impedance	$50 \pm 5 (\Omega)$
极化方式 Polarization	垂直极化 Vertical Polarization
半功率波束 (3dB) HPW	180° H-plane 120° E-plane

Antenna location





Revision History

Date	Revision	Description of Changes
2024-11-2	RA	Measured with WIFI 2.4GHz/5.8GHZ antenna sample.

1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the WIFI 2.4GHz/5.8GHZ antenna program. We test the antenna with the latest version handset. And it seems to be acceptable.

2 General Description

2.1 Components/Part revisions

VSWR: Voltage Standing Wave Rate.

3 Mechanical Description

4 Electrical Performance

4.1 Set-up

4.1.1 VSWR

VSWR measurements (S11) were performed using an Agilent 8753D Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

4.1.2 Gain & Radiation Patterns

The gain of the antenna was measured in the Lxc's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 300 MHz through 6 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

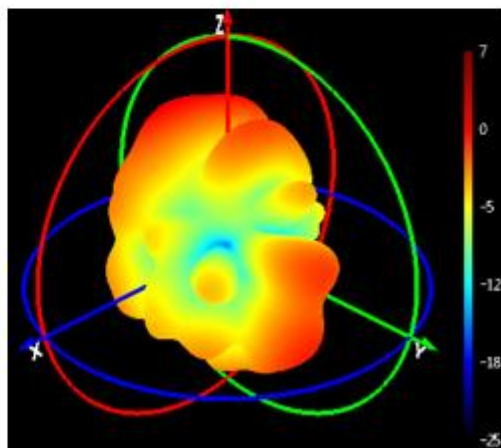
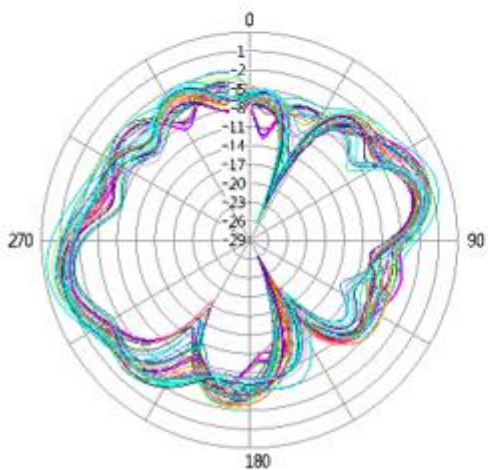
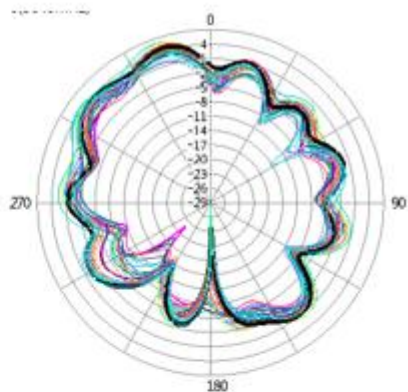
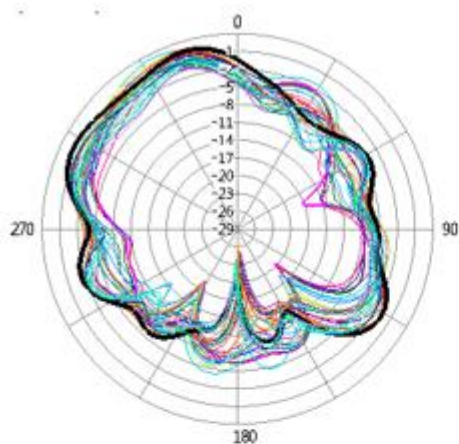
4.1.3 Matching Circuit Description

No changed..



4 Antenna - Radiation Pattern Test Data

频率(MHz)	增益(dBi)	效率(dB)	效率(%)
2400	3.43	-3.04	49.61
2410	3.75	-2.82	52.24
2420	2.98	-3.12	48.72
2430	2.53	-3.42	45.50
2440	2.71	-3.21	47.72
2450	2.95	-3.03	49.75
2460	2.78	-3.03	49.81
2470	2.51	-3.30	46.75
2480	2.01	-3.59	43.72
2490	2.30	-3.45	45.14
2500	2.48	-3.20	47.90
5150	4.63	-2.97	50.41
5220	4.70	-2.90	51.26
5240	4.07	-3.54	44.24
5260	3.95	-3.52	44.50
5280	3.12	-4.16	38.36
5300	4.80	-2.37	57.90
5320	6.32	-0.89	81.50
5340	4.51	-2.61	54.84
5360	5.58	-1.75	66.77
5380	6.33	-1.07	78.20
5400	5.74	-1.73	67.13
5420	5.75	-1.88	64.88
5440	4.54	-3.05	49.53
5460	4.01	-3.35	46.28
5480	4.20	-3.38	45.91
5500	3.99	-3.74	42.24
5520	5.05	-2.70	53.76
5540	4.77	-2.88	51.52
5560	4.91	-2.92	51.00
5580	6.21	-1.69	67.70
5600	5.52	-2.64	54.42
5620	5.56	-2.60	54.94
5640	6.61	-1.96	63.62
5660	5.52	-2.63	54.58
5680	5.69	-2.63	54.64
5700	6.00	-2.36	58.11
5720	5.87	-2.48	56.48
5740	5.37	-3.04	49.62
5760	5.18	-3.25	47.35
5780	5.30	-3.12	48.78
5850	6.79	-2.05	62.34





5.Plots

VSWR

注：1 驻波系数的标准值

2 回损的标准值



序号	频率	驻波	回损
1	2.4GHz	1.9065	-9.1742
2	2.45GHz	1.8546	-10.126
3	2.5GHz	1.3755	-16.423
4	5.2GHz	1.6008	-12.622
5	5.84GHz	1.5088	-14.010



6.Mechanical drawing

