



Shenzhen Lxc Electronics Technology Co ., Ltd

APPROVAL SHEET
For
CE LINK LIMITED
BELL-14SC-WT Project
A02520005004
Antenna componentst

Frequency range	WIFI:2400-2500 (MHz)
VSWR	<2.0
Input Impedance	50 (Ω)
Polarization	Vertical Polarization
(3dB) HPW	180° H-plane 120° E-plane
Antenna type	WIFI antenna (Built-in PCB antenna)
Antenna gain MAX (dBi)	3.01dBi
Antenna supplier	Shenzhen Lxc Electronics Technology Co ., Ltd
Antenna Model	LXC-PCB-088

RF by		Checked by	
ME by		Date	2023-10-12
Customer Confirm			

Project:WIFI antenna		Author: Zhu	File Name: A02520005004-APP-RA
Date: 2023-10-12			
TEST:	Language:	Check: Wang	
A	English		
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Revision History

Date	Revision	Description of Changes
2023-10-12	RA	Measured with PCB sample.

1 TECHNICAL SUMMARY	3
2 GENERAL DESCRIPTION	3
2.1 Components/Part revisions.....	3
3 MECHANICAL DESCRIPTION.....	3
4 ELECTRICAL PERFORMANCE.....	3
4.1 Set-up.....	3
4.1.1 VSWR	3
4.1.2 Gain & Radiation Patterns.....	3
5 PLOTS	4
6 MECHANICAL DRAWING.....	6
7 RELIABILITY TESTS.....	7
7.1 Test content.....	7
7.2 Test results	7
8 CONCLUSION	7

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1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the Built-in WIFI 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 (S21) 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.

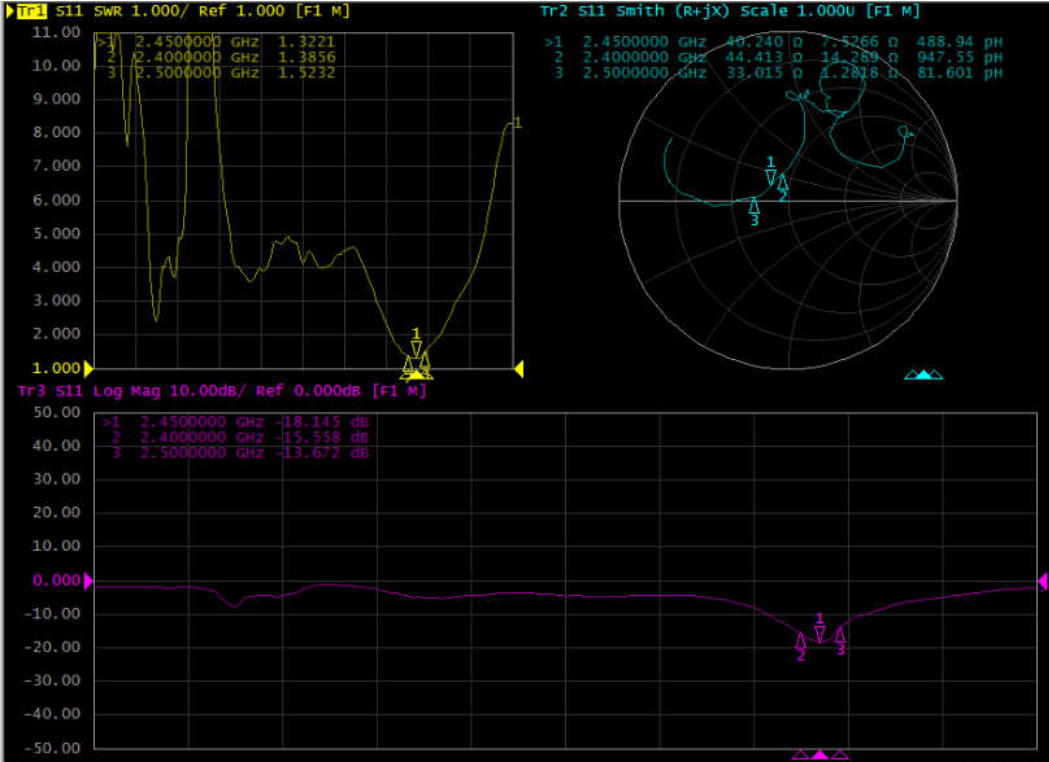
4.1.2 Gain & Radiation Patterns

The gain of the antenna was measured in the HUMAN's anechoic chamber. Coaxial chokes on the feed cable were used to mitigate surface currents. The chamber provides less than -30 dB reflectivity from 800 MHz through 3 GHz and an 18" diameter spherical quiet zone. The measurement results are calibrated using both dipole and leaky wave horn standards.

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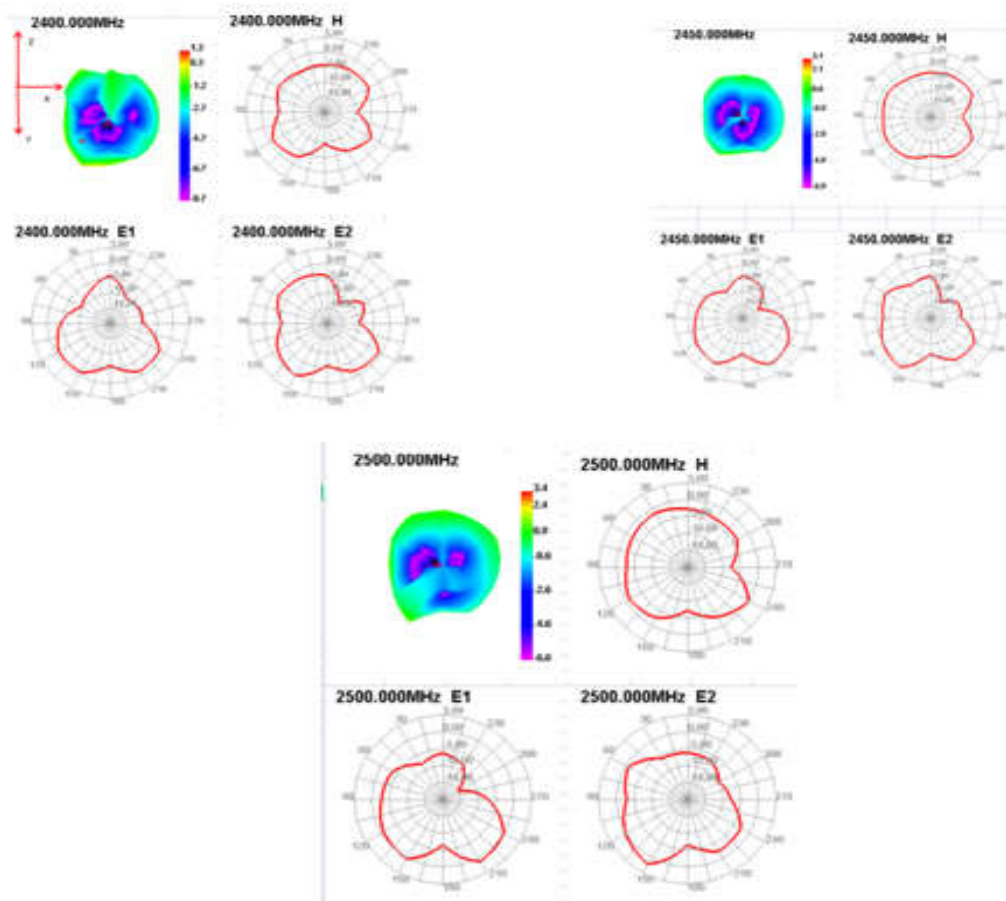
5 Plots

2400-2500 (MHz)



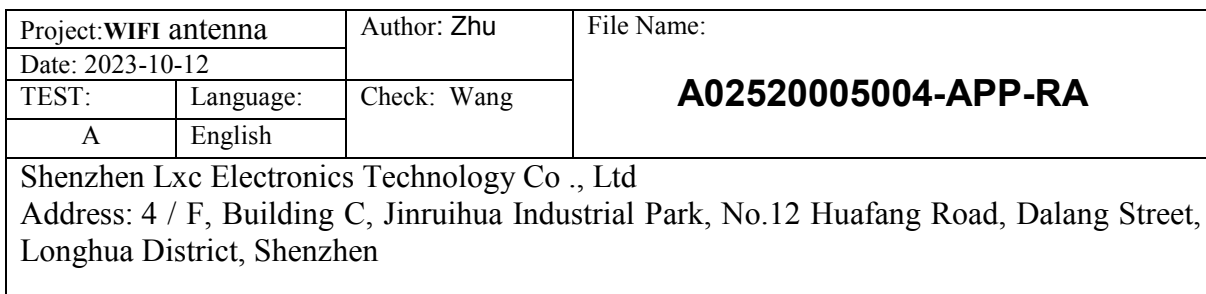
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	32.75	-4.85	0.56
2410	33.23	-4.79	0.88
2420	32.12	-4.93	0.95
2430	35.39	-4.51	1.55
2440	41.53	-3.82	2.43
2450	46.34	-3.34	2.92
2460	47.84	-3.2	3.01
2470	44.56	-3.51	2.67
2480	45.09	-3.46	2.76
2490	46.26	-3.35	2.96
2500	47.5	-3.23	3.11

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MD



7 Reliability tests

7.1 Test content

No	Test item	Test method	Standard of criterion
1	Salt spray test	Spray a 5% salt solution 48HR	There can be no discoloration, distortion (deformation) fall off and other shortcomings of the corrosion area can not be too large
2	Operational Temperature	-40℃~+65℃	
3	Storage Temperature	-50℃~+85℃	
4	Humidity	40%~95%	

7.2 Test results

NO	Sample number	Test time	Test rsdults	Remark
1	50	24HR	OK	The technical level is 9 Corrosion <0.4mm
2	50	48HR	OK	The technical level is 9 Corrosion <0.4mm

8 Conclusion

From the above test results, we can know the electrical performance of the antenna is seems good.

Shenzhen Lxc Electronics Technology Co ., Ltd ,look forward to your confirmation,
thank you for your cooperation !

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