

Shenzhen Lxc Electronics Technology Co ., Ltd

APPROVAL SHEET

Acknowledgment Letter

(Customer) : ino era
(Product) : 2.4G/5.8G-WIFI Antenna (L=60MM)
(Model) : LXC1BL60202411200002
(Part Number) : YN-PM0300493
(Written By) : Tang Hongjiao
(Issued Date) : 2024-11-20

CUSTOMER

(Frequency range)	WIFI:2400-2500 5150-5850 (MHz)
(VSWR)	<2.0
(Input Impedance)	50 (Ω)
(Polarization)	Vertical Polarization
(3dB) HPW	180° H-plane 120° E-plane
(Antenna type)	FPCantenna (Built-inWIFI antenna antenna)
(Antenna gain MAX (dBi)	5dBi+/-1
(Antenna supplier)	Shenzhen Lxc Electronics Technology Co ., Ltd
(Antenna Model)	Y7-PM0300493

RF by		Checked by	
ME by		Date	
Customer Confirm			

8Project:		Author:Wang	File Name: Y7-PM0300493
Date: 2024-11-20			
TEST:	Language:	Check: Zhong	
A	English		
address; location: Address:Floor 4, Building C, Jinruihua Industrial Park, No.12 Huafang Road, Dalang Street, Longhua District, Shenzhen Phone: 0755-29195258 FAX: 0755-29590286 Shenzhen Lxc Electronics Technology Co ., Ltd			

Revision History

Date	Revision	Description of Changes
2024-11-20	RA	Measured with SUS301 sample.

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1 Technical Summary

This report summarizes the electrical results of the proposed antenna to support the 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.

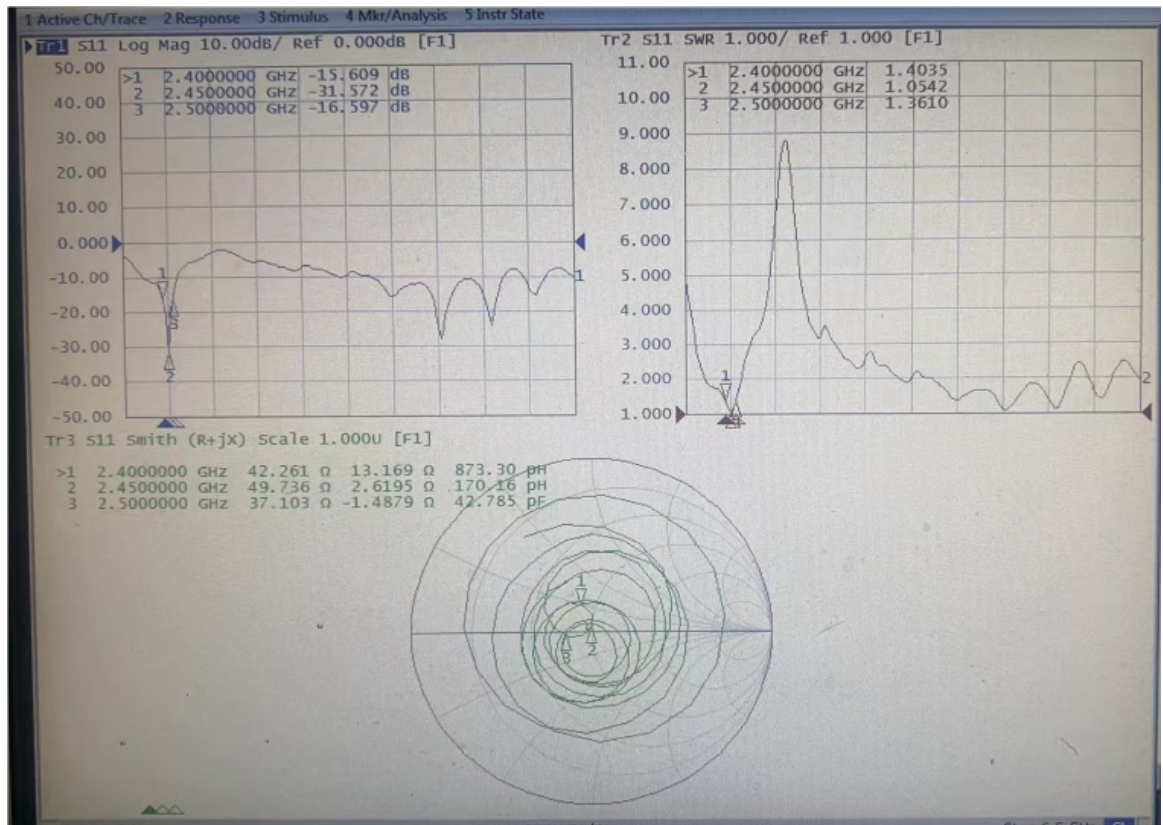
4.1.2 Gain & Radiation Patterns

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 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.

4.1.3 Matching Circuit Description



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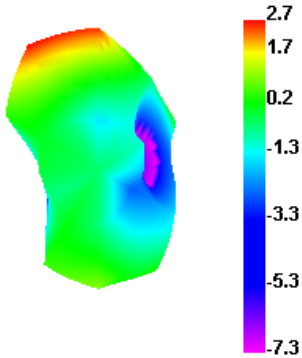
4.2 Measurement Data

4.2.1 Active result (WIFI)

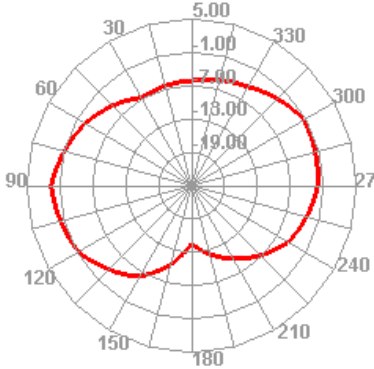
Freq	Effi	Gain
(MHz)	(%)	(dBi)
2400	51.59	2.67
2410	51.72	2.66
2420	50.55	2.5
2430	50.26	2.36
2440	52.61	2.47
2450	53.09	2.2
2460	54.37	1.9
2470	54.77	1.41
2480	54.01	1.42
2490	51.7	1.34
2500	51.41	1.23

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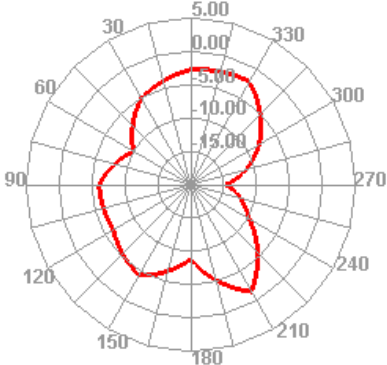
2400.000MHz



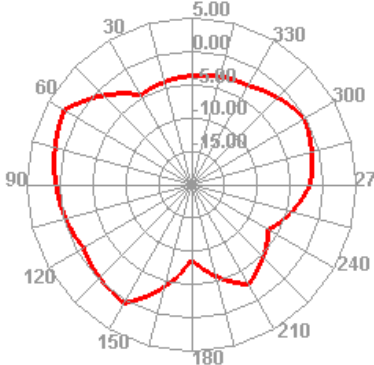
2400.000MHz H



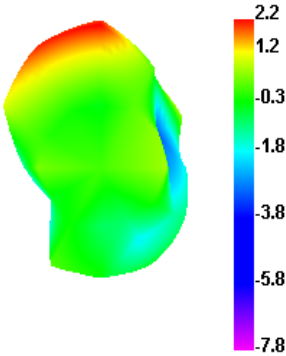
2400.000MHz E1



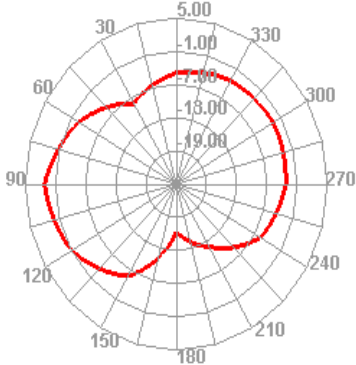
2400.000MHz E2



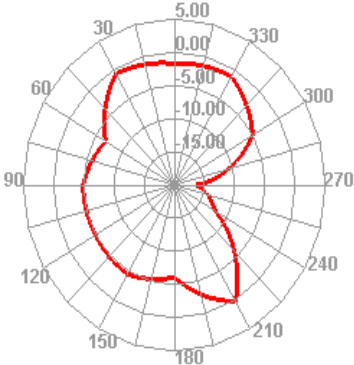
2450.000MHz



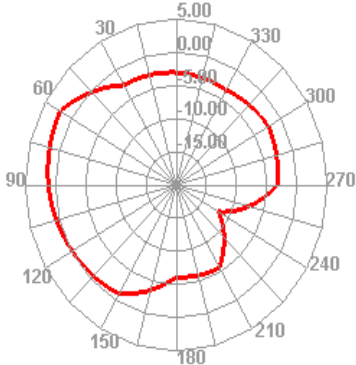
2450.000MHz H



2450.000MHz E1

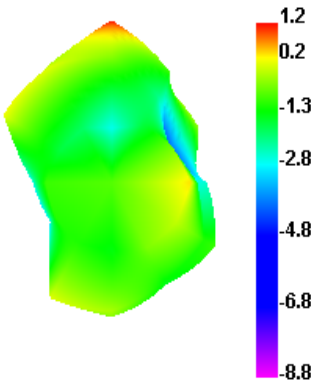


2450.000MHz E2

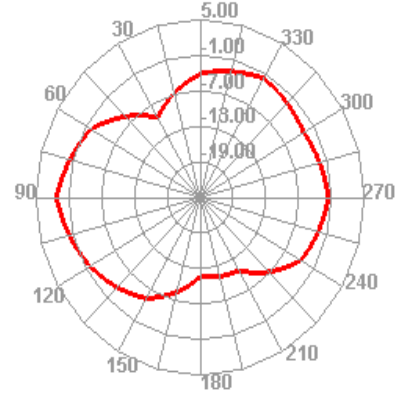


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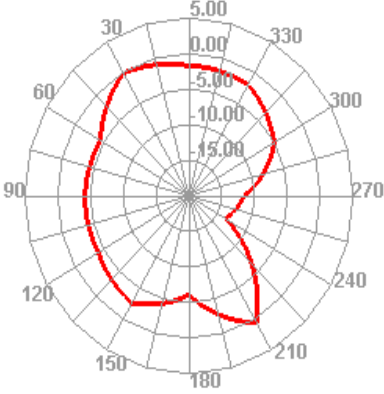
2500.000MHz



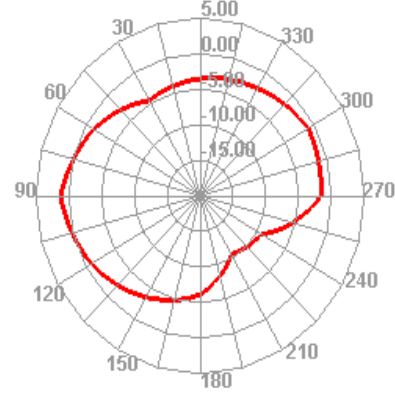
2500.000MHz H



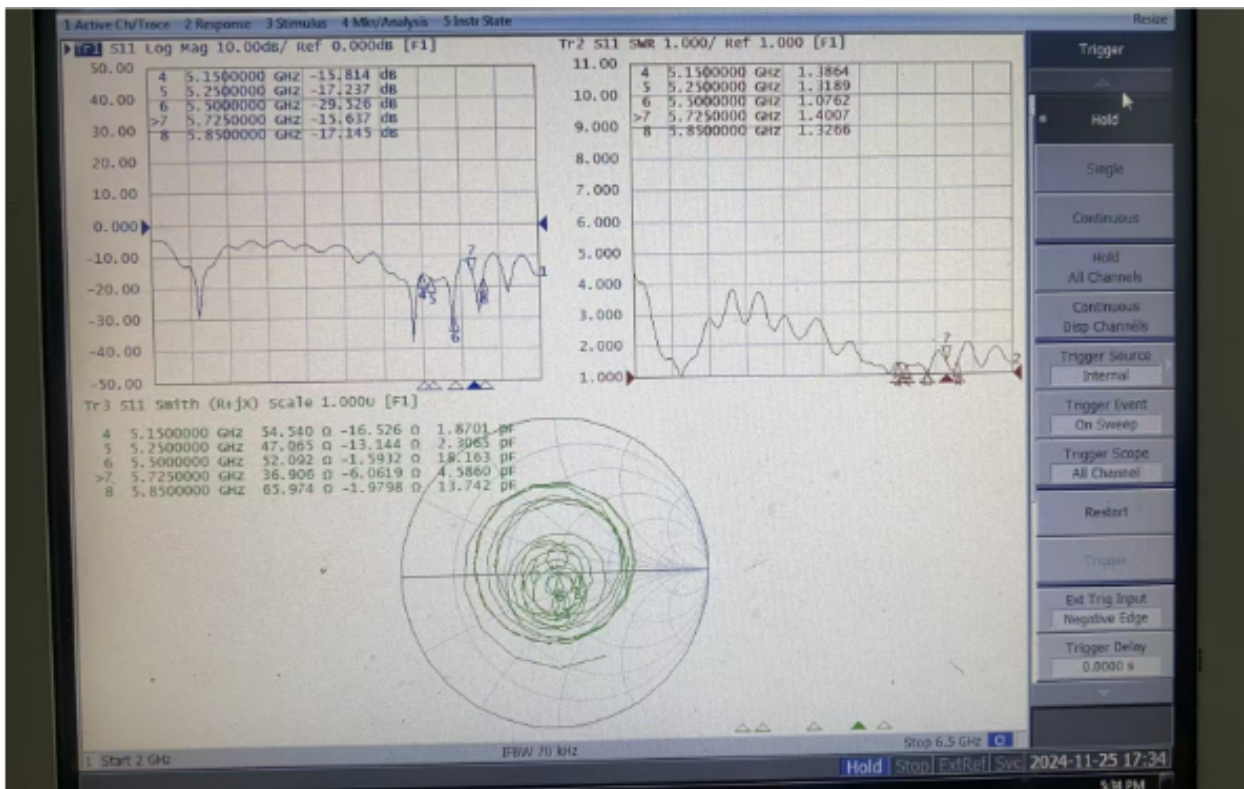
2500.000MHz E1



2500.000MHz E2



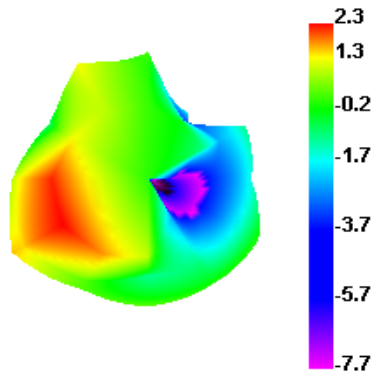
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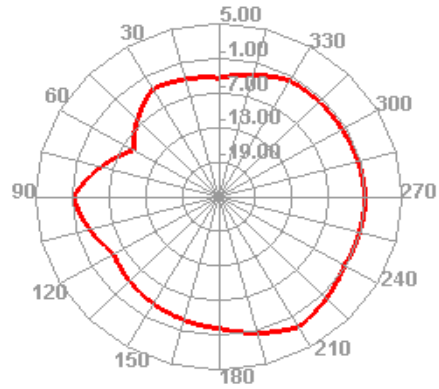
Freq (MHz)	Effi (%)	Gain (dBi)
5150	50.25	2.27
5350	50.36	2.08
5550	51.47	2.09
5650	52.30	3.37
5850	52.15	4.72

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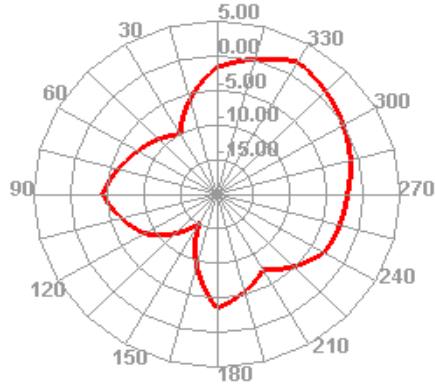
5150.000MHz



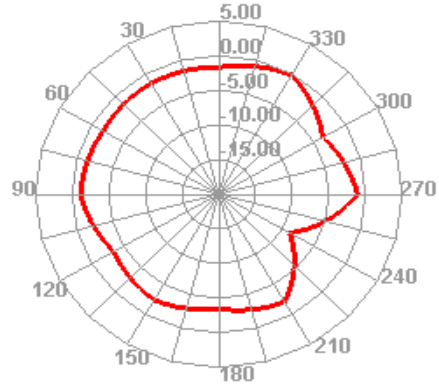
5150.000MHz H



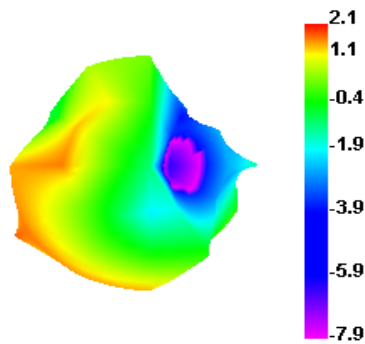
5150.000MHz E1



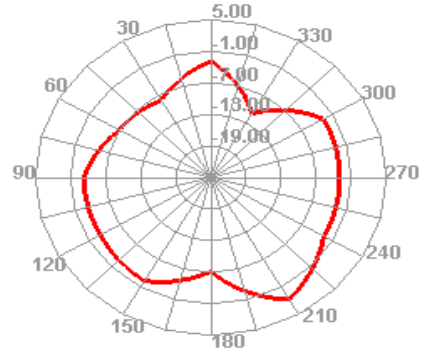
5150.000MHz E2



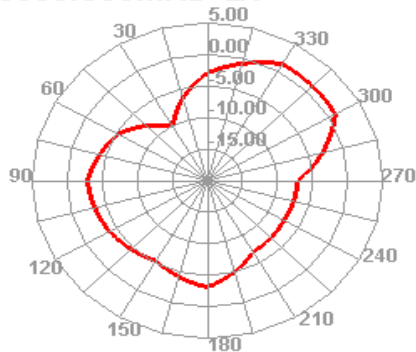
5500.000MHz



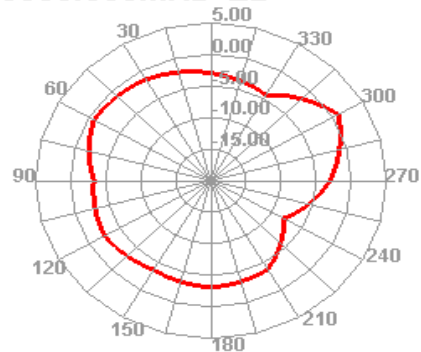
5500.000MHz H



5500.000MHz E1

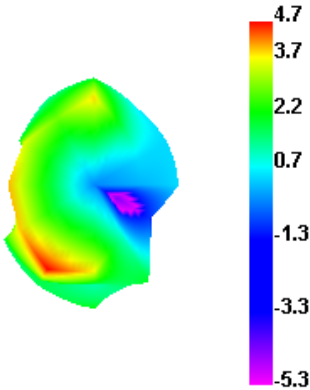


5500.000MHz E2

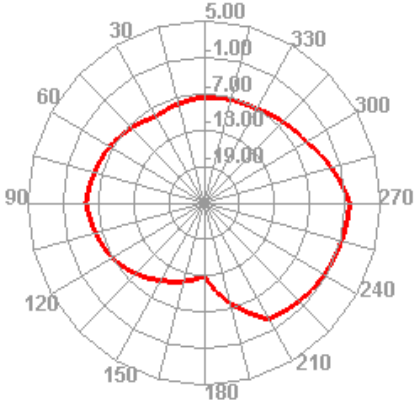


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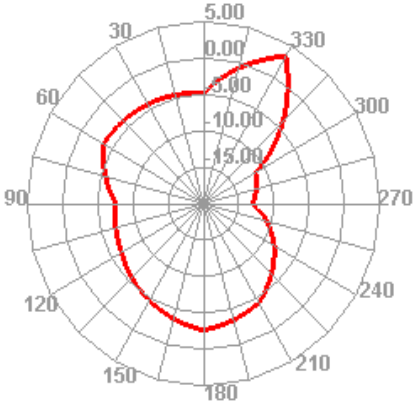
5850.000MHz



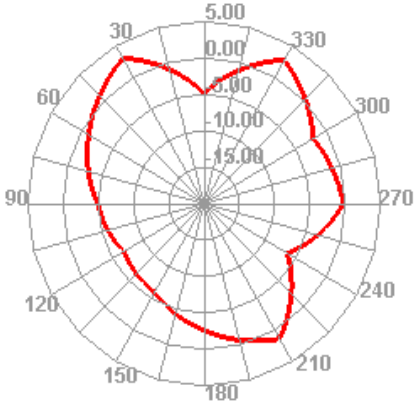
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



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6 Mechanical drawing

[illegible]

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7 Reliability tests

7.1 Test content

No	Pilot projects	Test method	Benchmark
1	Salt water spray test	A solution of 5% salt was sprayed for 48HR	Can not have discoloration, slanting (deformation) off and other shortcomings, corrosion area can not be too large

7.2 Test results

NO	Number of samples	During the trial	The results of the experiment	Notes
1	50	24 hour	OK	The technical grade is grade 9 corrosion & LT; 0.4 mm
2	50	48 hour	OK	The technical grade is grade 9 corrosion & LT; 0.4 mm

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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