

# 样品承认书

## Confirmation of products

客户名称 Customer	Shenzhen Innioasis Technology Co.,Ltd				
项目名称 Project Name	MX4	版本 Version	A. 1	日期 Date	2025-09-01
项目料号 Project NO.	05. 16. 01. 0001	客户料号 Customer NO.			
频段 Frequency Range	2400~2500MHz 5100~5800MHz	备注 Notes	版本号： V3.0		
设计 Designed By					
审核 Approved By					
客户确认 Clients’ Approval					

公司名称： 深圳市林荣科技有限公司  
Designer: SHENZHEN LINRONG TECHNOLOGY CO.,LTD

地址： 深圳市龙华区大浪街道华荣路联建工业园 1 栋 3 楼  
ADD: Floor 3, building 1, LianJian Industrial Park, Huarong Road, Dalang street, Longhua District, Shenzhen

## Index

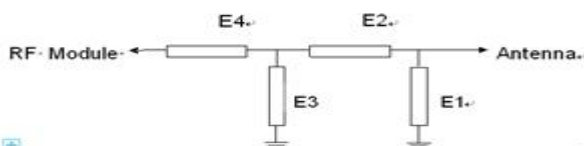
<b>1. Specifications</b>	<b>3</b>
<b>2. Electric specifications</b>	<b>3</b>
<b>2-1 Matching circuit diagram</b>	<b>3</b>
<b>3. VSWR Testing</b>	<b>3</b>
<b>3-1 Testing connection</b>	<b>3</b>
<b>3-2 VSWR</b>	<b>3</b>
<b>3-3 Testing data</b>	<b>4</b>
<b>4. Test the efficiency of the antenna</b>	<b>4</b>
<b>4-1 Testing field</b>	<b>4</b>
<b>4-2 Testing results</b>	<b>5</b>
<b>5. Environmental treatment</b>	<b>6</b>
<b>6. Mechanical Dimension Drawing</b>	<b>7</b>
<b>7. Mechanical Dimension Testing report</b>	<b>8</b>
<b>8. Packaging standard</b>	<b>9</b>

# 1、Specification

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna ----MX4 Picture 1 shows the antenna designed by LR.



## 2 、 Matching circuit diagram



Element	Value
E1(0201)	
E2(0201)	0欧姆
E3(0201)	
E4(0201)	0欧姆

## 3、 VSWR Testing

### 3.1 Testing connection

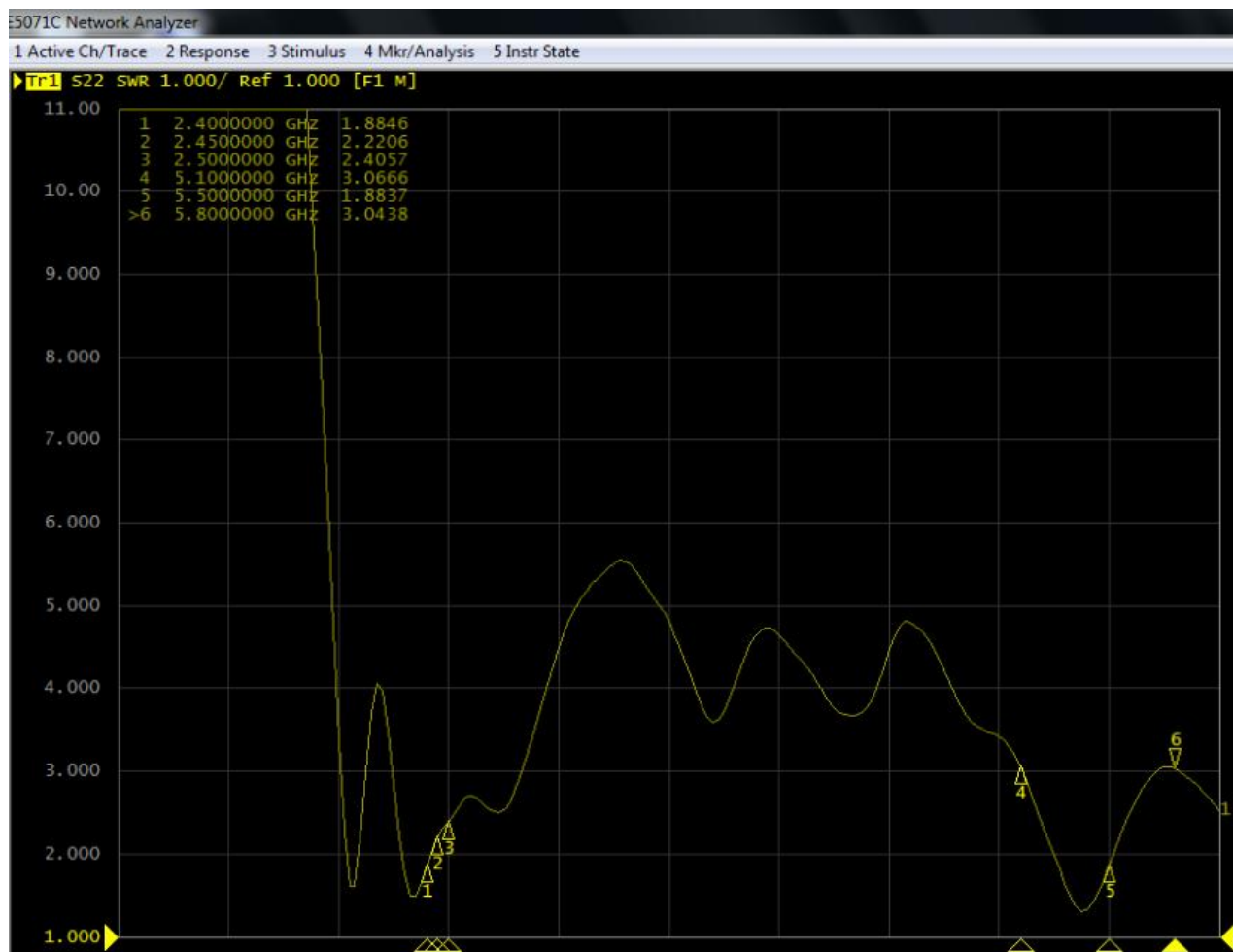
The VSWR testing devices are connected in sequence: Agilent5071C Network Analyzer →Testing Cable → Customer-providing Devices.

### 3.2 VSWR

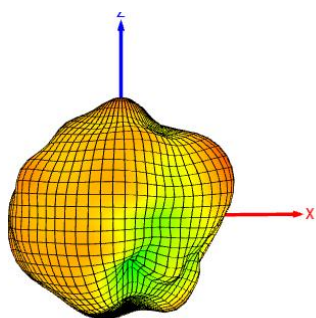
The following table expresses the VSWR value of antenna's two edges of its frequency range. With regard to the relevant diagram of VSWR

MX4 WIFI VSWR						
Frequency (MHz)	2400	2450	2500	5100	5500	5850
VSWR	1.88	2.22	2.40	3.06	1.88	3.04

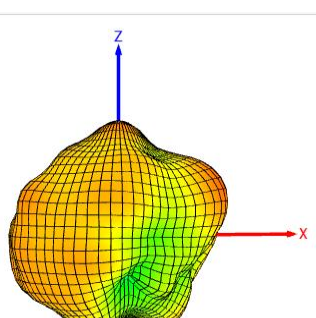
### 3.3 Testing data



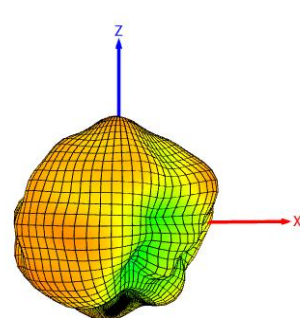
MX4 antenna VSWR



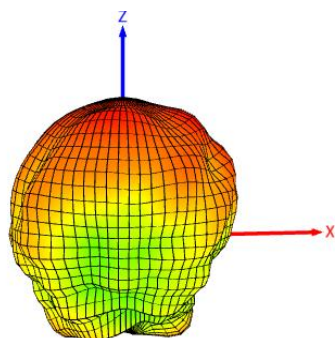
2400MHz



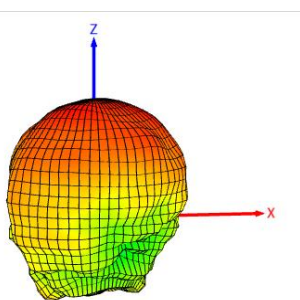
2450MHz



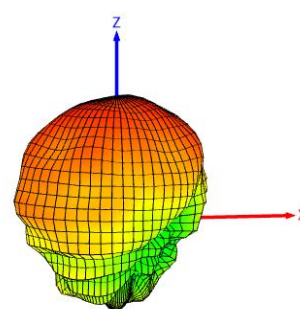
2500MHz



5100MHz



5500MHz



5800MHz

## 4、Test the efficiency of the antenna Testing

### 4.1 Testing field

LR Microwave Anechoic Chamber : testing frequency ranges from 400MHz to 6GHz and the 40cm diameter spherical quiet zone, the chamber provides less than -90dB reflectivity from 400MHz—6GHz.

### 4.2 Testing results

The following table indicates the testing results related to Power and Sensitivity in Microwave Anechoic Chamber, concerning the relative diagram.

The following are the passive test data of the MX4 antenna::

Freq(MHz)	Gain(dBi)	Efficiency(%)	Freq(MHz)	Gain(dBi)	Efficiency(%)
2300	-1.15	31.45	5160	0.40	21.60
2310	-1.12	31.13	5180	0.30	21.32
2320	-1.11	31.12	5200	0.22	20.31
2330	-1.14	31.15	5220	0.10	19.85
2340	-1.12	30.92	5240	0.29	20.42
2350	-1.16	30.54	5260	0.27	19.99
2360	-1.17	30.41	5280	0.36	19.96
2370	-1.23	30.40	5300	0.09	21.15
2380	-1.39	30.47	5320	0.37	21.88
2390	-1.41	31.51	5340	0.66	23.07
2400	-1.49	32.56	5360	0.70	24.26
2410	-1.41	32.72	5380	0.74	25.61
2420	-1.24	33.10	5400	0.99	26.69
2430	-1.13	33.04	5420	1.24	27.33
2440	-1.08	32.89	5440	1.32	27.49
2450	-1.04	32.58	5460	1.45	27.54
2460	-1.01	32.21	5480	1.57	27.54
2470	-1.03	31.85	5500	1.48	27.01
2480	-1.02	31.34	5520	1.31	27.01
2490	-1.11	30.78	5540	1.10	26.94
2500	-1.12	30.62	5560	1.17	27.42
2510	-1.10	30.18	5580	1.14	27.01
2520	-1.28	29.25	5600	1.36	26.31
2530	-1.52	28.34	5620	1.51	25.35
2540	-1.64	27.55	5640	1.59	25.03
2550	-1.78	26.22	5660	1.40	24.20
2560	-1.97	24.95	5680	0.92	22.96
2570	-2.18	24.46	5700	0.55	22.09
2580	-2.44	23.60	5720	0.07	20.85
2590	-2.67	22.61	5740	0.17	19.96
2600	-2.96	21.87	5760	0.30	19.13
5100	0.89	23.78	5780	0.48	18.70
5120	0.65	22.75	5800	0.52	18.16
5140	0.44	21.97			

MX4 Active data:

WIFI	CH	Data Rate	24#Gigantic display		WIFI	CH	Data Rate	22#Gigantic display	
			TRP	TIS				TRP	TIS
11b	1	11	10.05	-79.18	11b	1	11	11.48	-80.77
	6	11	10.54	-80.07		6	11	11.74	-81.63
	11	11	10.74	-78.46		11	11	11.78	-81.38
11N	1	MCS7	8.26	-63.13	11N	1	MCS7	9.62	-64.91
	6	MCS7	8.73	-64.01		6	MCS7	9.94	-65.48
	11	MCS7	8.98	-62.92		11	MCS7	9.91	-65.21
11a	36	54	10.11	-71.77	11a	36	54	8.76	-69.7
	56	54	10.83	-71.99		56	54	9.71	-71.05
	165	54	8.11	-67.48		165	54	8.02	-69.81

## 5、Environmental treatment

Original machine environment status

**Release agent cutting**

离型纸切断

