



深圳市天威讯无线技术有限公司

shenzhenTian wei xun wireless technology co.,ltd.

Product Performance & Specification

Tian Wei Xun Antenna The Research & Development Department

Customer Name:

深圳市珪海智能有限公司

Product Name:

LSC-V5

Board Model:

V1

Tian Wei Xun P/N:

TWX-151-002

PCB Model:

Customer P/N:

Client	Admit manufacturing party		
Customers confirmation	Quality department	R&D	Approval
		ME:	
		RF:	
Date:	Date: Thursday, June 13, 2024		

address: 401A, Building A1, No. 528, Huarong Road, Dalang Street, Longhua New District, Shenzhen

电话: 86-755-29361726 传真: 86-755-85268343

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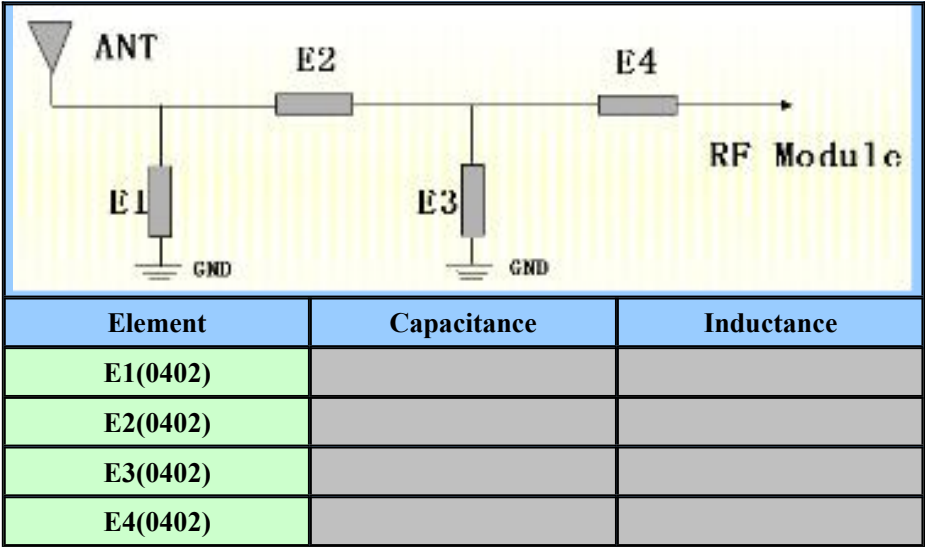
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1. 1 Project Diagram



LSC-V5

1. 1. 1 Antenna Matching Diagram



Matching instructions:invariant

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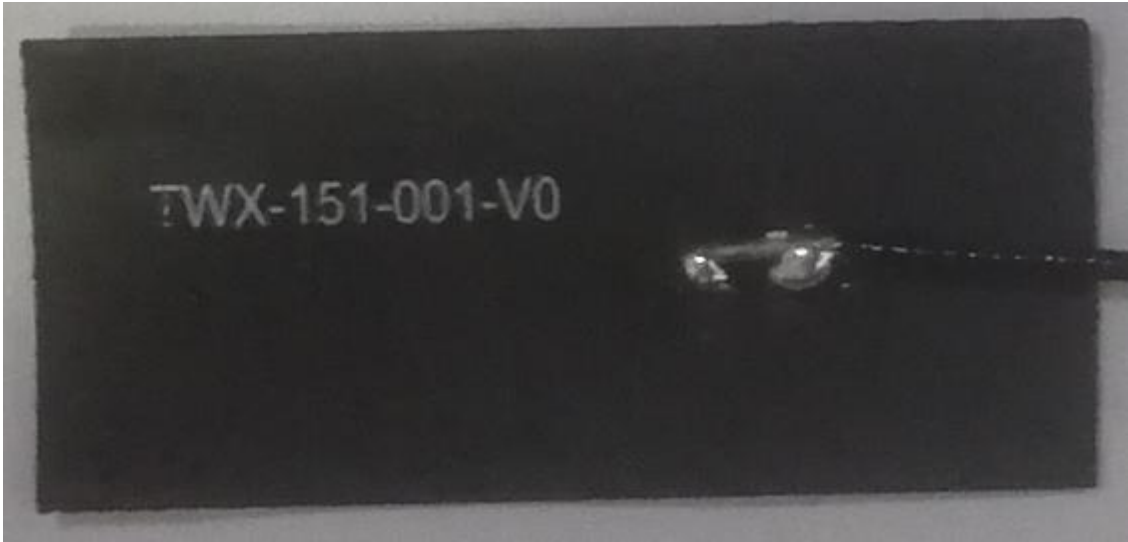
2. 1 Objective

Standardize the specifications and testing methods of mobile communication terminal antennas produced by Shenzhen Tianweixun Wireless Technology Co., Ltd. to avoid errors caused by different testing conditions and methods.

3. 1 Main Antenna

3.1.1 Electrical Specifications & Materials

This report mainly provides the testing status of the structural performance parameters of the antenna LSC-V5.



Antenna Physical Image

3.1.2 Antenna Form

Type:PIFA Antenna

3. 1. 3 Frequency Band

The frequency band is 2412MHz~ 2472MHz;

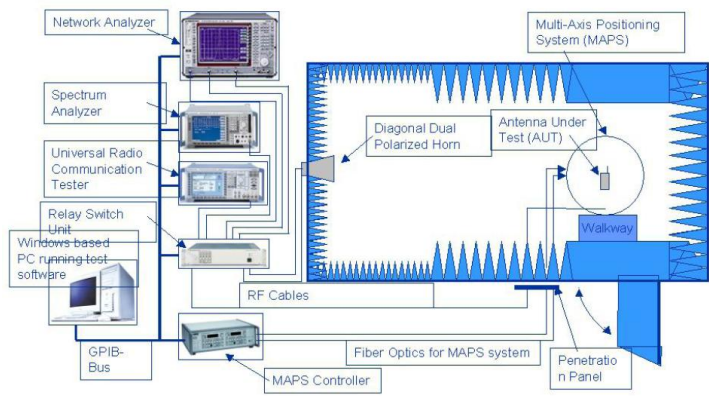
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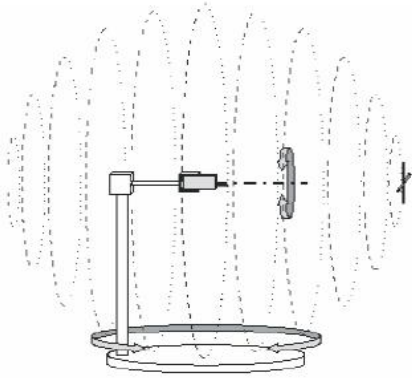
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3.1.4 Measurement Data In The ETS-SG24SYSTEM 3D



ETS Testing System



Three dimensional positioning device in the darkroom

Passive performance indicators of mass-produced antennas:

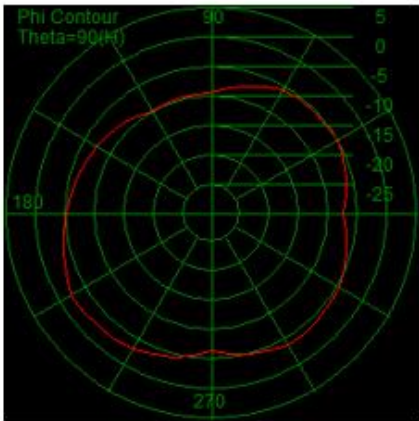
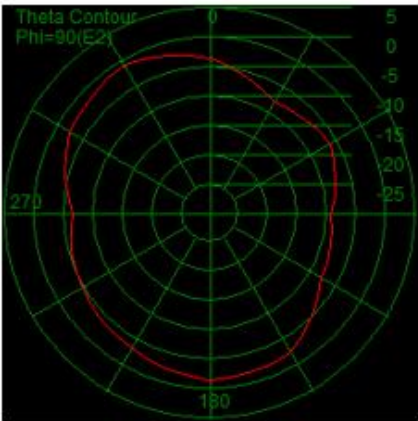
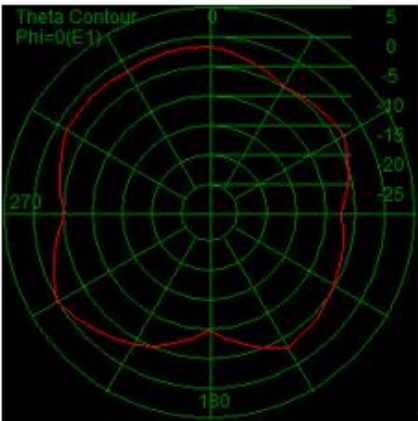
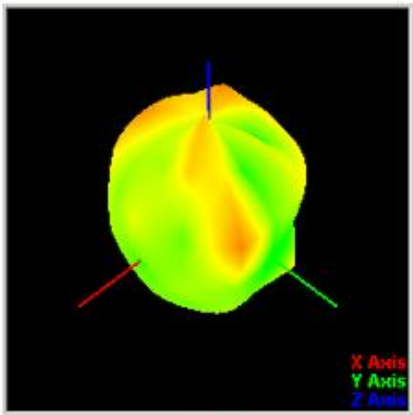
Freq. (MHz)	Gain (dBi)	Efficiency (%)	Freq. (MHz)	Gain (dBi)	Efficiency (%)	Freq. (MHz)	Gain (dBi)	Efficiency (%)
2400	0.81	40.0	5100	3.14	43.5	5485	4.39	48.3
2410	0.77	40.2	5135	3.19	44.0	5520	3.99	49.0
2420	0.88	40.7	5170	2.85	42.9	5555	4.61	49.0
2430	0.04	41.4	5205	3.08	44.4	5590	4.59	51.0
2440	0.11	41.5	5240	3.25	44.5	5625	4.12	50.4
2450	0.22	42.1	5275	2.95	45.4	5660	4.69	51.7
2460	0.24	41.5	5310	2.99	46.1	5695	4.66	50.3
2470	0.22	40.0	5345	3.17	45.3	5730	4.47	48.7
2480	0.35	40.3	5380	3.22	45.8	5765	4.43	47.4
2490	0.47	40.8	5415	3.12	46.1	5800	4.14	47.0
2500	0.44	40.6	5450	3.16	46.0			

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3.1.5 Standing Wave & Return Loss



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SWR



Return loss

3.1.6 OTA Test WIFI Data

Antenna Performance				
		Channel No.	TRP (dBm)	TIS (dBm)
WiFi	2.4G (802.11B)	1	16.89	-80.07
		6	16.50	-80.19
		13	15.77	-80.68
Additional explanation :				

4.1 Product Drawings

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5.1 Product Assembly Diagram

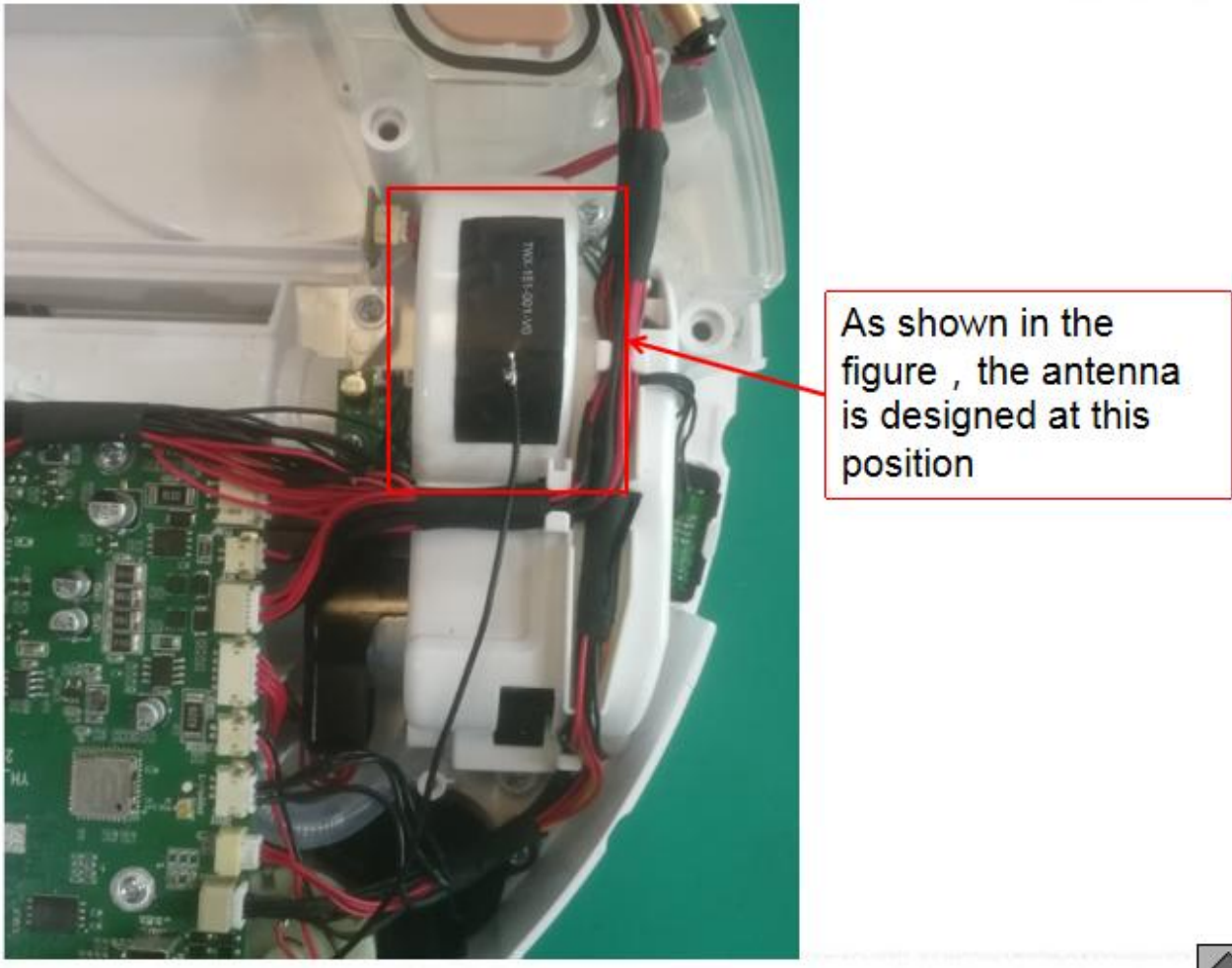
5.1.1 Antenna composition

The antenna is a combination of FPC antenna and coaxial line. Place as shown in the figure below, with the welding coaxial line end pinholes facing downwards.



5.1.2 Antenna Assembly

5.1.3 The Antenna Assembly Is Shown In The Diagram Of The Entire Machine



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