



SPECIFICATIONS FOR APPROVAL

All data in this report only represent the data when the sample antenna is correctly installed in the designated test object. Replacing the test object or changing the installation method and position of the antenna will render the data in the report invalid.

Antenna manufacturer: Shenzhen Lejin radio frequency technology Co., LTD

Company Address: 3rd Floor, Building A4, No. 176 Chongqing Road, Fuhai Street, Bao'an District, Shenzhen, Guangdong Province. (Phone number: 13603098741)

Customer Name: ZW

Product Name: A10R

Product Model: WIFI/BT ANT

Part Number: LJF02-240510002-R0A

Write By : 李明进

Issued Date: 2024/5/10

CUSTOMER				
ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY	DATE	Edition/Part number
LEJIN				
R&D DEPT	ENGINEER R&D DEPT	APPROVAL	DATE	Edition/Part number
		李明进		数字签名者: 李明进 DN : cn=李明进, o=乐进射频, ou=研发, email=13603098741@163.com, c=<无 日期: 2024.05.10 21:55:59 +08'00'

ECN/ECR			

目录 Index

- 1、封面 (Cover)
- 2、目录 (Index)
- 3、规格 (Product Specification)
- 4、测试设备 (Test Equipment & Conditions)
- 5、性能测试报告 (Test Report)
- 6、天线图片 (Antenna Picture)



Electrical Characteristics

Frequency	VSWR	Efficiency	Impedance	Polarization	Gain (dB)
2.4GHZ-2.5GHZ	<1.8	>40%	50 Ohm	Linear	$\geq 0, < 2.0$
5.15GHZ-5.85GHZ	<2.5	>50%	50 Ohm	Linear	$\geq 0, < 2.0$

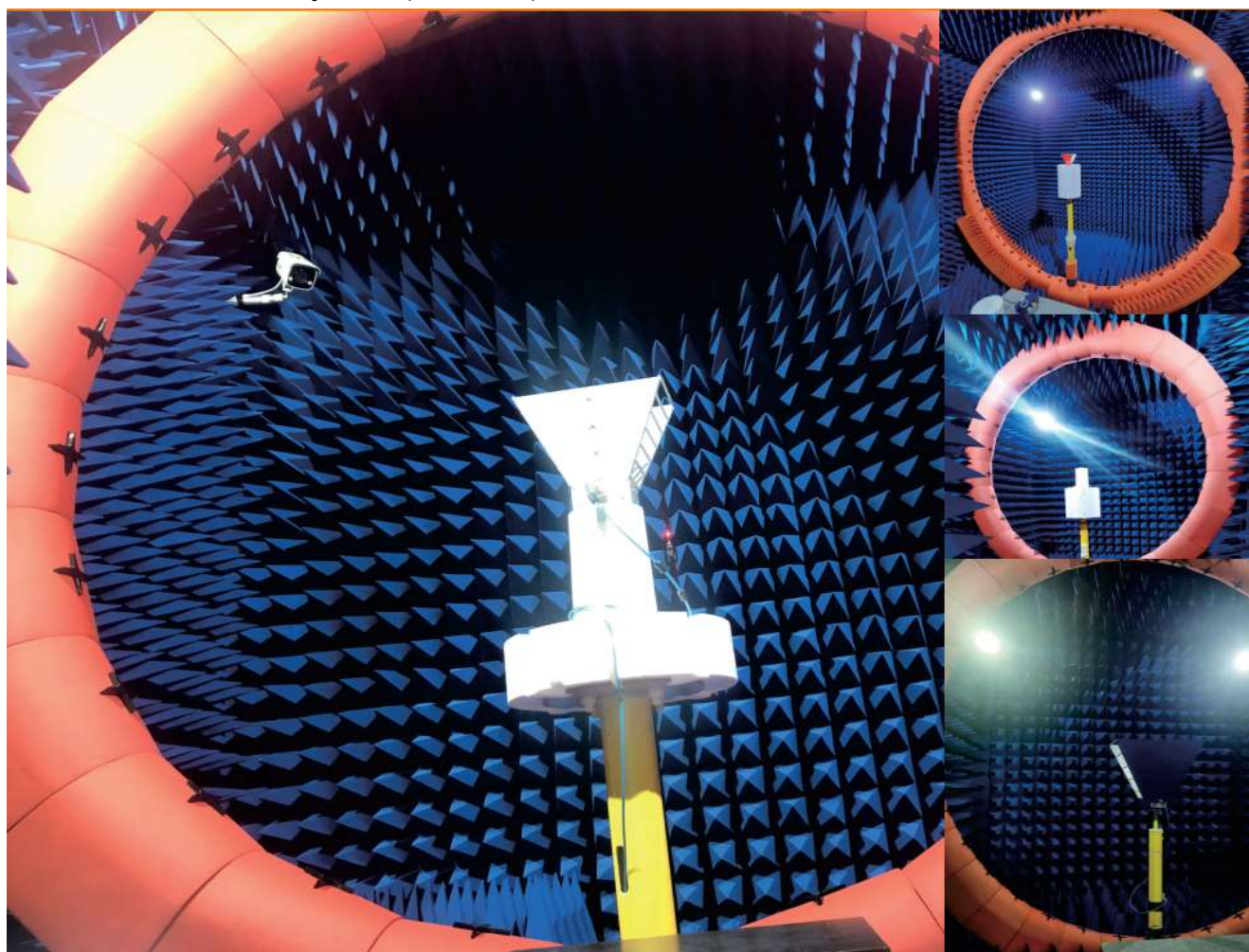
Material & Mechanical Characteristics

Environmental

Material of Radiator	Cable Type	Connector Type	Dimension	Operation Temperature	Storage Temperature
BL	1.131 L:130 Black	KCC1B1		- 20 °C ~ + 50 °C	- 30 °C ~ + 80 °C

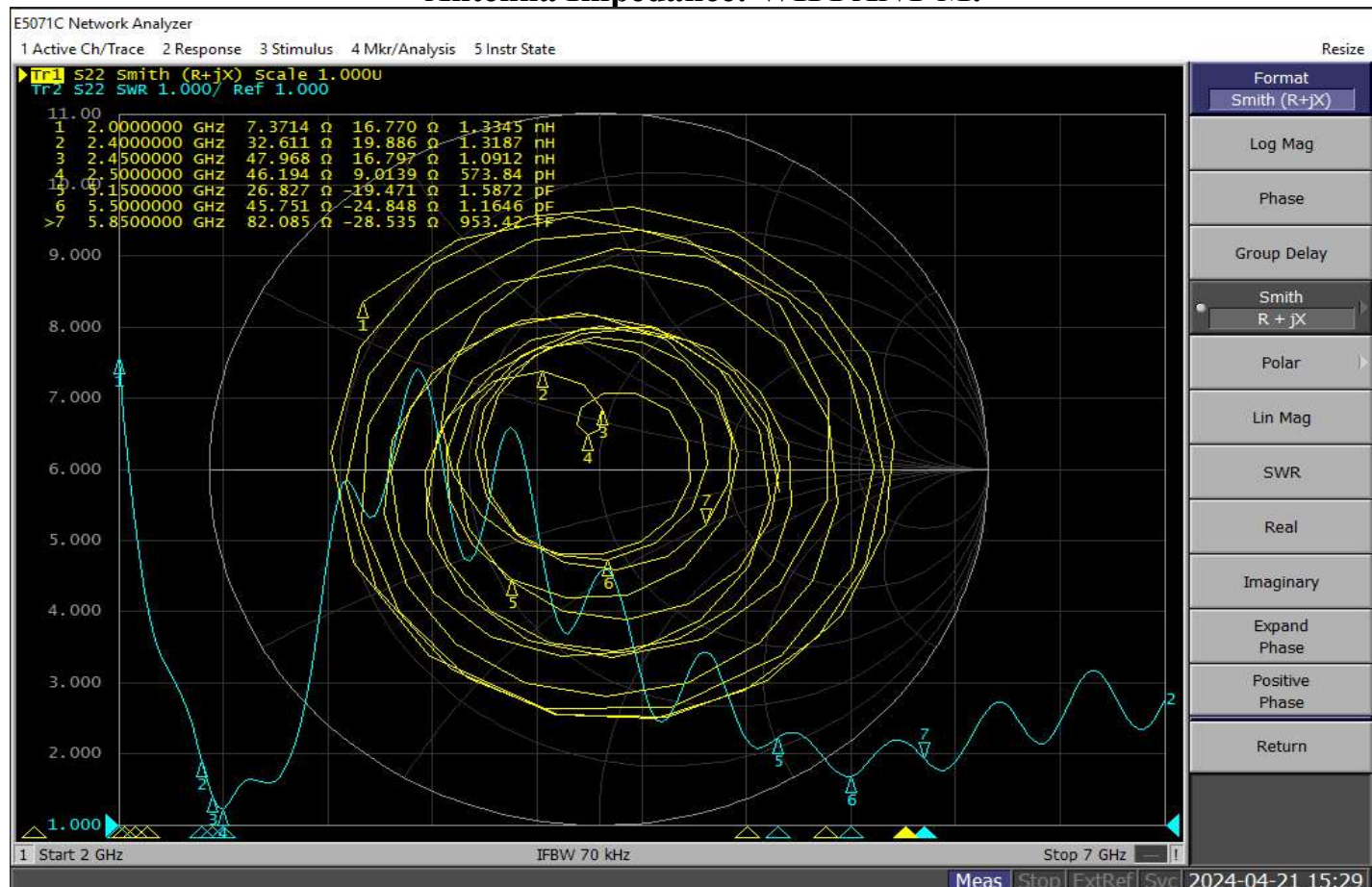
Test Equipment & Conditions

1. Network Analyzers :Agilent 5071C
2. Communications Test Set:Agilent E5515C/CMW500/AT8826
3. 3D Chamber Test System(ETS743)/STM23+1





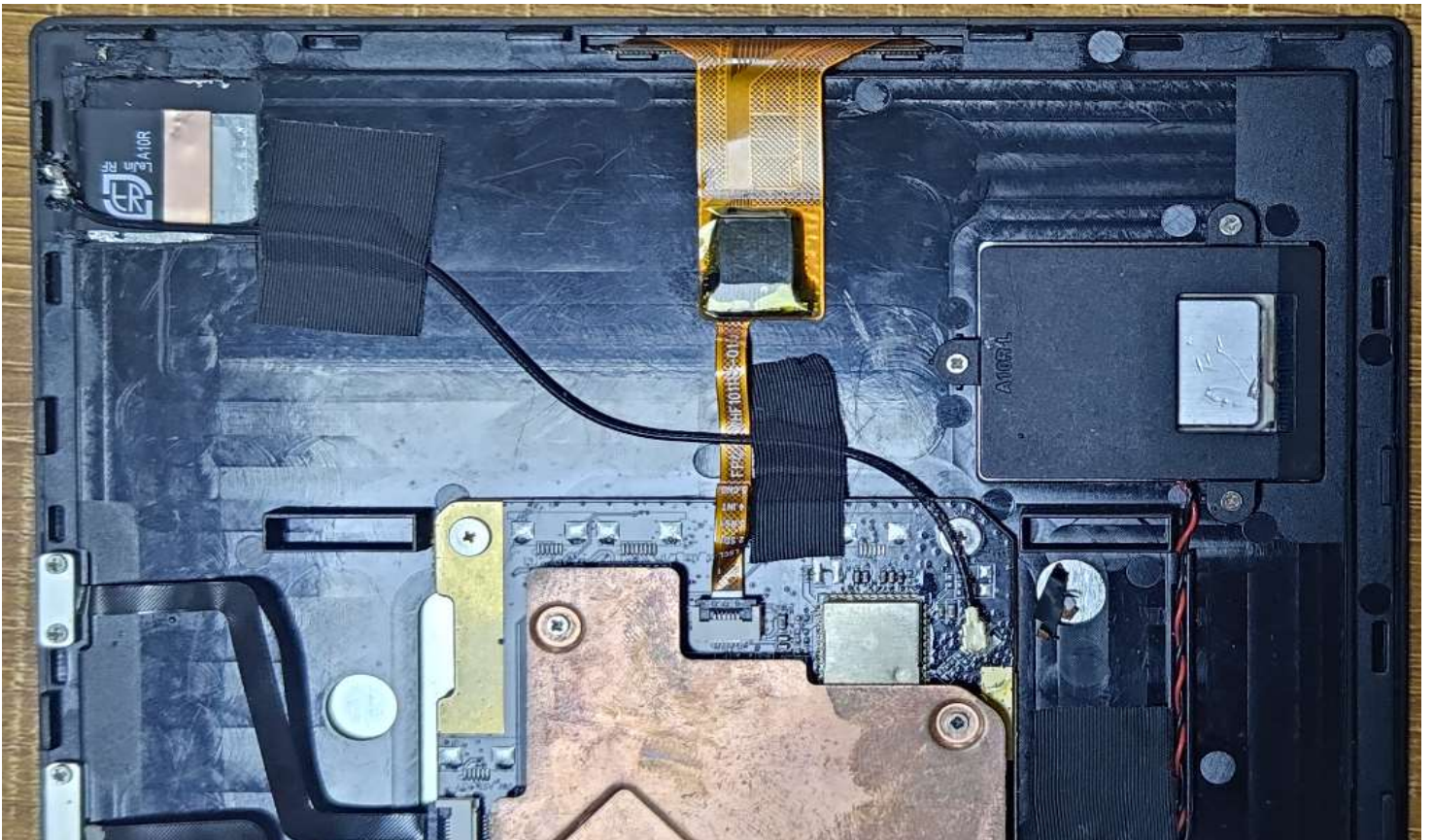
Antenna Impedance: WIFI ANT M:



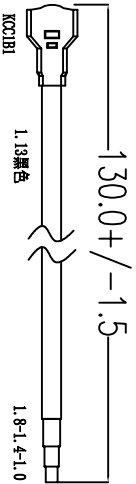
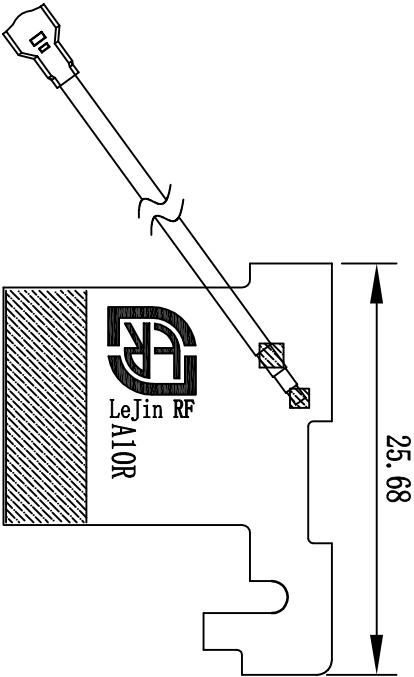
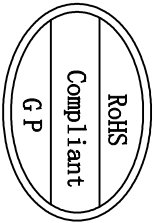
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	
Gain (dBi)	1.90	2.22	1.83	1.43	2.02	2.36	2.43	2.42	2.13	1.81	1.90	
Efficiency (%)	52.34	51.13	45.47	50.12	51.88	52.39	53.09	53.58	51.39	46.82	45.41	
Frequency (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5750	5800
Gain (dBi)	3.23	3.15	3.27	3.22	3.58	4.00	3.89	3.82	3.31	3.35	3.29	3.78
Efficiency (%)	54.75	53.84	55.13	55.33	54.32	67.78	567.86	55.11	49.98	57.12	53.54	53.21

Antenna Performance Table														
TRP /TIS(dBm)			<u>14.51</u>	<u>-82.85</u>	TRP /TIS(dBm)			<u>12.45</u>	<u>-71.19</u>	TRP /TIS(dBm)			<u>14.94</u>	<u>-71.12</u>
802.11B	Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)	802.11G	Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)	802.11A	Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)
Tx_11M / Rx_11M	1	2412	14.55	-83.88	Tx_6M / Rx_54M	1	2412	12.42	-70.33	Tx_6M / Rx_54M	36	5180	14.05	-70.85
	6	2437	14.68	-82.41		6	2437	12.43	-71.56		149	5745	15.98	-72.15
	11	2462	14.3	-82.27		11	2462	12.51	-71.68		165	5825	14.79	-70.37
TRP /TIS(dBm)			<u>14.79</u>	<u>-70.11</u>										
802.11AC	Channel No.	Freq. (MHz)	TRP (dBm)	TIS (dBm)										
Tx_MC S0 / Rx_MC S7	36	5180	14.13	-70.15										
	149	5745	15.69	-70.34										
	165	5825	14.56	-69.83										

Antenna installation method



天线工程图:



 深 圳 乐 进 射 频 科 技 有 限 公 司
SHEN ZHEN LEJIN RADIO FREQUENCY CO., LTD

	Third Angle	Project	A10R R1A	Date	2024-05-08		
0~10	±0.05	○	0.02	Part Name			
10~18	±0.10	◎	Ø0.03	Part No.			
18~30	±0.12	⊥	0.02	Material			
30~40	±0.15	∠	0.04				
40~	±0.20	Angle	±0.5°	Treatment			

Location	Unit	mm	Scale	FIG	Rev	A
----------	------	----	-------	-----	-----	---

Location	Unit	mm	Scale	FIG	Rev	A
----------	------	----	-------	-----	-----	---

Rev	Description	Date	Remark	Location	Treatment	Unit	mm	Scale	FIG	Rev	A
-----	-------------	------	--------	----------	-----------	------	----	-------	-----	-----	---

1		2		3		4		5		6		7		8
---	--	---	--	---	--	---	--	---	--	---	--	---	--	---