

Shenzhen Yishengbang Technology Co., Ltd

Shenzhen Yishengbang Technology Co., Ltd Antenna Test Report

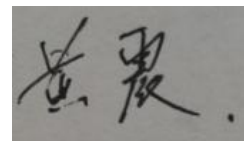
Customer: 迈迪杰

Project: NUCBC02

Product: WIFI Antenna

Report date: 2023.6.28

Prepared by : 曾立文



Checked by : Eason Huang

Approved by :

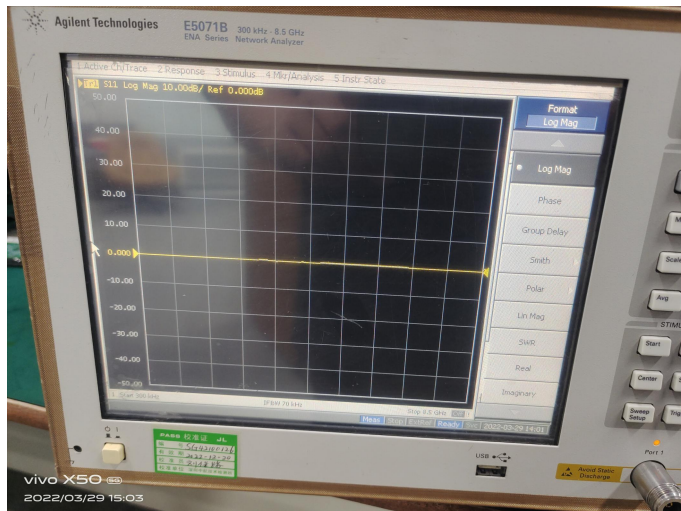
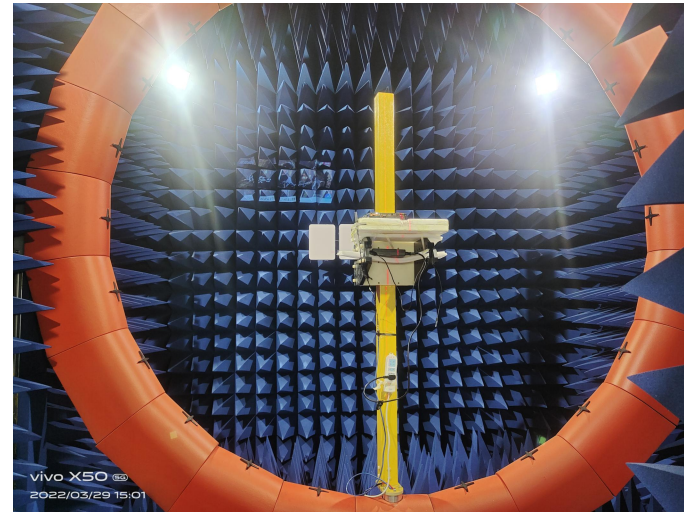
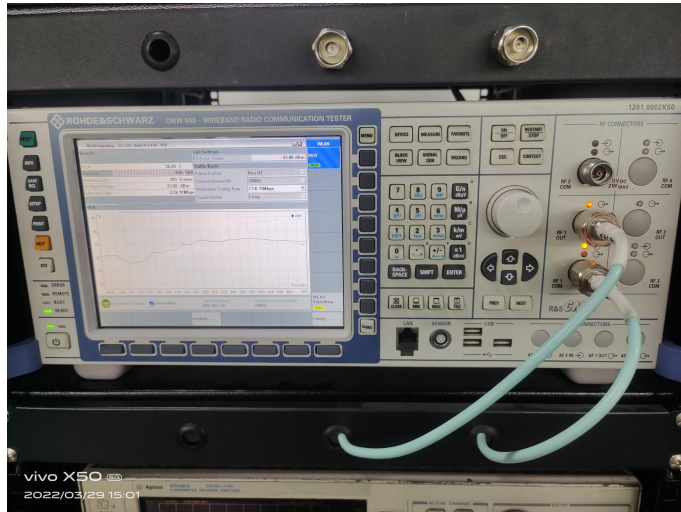
Purpose

This report is to measure the performance of SLK for Master Antenna on 迈迪杰. All measure data are showed below.

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1. Test equipment



测试设备 Test equipment

测试内容 Test content

网络分析仪：5071B

- 1.VSWR(电压驻波比)
- 2.Return loss (回波损耗)
- 3.Smith

网络分析仪：5071B
暗室：4*4*4M 24探头暗室

- 1.Antenna efficiency (效率)
- 2.Antenna gain (增益)
- 3.3D field pattern of antenna (场型图)

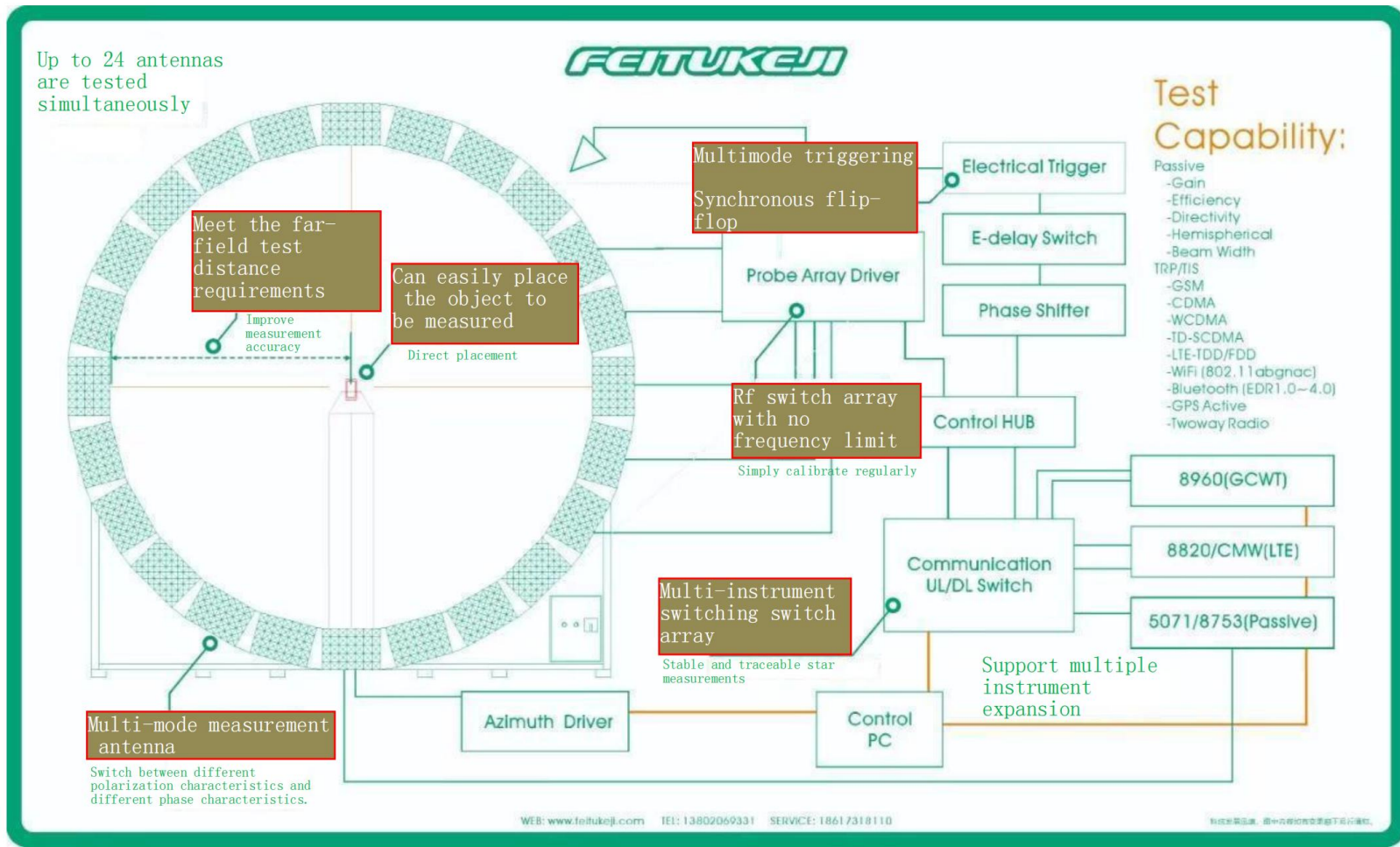
综测仪：CMW500
暗室：4*4*4M 24探头暗室

- 1.TRP(发射功率)
- 2.TIS (接受灵敏度)

Shenzhen Yishengbo

Ltd

2. Test setup



3. Test site

Test site: Shenzhen Yishengbang Technology Co., Ltd
101, Building C, Qianwan Hard Technology Industrial Park,
Xixiang Street, Bao'an District, Shenzhen City, Guangdong
Province, China
24 probe anechoic chamber.

4. Test equipment list

	Test equipment	Equipment model	Manufacturer	Calibration time	Remarks
1	network analyzer	agilent E5071B	Agilent	2022-11-9	
2	anechoic chamber	4*4*4M 24 probe anechoic chamber	FEITUKEJI	2022-11-9	
3	computer	Lenovo desktop computer	Lenovo	2022-11-9	

5. Measurement procedure

	Procedure	Remarks
1	Calibrate network analyzer	
2	Analyze the overall situation of the machine and select a suitable location for antenna debugging	
3	Optimize antenna standing wave ratio to ensure meeting customer needs	
4	Testing items such as passive efficiency and gain of antennas	
5	Provide antenna samples to customers based on debugging specifications	

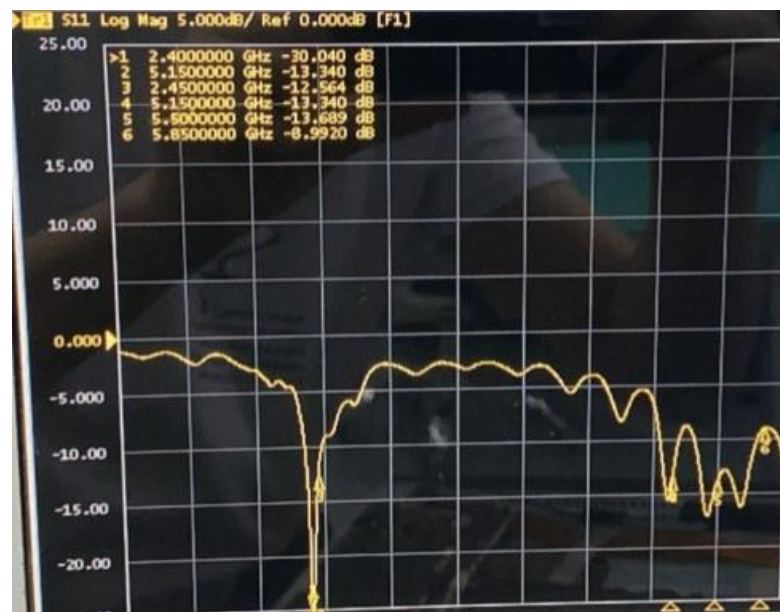
6. Product Overview



7. Test Result

7.1 VSWR/S11

MAIN



Note: Use the network analyzer E5071B to connect the connector on the antenna RF line to test the passive standing wave ratio and return loss of the antenna.

7. Test Result

7.1 VSWR/S11

AUX



Note: Use the network analyzer E5071B to connect the connector on the antenna RF line to test the passive standing wave ratio and return loss of the antenna.

7. Test Result

7.2 Antenna Parameters



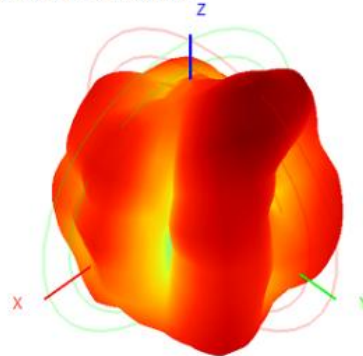
7. Test Result

7.3 Gain/Efficiency/3D DATA

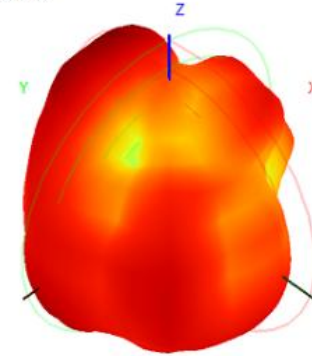
MAIN

Frequency	Efficiency	Gain (dBi)	Efficiency (%)
2400.0	-6.10	-0.25	24.54
2410.0	-5.98	-0.46	25.24
2420.0	-5.74	-0.76	26.68
2430.0	-5.47	-0.40	28.38
2440.0	-5.30	-0.08	29.49
2450.0	-5.24	0.13	29.91
2460.0	-5.18	0.24	30.36
2470.0	-5.17	0.35	30.44
2480.0	-5.37	0.44	29.04
2490.0	-5.76	0.56	26.55
2500.0	-6.03	0.61	24.94
5150.0	-4.65	2.47	34.30
5350.0	-4.22	3.53	37.86
5550.0	-4.66	2.88	34.21
5650.0	-4.81	2.99	33.06
5850.0	-5.47	2.09	28.36

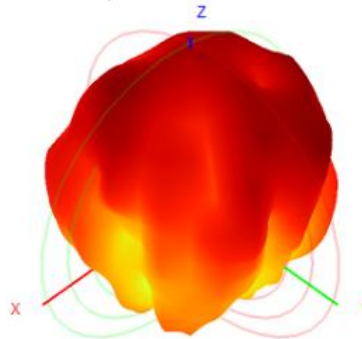
2450.0MHz H+V, Eff: 29.9%



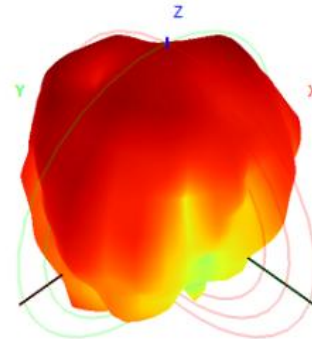
Back View



5850.0MHz H+V, Eff: 28.36%



Back View



5150mhz is the maximum gain point of 5150-5250mhz
5850mhz is the maximum gain point of 5.8G segment

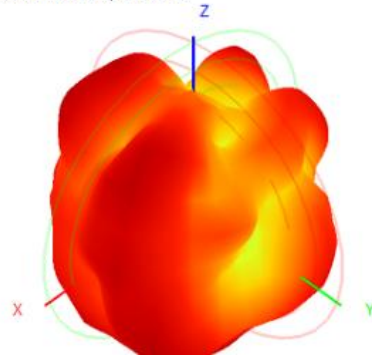
Note: Use the network analyzer E5071B and microwave anechoic chamber to test the passive efficiency, gain, and 3D field pattern of the antenna.

7. Test Result

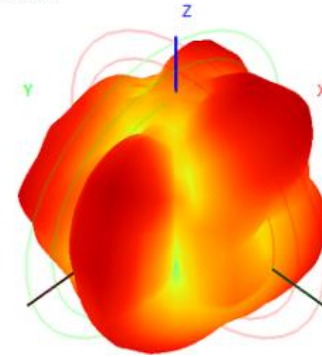
7.3 Gain/Efficiency/3D DATA

AUX

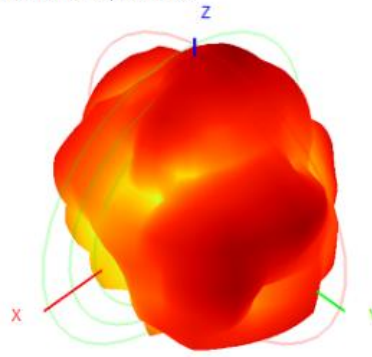
2450.0MHz H+V, Eff: 27.9%



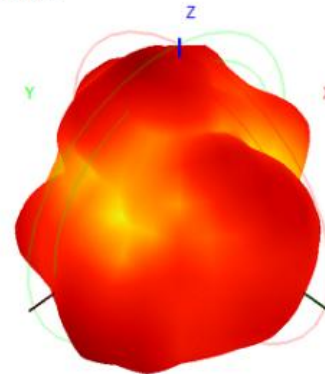
Back View



5850.0MHz H+V, Eff: 25.9%



Back View



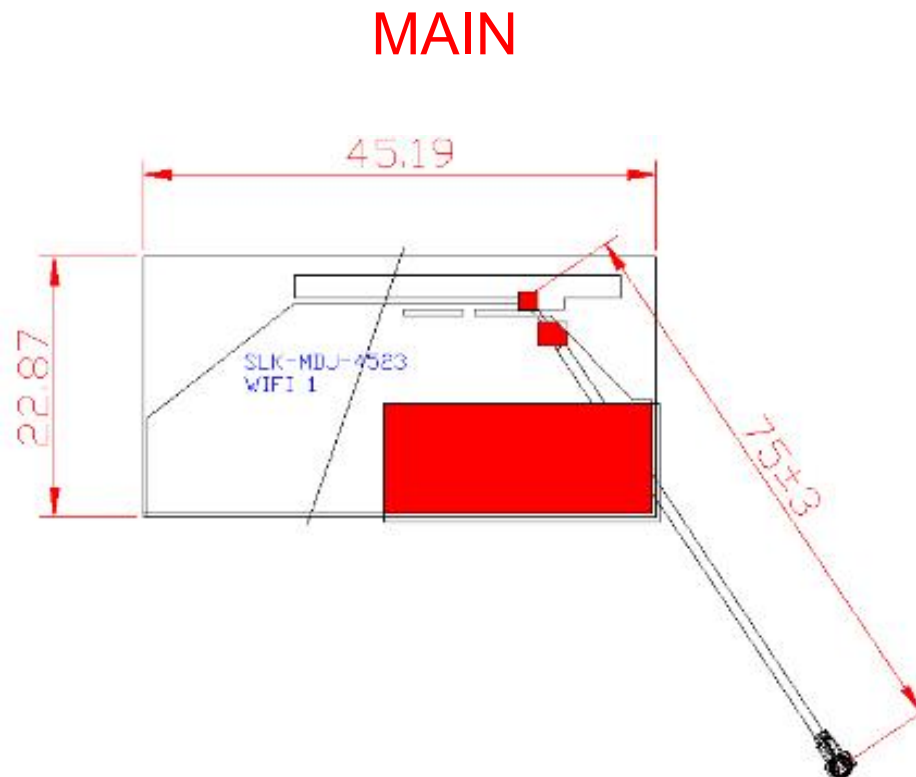
5150mhz is the maximum
gain point of 5150-
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5850mhz is the maximum
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Note: Use the network
analyzer E5071B and
microwave anechoic
chamber to test the
passive efficiency, gain,
and 3D field pattern of
the antenna.

Frequency	Efficiency	Gain (dBi)	Efficiency (%)
2400.0	-6.19	0.54	24.04
2410.0	-6.21	0.33	23.93
2420.0	-6.16	0.21	24.20
2430.0	-5.94	0.27	25.47
2440.0	-5.69	0.29	26.99
2450.0	-5.54	0.31	27.90
2460.0	-5.51	-0.14	28.11
2470.0	-5.60	-0.51	27.52
2480.0	-5.90	-0.72	25.69
2490.0	-6.28	-0.97	23.53
2500.0	-6.44	-0.91	22.72
5150.0	-6.41	-0.70	22.85
5350.0	-5.25	1.14	29.83
5550.0	-5.19	0.98	30.27
5650.0	-5.60	0.07	27.52
5850.0	-5.86	0.03	25.94

7. Test Result

7.4 Schematic Diagram Of Antenna Size



7. Test Result

7.4 Schematic Diagram Of Antenna Size

