

Shenzhen Yishengbang Technology Co., Ltd

Shenzhen Yishengbang Technology Co., Ltd Antenna Test Report

Customer: Solaborate Inc

Project: HC2183T

SLK-YLD-3028A-L-390I-B

Product: WIFI Antenna

Report date: 2025.8.15

Prepared by : xeu wen Hu

Checked by : Eason Huang

Approved by :



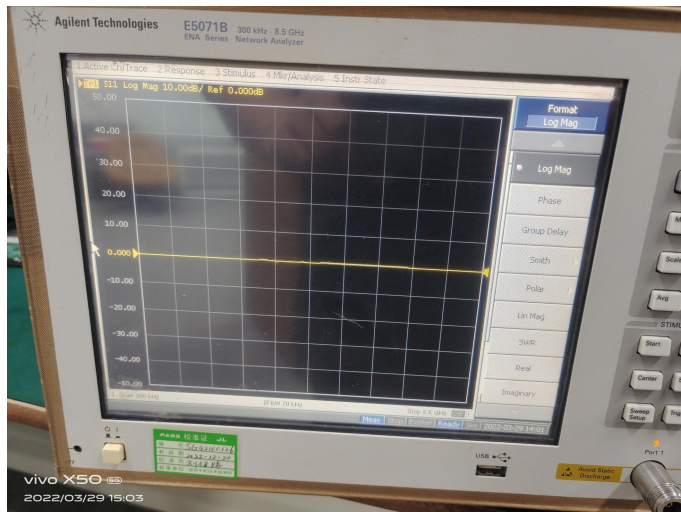
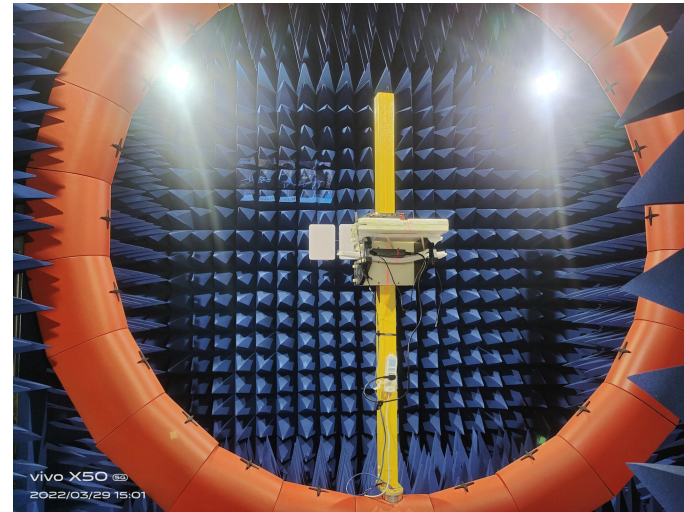
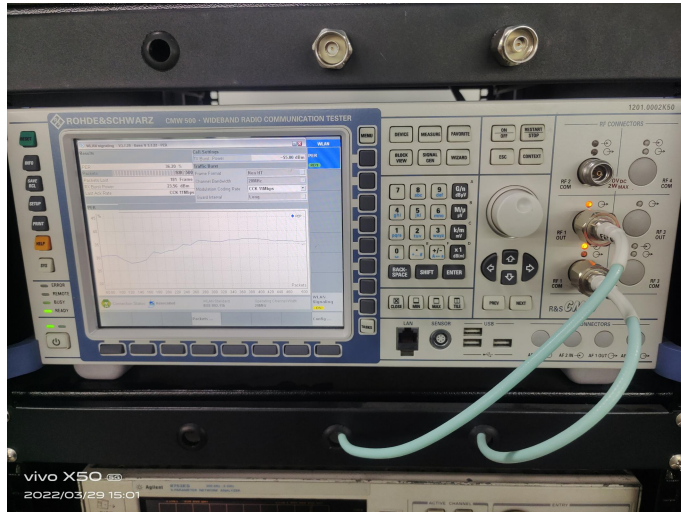
Purpose

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

Content

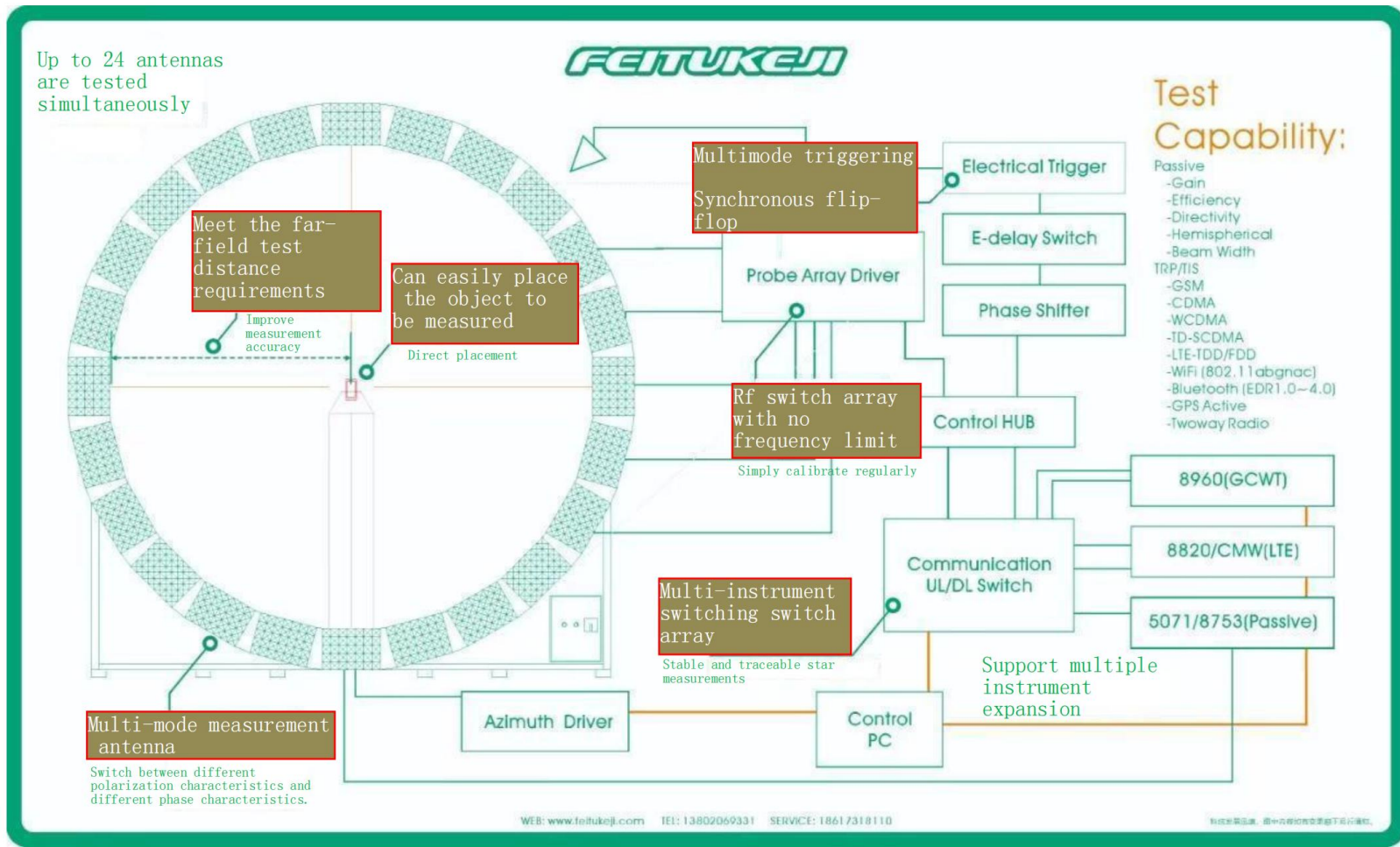
1. Test equipment
2. Test setup
3. Test site
4. Test equipment list
5. Measurement procedure
6. Product Overview
7. Test Result
 - 7.1 VSWR/S11
 - 7.2 Gain/Efficiency/3D DATA
 - 7.3 Gain/Efficiency/3D DATA
 - 7.4 WIFI active test
 - 7.5 WIFI active test
 - 7.6 Schematic Diagram Of Antenna Size

1. Test equipment



Test equipment	Test content
network analyzer: 5071B	1.VSWR 2.Return loss 3.Smith
network analyzer: 5071B chamber: 4*4*4M24 probe anechoic chamber	1.Antenna efficiency 2.Antenna gain 3.3D field pattern of antenna
Comprehensive measuring instrument: CMW500 chamber: 4*4*4M 24 probe anechoic chamber	1.TRP 2.TIS

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.

Antenna type:PIFA

Supplier:Shenzhen Yishengbang Technology Co., Ltd
Address:101, Building C, Qianwan Hard Technology
Industrial Park, Xixiang Street, Bao'an District, Shenzhen
City, Guangdong Province, China

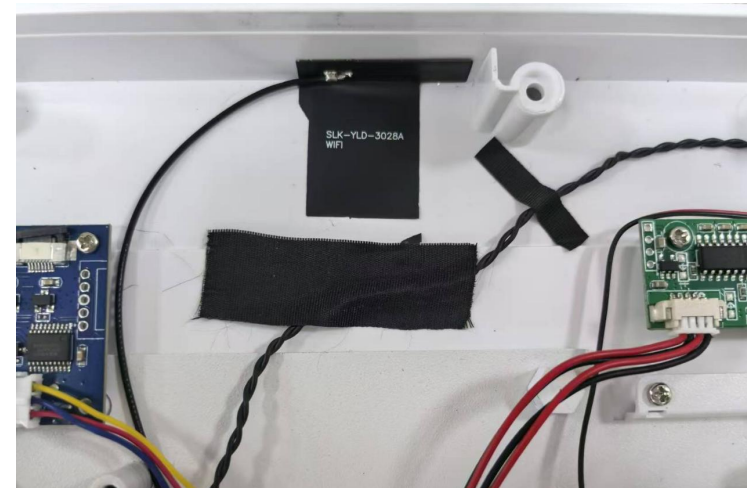
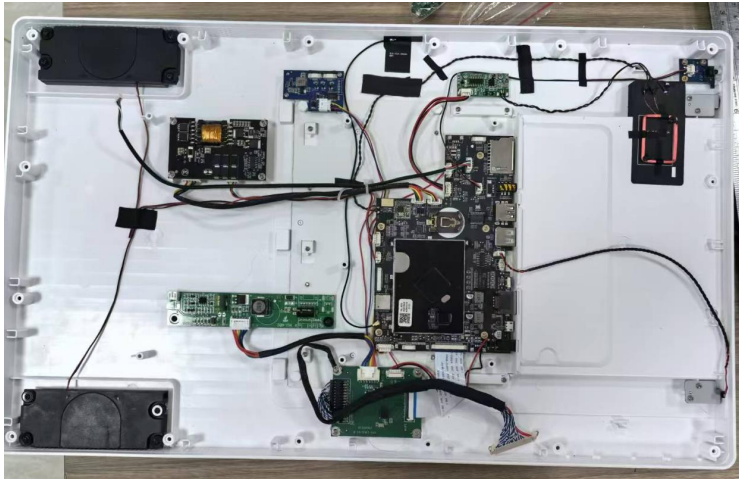
4. Test equipment list

	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

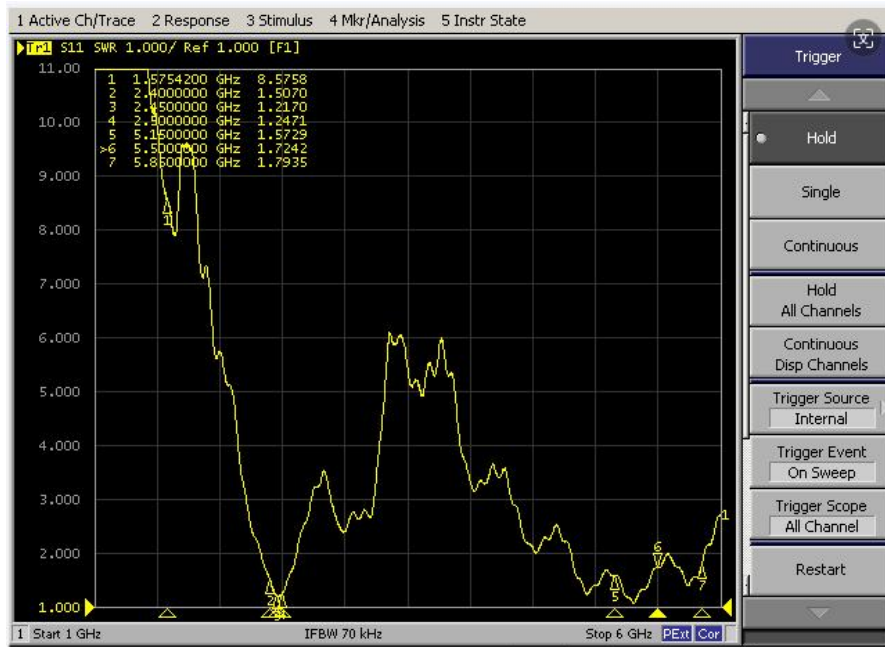
	Procedure	Remarks
1	Calibrate network analyzer	
2	Analyze the overall situation of the machine and select a suitable location for antenna debugging	
3	Optimize antenna standing wave ratio to ensure meeting customer needs	
4	Testing items such as passive efficiency and gain of antennas	
5	Provide antenna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

6. Product Overview



7. Test Result

7.1 VSWR/S11

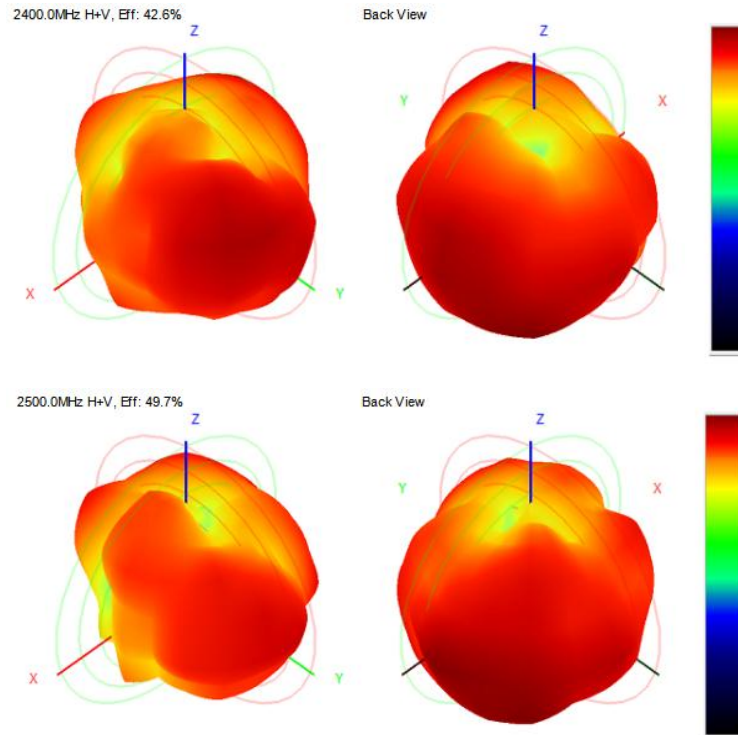


Note: Use the network analyzer E5071B to connect the connector on the antenna RF line to test the passive standing wave ratio and return loss of the antenna.

7. Test Result

7.2 Gain/Efficiency/3D DATA

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-3.70	1.43	42.63
2410	-3.47	1.65	45.01
2420	-2.85	1.45	51.87
2430	-2.95	1.09	50.72
2440	-2.85	1.15	51.85
2450	-2.98	1.83	50.31
2460	-2.74	1.18	53.17
2470	-3.12	1.24	48.72
2480	-3.17	1.45	48.20
2490	-2.92	1.86	51.03
2500	-3.03	1.78	49.75
5150	-3.50	2.97	44.66
5250	-3.63	2.99	43.36
5350	-3.48	2.75	44.85
5450	-3.31	2.68	46.61
5550	-3.94	2.51	40.37
5650	-3.71	2.56	42.53
5750	-3.84	1.96	41.30
5850	-4.28	1.13	37.30

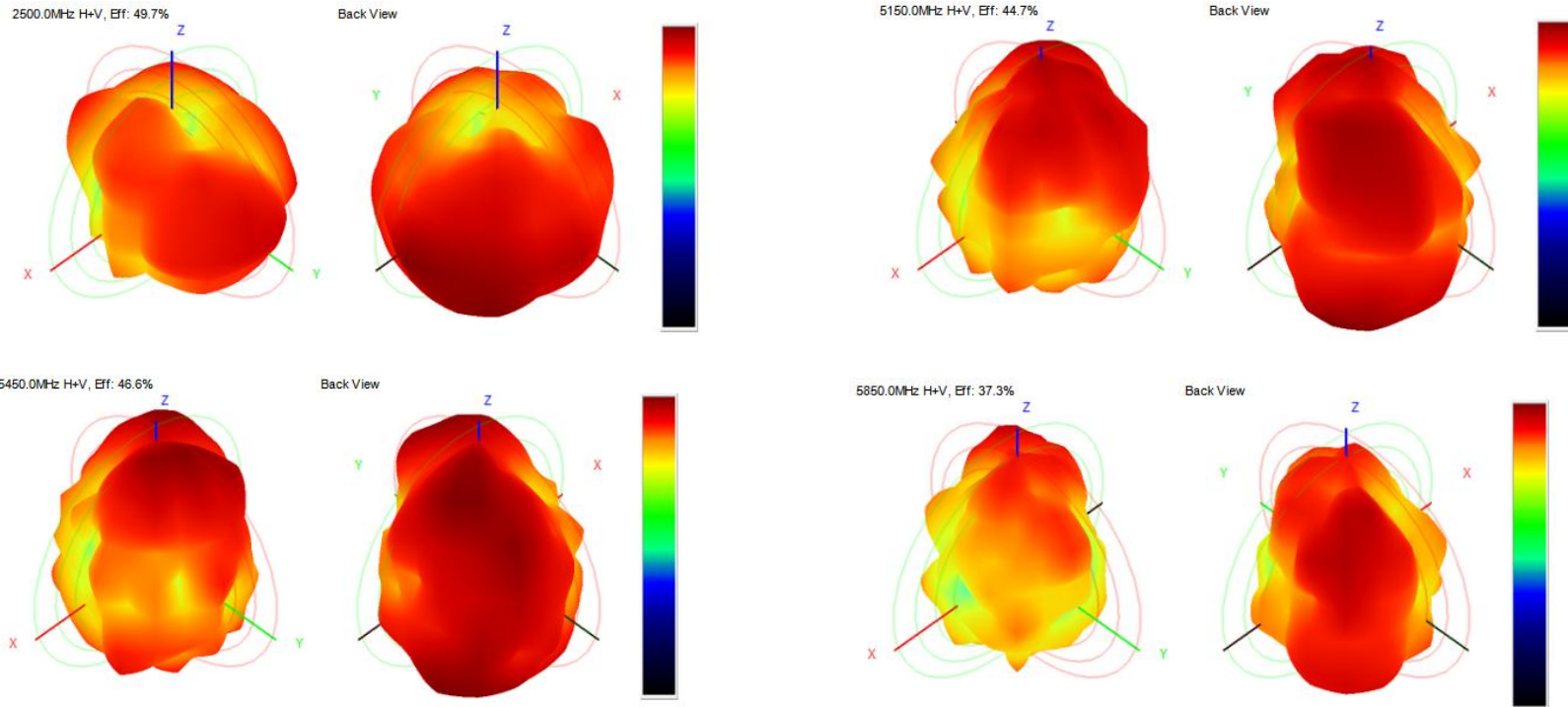


Note: Use the network analyzer E5071B and microwave anechoic chamber to test the passive efficiency, gain, and 3D field pattern of the antenna.

5230mhz is the maximum gain point of 5150-5250mhz
5820mhz is the maximum gain point of 5.8G segment

7. Test Result

7.3 Gain/Efficiency/3D DATA



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

7.4 WIFI active test

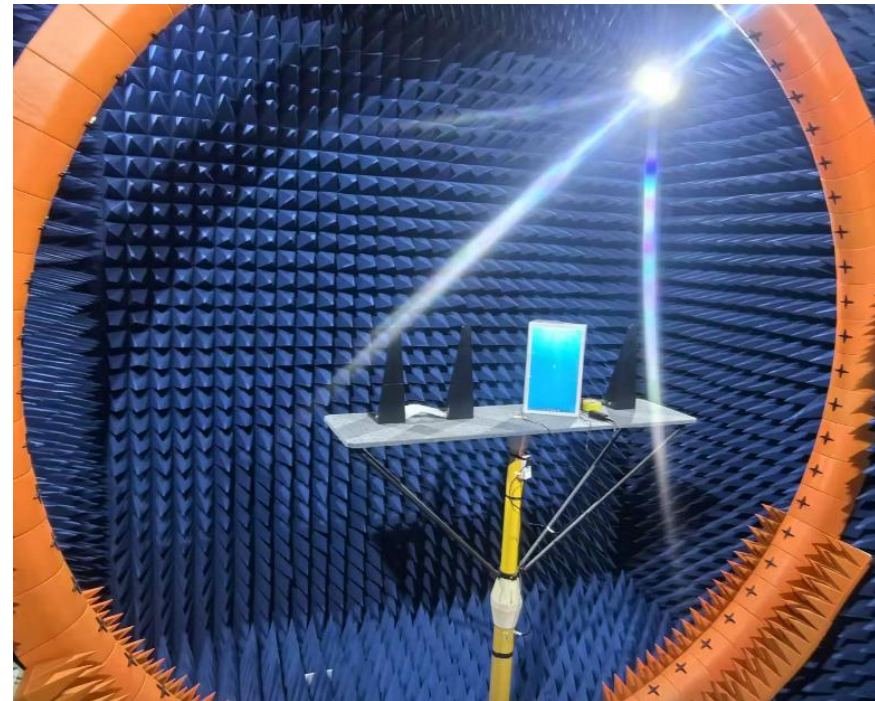
WIFI active test			
Frequency	1	6	11
B-TRP-11MBps	12.46	12.93	13.29
B-TIS-11MBps	-79.58	-80	-79.81
G-TRP-54MBps	11.16	11.63	11.48
G-TIS-54MBps	-69.16	-69.02	-69.00
N-TRP-MCS7	11.27	11.25	11.06
N-TIS-MCS7	-64.90	-65.44	-65.16
Frequency	36	149	165
A-TRP-54MBps	11.96	12.06	12.31
A-TIS-54MBps	-70.84	-70.69	-71.97

7. Test Result

7.5 WIFI active test

WIFI active test			
Frequency	1	6	11
B-TRP-11Mbps	12.38	12.06	12.93
B-TIS-11Mbps	-79.08	-79.53	-79.94
G-TRP-54Mbps	11.22	11.50	11.65
G-TIS-54Mbps	-69.92	-69.16	-69.28
N-TRP-MCS7	11.15	11.17	11.59
N-TIS-MCS7	-65.89	-65.75	-65.13
Frequency	36	149	165
A-TRP-54Mbps	11.57	12.89	12.31
A-TIS-54Mbps	-69.34	-70.72	-69.44

Machine Upright Test



7. Test Result

7.6 Schematic Diagram Of Antenna Size

