

WAVE-53 Antenna Test Report

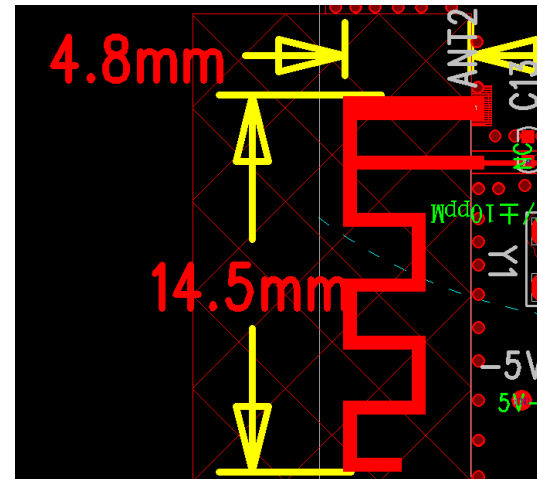
Customer	优程
Project	WAVE-53
Antenna Revision	A1
Product Description	板载
Product No	
DATE	2024. 3. 2

Product Overview & Dimension

Front



Size



Purpose

This report is to measure the performance of BT antenna for **W A V E E - 5 3**.
The antenna operating frequency at **2.4~2.5GHz**, All test data are showed as below.

Content

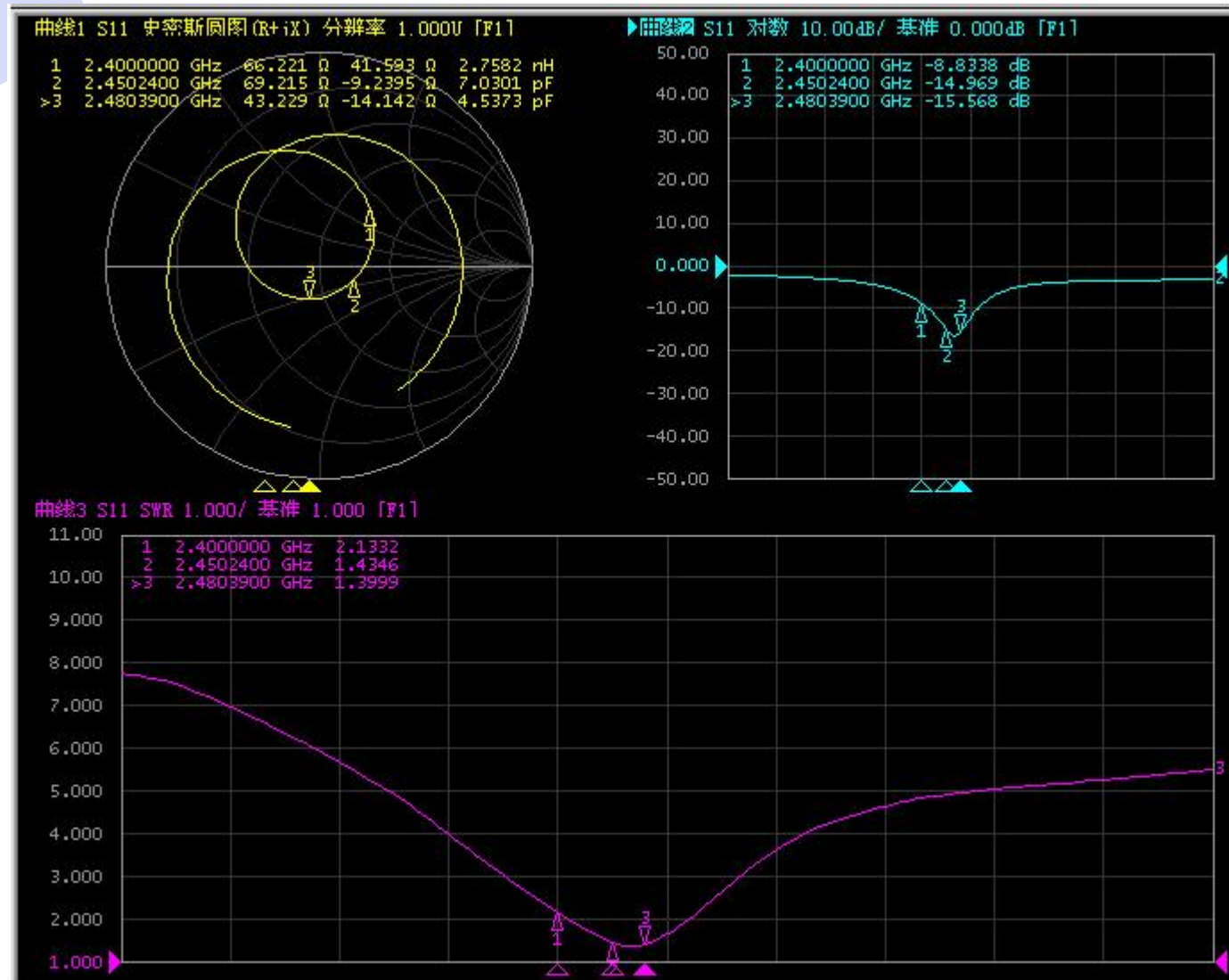
1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result
 - 4.1 S11 Parameter
 - 4.2 Test coordinate
 - 4.3 2D Pattern
 - 4.4 OTA Data
 - 4.5 BT Boot measured
5. Antenna Assembly & environmental processing

2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



S11—(BT ANT)



Test Result

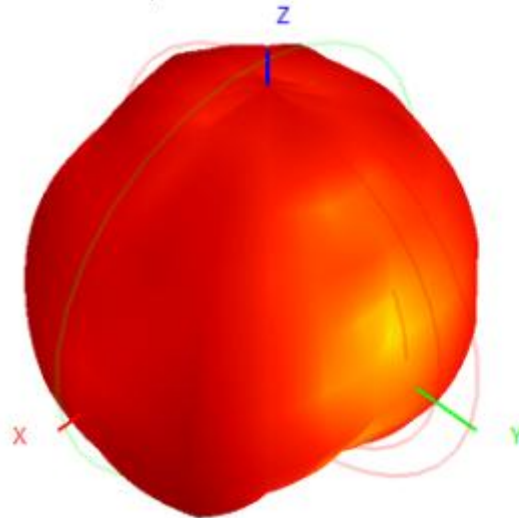
Gain & Efficiency——**BT- ANT(L/R)**

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	22.31	-3.07
2410	23.02	-2.73
2420	23.44	-2.51
2430	24.85	-2.05
2440	24.90	-2.25
2450	24.51	-2.18
2460	24.65	-2.13
2470	24.20	-1.65
2480	23.46	-1.59
2490	22.65	-1.52
2500	21.19	-1.99

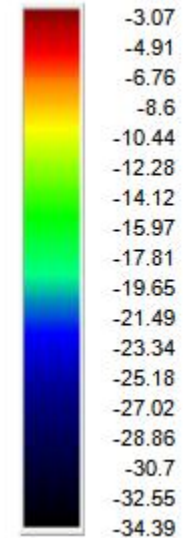
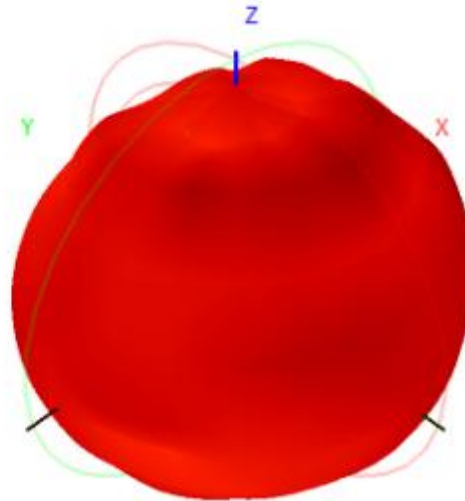
Test Result

2D&3D — BT- ANT

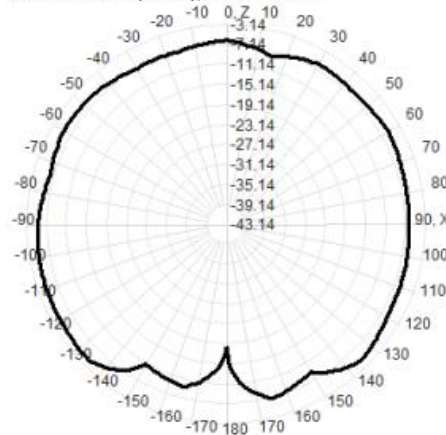
2400.0MHz H+V, Eff: 22.3%



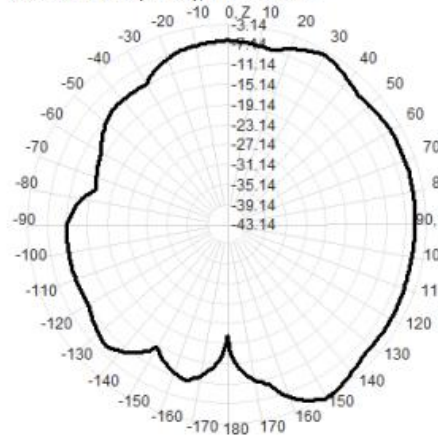
Back View



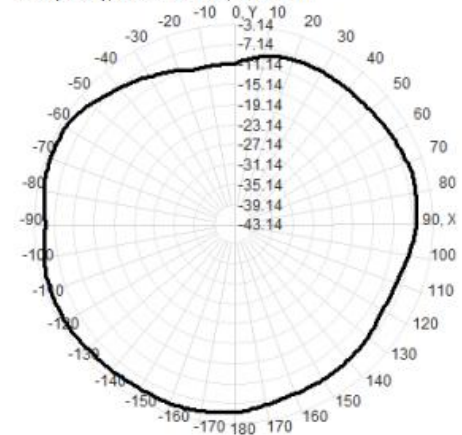
2400.0MHz Total(E1-XZ), Max=-4.62dBi



2400.0MHz Total(E2-YZ), Max=-3.14dBi



Total(H-XY), Max=-4.20dBi, CirD=6.97

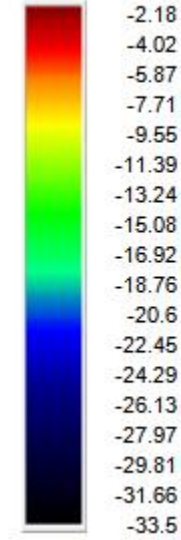
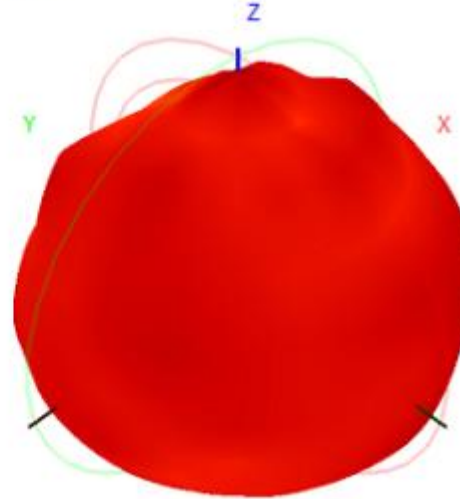
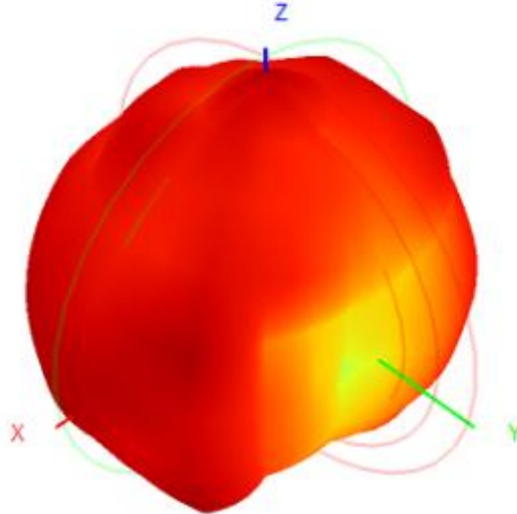


Test Result

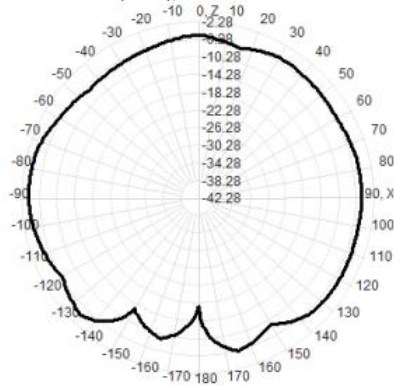
2D&3D — BT- ANT

2450.0MHz H+V, Eff: 24.5%

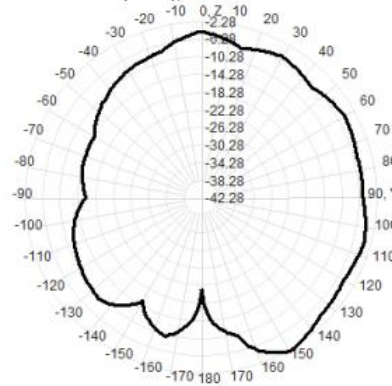
Back View



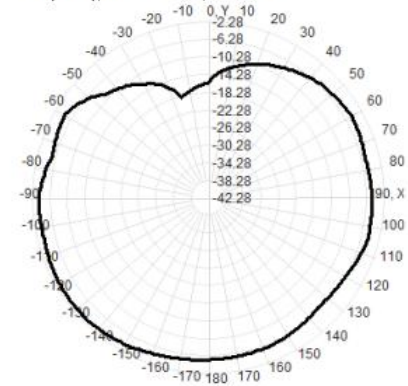
2450.0MHz Total(E1-XZ), Max= -3.75dBi



2450.0MHz Total(E2-YZ), Max= -2.28dBi



Total(H-XY), Max= -3.38dBi, CirD=15.35

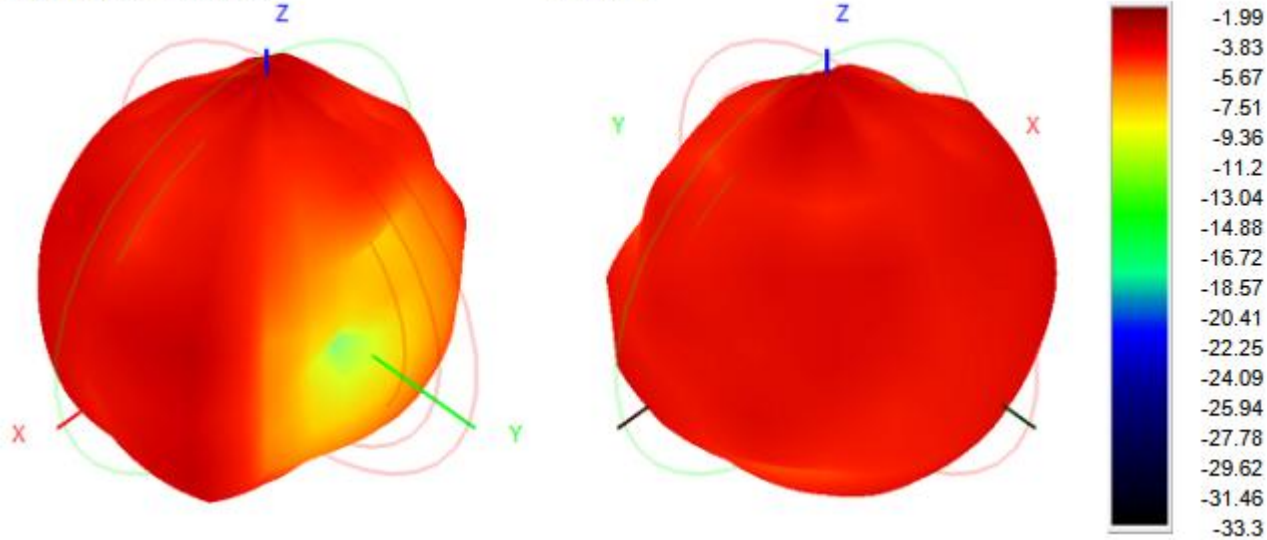


Test Result

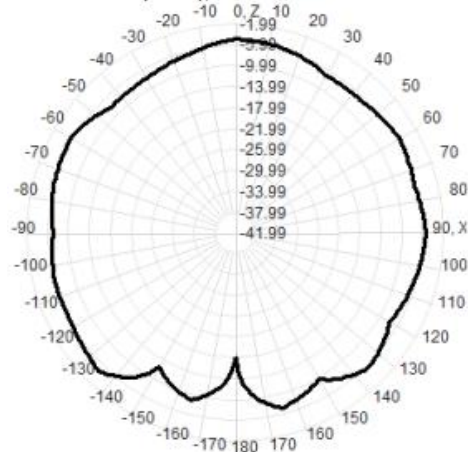
2D&3D — BT- ANT

2500.0MHz H+V, Eff: 21.2%

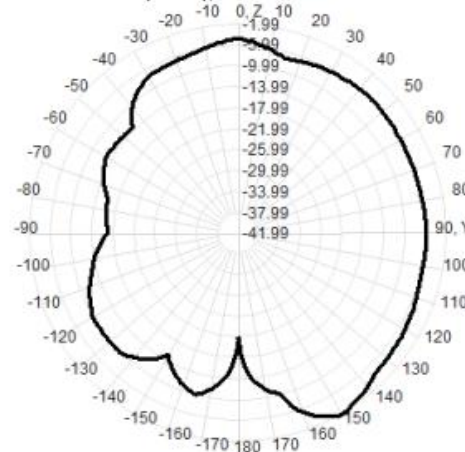
Back View



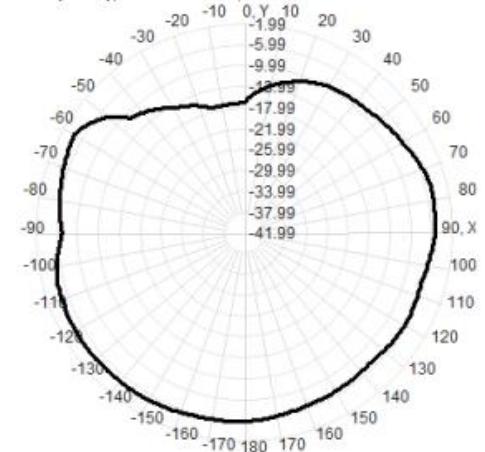
2500.0MHz Total(E1-XZ), Max=-4.90dBi



2500.0MHz Total(E2-YZ), Max=-1.99dBi



Total(H-XY), Max=-4.35dBi, CirD=12.93



OTA DATA--自由空间

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	1.71	-83.81
		39	1.25	-84.07
		78	0.83	-84.54

Thanks for your comment!

✧ 深圳市合拓科技有限公司

✧ 深圳：深圳市宝安区西乡恒丰工业城C 6 栋1202B

✧ RF： 胡雪文