Antenna Test Report

Customer	/
Project	FM13 V3.0蓝牙天线
Antenna Revision	A0
Prepared by	朱浩奎
Checked by	
Date:	2024/08/14

Purpose

This report is to measure the performance of antenna FM13 V3.0蓝牙天线.The antenna operating frequency at 2400-2500MHz All test data are showed as below.

Content

1. Product Overview & Dimension
2. Test system
3. Antenna Matching Network
4. Test Result

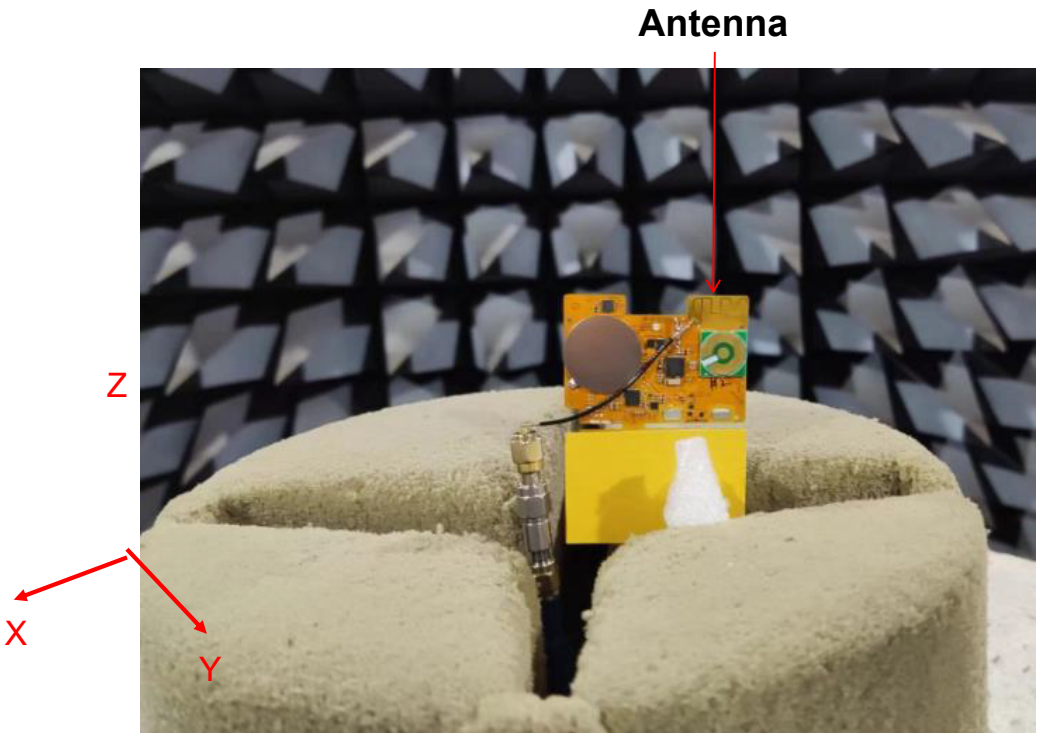
4.1 ***S11 Parameter-VSWR***

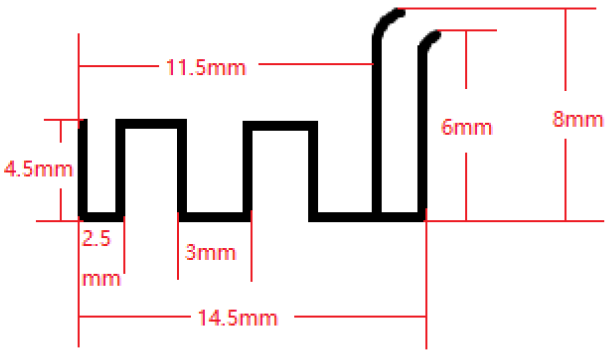
4.2 ***Gain & Efficiency***

4.3 ***2D Pattern***

5. Conclusion

1.Product Overview & Dimension





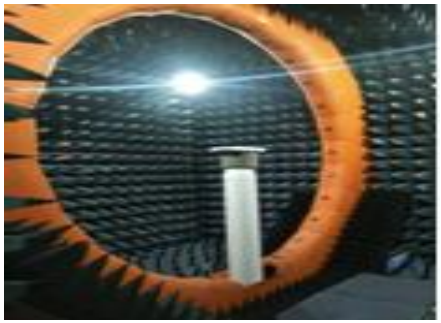
The Bluetooth module antenna is directly used on the PCB.

Manufacturer: Lenze Design Inc

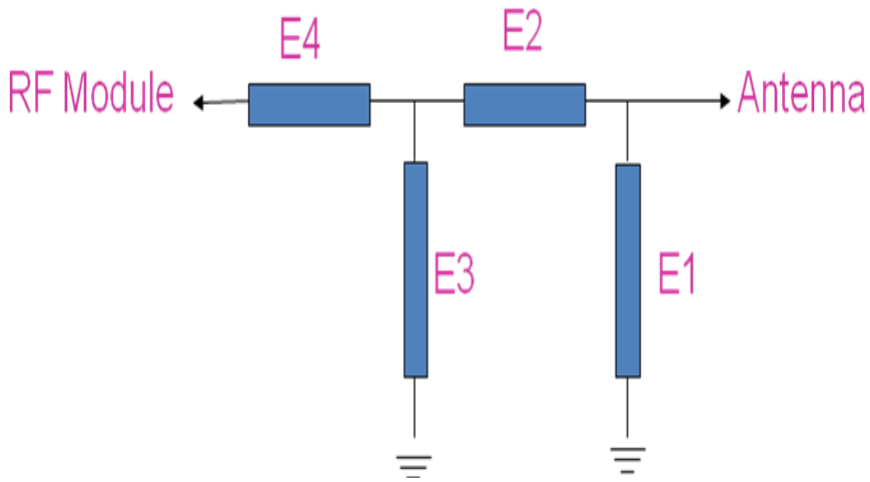
Address: 7th Floor,Ching Po Building,Shenzhen Special Zone Press Group,Futian District,Shenzhen

2.Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	Agilent 8960 E5515C& Agilent 4438C&CMW500 &CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



3.Antenna Matching Network

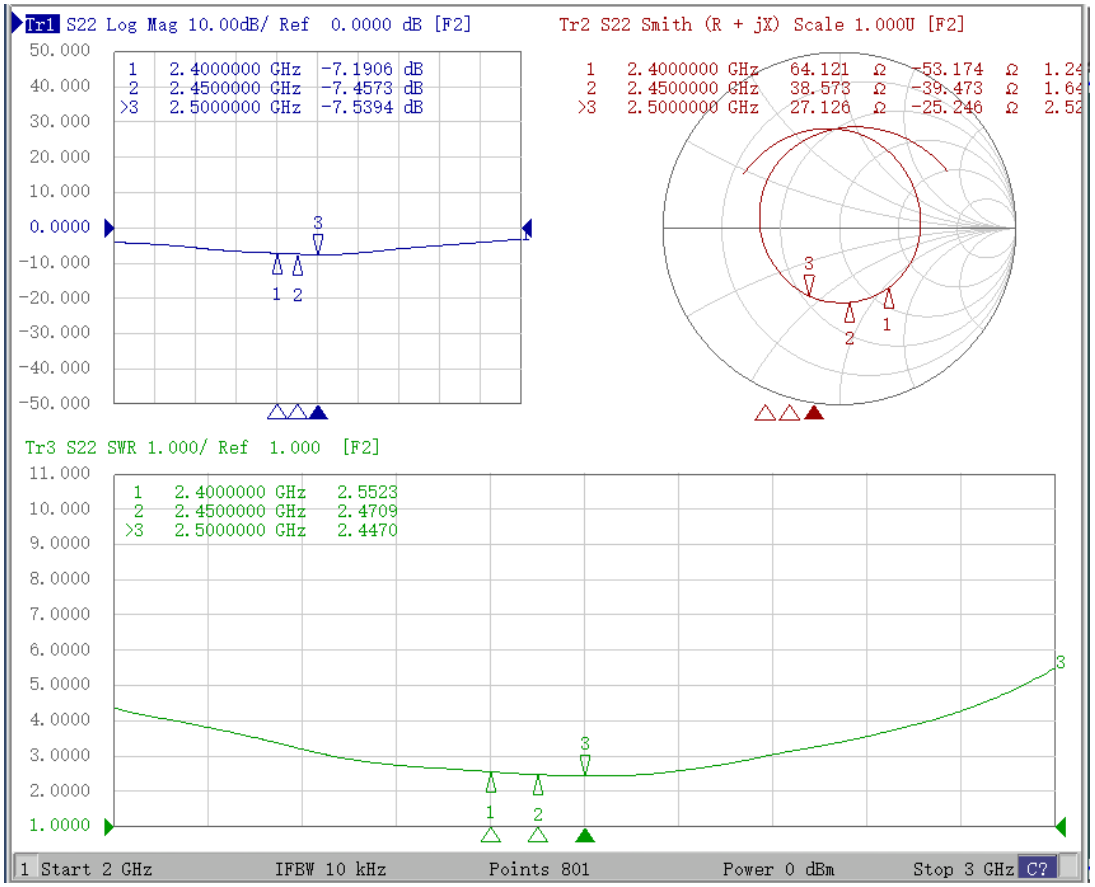


Element	Value
E1	N/A
E2	N/A
E3	N/A
E4	N/A

PCB板端匹配电路未改动

4. Test Result

4.1 S11 Parameter-VSWR



Frequency	2400	2450	2500
VSWR	2.55	2.47	2.44

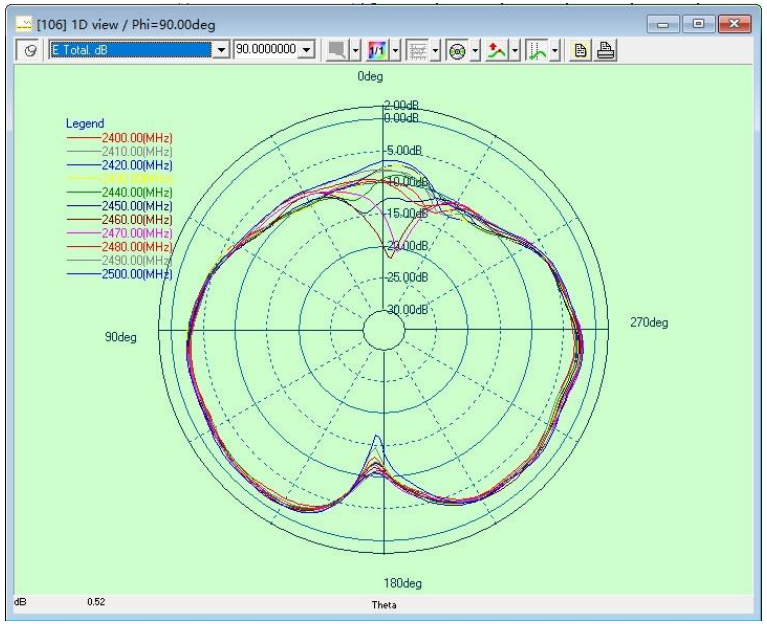
4. Test Result

4.2 Gain & Efficiency

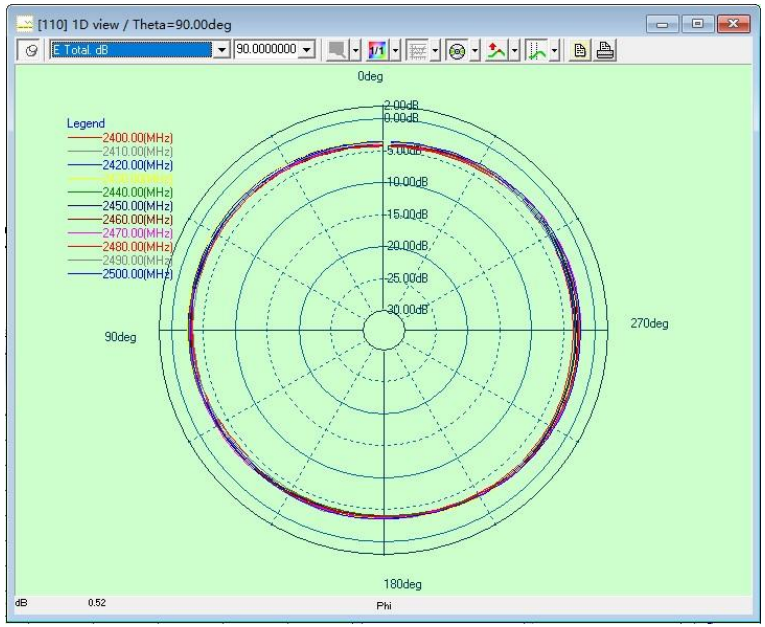
Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	32.8%	-1.65
2410	33.4%	-1.42
2420	35.4%	-0.95
2430	35.9%	-1.00
2440	34.0%	-1.34
2450	34.9%	-1.04
2460	36.9%	-0.70
2470	37.3%	-0.55
2480	35.5%	-0.95
2490	37.0%	-0.68
2500	38.5%	-0.57

4. Test Result

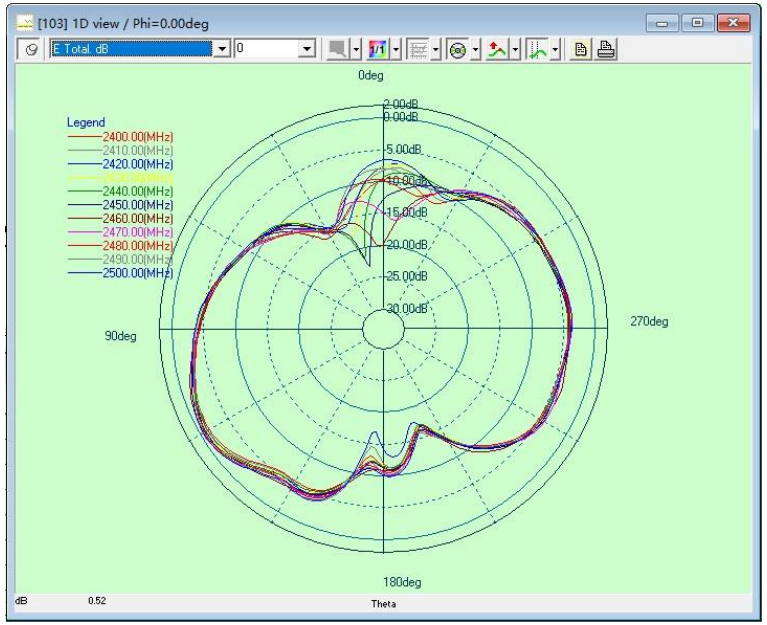
4.3 2D Pattern



Z-X



X-Y



Z-Y

Thank you !