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Antenna Test Report

Customer	华创智联
Project	头戴耳机
Antenna Revision	PCB Antenna
Product Description	Monopole
Product No	V1.0
DATE	2024. 10. 19

Purpose

This report is to measure the performance of BT antenna for 头戴耳机. The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

Content

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 - 4.3 2D Pattern
 - 4.4 OTA Data
 - 4.5 BT Boot measured
5. Antenna Assembly & environmental processing

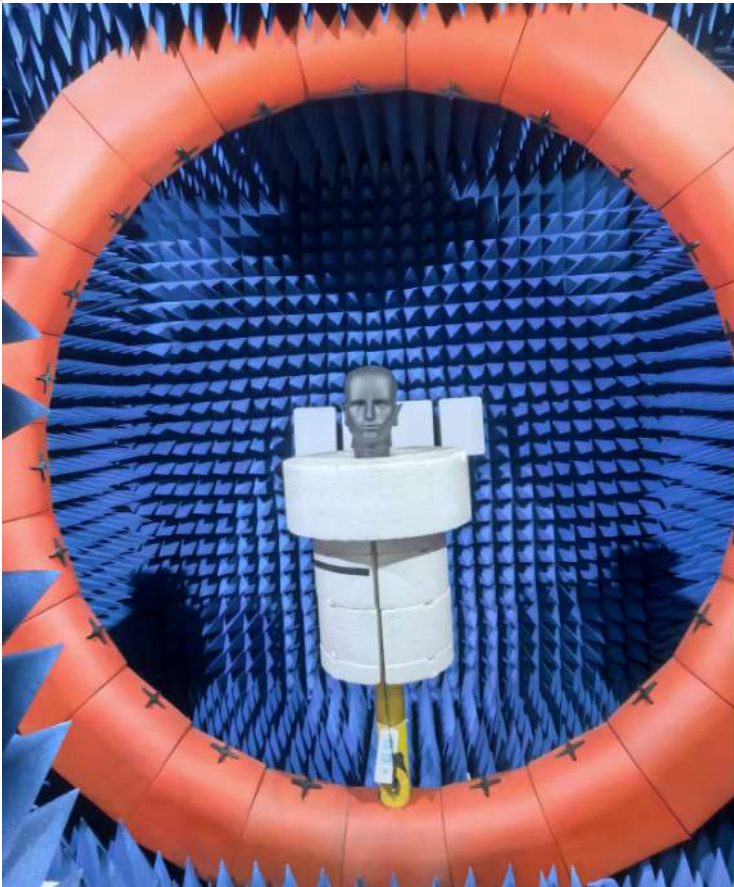
2. Test System

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



Test Result

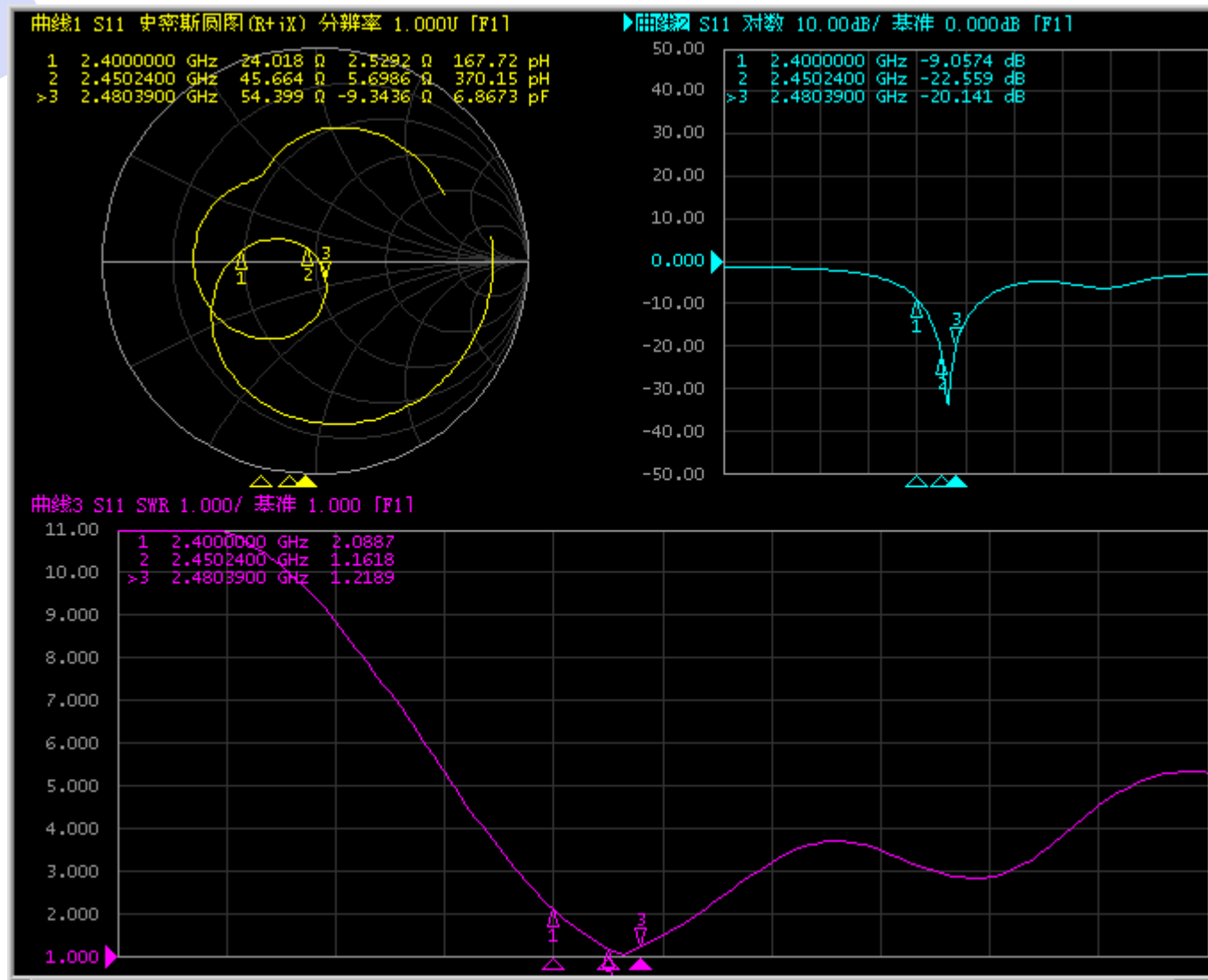
OTA-BH



产品图片



无源S11—(BT ANT)



无源效率

Gain & Efficiency——**BT- ANT**

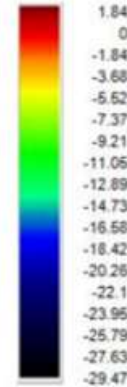
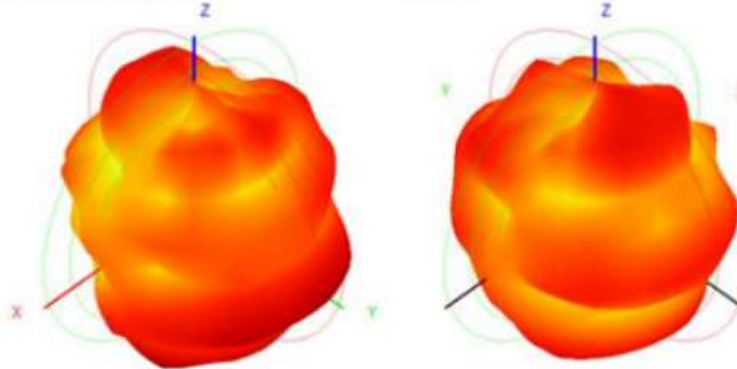
Frequency (MHz)	Peak GAIN (dBi)	Efficiency (%)
2400	-1.83	15.32
2410	-1.15	17.82
2420	-0.32	21.17
2430	0.31	25.84
2440	0.90	28.88
2450	1.84	31.87
2460	1.23	32.76
2470	1.28	33.33
2480	1.00	33.58
2490	0.38	31.76
2500	0.66	30.10

Test Result

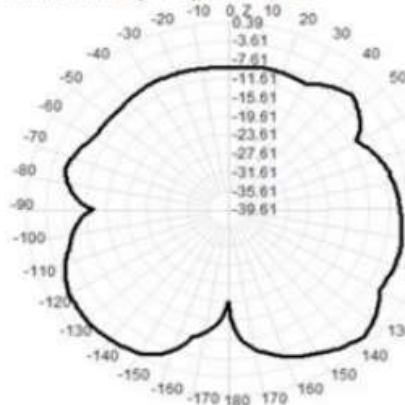
2D&3D — BT- ANT

2450.0MHz H+V, Eff: 31.9%

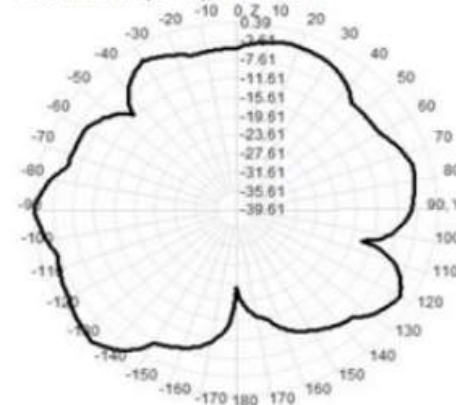
Back View



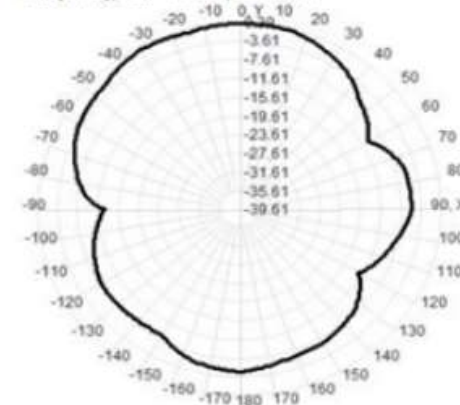
2450.0MHz Total(E1-XZ), Max=-1.48dBi



2450.0MHz Total(E2-YZ), Max= 0.39dBi



Total(H+XY), Max= 0.17dBi, CirD=13.17



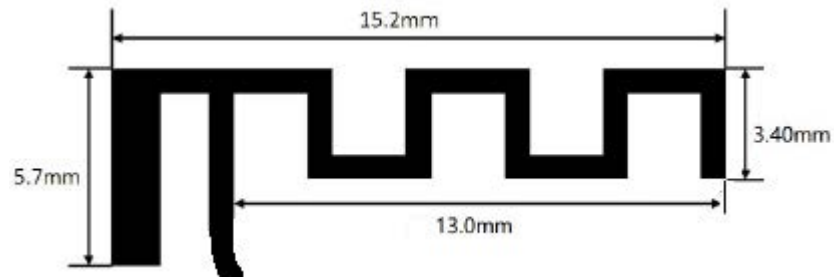
FS 自由空间				BH 头模测试		
BT Test				BT Test		
CH	TRP	TIS		CH	TRP	TIS
0	4.56	-92.15		0	3.12	-90.12
39	4.38	-91.33		39	3.56	-90.67
78	4.89	-90.25		78	3.66	-89.33

实景测试



测试场地：恒丰篮球场	测试手机	测试距离（360°）
	苹果6	16M
	华为P40	25M

Antenna size diagram



Thanks for your comment!

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