



硕贝德科技
SPEED

Antenna

Product Specification

ODM PN: F-0A-2F-0106-001-W0

OC: Suzhou Speed Wireless Technology Co., Ltd.



Version	Date	Author	Note
1.0	20221109	Joe	First issue

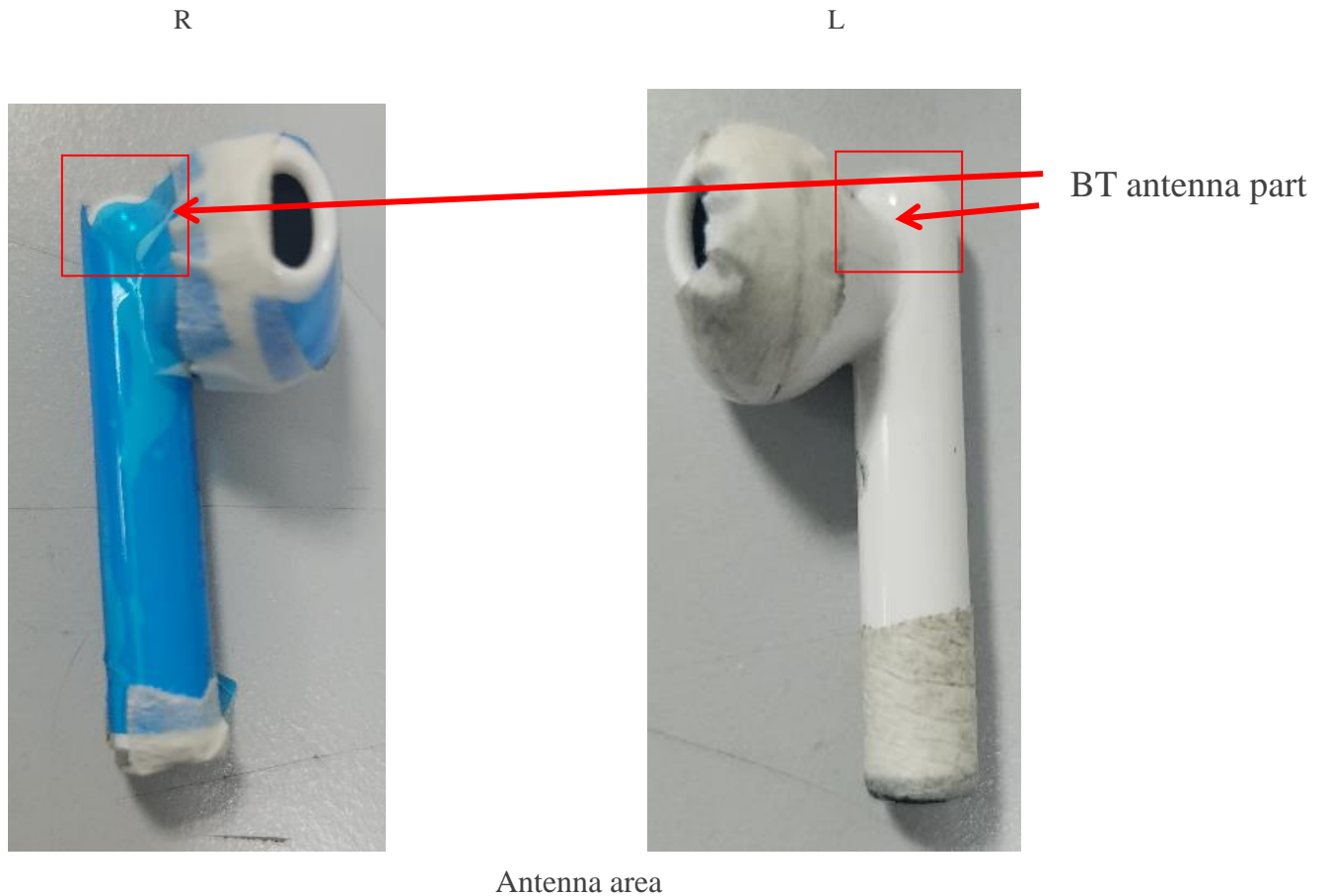
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1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.



2 Product Features

- BlueTooth

3 Product Specifications

无源电性能指标 Passive Electrical Specifications

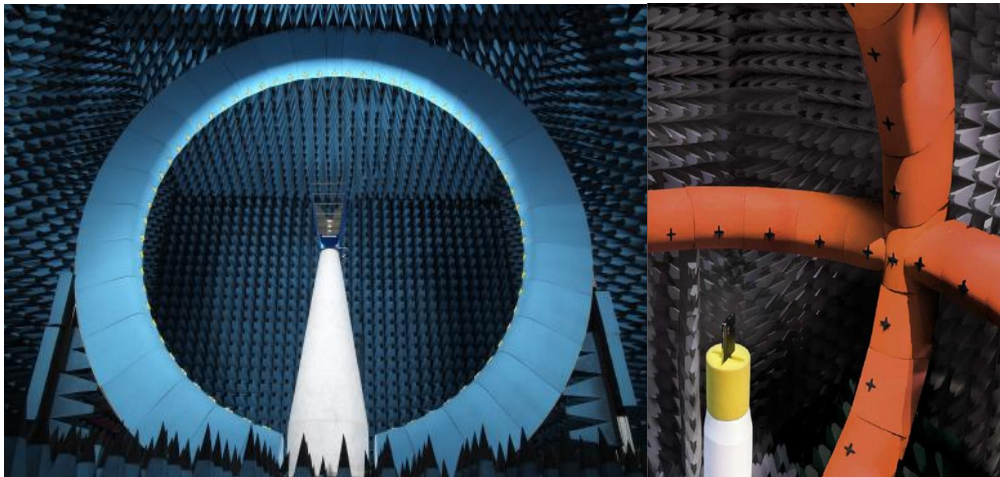
频率范围 Frequency Range (MHz)	2400-2500MHz
输入阻抗 Input Impedence (Ω)	50
电压驻波比 VSWR	≤ 5.0
增益 Gain (dBi)	左耳(left earphone): -3.6dBi, 右耳(right earphone): -4.1dBi
极化形式 Polarization Type	线性 Linear

机械指标 Mechanical Specifications

天线尺寸 Antenna Size (mm)	7.50*7.10*4.55
外壳 Casing	L116.25*17.60* \varnothing 13.00
辐射体 Radiator	铜, 镍
连接器型号 Connect Type	SMA-J
工作温度 Working Temperature ($^{\circ}\text{C}$)	-20 ~ +80
颜色 Radome Color	White

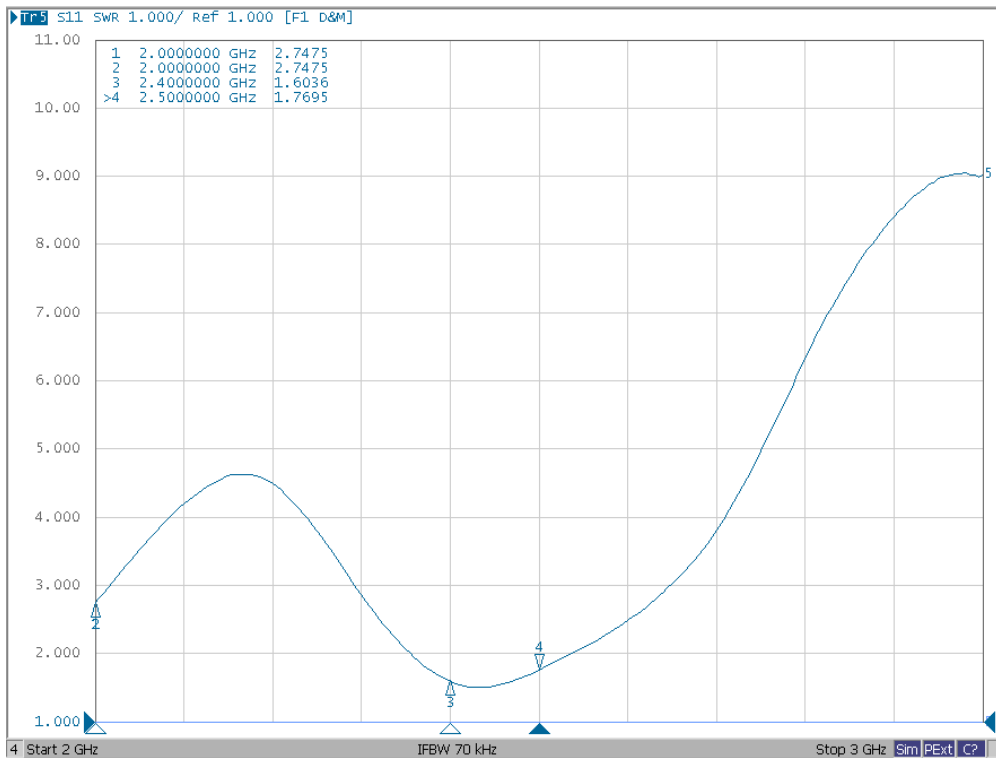
4 Overall Performance

- Test Environment
 - ETS-LINDGREN, 400MHz-6.0GHz.

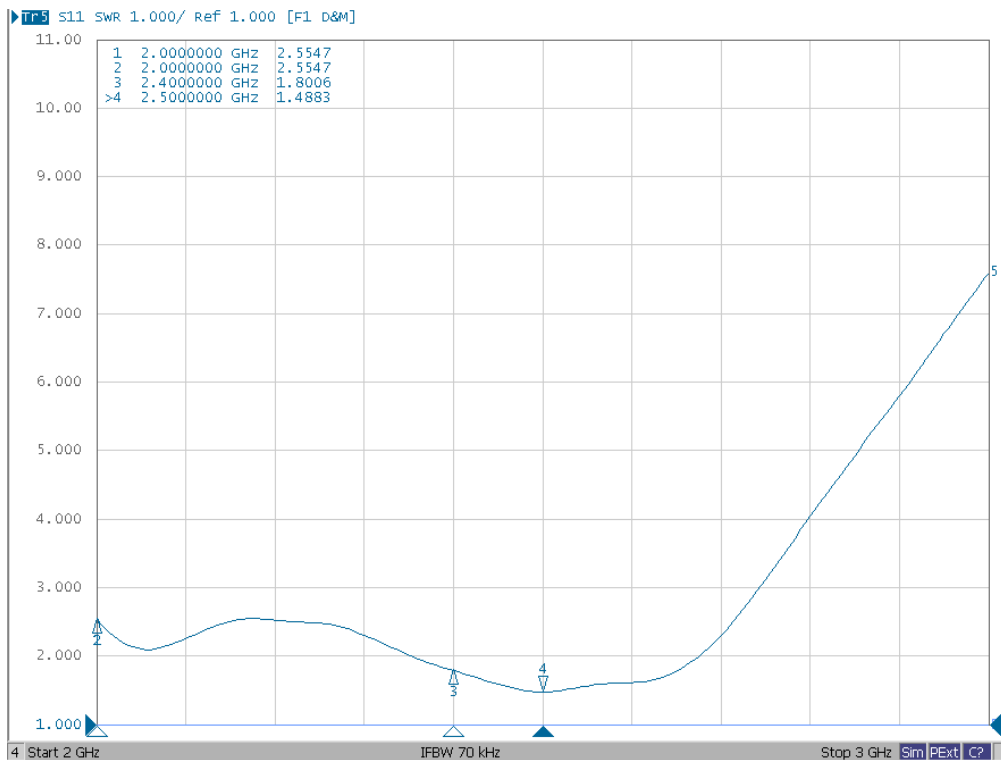


- VSWR

VSWR measurements (S11) were performed using RS Zvb4 Network Analyzer and the previously described test fixture. A ferrite-loaded coaxial cable was used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.



L VSWR



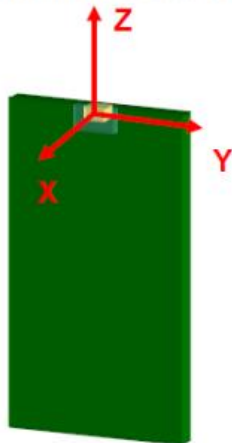
R VSWR

- BT VSWR

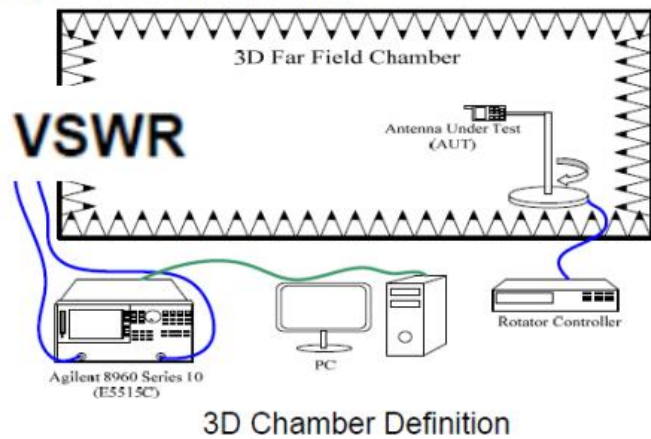
VSWR	L	R
2400	1.6	1.8
2440	1.64	1.6
2480	1.76	1.4

Radiation Pattern

The Gain pattern is measured in INPAQ's FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.

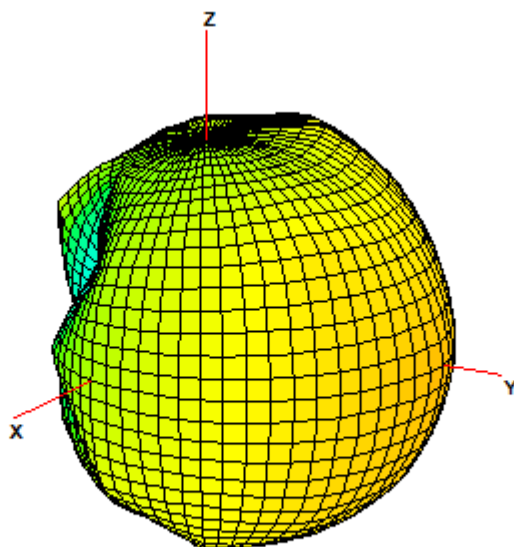


© 3D Gain Pattern (2442 MHz)

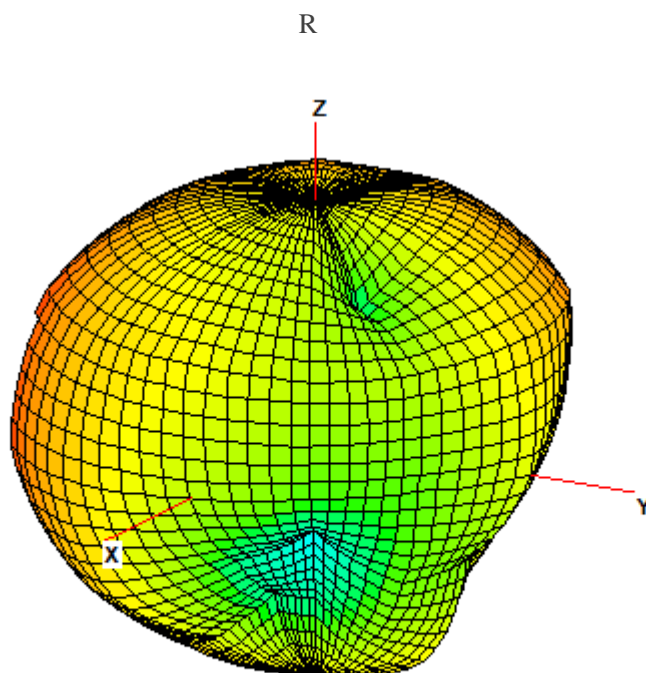


L

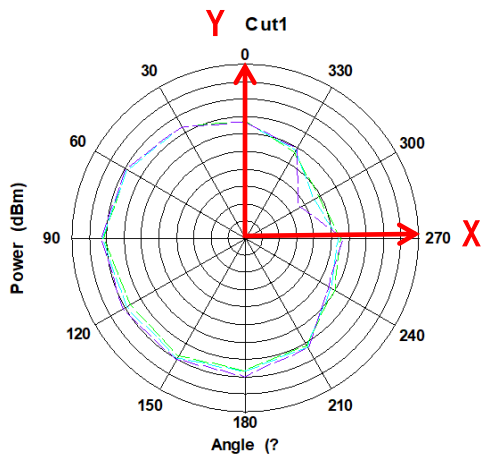
Azimuth = 100.0
Elevation = -30.0
Roll = -70.0



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Elevation = -30.0
Roll = -70.0

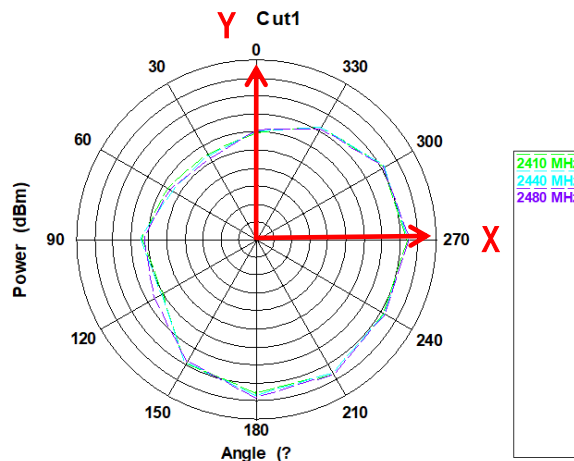


L CUT1 (X-Y)

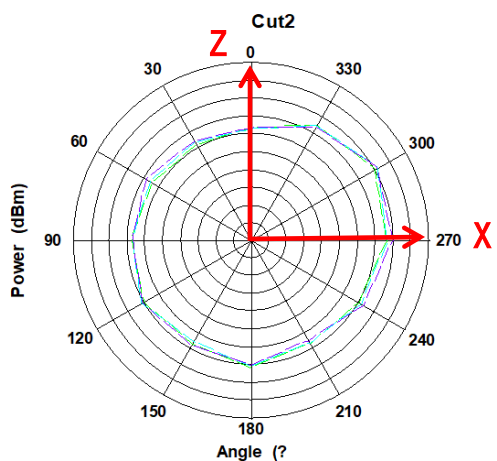


Max: 0
Min: -50
Scale: 5/div

R CUT1 (X-Y)

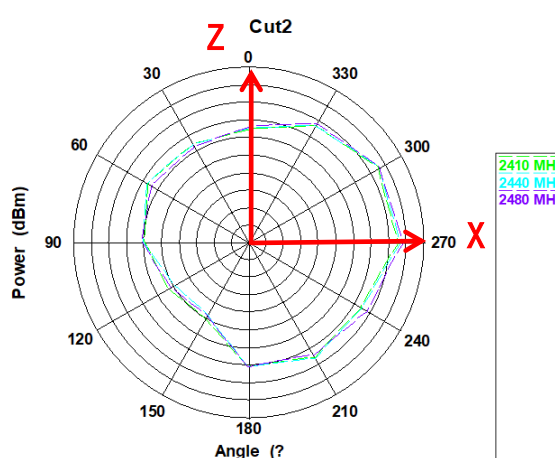


L CUT2 (X-Z)



Max: 0
Min: -50
Scale: 5/div

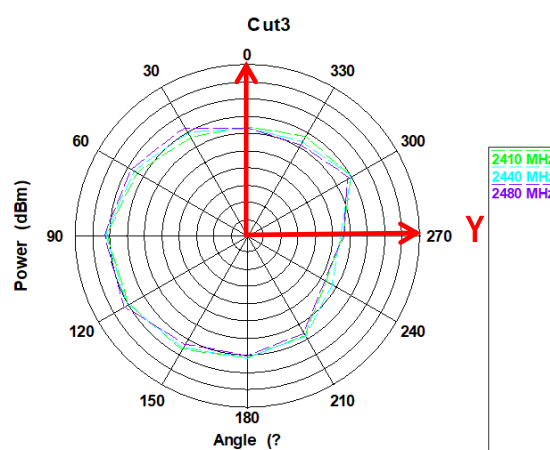
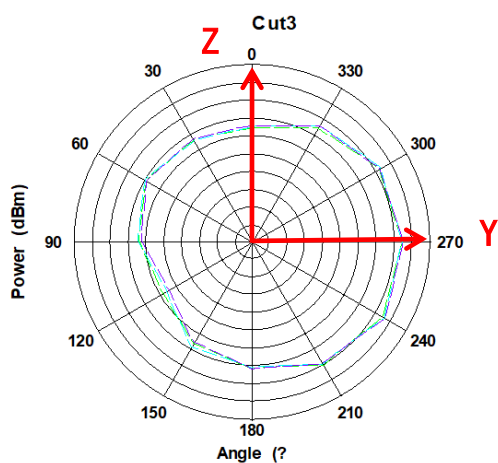
R CUT2 (X-Z)



L CUT3 (Y-Z)

R CUT3 (Y-Z)

Z



Max: 0
Min: -50
Scale: 5/div