

深圳市合拓科技有限公司

样品承认书

Sample Approved Sheet

合拓（3311W-WIFI）承认书

客户名称 深圳市申展电子有限公司

客户机型	UTV01
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品 牌 合拓自产 HT-3311W-WIFI

合拓 判定审核组

制订	审核	批准	承认书完成时间
钟晓鸣	胡雪文	戴庭庭	2022.7.8

申展（客户）判定审核组

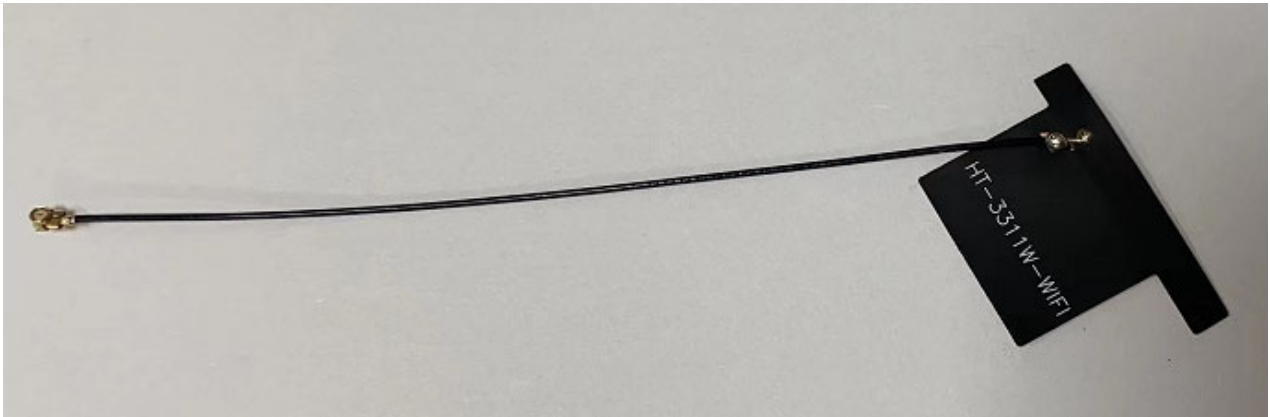
承认书编号	承认书提供时间
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承认	审核	批准	承认日期
评审项目： ☐ 承认书 3 份 ☐ 规格书/图纸 ☐ 检测报告 ☐ 样品___PCS ☐ 安规 ☐ HSF			
评审结果： ☐ 接受 ☐ 有条件接受 ☐ 拒绝			

[illegible]

1. Antenna picture

The report mainly provides the test status of the electrical properties parameters of **HT-3311W-WIFI**. The **HT-3311W-WIFI** antenna is a **BT** Band . The antenna Picture and assembly are shown below.



Antenna picture & assembly picture

2. Antenna Test Equipment Introduction

Test of antenna input characteristics using Agilent E5071C and Agilent 5062A vector network analyzer; The radiation pattern of the antenna are tested using the Satimo starlab 3D near field Anechoic Chamber , and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

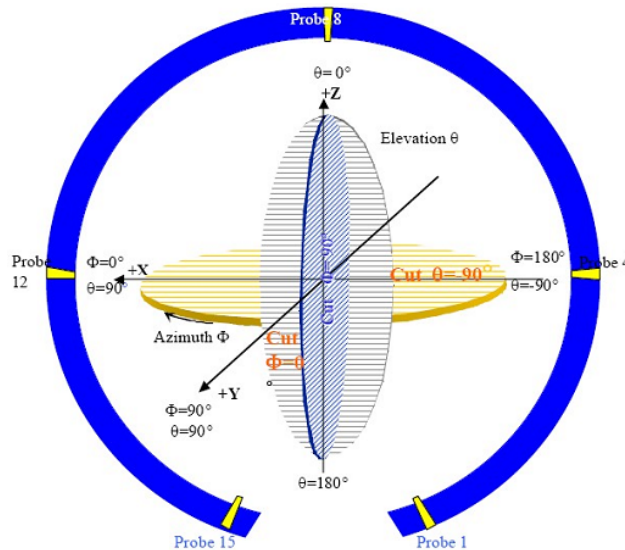


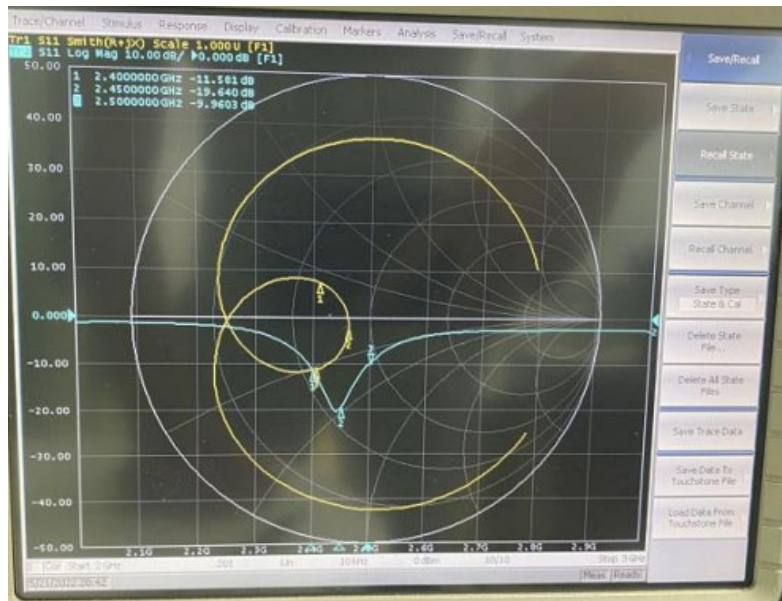
图4 3D微波暗室测试坐标系(back view)

3. Electrical Specification

3-2 Passive S11 parameter

Measuring Method is a 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

VSWR



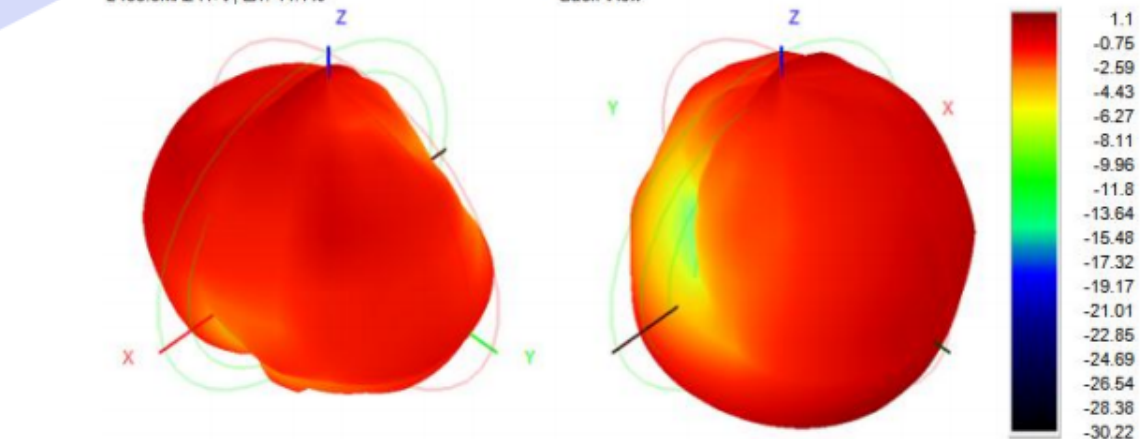
3-3 Antenna Matching Network

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	44.09	1.10
2410	45.66	1.31
2420	46.87	0.92
2430	49.62	1.21
2440	51.82	1.25
2450	54.61	1.61
2460	53.55	1.96
2470	53.60	1.92
2480	48.93	1.30
2490	50.02	1.33
2500	47.80	0.84

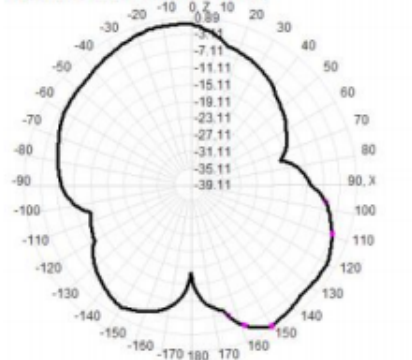
2D&3D — BT- ANT

2400.0MHz H+V, Eff: 44.1%

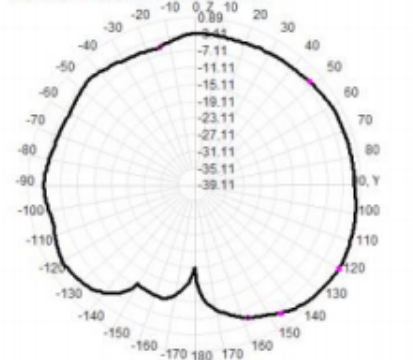
Back View



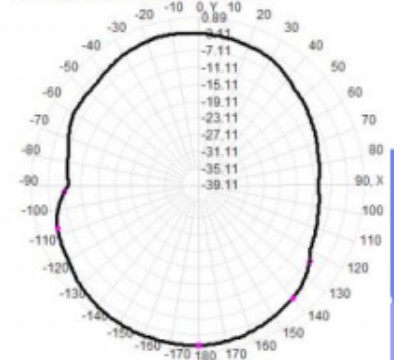
2400.0MHz Total(E1-XZ), Max=-0.28dBi



2400.0MHz Total(E2-YZ), Max= 0.89dBi



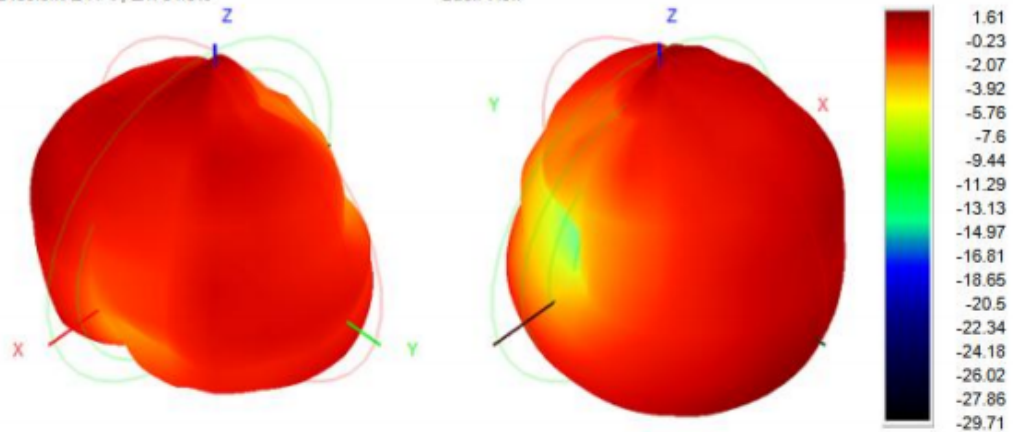
Total(H-XY), Max=-0.85dBi, CrD=9.54



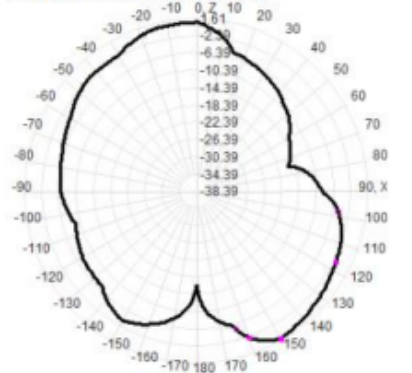
2D&3D — BT- ANT

2450.0MHz H+V, Eff: 54.6%

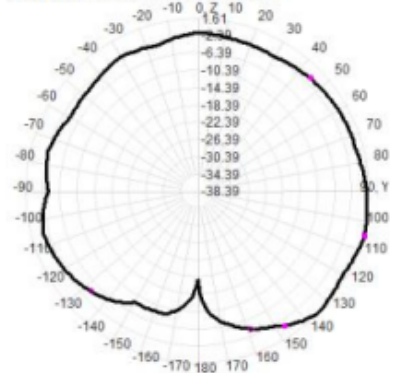
Back View



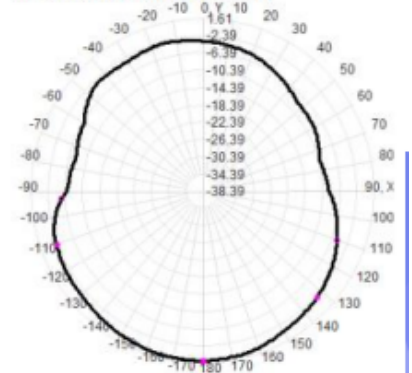
2450.0MHz Total(E1-XZ), Max= 0.91dBi

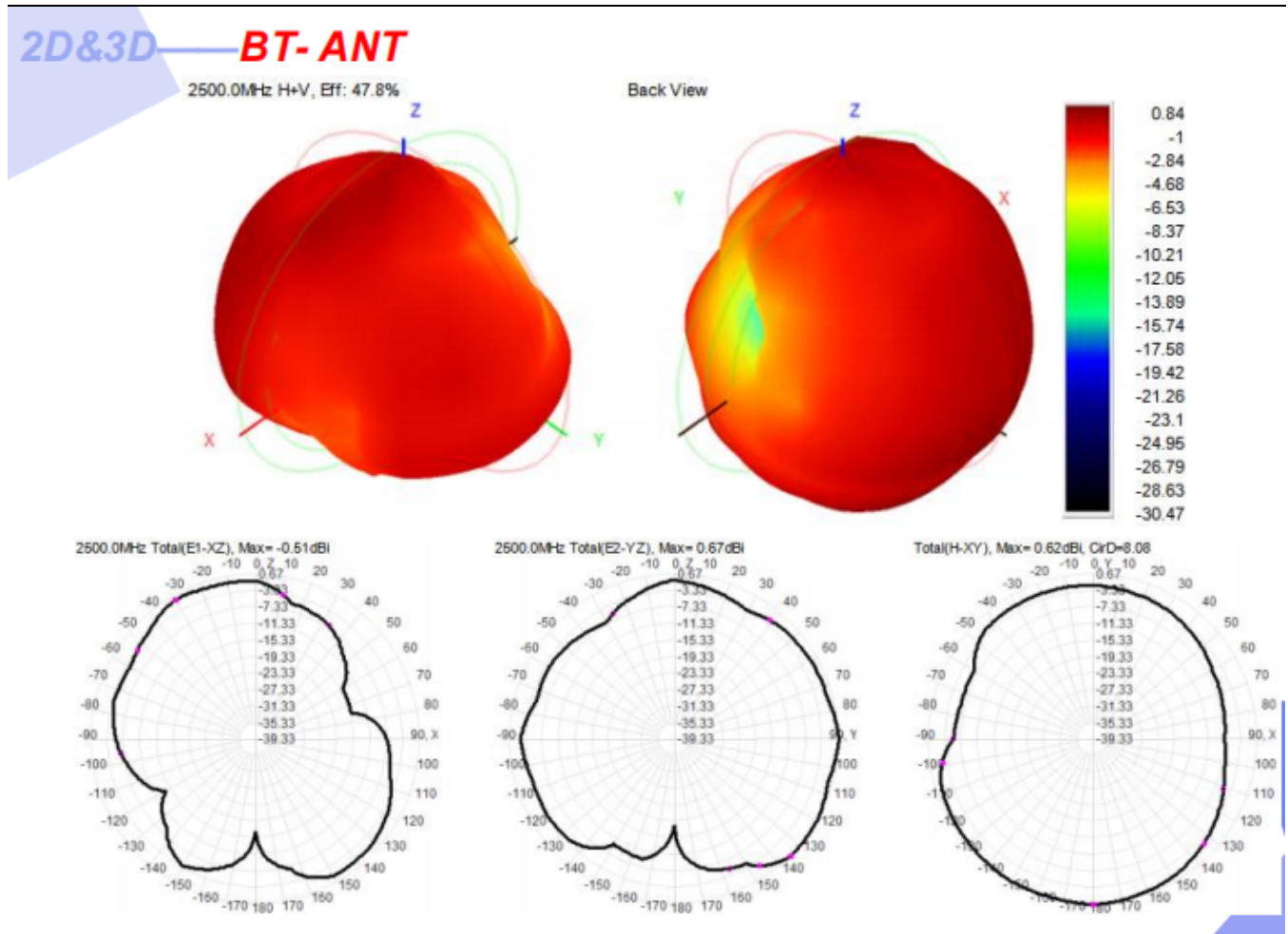


2450.0MHz Total(E2-YZ), Max= 1.61dBi



Total(H-XY), Max= 0.75dBi, CrD=11.20





4. Mechanical Specification:

Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 8

