



# 规格承认书

## SPECIFICATION FOR APPROVAL

日期  
DATE: 2024.03.20

版本  
REV.: v1.0

客户  
CUSTOMER: Asiatelco Technologies Co.

客户料号  
CUSTOMER P/N:

品名  
PART NAME: SD-D04-BT Antenna

供方料号  
SUPPLIER P/N: RQ03B140710-BT

送样日期 Date: 送样数量 Q'TY: Pcs

客户确认 CUSTOMER APPROVED BY		
工程研发部	生产采购部	承认
ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY

供方确认 SUPPLIER SIGNATURE		
研发部	工程部	批准
ENGINEER R&D DEPT	ENGINEER R&D DEPT	APPROVAL
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# 1. RF Fixture Experiment

## 1.1 Test Setup

### 1.1.1 VNA Test Setup

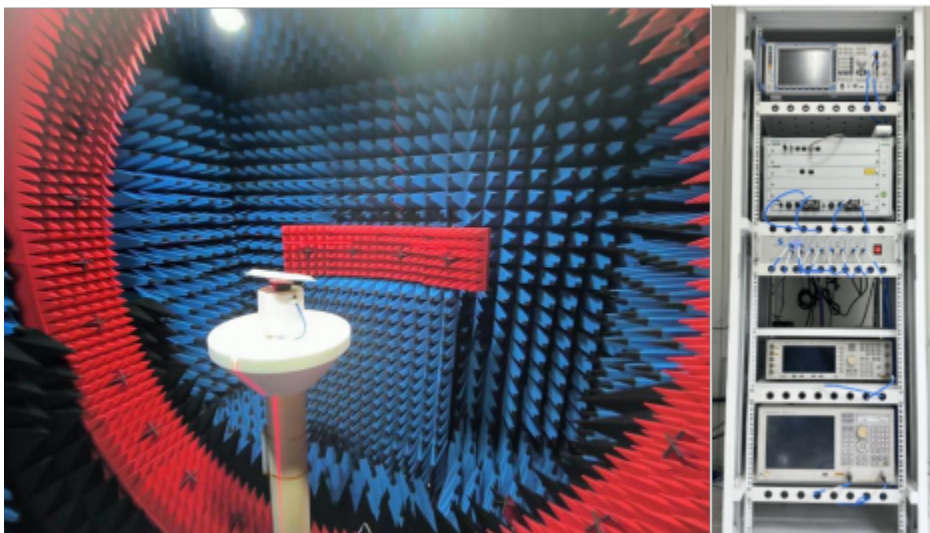
VSWR and Return Loss measurements ( $S_{11}$ ) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

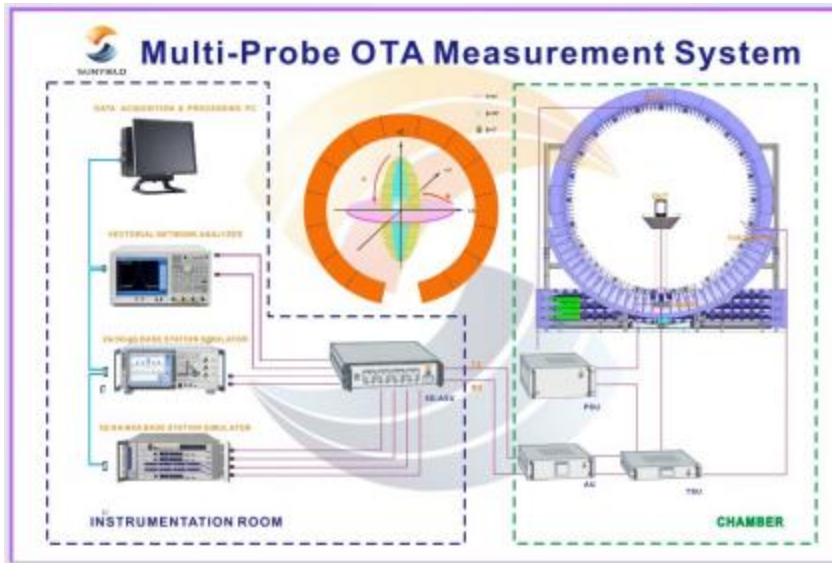


### 1.1.2 Anechoic Chamber Test Setup

When we test Gain and Efficiency of the antenna, we will use the Multi-Probe OTA Measurement System 3D chamber.

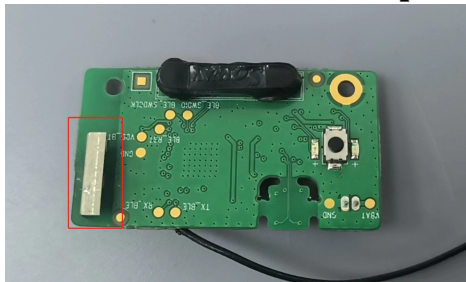
The chamber provides test frequency from 400MHz to 6GHz. The real test environment is showing as following picture





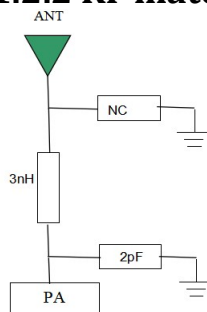
## 1.2 UE configuration

### 1.2.1 Antenna location pictures



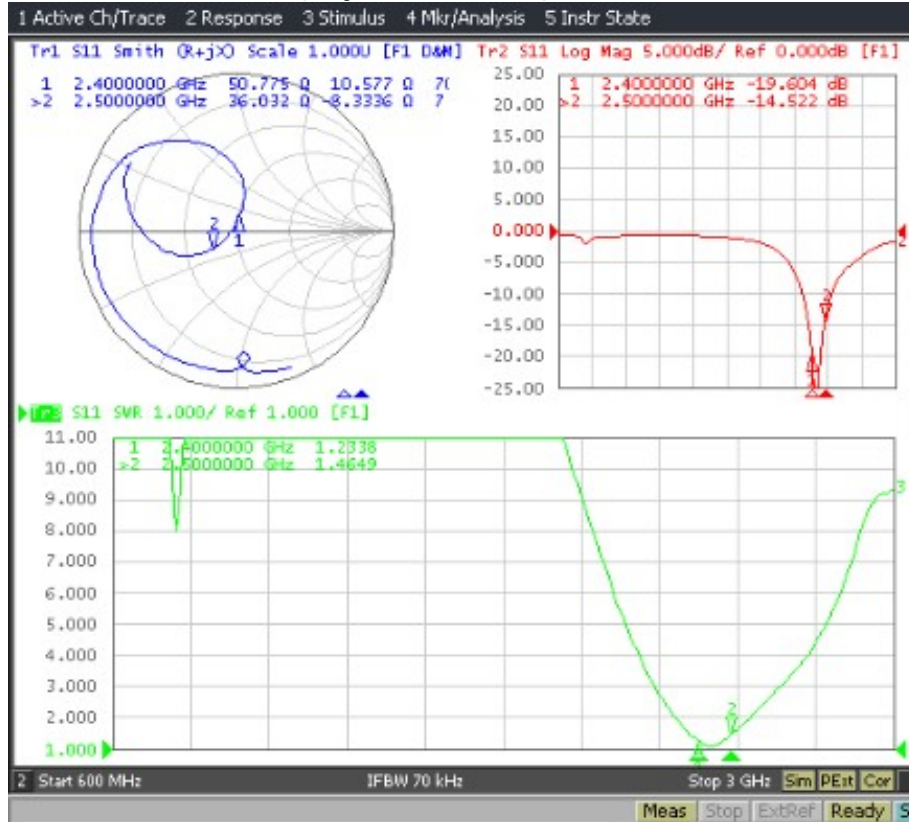
On the top is the BT antenna, welded to the PCB board.

### 1.2.2 RF matching for different antennas



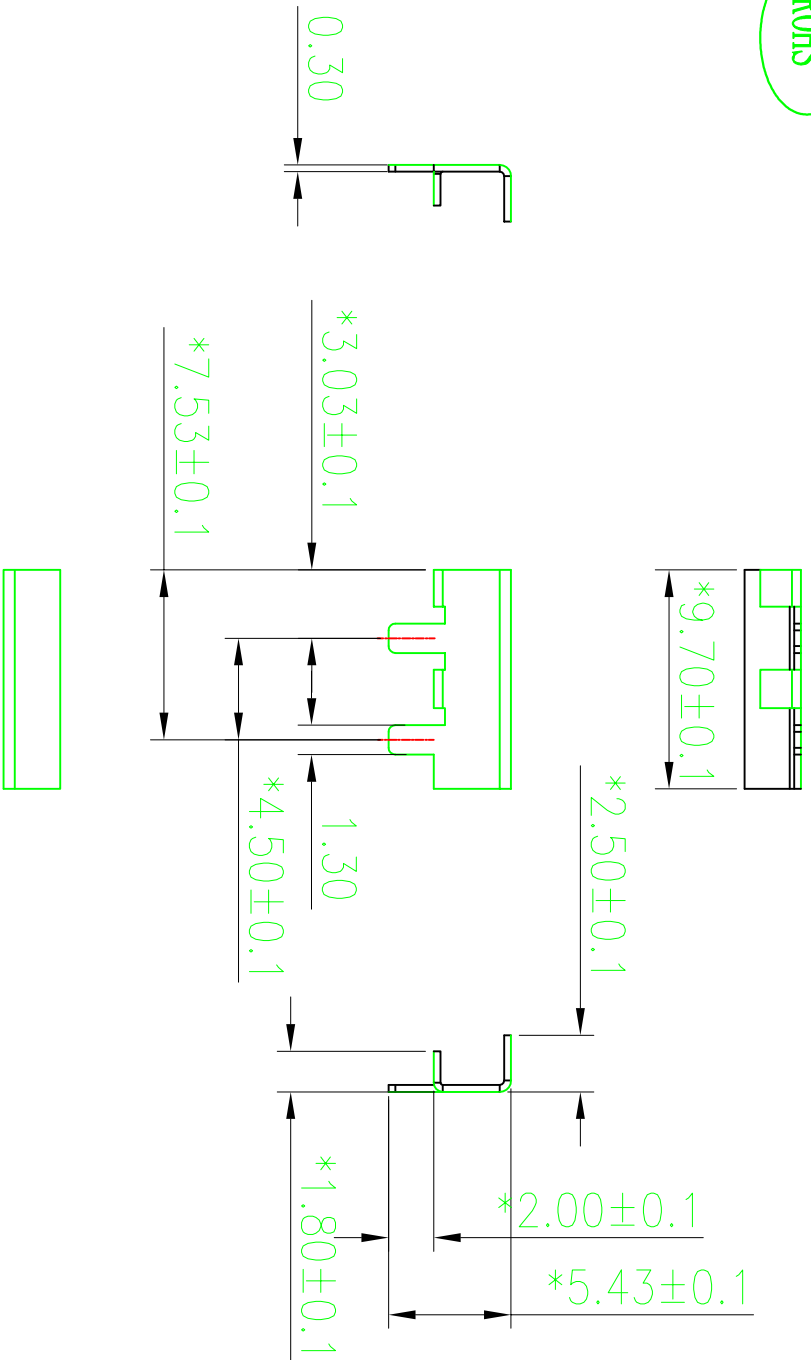
## 2. Test Result

### 2.1 Passive Test Result(S parameters)



BT			
frequency (MHz)	gain (dBi)	efficiency (dB)	efficiency (%)
2400	4.26	-2.41	57.47
2410	4.7	-1.95	63.9
2420	4.66	-2.04	62.49
2430	4.61	-2.16	60.75
2440	4.69	-1.91	64.46
2450	4.6	-1.66	68.21
2460	4.53	-1.68	67.94
2470	4.43	-1.71	67.38
2480	4.52	-1.69	67.72
2490	5.1	-1.65	68.41
2500	5.75	-1.49	70.94

ROHS



技术要求:

1. 天线材质为: 洋白铜, 厚度为0.3mm;
2. 打\*为重点尺寸公差±0.05;
3. 表面不得有油污、划痕及压印等外观不良;
4. 所有材料符合环保ROHS标准。

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日期	修改内容	版本	修订
1	2	3	4



深圳市瑞强通信有限公司

RF PA	机种	SD-04	日期	2023.12.14
0~10	品名	SD-04-BT-V1.0	设计	周俊
10~20	料号	RQ03B140710-BT	审核	
20~40	材质		射频	
40~50	表面处理		确认	
±0.10	位置	外观处理	单位	
±0.12			mm	
±0.15			比例	
±0.20			FT	
			版本	
			V1	

5	6	7	8
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