

规 格 承 认 书

SPECIFICATION FOR APPROVAL

日期

DATE: 2024.4.12

版本

REV.: V1.0

客 户

CUSTOMER:

德明通讯(上海)股份有限公司

客户料号

CUSTOMER P/N:

品 名

PART NAME:

DC10-BT/WIFI Antenna

供 方 料 号

SUPPLIER P/N:

送样日期 Date:

送样数量 Q'TY:

Pcs

客户确认 CUSTOMER APPROVED BY

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

供方确认 SUPPLIER SIGNATURE

研发部 ENGINEER R&D DEPT	工程部 ENGINEER R&D DEPT	批准 APPROVAL

Index

1.	RF Fixture Experiment.....	1
1.1	Test Setup	3
1.2	UE configuration.....	4
2.	Test Result	5
2.1	Passive Test Result(S parameters)	5
3.	Mechanical instruction	6

1. RF Fixture Experiment

1.1 Test Setup

1.1.1 VNA Test Setup

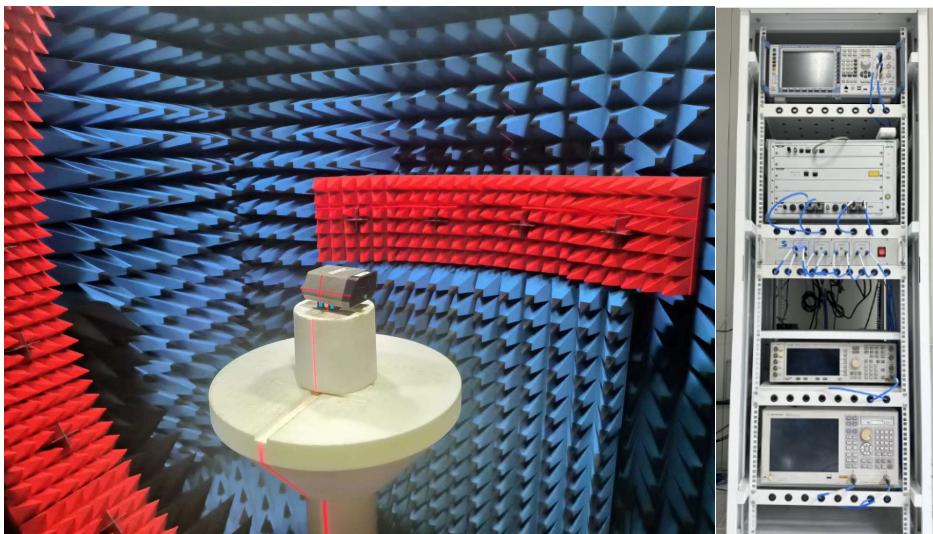
VSWR and Return Loss measurements (S_{11}) were performed using an KeySight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

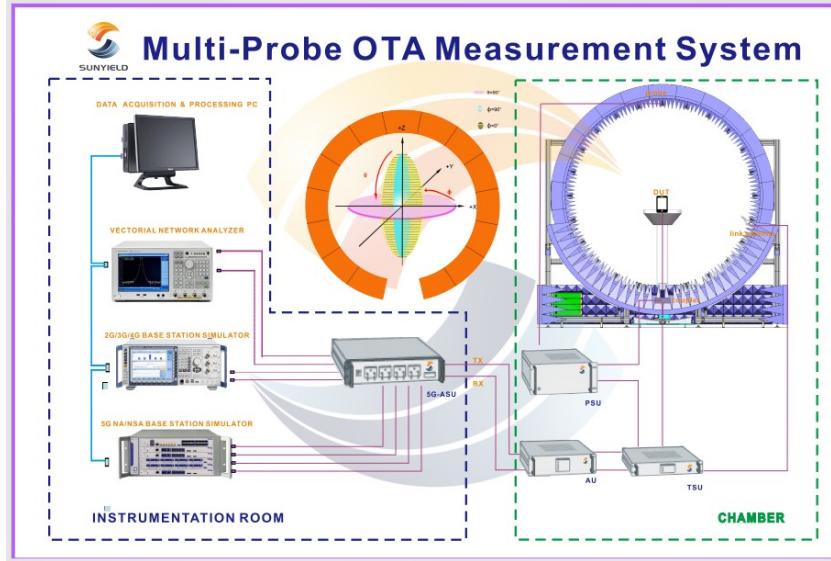


1.1.2 Anechoic Chamber Test Setup

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

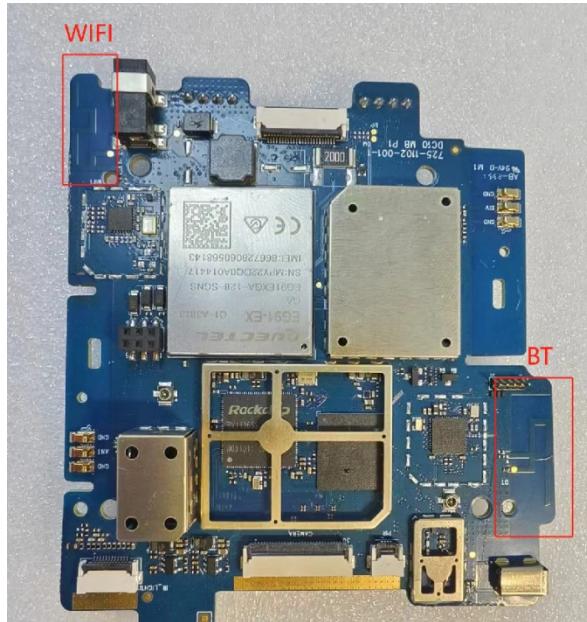
The chamber provides test frequency from 400MHz to 6GHz. The real test environment is showing as following picture





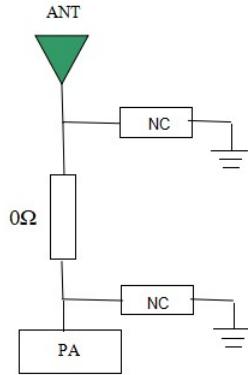
1.2 UE configuration

1.2.1 Antenna location pictures



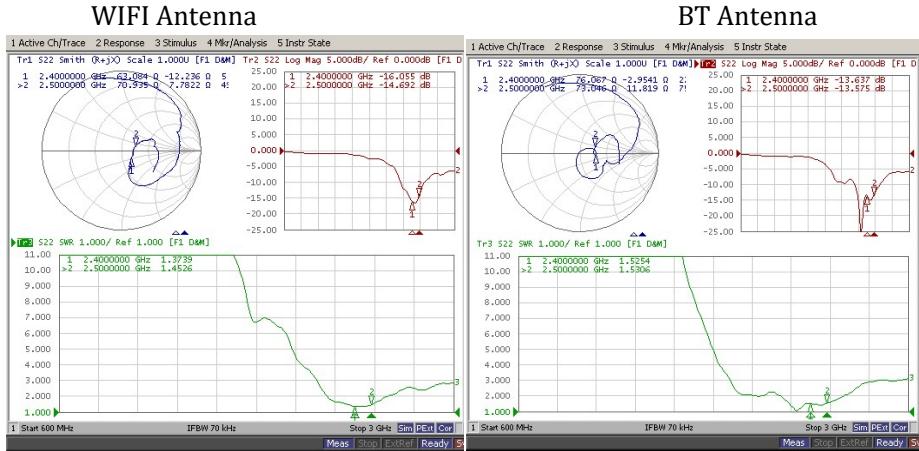
On the right is the BT antenna, On the left is the WIFI antenna.

1.2.2 RF matching for different antennas



2. Test Result

2.1 Passive Test Result(S parameters)



WIFI Antenna		
frequency (MHz)	gain (dBi)	efficiency (%)
2400	1.35	54.77
2410	1.4	53.58
2420	1.64	56.21
2430	1.61	58.49
2440	1.09	55.85
2450	0.67	54.65
2460	0.58	55.02
2470	0.72	56.6
2480	1.01	59.76
2490	1.1	60.01
2500	1	55.59

BT Antenna		
frequency (MHz)	gain (dBi)	efficiency (%)
2400	1.88	51.54
2410	1.86	49.9
2420	2.25	52.39
2430	2.55	55.94
2440	2.32	54.45
2450	2.12	53.73
2460	2.16	53.99
2470	2.44	55.08
2480	2.98	58.05
2490	3.23	58.21
2500	2.88	53.61

