

供方 LOGO

规格承认书
SPECIFICATION FOR APPROVAL

日期
DATE: 2026.02.13

版本
REV.: V1.0

客 户 德明通讯（上海）股份有限公司
CUSTOMER: Asiatelco Technologies Co.

客 户 料 号
CUSTOMER P/N:

品 名 GA05-BT/WIFI Antenna
PART NAME:

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	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

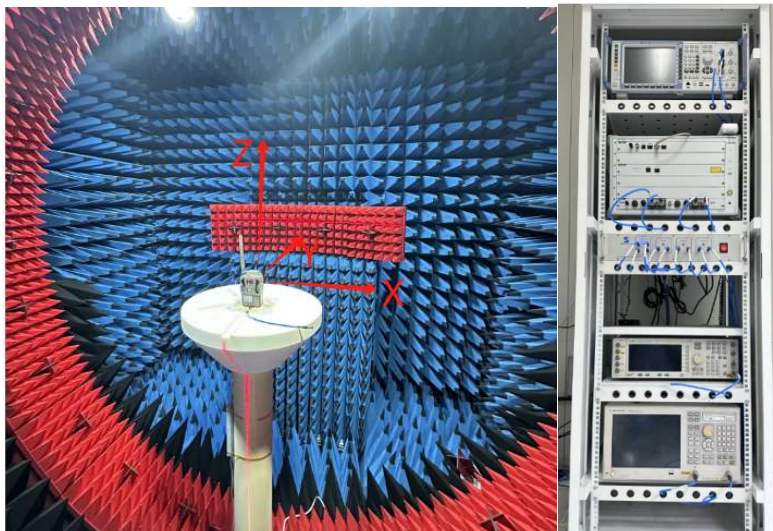
VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

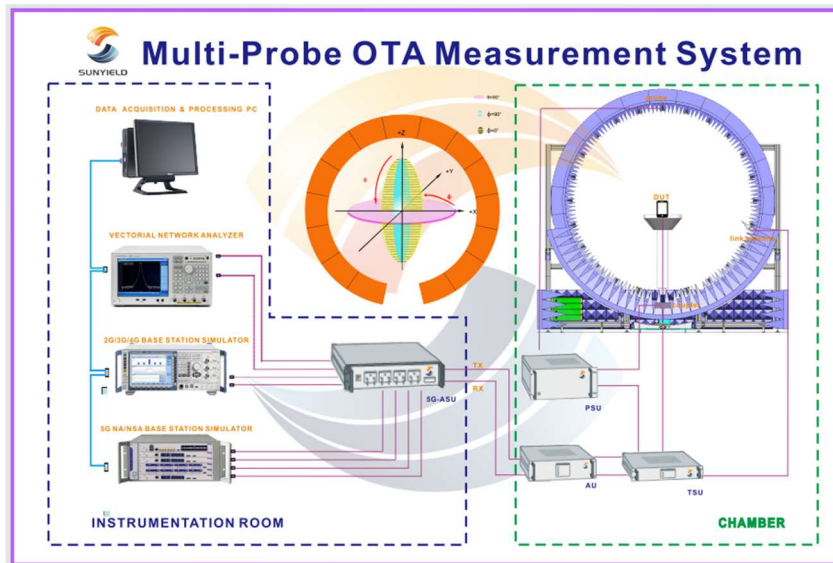


1.1.2 Anechoic Chamber Test Setup

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

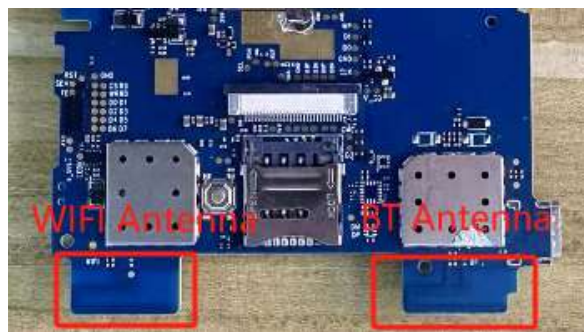
The chamber provides test frequency from 400MHz to 6GHz. The real test environment is showing as following picture





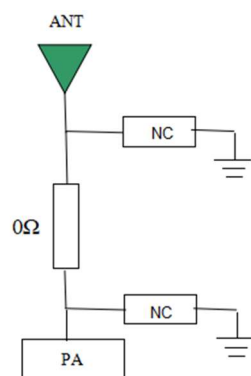
1.2 UE configuration

1.2.1 Antenna location pictures



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

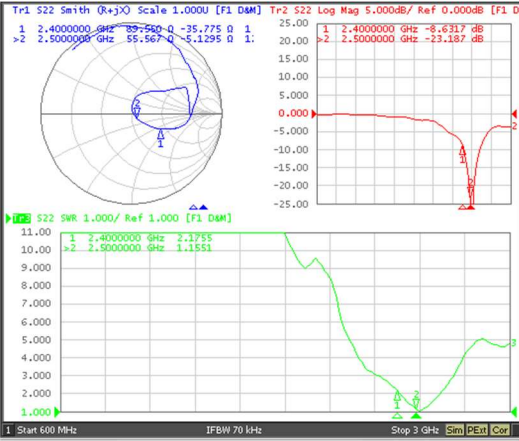
1.2.2 RF matching for different antennas



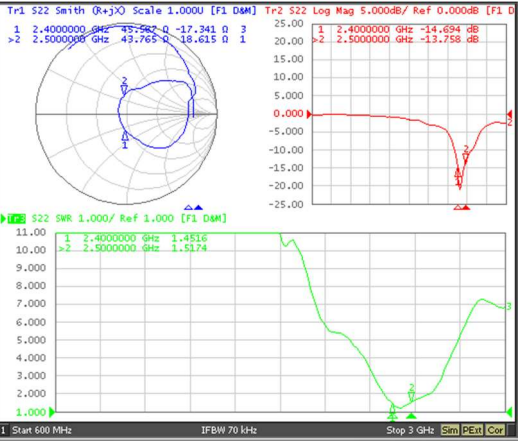
2. Test Result

2.1Passive Test Result(S parameters)

WIFI Antenna



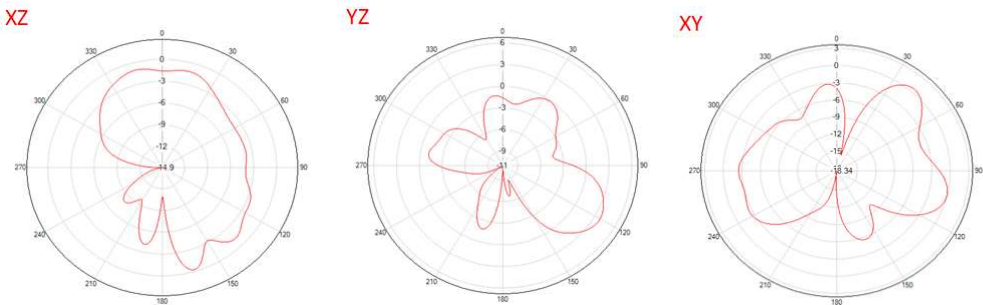
BT Antenna



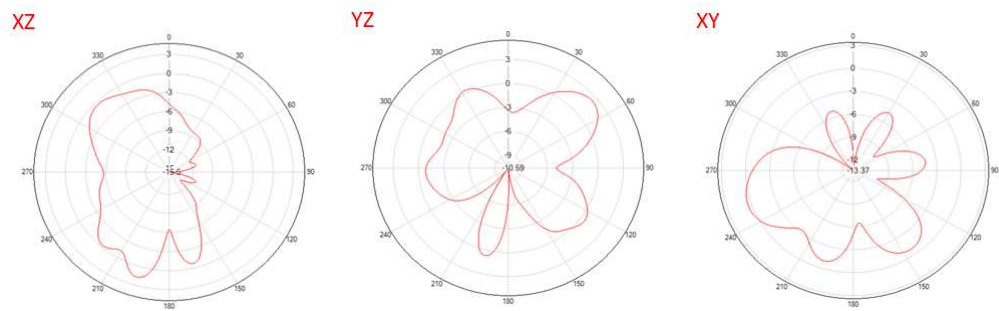
WIFI Antenna		
frequency(MHz)	gain(dBi)	efficiency(%)
2400	2.31	57.42
2410	2.58	58.99
2420	3.3	66.08
2430	3.39	66.94
2440	3.2	64.15
2450	3.03	65.74
2460	3.07	67.2
2470	2.94	67.83
2480	2.89	67.6
2490	2.96	68.77
2500	2.87	67.77

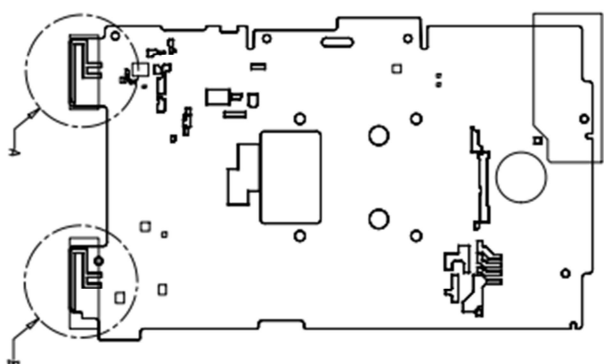
BT Antenna		
frequency(MHz)	gain(dBi)	efficiency(%)
2400	2	57.32
2410	1.55	52.22
2420	2.07	58.37
2430	2.56	65.83
2440	2.19	61.43
2450	1.91	59.85
2460	2.03	62.7
2470	2.15	66.53
2480	2.26	69.83
2490	1.88	66.96
2500	1.59	65.32

Radiation patterns:2D (2430MHZ) WIFI Antenna

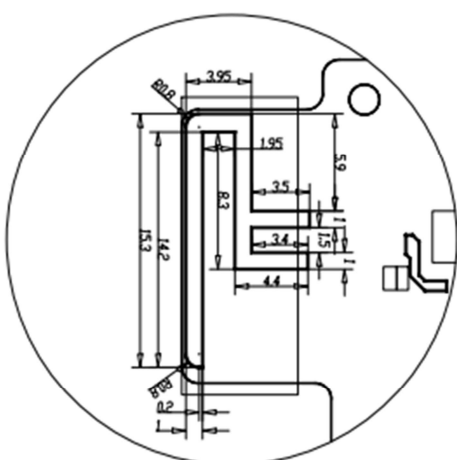


Radiation patterns:2D (2430MHZ) BT Antenna

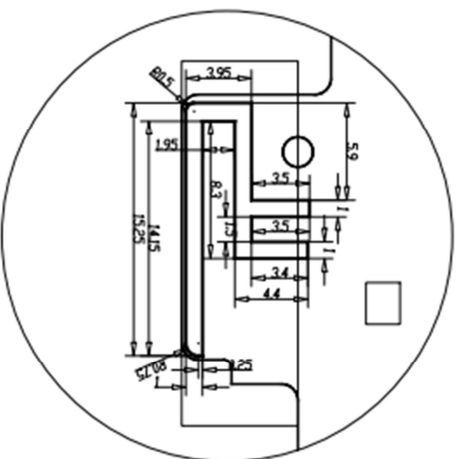




WIFI ANT



B T A N T



name		NAME	SURNAME
company		NAME	DATE
		NAME	DATE
ID		GA05_WIFI&BT_ANT	
A3	XXXXXXXXXX		
date	file	series	id
11	FILE	1 OF 1	X
3			