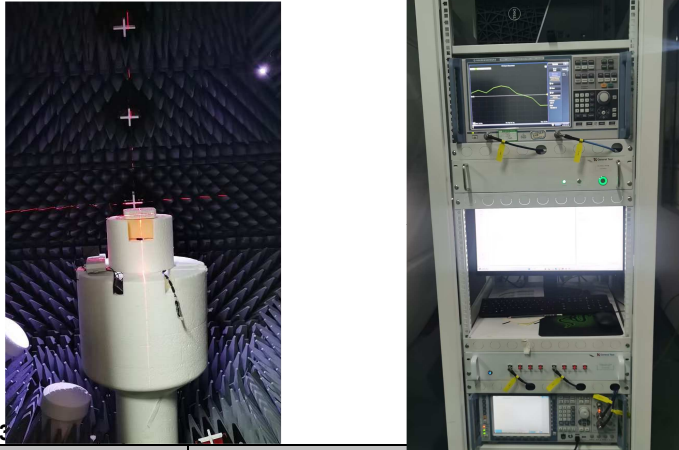


Antenna Characterization : Antenna Passive(Eff./Gain/VSWR/S11/S21) and Active Report (TRP/TIS)

TEST DATE :

1. Test Purpose: To demonstrate that the Antenna parameters are as per the requirement specs.

2. Typical Test Setup: (Pls Provide Actual Test Process Pictures)



Item	Equipment Name	Example	Calibration Date
1	OTA Test System	CMW500	
2	Network Analyzer	ZNB 8	
3	Anechoic Chamber	RayZone 2800	
4	Necessary Probes and Cables	-	

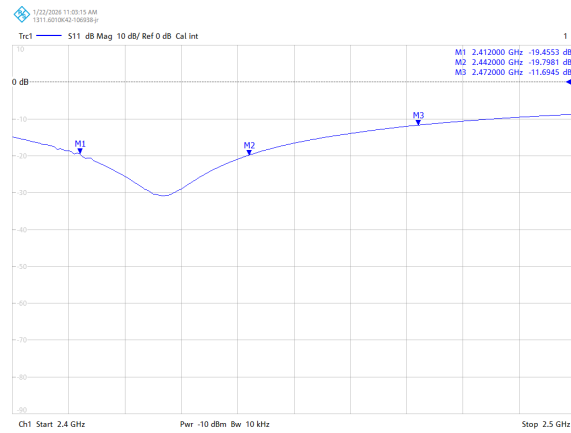
4. Test Result:

Parameter	Spec. Range	Measured Value			
		2.4G		5G	
Antenna Port Return Loss (S11)				ANT0	ANT1
Over the frequency range	2.4GHz - 2.484 GHz 5.150GHz - 5.850GHz				
Impedance	50 Ohm				
Input Return Loss	10 dB minimum				
Antenna to Antenna Isolation (S21 and S12)					
2.4 GHz Band Isolation SHOULD be	25 dB minimum				
5 GHz Band Isolation SHOULD be	30 dB minimum				
Antenna Efficiency					
Average Antenna Efficiency SHOULD be					

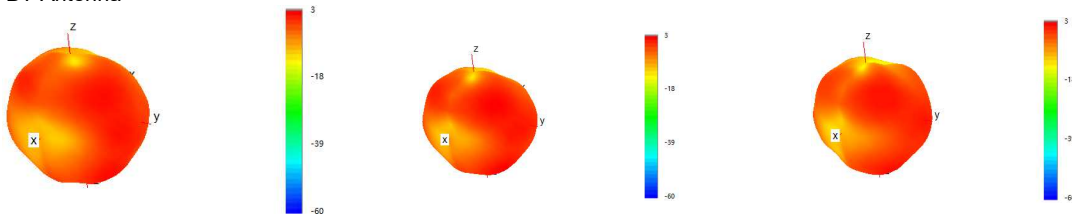
Antenna Gain						
Mean Antenna Gain SHOULD be	> -6 dBi min					2.75
Peak Antenna Gain SHOULD be	> 0 dBi min , < +6 dBi max					2.94
Other Parameters						
VSWR	<1.9:1					1.693
Bandwidth	2.4GHz - 2.484 GHz 5.150GHz - 5.850GHz					2.4GHz - 2.48 GHz
Radiation pattern - 2D - for Low/Mid/ High Freq - Omni-directional (Pattern Good/ Bad)	WIFI ANT					BT - ON Board
	FREQ					On-board
	LOW					PASS
	MID					PASS
	HIGH					PASS

BT Antenna efficiency &Gain Table																																			
<table> <tr> <th colspan="3">BT Antenna Passive test data</th></tr> <tr> <th>frequency</th><th>Efficiency(%)</th><th>Gain(dB)</th></tr> <tr><td>2400</td><td>53.07</td><td>2.44</td></tr> <tr><td>2410</td><td>54.16</td><td>2.62</td></tr> <tr><td>2420</td><td>55.09</td><td>2.76</td></tr> <tr><td>2430</td><td>55.57</td><td>2.82</td></tr> <tr><td>2440</td><td>55.35</td><td>2.9</td></tr> <tr><td>2450</td><td>54.73</td><td>2.94</td></tr> <tr><td>2460</td><td>54.51</td><td>2.91</td></tr> <tr><td>2470</td><td>53.2</td><td>2.76</td></tr> <tr><td>2480</td><td>51.91</td><td>2.57</td></tr> </table>			BT Antenna Passive test data			frequency	Efficiency(%)	Gain(dB)	2400	53.07	2.44	2410	54.16	2.62	2420	55.09	2.76	2430	55.57	2.82	2440	55.35	2.9	2450	54.73	2.94	2460	54.51	2.91	2470	53.2	2.76	2480	51.91	2.57
BT Antenna Passive test data																																			
frequency	Efficiency(%)	Gain(dB)																																	
2400	53.07	2.44																																	
2410	54.16	2.62																																	
2420	55.09	2.76																																	
2430	55.57	2.82																																	
2440	55.35	2.9																																	
2450	54.73	2.94																																	
2460	54.51	2.91																																	
2470	53.2	2.76																																	
2480	51.91	2.57																																	

Test Waveforms(Return Loss) S11
BT



BT Antenna



Antenna type:

PCB antenna

MANUFACTURER:

Jiangxi Xusheng Electronics Co., Ltd.

Product Picture:	=DISPIMG("ID_ECF9CCB3F8564D92A8BA4B658045A937",1)
------------------	---