

Shenzhen 3Good Wireless Communication Co., Ltd.

Sample Approval Certificate

3GW

Shenzhen 3Good Wireless Communication Co., Ltd.

Customer	Liandai		
Customer Model		UT008A	
Material Code		LD-UT008A	
WIFI Antenna Code		LD-UT008A-01	
Version		T:A	
Production Date		2025.10.24	
	Compiler	RF Review	Structural Review
	Zhu Kun	Liu Tao	He Ye
Customer Confirmation & Seal:			

Revision Record

Serial No.	Version No.	Change Content	Reviser	Change Date
1	V1.0	First Release		
2				
3				
4				

Company Address: Room 501-508, Jinfulai Building, No. 49-1, Dabao Road,
Bao'an District, Shenzhen

Tel: 0755-23949781

Fax: 0755-82579569

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1. Project Basic Information and Pictures

1.1 Project Basic Information

Whole Machine Type	Smart Phone
Antenna Material	FPC (Flexible Printed Circuit)
Antenna Frequency Band	WIFI/BT (Bluetooth)
Operating Frequency	2400MHz - 2500MHz

1.2 Mobile Phone Appearance and Antenna Sample Diagrams



B2 WiFi: 2.46 BT: Se 1 Normal

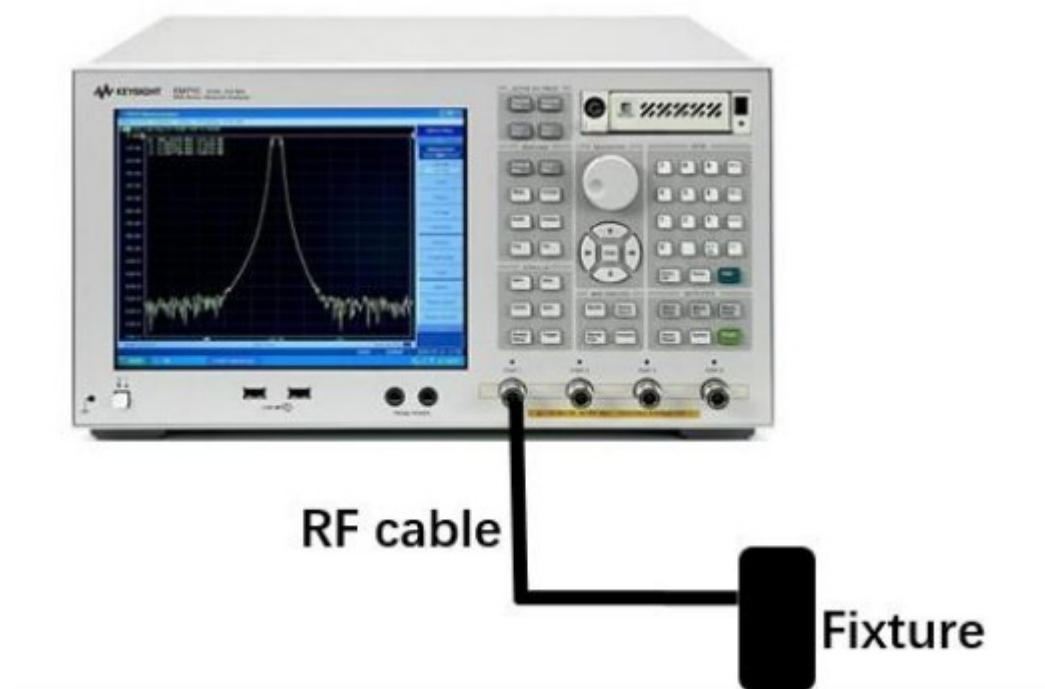
2. Electrical Performance Items and Test Environment

2.1 Electrical Performance Items

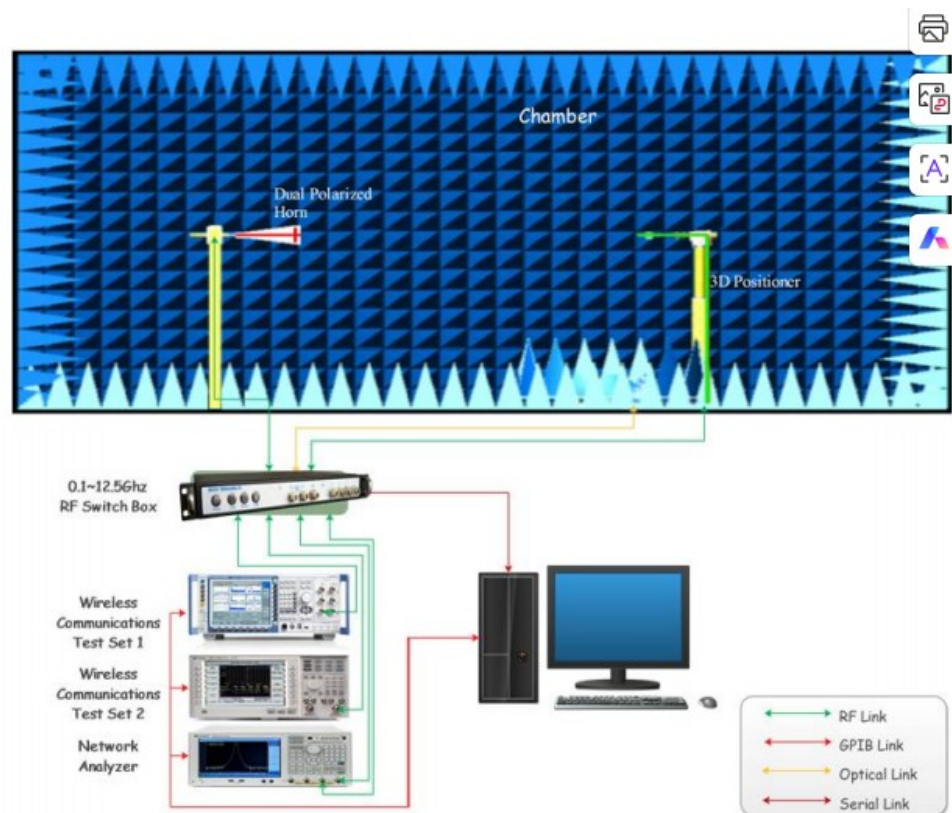
Test Type	Test Item	Corresponding Parameters
Passive Test	S11	VSWR (Voltage Standing Wave Ratio)/R.L (Return Loss)/Smith Chart
	S21	Isolation
	S21	Effi. (Efficiency)/Gain
Active Test	TRP	Total Radiated Power
	TIS	Total Isotropic Sensitivity

2.2 Test Methods and Test Equipment

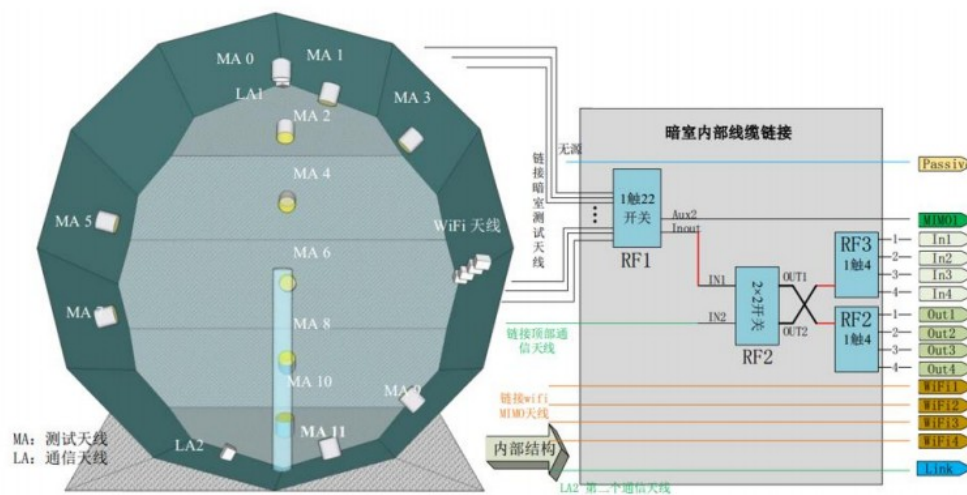
2.2.1 S11 Test



2.2.2 Gain/Efficiency (Effi./Gain) & Active (TRP/TIS)



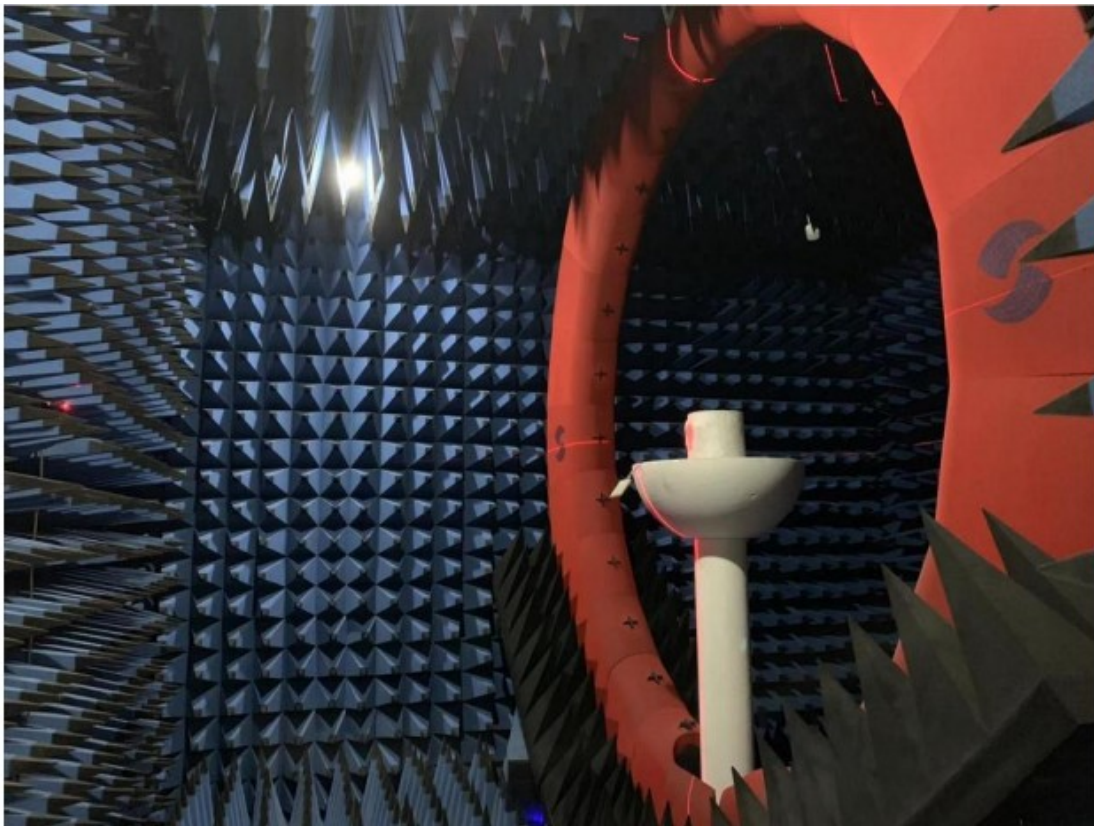
Single-probe measurement system



Multi-probe measurement system

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2.3 3Good Test Anechoic Chamber and Environment

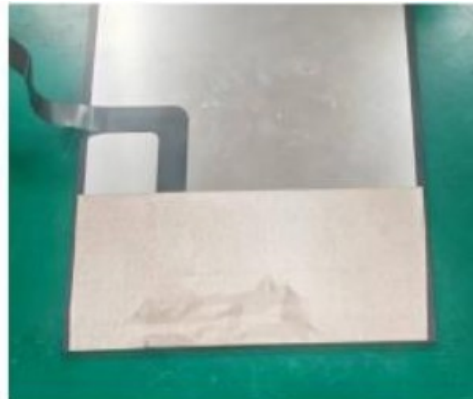
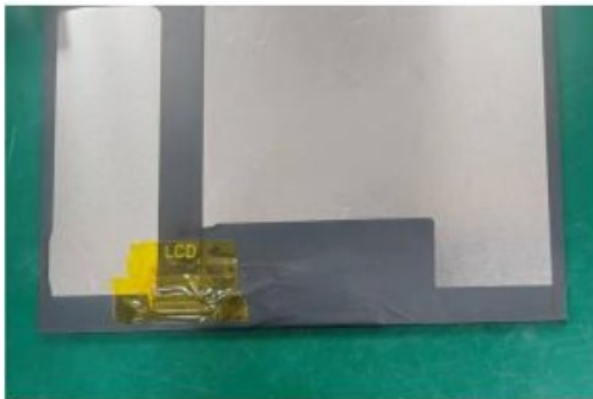


Internal Diagram of Multi-Probe Microwave Anechoic Chamber System
SUNYIELD



3. Whole Machine Environment Handling and Matching Circuit

3.1 Whole Machine Environment Handling



Thermal insulation tape needs to be pasted to prevent short circuit caused by subsequent conductive cloth pasting; conductive cloth needs to be pasted to cover the screen and reduce interference.

3.2 Antenna Matching Circuit

NC (No Connection)

4. Test Data

4.1 Passive Test

4.1.1 S11 (VSWR/RL/Smith Chart) Test Data



4.1.2 S21 (Effi./Gain) Test Data

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	59.88	-2.23	3.14
2410	60.32	-2.2	3.11
2420	61.63	-2.1	3.19

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2430	61.29	-2.13	3.13
2440	61.41	-2.12	3.2
2450		-2.02	3.36
2460	61.31	-2.12	3.32
2470	60.27	-2.2	3.21
2480	62.23	-2.06	3.41
2490	63.48	-1.97	3.45
2500	62.89	-2.01	3.47

4.2 Active Test Data (TRP/TIS)

WiFi b (11M Screen On)	CH	TRP	CH	TIS
	1	15.48	1	-80.1
	7	15.95	7	-79.39
	13	15.97	13	-78.48

4.3 Test Conclusion

The indicators meet the normal antenna indicators for WIFI; the actual test performance of WIFI/BT is OK.

Note: This antenna is only applicable to debug prototypes. Any changes to the main board version, RF (Radio Frequency) materials, or mobile phone accessories (such as microphone, screen, speaker, motor, etc.) must be tested and verified by our company before use.

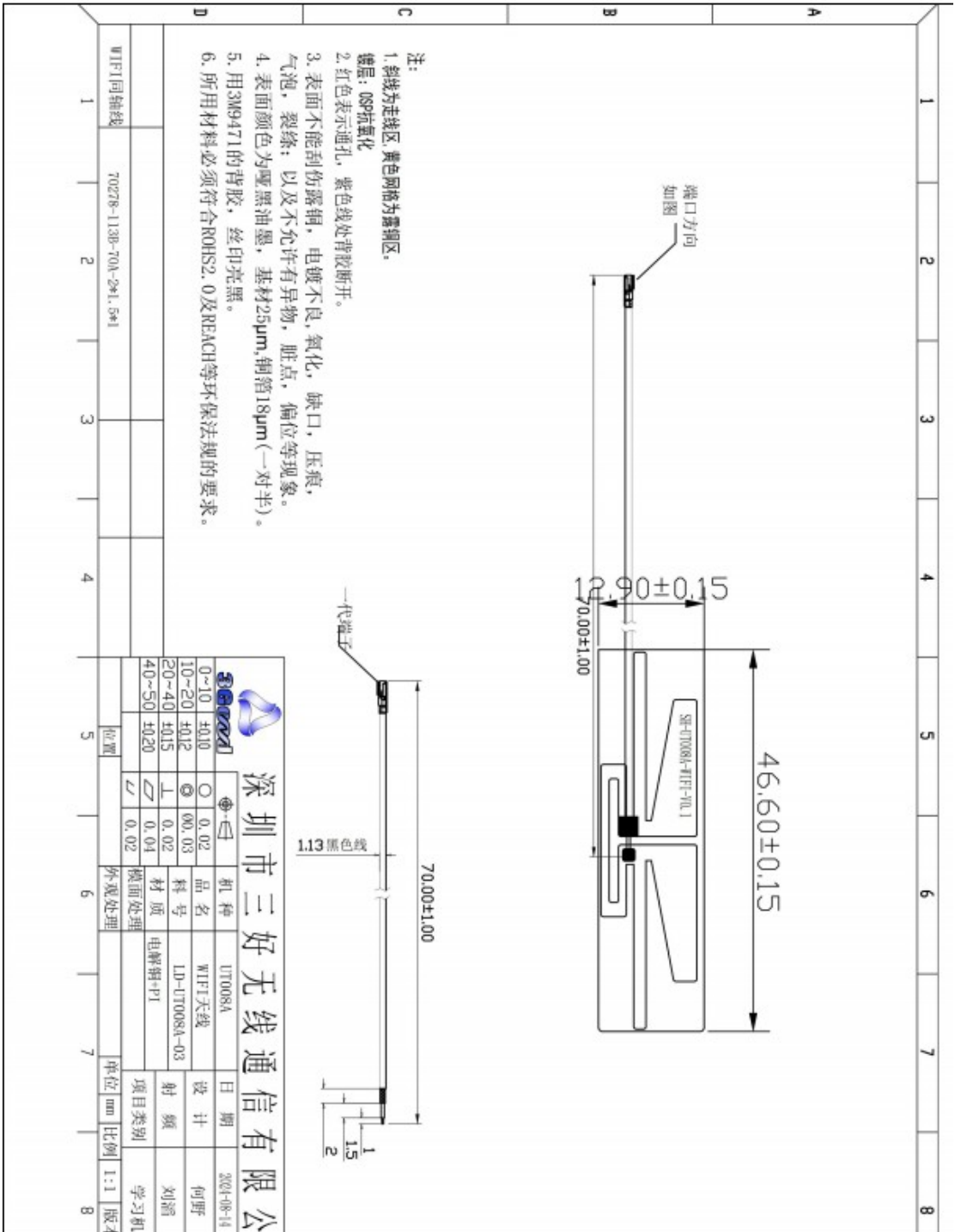
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5. Engineering Drawings



6. Full-Size Test Report

Dimension Inspection Report									
	Customer :	Lianda i			Project: 			UT008A	
Material /Thickness			FPC		Environmental Material			Non-Environmental Material	
Appearance Inspection Items		1. Rust: Slight ; Number of Defects: 0			Indentation	Deformation	Scratches: 181	Shape (Missing Processing)	
Severe/Fatal:		Appearance Judgment Result : ☒ Qualified ☐ Unqualified							
					Function or Dimension Inspection Record				

100	Insp ecti on Item	Measur ing Instru ment			Inspec tion Result s				
		1	2	3	4	5	Jud gme nt		
	+6.6 0.15		Cal ipe r:	46.6 30	46.650	46.63 0	46. 660	46.660	OK/s
WIFI Antenna Overall Judgment :			Cal ipe r:	12.9 50	12.940	12.95 0	12. 960	12.930	OK/s
70±1		Calipe r:	70. 160	70.1 80	70.160	70.17 0	70. 150	OK	
Appearan ce		Visual Inspec tion	OK/ s	OK/s	OK/s	OK	OK/ s	OK/s	
☐ Qualif ied ☐ Unqual ified		Unqual ified Handli ng Method : ☐ Stam ping Rework (Repai r)							☐ Sp ecia l Adop tion
Descript ion of Measurin g Instrume nt Code:		Projec tor – PP		Plug Gaug e – PG	Height Gauge – HG		Ang le Gau ge – AG	Vernier Caliper – N	Digi tal Cali per – DN
	Coor	Thread	Spe	Visu					

	dina te Meas urin g Mach ine - 3D	Gauge - SG	cia l Fix tur e - SE	al Insp ecti on - B					
Remarks:									
				Appr oval :		Inspe ctor		Prepara tion:	Zhou Weid ong

7. Reliability Test Report

Reliabil ity Test Report									
	Custom er:	Liandai	Test Date:	2025.10 .21	Produ ct Model :	UT00 8A	Produ ct Color :	Bla ck	
Producti on Date:		2025.10 .22	Test Quanti ty:	6PCS					
Serial No.	Test Item	Test Condi tions and Content					Judgm ent		

8, Packaging method

深圳市三好无线通信有限公司

包装作业指导书		文件编号	SHQM-QA-01/1	版本/版次	A1
FPC天线专用		工序/工站	FPC包装专用	页码/页次	1 of 1
图一 		1. 设备及治工具: 1.1 封口机、纸箱			
图二 		2. 物料 2.1 检验好的FPC天线、防静电封袋、标签			
图三 		3. 操作步骤 3.1 取检验好的FPC天线，每100PCS/袋装好并封装，（图一） 3.2 封口完成后，将10袋（共计1000pcs）装入180*260防水袋并热封，贴厂内标签（图二） 3.3 空白纸箱尺寸为：150*140*250，材质K=K，内套防水袋，内加减震泡面（图三） 3.4 将1000pcs一包的FPC天线整齐的放入纸箱，每箱10包1000PCS，不满的地方用泡棉填充（图四） 3.5 封好防水袋，盖上减震泡面，用无任何字迹的胶带工字型封箱（图五） 3.6 在外箱正面左上角贴标签一张，标签内容依据客户要求制定，尺寸为80*60（图六）			
图四 		4. 注意事项 4.1 标签内容依据《标签内容》填写，实际物料规格依据订单填写 4.2 装好袋子后的需经IPQC抽检后方可封袋。 4.3 IPQC须对尺寸、规格、数量做抽检； 4.4 作业时需核对产品的规格型号标签，避免拿错混料。 4.5 不满的装箱 必须有足够的缓冲材料填充			
图五 		变更记录表			
图六 		A0		新版	2021/6/15
		新版发行			
核准	何伟	审核	莫宣	制作	林志玲