

SPECIFICATION

SHEET FOR APPROVAL

(Revision: R: A1)

CUSTOMER(客户名称)	Hesung Innovation Limited	
CS P/N(客户机种)	DR-HAF004S 9 inch Circulating Fan	Internal model:TD19
PART NAME(品名)	WIFI Antenna	
FREQUENCY(频率)	2400~2500MHz	
ZTX NO.(物料编号)	K.00000023	
DATE(日期)	2022-12-28	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注):

Sign(客户确认签字盖章): _____

Shenzhen ZTX Communication Technology Co., Ltd				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		Lai Ningping	Feng jianeng	



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Revision history

Edition	Date	State
A1	2022-12-28	The first edition

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ANTENNA SPECIFICATION

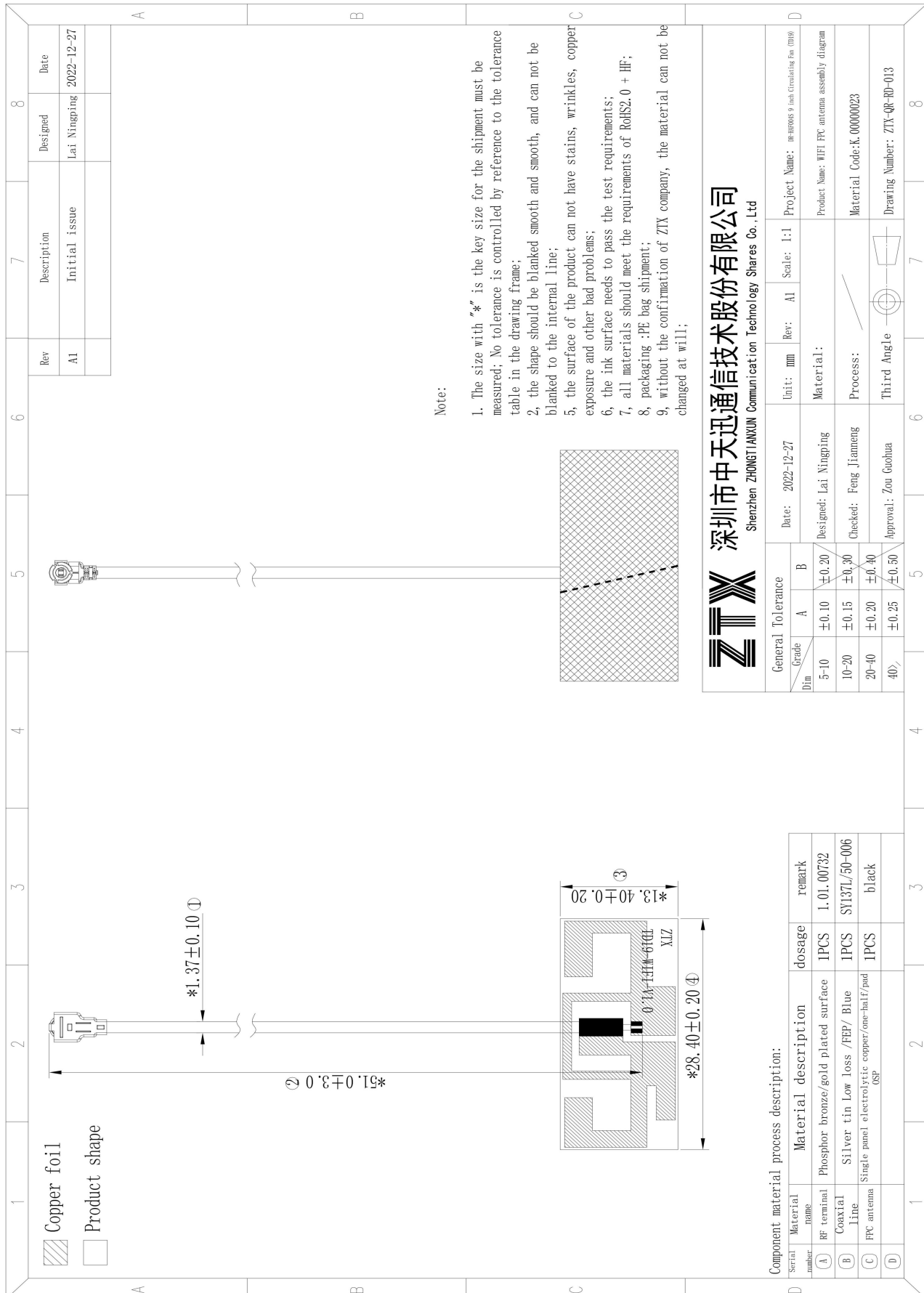
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1. Mechanical Specification

1-1 Mechanical Configuration (WIFI Antenna)



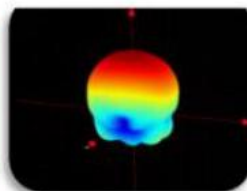
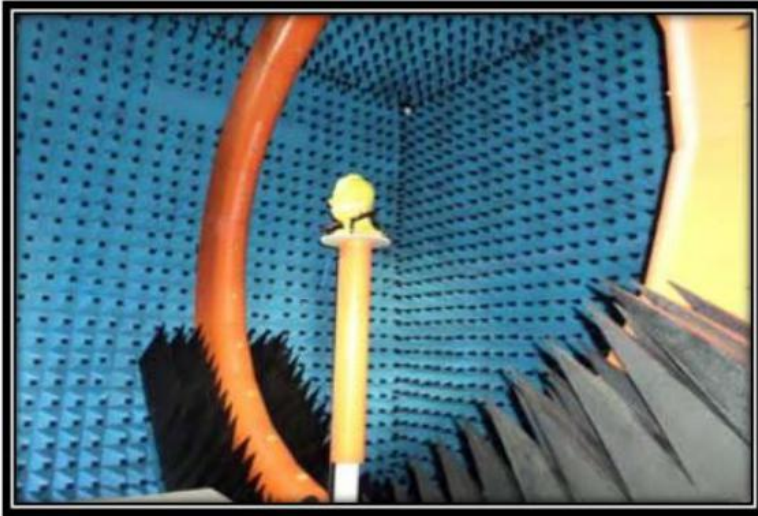
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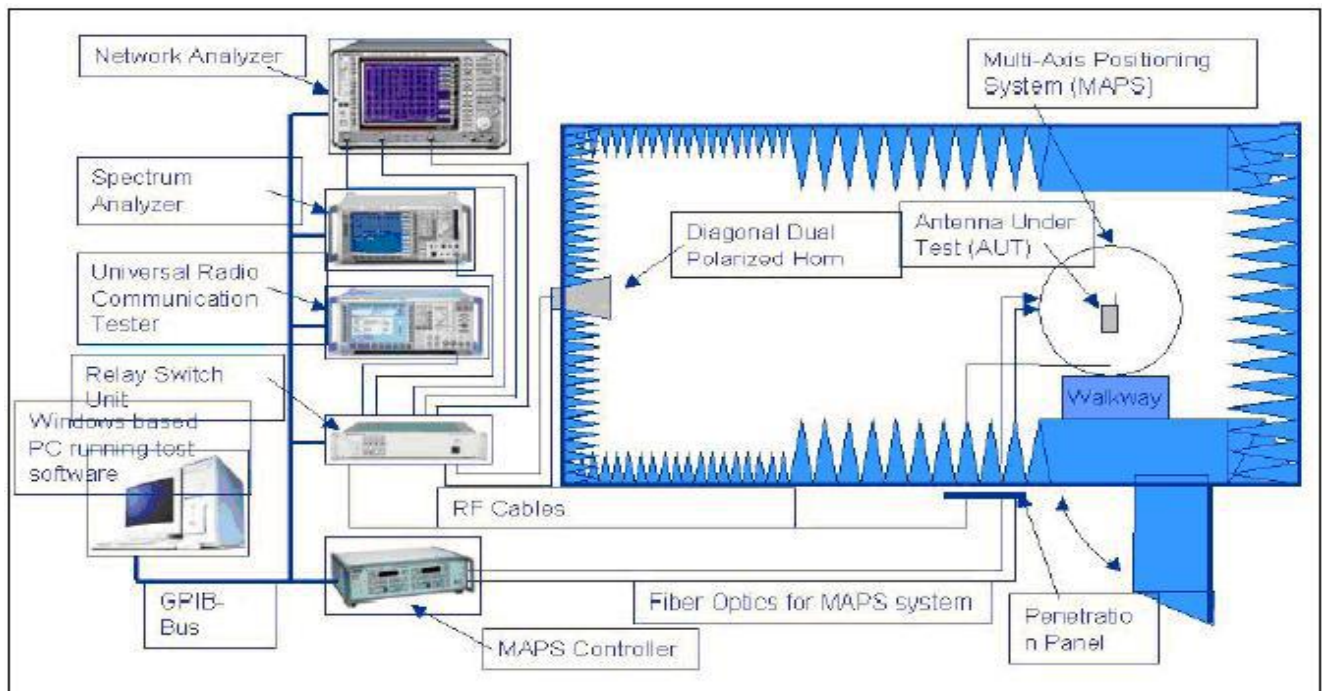
2. Test equipment



Owned 6 microwave dark room, equipped 2 sets world leading France Satimo SG24 OTA certification test systems (one in SHENZHEN, another one in Shanghai), ETS OTA Standard test system, Blue test reverberation test system which is High repeatability, high accuracy and high resolution. It can quickly provide accurate test reports, fully meet the CTIA standards.

Testing range:

Support active, passive testing of
GSM/CDMA/WCDMA/TD-
SCDMA/LTE/WIFI/WLAN/WiMax/BT
/GPS/MIMO/UWB within0.4-6G.



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3.Test Results Summary

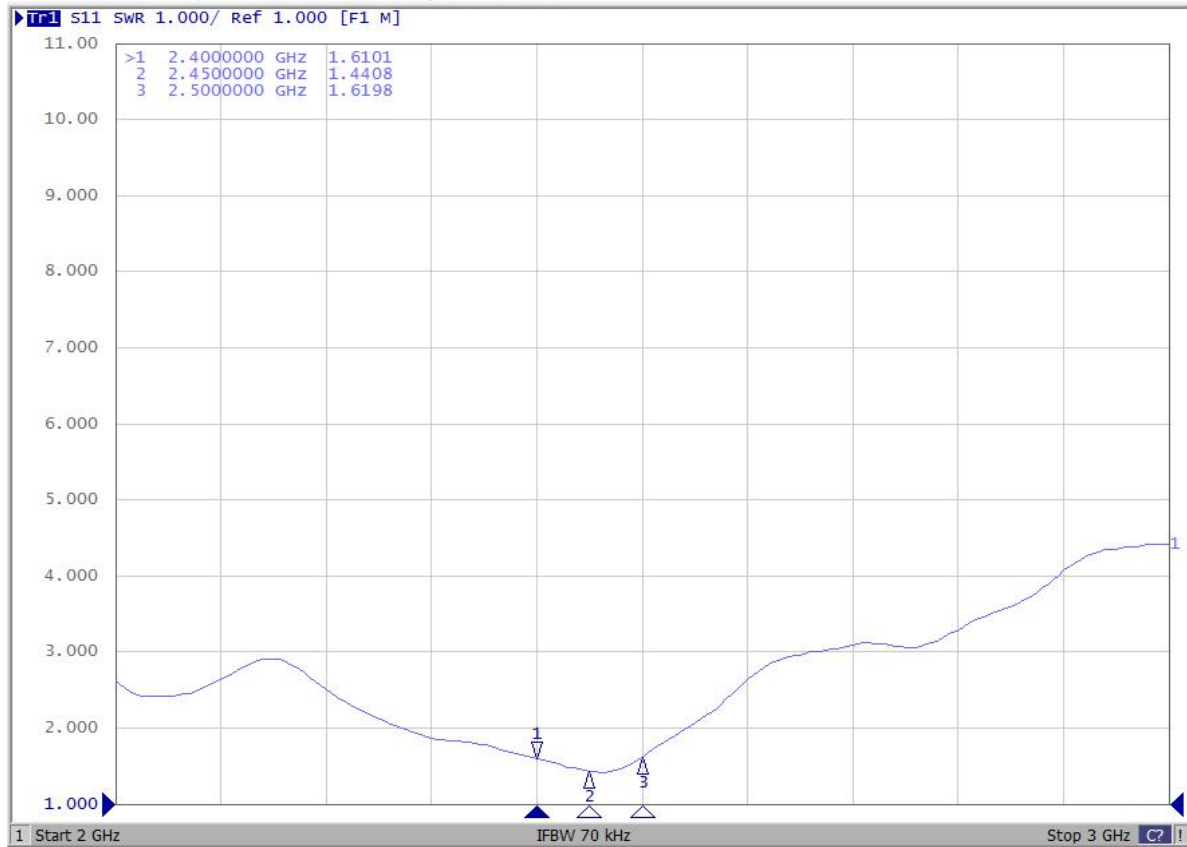
3-1 OTA Test

wifi	B	G	N
1	13.7/-80.9	11.4/-63.6	12.1/-61.6
6	13.6/-82.1	11.3/-64.4	11.7/-61.7
11	13.5/-81.6	11.5/-62.7	11.4/-60.6

3-2 VSWR

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State



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3-3 No-source test data

Frequency	Efficiency	Efficiency	Gain . dB
2400	53%	-2.7	3.2
2410	54%	-2.7	3.5
2420	54%	-2.6	3.5
2430	55%	-2.6	4.0
2440	54%	-2.7	3.9
2450	54%	-2.7	4.3
2460	54%	-2.7	4.4
2470	54%	-2.7	4.7
2480	53%	-2.8	5.1
2490	53%	-2.8	5.2
2500	53%	-2.8	5.1

3-5 Environment treatment

2400-2500MHz
Antenna position



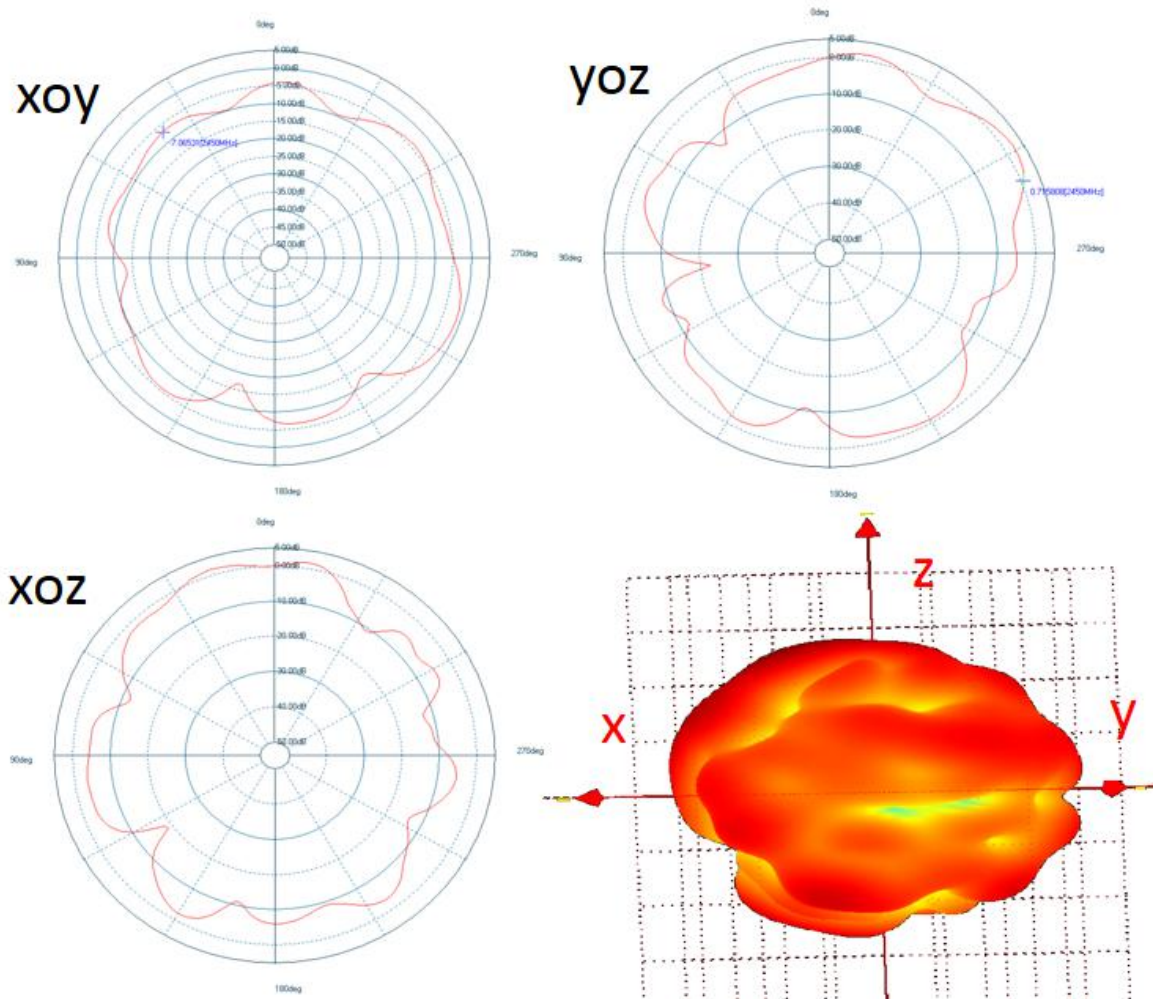
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3-6 2D/3D Radiation Pattern Results



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4.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
4-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: $+70 \pm 2^{\circ}\text{C}$ 2.Humidity: 90~95%RH 3.Time: 48hrs	No material deformation is allowed.
4-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: $-30 \pm 2^{\circ}\text{C}$ 2.Humidity: 0%RH 3.Time:48hrs	The VSWR, Gain, Radiation Pattern must be met specifications after these test.

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5.The packing way



包装规范&作业指导书 SOP

客户名称 customer name	Hesung	产品型号 product model	DR-HAF004S 9 inch Circulating Fan (TD19)		产品名称 product	WIFI Antenna
纸箱规格Carton specifications	K=K45*32.5*21CM		物料编号 Material number	1.12.000002	用量 dosage	1PCS
PE封口袋PE seal pocket	360*280*0.10mm		物料编号 Material number	1.12.000026	用量 dosage	10PCS
PE开口袋PE open the pocket	240*160*0.05mm		物料编号 Material number	1.12.000030	用量 dosage	100PCS
纸板规格Paper board	2PCS / box		其他物料unclassified stores	标签/胶带Tags / tape		
每箱数量Number of boxes per box	5000PCS	PE开口袋数量 PE open pocket number	50~100PCS	PE封口袋数量Number of PE sealing pockets	500~1000PCS	
注意事项 Matters need attention	1.客户物料编码和数量是否正确，标签必须用机打印的。 2.内标签、外标签、出货报告、送货单内容需一致。 3.如是试产物料或有变更均需贴相应标识，尾数箱需贴尾数标识，内附检验报告等。 1. Whether the customer material code and quantity are correct, the label must be printed by machine. 2. Internal label, external label, shipment report and delivery form should be consistent. 3. If the trial production materials or change, the corresponding identification shall be affixed, the mantissa box shall be affixed, and the inspection report shall be attached.					
包装简图Packaging diagram: : 1.取（50~100pcs）产品，装袋，贴物料标签； 1. Take (50~100pcs) products, bag and label materials; 2.将包装好的产品装入大袋（500~1000pcs），贴物料标签； 2. Put the packaged products into large bags (500~1000pcs) and label the materials; 3.将包装好的装箱（5000pcs），贴物料标签； 3. Box the packaging (5000pcs) and label the materials; 4.封箱。 4. Seal the box.						
NO	变更内容Change content		变更人及日期 Change person and date			
标签简图Tag diagram: :			外箱简图Short diagram of outer box: :			
			(这是外箱标签贴附的样张)			

制表(Tabulation): 韦泓佳 HONGJIA WEI

审核(Checked by): 向恒锋 HENG FENG XIANG

核准(Approved by): 党非非 FEI FEI DANG