Tybit WD-215 / 295 antenna admission book

<table>
<tr><td>project name:</td><td colspan="2">WD-215/295</td><td>class:</td><td colspan="2">BT</td></tr>
<tr><td>Internal material number:</td><td colspan="2">227-017-12-CU-A</td><td>version number:</td><td colspan="2">R:A</td></tr>
<tr><td>material code:</td><td colspan="2"></td><td>date:</td><td colspan="2">2024-03-04</td></tr>
<tr><td colspan="6">Shenzhen Toppin Iot Technology Co., LTD</td></tr>
<tr><td rowspan="5">examine and verify</td><td>RF Engineer</td><td></td><td rowspan="5">design</td><td>RF Engineer</td><td>Li Donghai</td></tr>
<tr><td>Engineer</td><td></td><td rowspan="4">mechanical engineer</td><td rowspan="4">Zhong Fangmin</td></tr>
<tr><td>QA</td><td></td></tr>
<tr><td>Project Manage</td><td></td></tr>
<tr><td>business manager</td><td></td></tr>
<tr><td colspan="6">Shenzhen Taibit Technology Co., LTD</td></tr>
<tr><td>date:</td><td colspan="5"></td></tr>
<tr><td rowspan="2">affirm</td><td>radio frequency</td><td colspan="4"></td></tr>
<tr><td>engineering</td><td colspan="4"></td></tr>
<tr><td>remarks</td><td colspan="5"></td></tr>
</table>

catalogue

1 Picture of the finished antenna

Antenna diagram

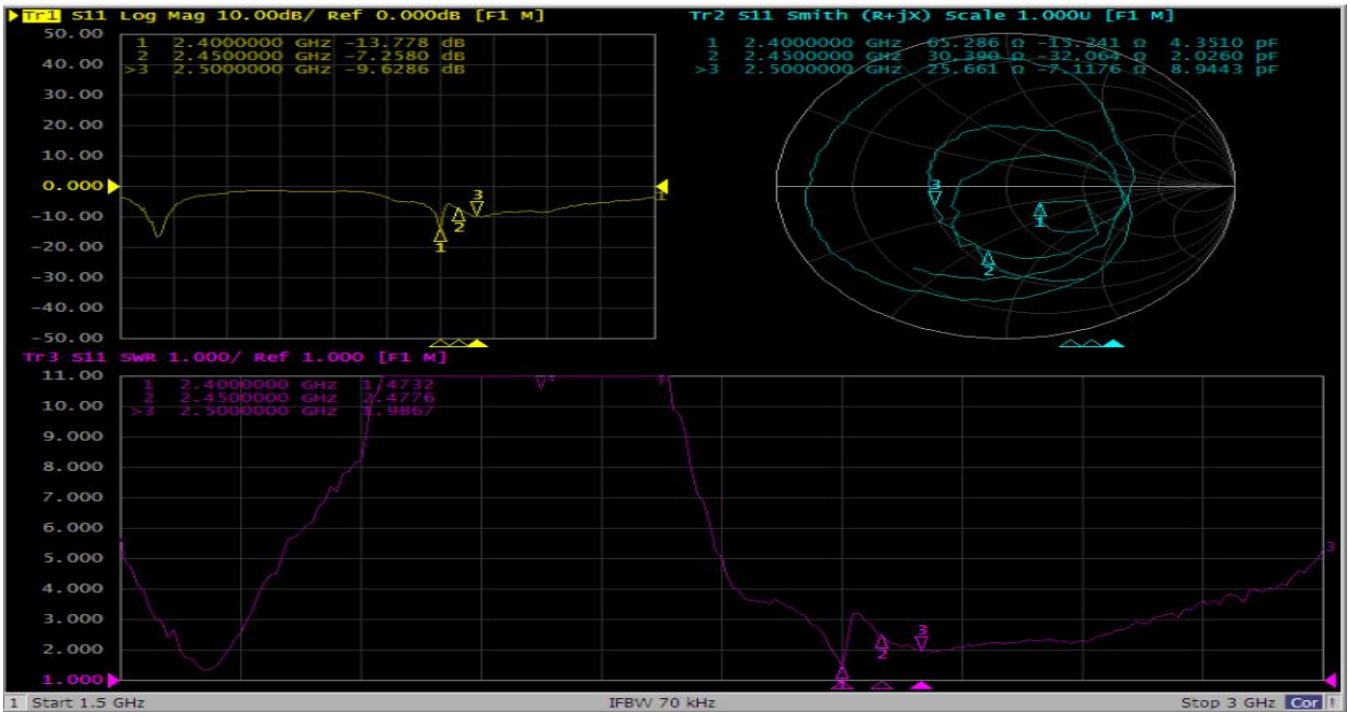
2. Product parameters

Name	WD-215/295	Model Type	Bluetooth antenna
ELECTRICAL SPECTFICATIONS		MACHNICAL SPECIFICATIONS	
Frenquency Range	2400/2500MHZ	Dimensions	21*9 mm
VSWR	2400/2500MHZ ≦ 2.0	Connector	Welding type
Gain	2400/2500MH≧ 1.0dBi	Radome Material	Customer supply materials
Impedance	50 Ohm	Radome Color	silvery
Polarization	vertical polarization	Length	Copper nickel plated
Radiaton	omnidirectional	Working Temperature	-40℃- +60℃

3. Product features

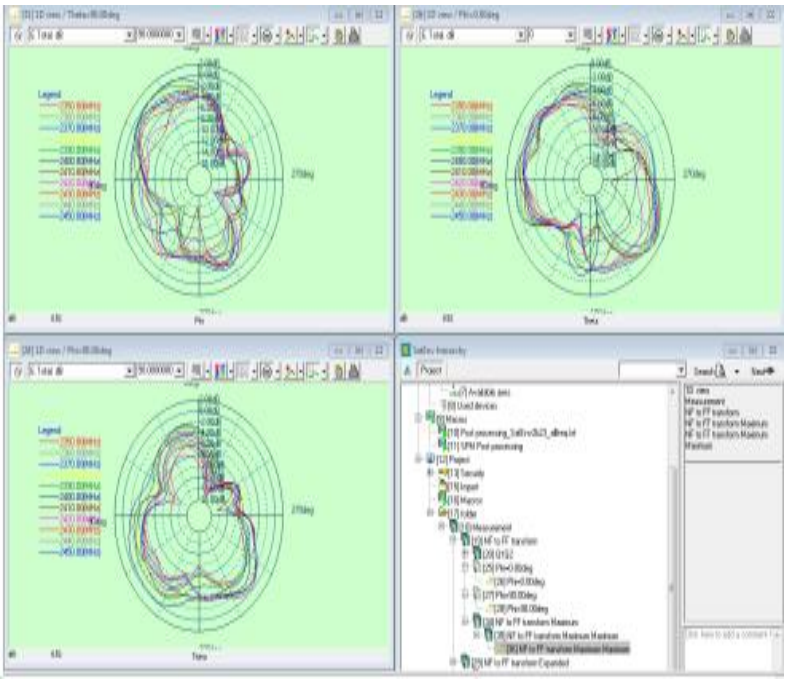
1. Easy assembly
2, the antenna material copper nickel plating, good consistency.

4 The antenna performance parameters



2400-2500MHZ

Frequency	Efficiency	Frequenc	Gain . dB
2350MHz	27%	2350MHz	(0.37)
2360MHz	28%	2360MHz	(0.03)
2370MHz	31%	2370MHz	0.54
2380MHz	34%	2380MHz	0.95
2390MHz	38%	2390MHz	1.47
2400MHz	45%	2400MHz	1.90
2410MHz	34%	2410MHz	0.01
2420MHz	28%	2420MHz	(0.31)
2430MHz	31%	2430MHz	0.28
2440MHz	32%	2440MHz	0.51
2450MHz	35%	2450MHz	0.80



5. Antenna size report

Product size inspection record

date of test		2023.03.04		Test coding				TP2024032426		
customer name		Tablet		Sample name				WD-215 / 295 BT antenna		
NO	size	common difference		sample size					survey tools	Determine the result
		superior limit	lower limit	1	2	3	4	5		
1	21	21.15	19.85	20.45	20.63	21.06	19.95	20.51	a	OK
2	9	9.15	8.85	9.06	9.05	8.88	8.93	9.15	a	OK
3										
4										
remarks:										

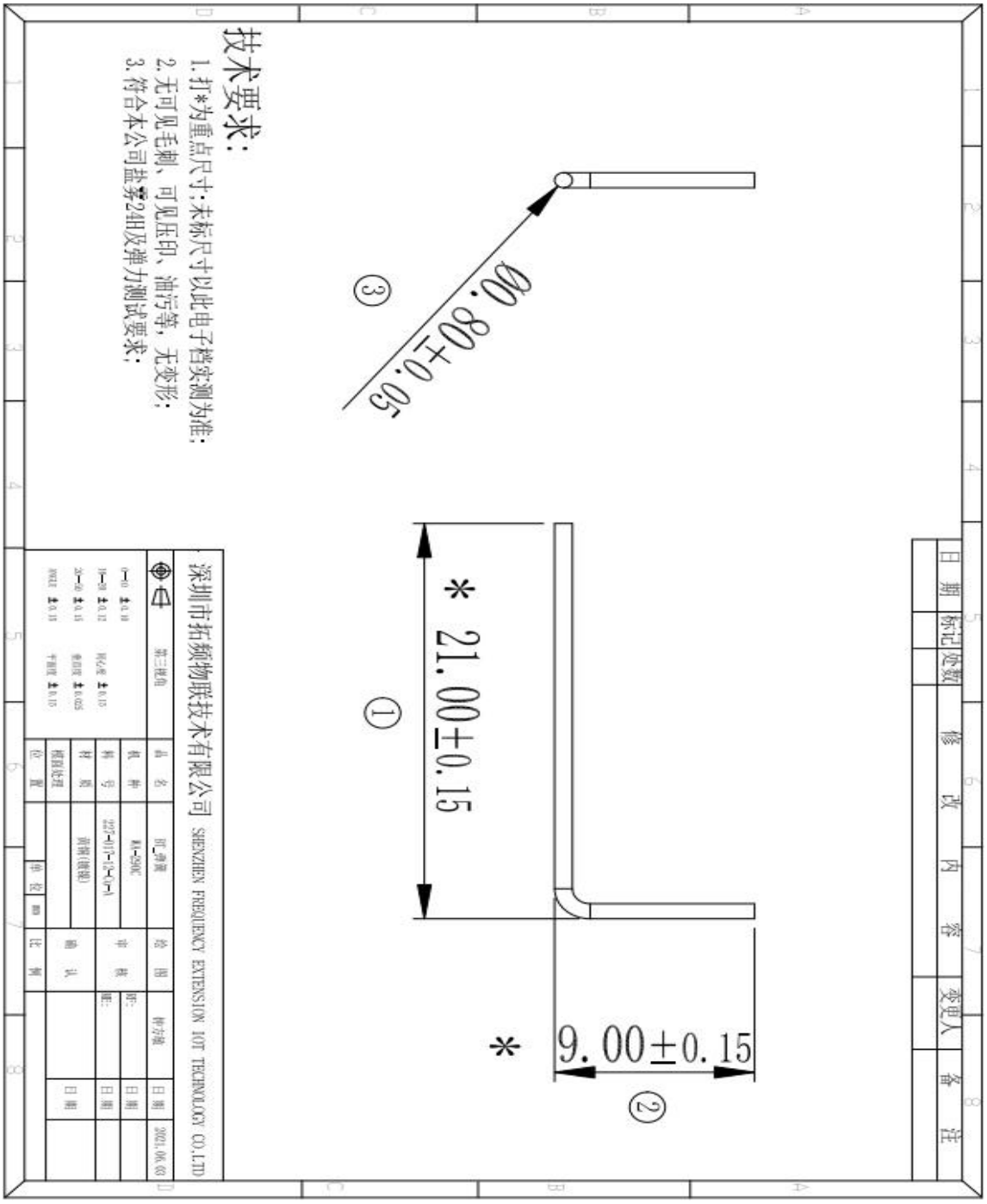
Measurement tool: A Vernier caliper QE-RD-0032B

approval Wang Yong for

check Wang Yong for

tabulation Qin Xiaoting

5.1 Antenna diagram file



6. Environmental reliability test

序号	类别	测试参数指标	测试情况	结论
M1	solderability 可焊性	Temp:260±5℃; 5 seconds 温度360±5℃; 持续 5 秒 Temp: 260 ± 5℃; 5 seconds temperature 360 ± 5℃; for 5 seconds	上铺均匀饱满 The upper bunk is uniform and full	OK
M2	Pull Test 拉力	holding with individual specification;force applied to axis of terminal.单独定义产品拉力	1.Directive DUT specification 2.Frequency TOl.≦5% 符合待测物规范。频率偏移≦5%	OK
M3	Torque Test 扭力	Holding with individual specification;applied clockwise and counterc lockwise to the axis of terminal 单独定义产品之顺时针及逆时针扭力	1.Directive DUT specification 2.Frequency TOl.≦5% 符合待测物规范。频率偏移≦5%	N/A
M4	Dimension 尺寸	Inspection of dimension,color,material,package,surface process.检查尺寸，颜色，材料，包装，表面处理	Directive DUT specification 符合待测物规范	OK
M5	Waterproof 防水	With Reference to IEC 60529\\IP code Definition 参考 IEC60529 IP 定义	Directive DUT specification 符合待测物规范	N/A
M6	SaitSpray 盐雾	GB/T2423.17-2008 Temp：35℃； RH:≧95%;NaCL soiution:≧5%;Time:24H 温度 35℃；湿度≧95%；盐水湿度≧5%；测试 24H	1.NO Visual DAmage 2.Frequency TOL.≦5% 无明显外观不良；频率偏移≦5%	OK
M7	Temperature and Humidity Cchamber 恒温恒湿	GB/T2423.3-2006 Temp80℃/12H;-40℃/12H; RH: ≧90%; Time:24H 温度 80℃测试 12H 转-40℃测试 12H：湿度≧90%：时间 24H	After 2 Hours Recovery 1.NO Visual DAmage 2.Frequency TOL.≦5% 恢复 2H 后，无明显外观不良；频率偏移≦5%	OK
M8	Themrmal Shock 冷热冲击	GB/T2423.22-2008 -40℃(30 minutes)to+80℃(30 minutes);Cycles:24 -40℃测试 30 分钟转 80℃测试 30 分钟一个周期；共 24 周期	After 2 Hours Recovery 1.NO Visual DAmage 2.Frequency TOL.≦5% 恢复 2H 后，无明显外观不良；频率偏移≦5%	OK
M9	Aging Test 老化	GB/T 2423.2-2008 TEMP:80℃;Time:24 hours 温度 80℃，测试 24H	After 2 Hours Recovery 1.NO Visual DAmage 2.Frequency TOL.≦5% 恢复 2H 后，无明显外观不良；频率偏移≦5%	OK
M10	High Temp 高温	Temp.270±10℃;Times:120 seconds 温度 270±10℃，测试时间 120 秒	NO Visual DAmage 无明显外观不良	OK
R1	ROHS	With Reference to IEC 62321:2008 with flow chart 参考 IEC 62321 测试流程	Directive RoHS 2011/65/EU 符合 ROHS 2011/65/EU 标准	OK
R2	PFOS	With Reference to USA EPA 3550C:1996 by LC/MS 参考 USA EPA 3550C 测试流程	Directive RoHS 2011/65/EU 符合 ROHS 2011/65/EU 标准	N/A

6.2 Salt Fog test

date of test	2024-03-03	Test number	TP2024032128
client	Tablet	Sample name	Bluetooth antenna
proving time 03-03, 9:00 To the 22nd At 9:00 in total 24 hour			
Continuous spray			
1. Quality of sodium chloride	5%±0.1		
2, the quality of the steamed slip water	6.8-7.2		
3. Spray absorber 3.1 Spray volume	0.5-1.5KG/C ㎡		
3.2 Specific gravity or concentration of the collected solution at room temperature	1.02-1.05		
3.3PH	6.8-7.2		
4. Sample 4.1 Types 4.2 Shape 4.3 Scale 4.4 Number	 5PCS		
5. Compressed air pressure	**0．5-1．5 KGF/CM²**		
6. Relative humidity of the laboratory	More than 85%		
7. Laboratory temperature	35±1°C		
8. Pressure bucket temperature	47±1°C		
9, the salt bucket temperature	35±1°C		
10. Other			
Judgment: 1, according to the standard judgment: no rust, hemp point, no copper judgment OK 2, according to other methods judgment: OK			
test clerk	Liu Xue	be responsible for	Liu Yuhui

7 The material report is a BOM

产品BOM及成分分析 版本：V1.0

产品拆分描述		材质/规格	颜色	供应商名称	测试报告		
序号	零件名称/外观描述				测试机构及测试报告编号	失效日期	有否豁免（Y/N）豁免条款
1	厚铜	CU	本色	乐仁	CANEC1818804104	2020/9/28	N
2	镀镍	NI	本色	乐仁	CANEC1806139402	2020/8/22	N
3							
4							
5							
6							

备注：此项目需符合欧盟版ROHS标准。

8 Packaging reference signal

包装方式

常规要求

一.说明客户名称，项目名称，订单号，料号，出货数量
二.图片描述出货包装材料及方式
三.备注栏需描述包装盘数及每盘数量。

1.包装袋

2.保护包材-包装棉

3.包装纸箱

4.外箱标贴

公 司	深圳市拓频物联技术有限		
客 户 名 称	深圳市泰比特科技有限公司		
订单号	xxxxxxxx		
物料号	xxxxxxxx		
物 料 名 称	XXXX天线		
数 里	xxxxPCS	规格	
出 货 检 验		备注	
		日期	XX.XX.XX

5.包装材料

包装方式：包装袋+包装棉+纸箱

6.包装数里说

1箱	袋装数量	XXX PCS
	包装袋数	XXX 袋
	单箱总数	XXXX pcs

包装品管确认：秦小婷