



深圳市迪比通通讯设备有限公司

SHENZHEN DIBITONG TELECOMMUNICATION TECHNOLOGY CO.,LTD.

移动通信终端天线

Mobile communication terminal antenna

产品设计与制造规格书

Product design and manufacturing specifications

- ◆ 客户名称/ Customer: 沃莱科技
- ◆ 项目名称/Projec: F12406LBF
- ◆ 物料名称/Name: WIFI 天线
- ◆ 天线材质/Antenna materials: FPC+Cable
- ◆ 物料编号/Part no:
- ◆ 设计/Designer:
- ◆ 审核/Check:
- ◆ 客户确认签章/Approved:

地址/Add: 深圳市南山区西丽镇平山一路云谷二期 8 栋 505

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目录/list

1.天线 2D 图/Antenna 2D diagram

2.技术指标/Technical target

3. S11 驻波比 /阻抗测试结果

/S11 SWR/ Impedance test results

4.动态测试说明/Dynamic test instruction

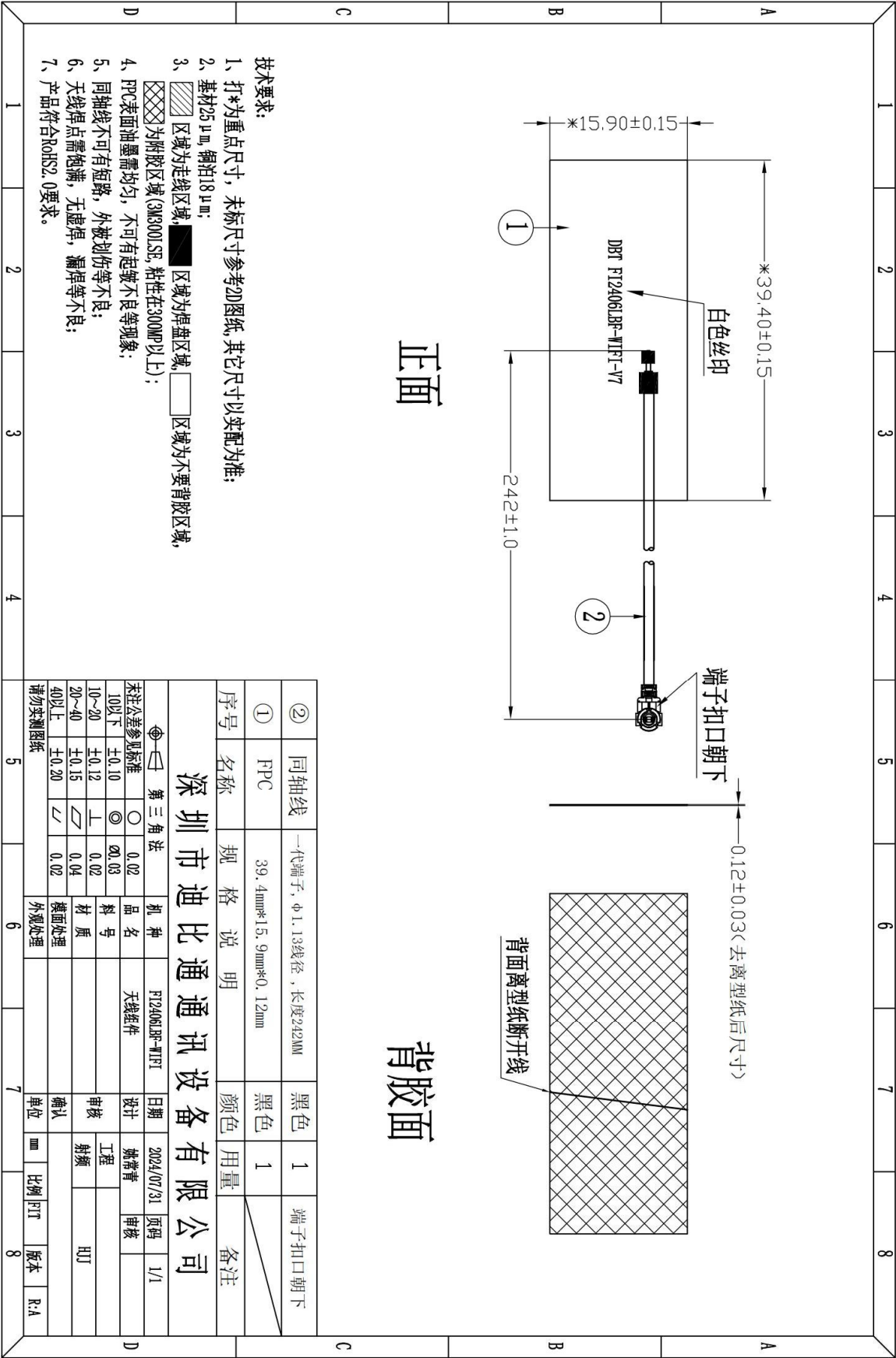
5.天线测试数据/Antenna test report

6.测试样机图示/Diagram of test prototype

7.尺寸测试报告/Dimension test report

8.包装方式/Packing method

1. 天线 2D 图/Antenna 2D diagram

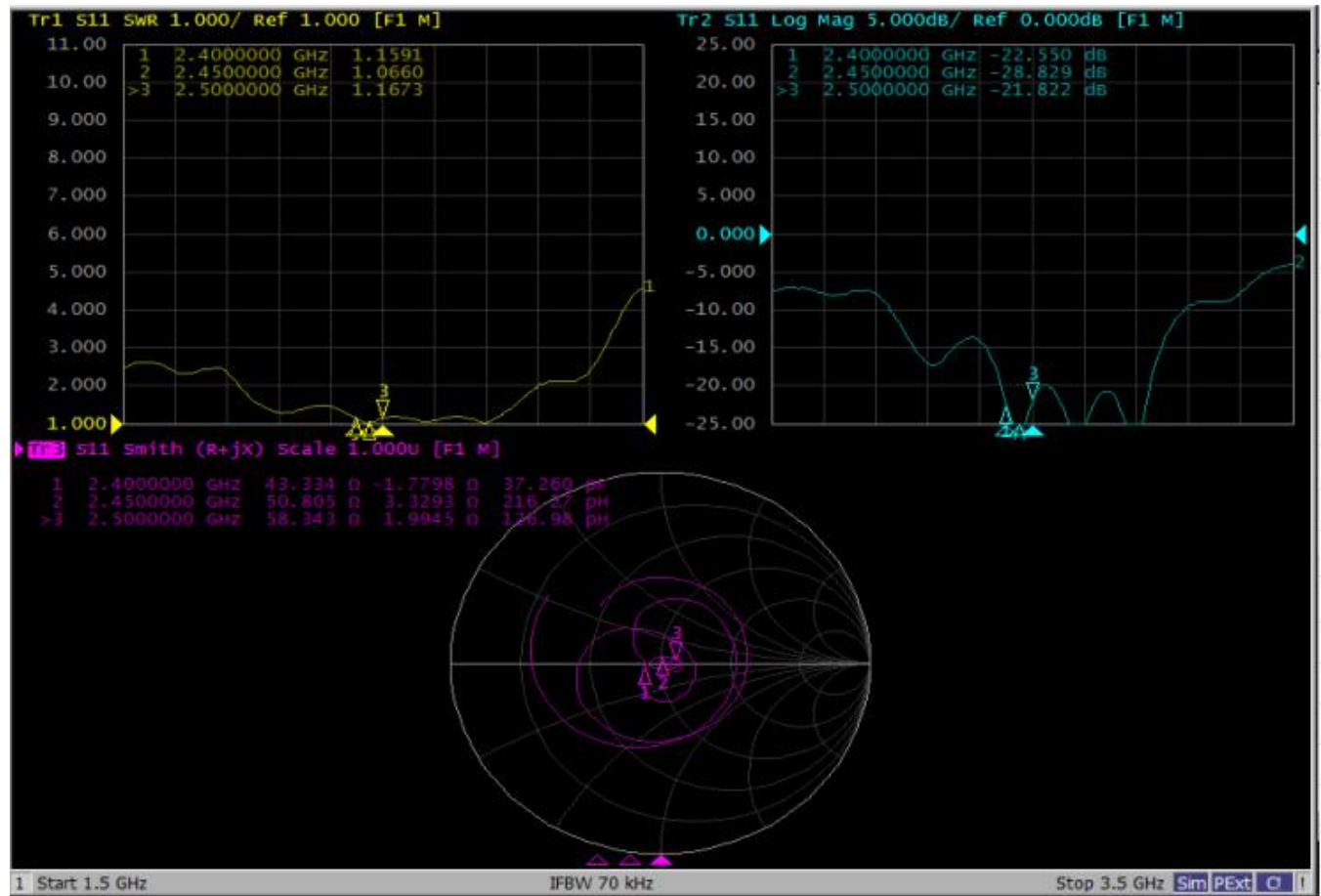


2.技术指标/ Technical target

A. 电气性能/Electrical Parameter	
工作频率范围/Frequency Range	2400~2500 MHz
驻波比/VSWR	2400~2500 MHz: ≤ 2.0
天线增益/Gain (Max)	2400~2500 MHz: 0.95 dBi
平均辐射效率/ Average radiation efficiency	2400~2500 MHz : 24.7%
阻抗/Input Impedance	50 ohm
B. 材料/ Material	
FPC+Cable	
C. 环境/Environmental Science	
工作温度/Working Temperature	- 30°C ~ + 85 °C
储藏温度/Storage temperature	- 30°C ~ + 85 °C

3.S11 驻波比 /回波损耗/阻抗测试结果

S11 SWR/Return loss/ Impedance test results

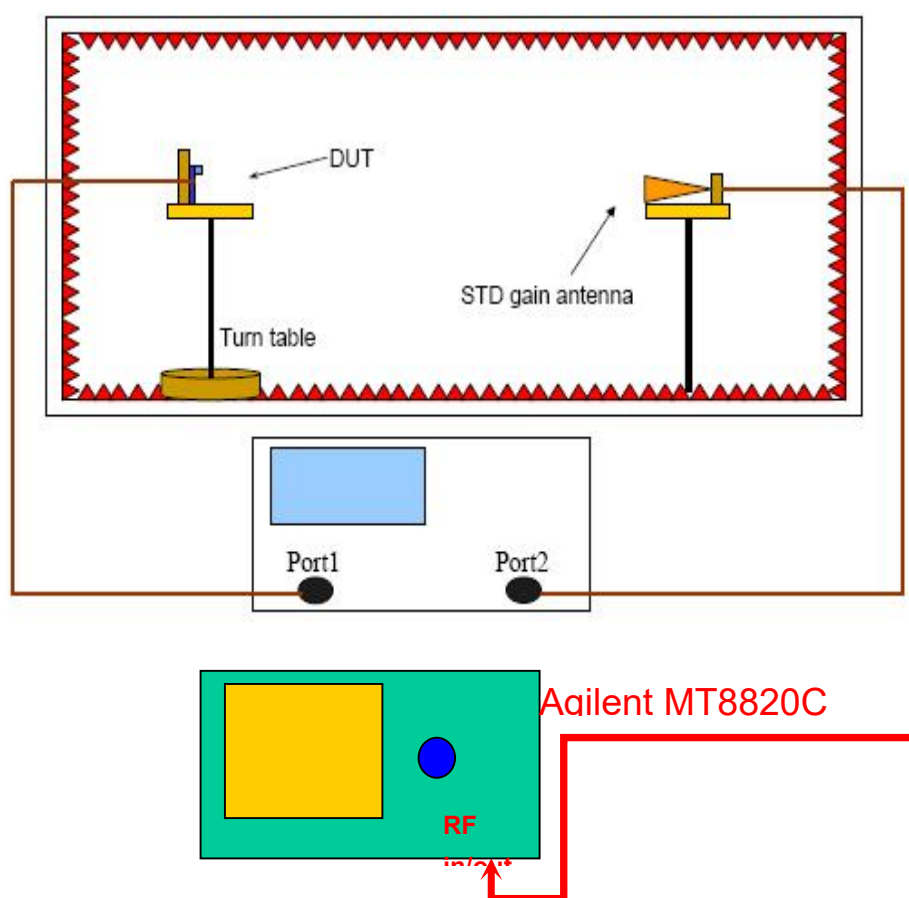


驻波/VSWR: 2400-2500MHz $\leq$ 2.0

阻抗/Input Impedance: 50 Ohm

4.动态测试数据--- 天线安置在设备里/Dynamic test instructions - Antennas are placed in electronic scales

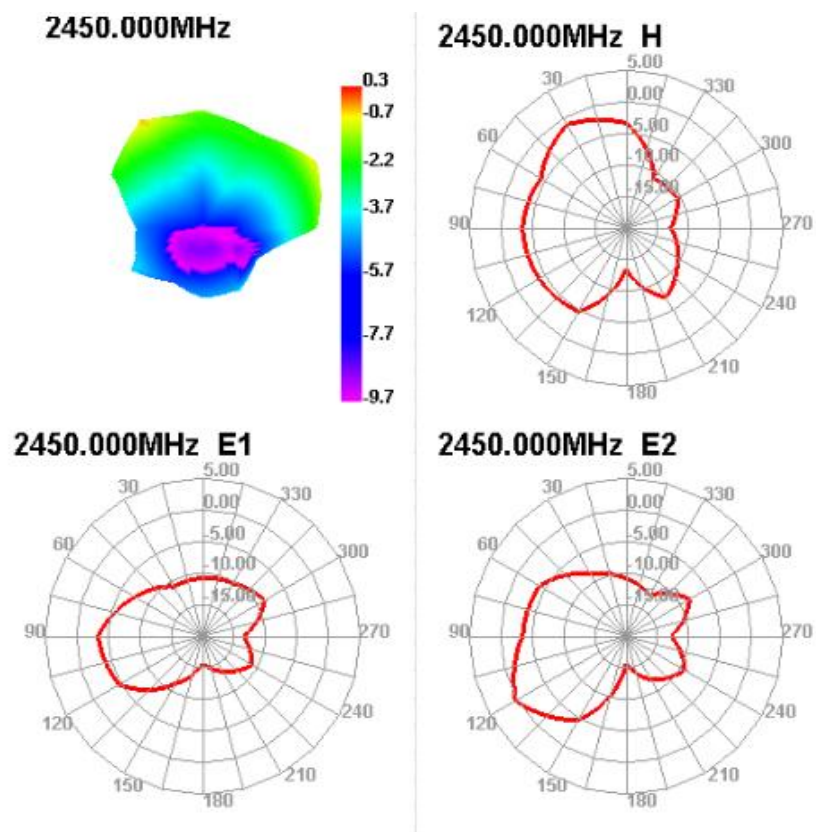
测试仪器/ Testing instrument : Anritsu CMW500+ Anechoic Chamber 6X4X3m(3D-OTA)



5.天线实际测试数据/Antenna test report

5.1)无源效率/增益/方向图/Passive Efficiency/Gain/Pattern

Freq (MHz)	Effi (%)	Gain (dBi)
2400	23.27	-0.58
2410	22.46	-0.61
2420	23.03	-0.47
2430	24.57	-0.42
2440	24.89	-0.14
2450	25.61	0.34
2460	24.64	0.07
2470	25.25	0.29
2480	26.98	0.85
2490	25.19	0.78
2500	26.11	0.95



5.2)有源数据测试报告/Active data test report

蓝牙工作，屏灭							
802.11b : 1MBps				802.11b : 11MBps			
Test	Wifi 2G TRP			Test	Wifi 2G TRP		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Txp Ave(dBm)	13.34	13.39	13.4	Txp Ave(dBm)	13.12	13.02	13.1
Test	Wifi 2G TIS			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Sens Ave(dBm)	-92.28	-92.04	-92.1	Sens Ave(dBm)	-83.88	-83.79	-83.85
802.11g : 6MBps				802.11g : 54MBps			
Test	Wifi 2G TRP			Test	Wifi 2G TRP		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Txp Ave(dBm)	13.46	13.52	13.55	Txp Ave(dBm)	12.71	12.88	13
Test	Wifi 2G TIS			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Sens Ave(dBm)	-87.41	-86.32	-86.64	Sens Ave(dBm)	-70.35	-69.84	-70.18
802.11n : MCS0				802.11n : MCS7			
Test	Wifi 2G TRP			Test	Wifi 2G TRP		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Txp Ave(dBm)	13.29	13.34	13.38	Txp Ave(dBm)	12.82	12.93	12.75
Test	Wifi 2G TIS			Test	Wifi 2G TIS		
Result	1	6	11	Result	1	6	11
Frequency (MHz)	2412	2437	2462	Frequency (MHz)	2412	2437	2462
Sens Ave(dBm)	-85.68	-86.01	-85.89	Sens Ave(dBm)	-68.45	-69.67	-68.65

6.测试样机图示/Diagram of test prototype



7.尺寸测试报告/Dimension test report

深圳市迪比通通讯设备有限公司

SHENGZHEN DIBITONG TELECOMMUNICATION TECHNOLOGY CO., LTD.

样品尺寸检测报告

管理编号:EC-QMD-QR-054 版次: A/0

机种	FI2406LBF	品名	WIFI天线	料号		日期	2024. 08. 02
来源		材质	FPC+ cable	批次		判定	OK

检验工具代码:二次元-D; 游标卡尺-S; 塞规(尺)-C; 针规-Z; 环规-H; 半径规-B。

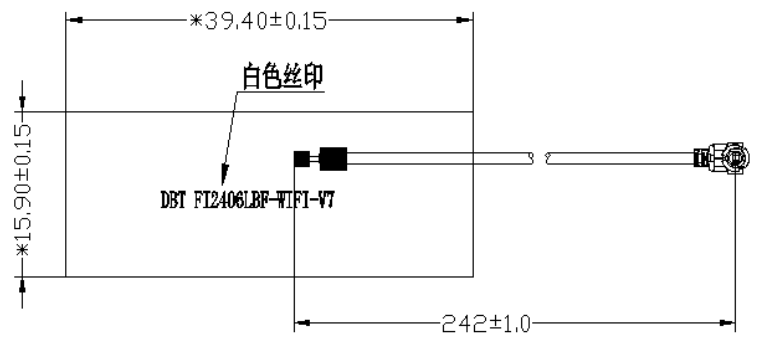
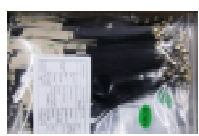
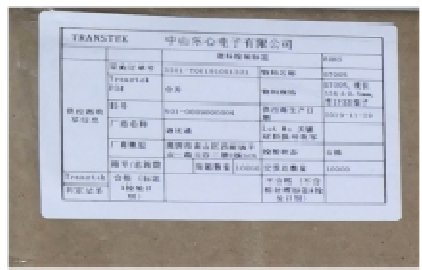
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审核：姚常青

检验员: 杨小平

日期: 2024.08.02

8.包装方式/Packing method

1. 单个产品 2D 图/2D drawing of the product		产品料号/ The product material number	
		产品名称 / Product name	FI2406LBF_WIFI
		产品版本/ Product version	V7
2. 箱内所有层堆放后的照片 /Photos of all stacked layers in the box	3. 整箱封箱后的照片/ Photo of the whole case after sealing	一包数量/ Number of full pages	200PCS
		备注:每箱数量以实际为准, 左侧图片为参考, 按 实物为准。 /Remarks: the quantity of each box shall be actual, the picture on the left side shall be for reference, and the actual goods shall be regarded as standard.	
4. 整包的照片/ A whole pack of photos	5. 整箱的箱表面贴的标签的照片/A photograph of the label on the surface of the entire case	储存条件: -10° 至 30° 之间, 湿度 70%RH 以下 的室内。 /Storage conditions: between -10 ° to 30 ° , humidity 70% Rh below the indoor.	
			

注: 上图中的图片只用做包装标准示范, 不能用做最终资料审核。 /Note: the picture in the picture above is only used for packing standard demonstration, not for final data audit.

确认者 /Confirmer	杨小平/ Yang Xiaoping		日期/Date	2024-8-1		
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注/Remark:

1. 以上测试结果限于测试样机/The above test results are limited to the test prototype.

2. 整机壳料工艺、软件版本、配件(摄像头 FPC、喇叭、听筒、马达、电池等)、芯片的改变都会导致整机天线性能变化。/Full shell material technology, software version, accessories (camera, FPC, speaker, receiver, motor, battery, etc.), core
The performance of the whole antenna will change with the change of the chip.

3. 整机的环境处理(如接地位置、尺寸,屏蔽方式等)改变会导致整机性能变化。/The change of environmental treatment (such as grounding position, size, shielding mode, etc.) of the whole machine will lead to the change of the performance of the whole machine.

郑重声明/Solemnly declare:

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