



深圳市飞敏科技有限公司

ShenZhen FeiMin Technology CO., LTD.

产品承认书

SPECIFICATION FOR APPROVED

客户

CUSTOMER: 深圳市十度数码科技有限公司 Shenzhen SHIDU Digital Co., Ltd.

产品名称

PRODUCTS: 内置 2.4G 天线 Built-in 2.4G Antenna

客户料号

PART NO:

产品型号

Spec.: FM-T884-M3

日期

Data:

供应商		
SUPPLIER		
拟制 PREPARED BY	审核 CHECKED BY	批准 APPROVED BY
杨轩 Xuan Yang	夏兴喜 Xingxi Xia	马冬冬 Dongdong Ma

客户		
CUSTOMER		
承认 ACCEPTED BY	审核 CHECKED BY	批准 APPROVED BY

备注: 承认盖章后请回复一份承认书(或复印件)给我司, 其余由贵公司存档

REMARK: Please send us one(or copy) of this approval with stamp after accepting, other copies filed by the customer.

地址: 深圳市宝安区西乡街道固戍社区恒南一路 C 栋厂房 303 室

ADD: Room 303, Building C, Hengnan one Road, Gushu community, Xixiang Street, Bao' an District, Shenzhen City

电话 Tel: 0755-23035723

传真 Fax: 0755-23036702

邮箱 E-mail: ant001@fmant.cn

网址 HTTP: www.fmant.cn

目录 Catalog

产品承认书 Specification for Approved.....	1
1. 项目信息 Project Information.....	3
1.1. 外观尺寸 Appearance and Dimensions.....	3
2. 电气性能 Electrical Characteristics.....	3
2.1. 测试环境条件 Test Environment Conditions.....	3
2.2. 测试方法 Measurement method.....	3
2.2.1. 电压驻波比 VSWR.....	4
2.2.2. 回波损耗 Log Mag.....	4
2.3. 效率及增益 Efficiency and Gain.....	4
2.3.1. 测试系统 Test system.....	4
2.3.2. 无源数据 No-source test data.....	5
2.3.3. 3D Radiation Drawing.....	5
2.3.4. directional drawing of horizontal plane.....	6
3. 备注 Notes.....	7
4. 可靠性测试 Reliability test.....	7
5. 产品包装规范 Product packaging specification.....	8

ANTENNA SPECIFICATION

Revision history

版本 Version	日期 Date	状态 Situation
A1	2021-06-11	首版 V1

变更内容 Changes:

第一次变更 1st Change:

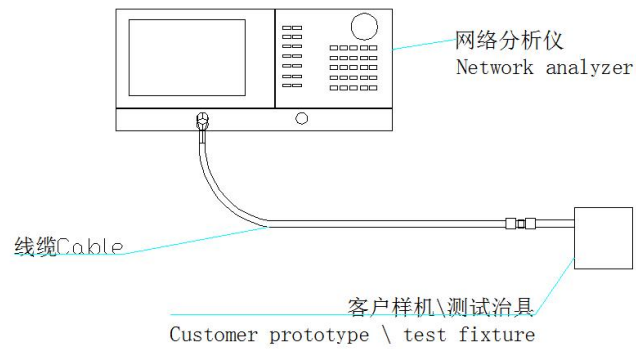
变更前: (如有必要, 请添加相应的图片, 此处变更明细要描述清楚)

Before change: If necessary, add the corresponding image, and the details of the changes should be clearly described.

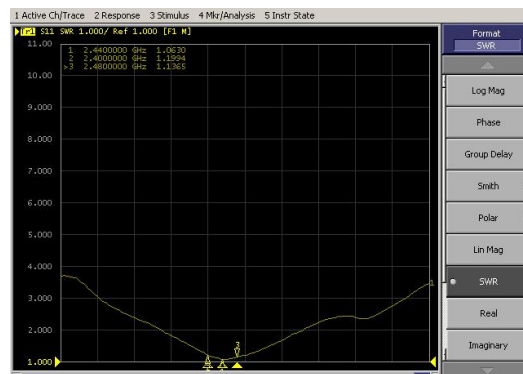
变更后: (如有必要, 请添加相应的图片, 此处变更明细要描述清楚)

After change: If necessary, add the corresponding image, and the details of the changes should be clearly described.

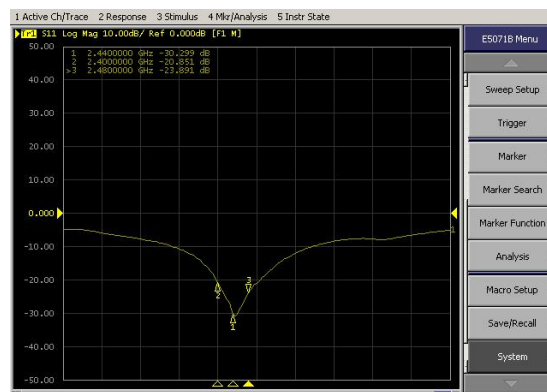
ANTENNA SPECIFICATION



2. 2. 1. 电压驻波比 VSWR



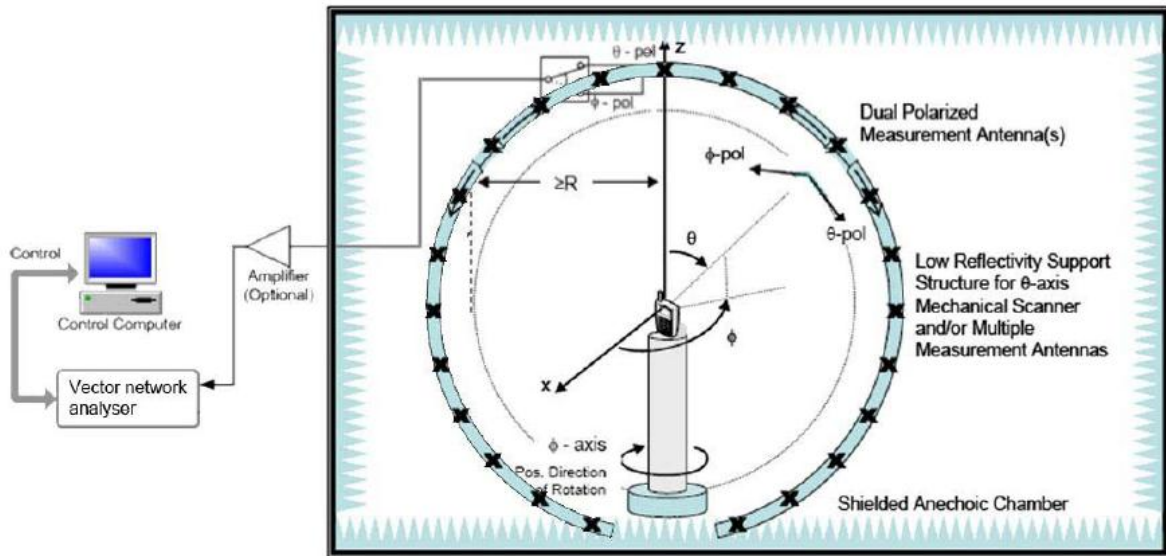
2. 2. 2. 回波损耗 Log Mag



2. 3. 效率及增益 Efficiency and Gain

2. 3. 1. 测试系统 Test system

ANTENNA SPECIFICATION

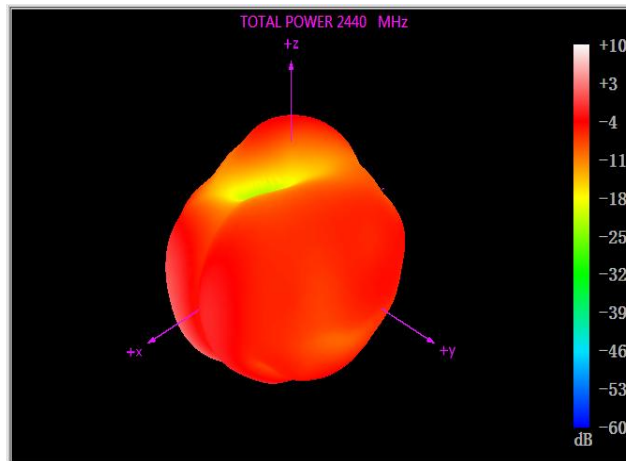


2.3.2. 无源数据 No-source test data

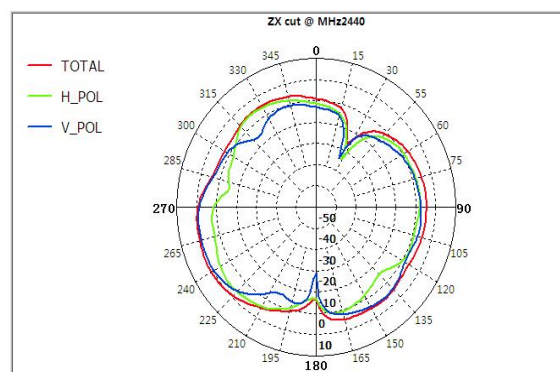
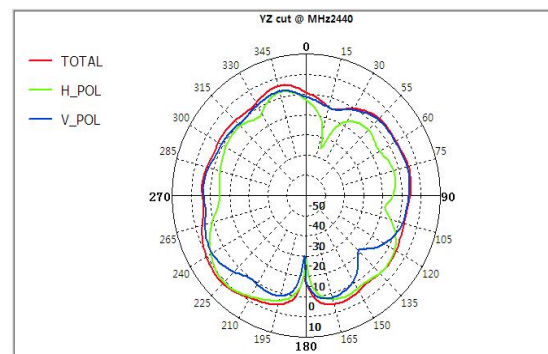
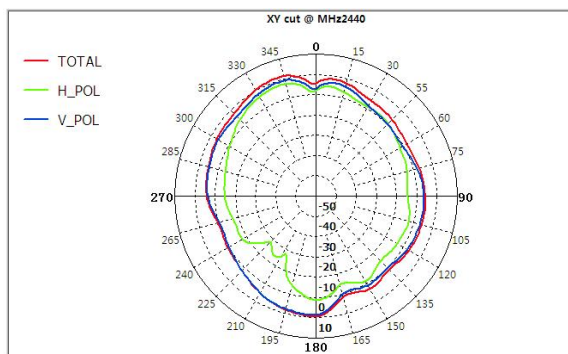
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400 MHz	2.76	52.68
2410 MHz	3.01	54.23
2420 MHz	2.25	53.84
2430 MHz	2.64	54.62
2440 MHz	3.25	55.27
2450 MHz	3.24	54.32
2460 MHz	2.36	53.68
2470 MHz	2.12	53.76
2480 MHz	1.98	51.65
2490 MHz	2.45	50.68
2500 MHz	3.12	51.12

2.3.3. 3D Radiation Drawing

ANTENNA SPECIFICATION



2.3.4. directional drawing of horizontal plane



ANTENNA SPECIFICATION

3. 备注 Notes

1、安装时注意不能离金属部分太近，以避免影响天线性能。

2、此款天线只适用此机型，天线的位置不可以随意改动，若用于其它机器上导致效果变差，与我司无关。

1. When installing, pay attention not to be too close to the metal part to avoid affecting the performance of the antenna.

2. This antenna is only applicable to this model, the position of the antenna can not be changed at will, if it is used on other machines to cause the effect to deteriorate, it has nothing to do with our company.

4. 可靠性测试 Reliability test

项目 Item	试验方法及条件 Test methods and conditions	规格及要求 Specifications and requirements
存储环境 Storage environment	在没有指定的情况下测试温度、湿度、气压如下： 1、温度为-30℃~+80℃ 2、相对湿度为 45%-85% 3、气压为 86Kpa-106Kpa The temperature, humidity, and barometric pressure are tested without specifying as follows: 1. The temperature is -30° C~+80° C 2. Relative humidity is 45%-85% 3. The air pressure is 86Kpa-106Kpa	外观无明显变化 各电性参数与试验之前的参数相符合 There is no noticeable change in appearance The electrical parameters are consistent with the parameters before the test
盐雾测试 Salt spray test	盐水浓度 50±10g/l (约 5%); PH6.5-7.2; 试验温度 35±1℃; 腐蚀时间 16H. brine concentration 50±10g/l (about 5%);	

ANTENNA SPECIFICATION

	PH6.5-7.2; Test temperature $35 \pm 1^{\circ}\text{C}$; Corrosion time: 16H.	
振动测试 Vibration test	振频 10-2000-10HZ 振幅 1.52mm 沿 X.Y.Z 方向 各 10 次 The frequency is 10-2000-10HZ The amplitude is 1.52mm, and 10 times in the X.Y.Z direction	
跌落测试 Drop test	从 1M 处跌落在木板上 Fall on a board from 1M	
拉拔力测试 Pull-off force test	用推拉力计测试仪器测试其承受力度: $\geq 12\text{N}$ Test its bearing force with a push-pull force meter test instrument: $\geq 12\text{N}$	
恒温恒湿测试 Constant temperature and humidity test	温湿度: $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90-95%RH 持续时间: 4H 恢复时间: 1-2H Temperature and humidity: $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90-95%RH Duration: 4H Recovery time: 1-2H	
高低温测试 High and low temperature test	在 70°C 与 -20°C 之间进行 5 次循环, 然后在正 常条件下 1-2H 5 cycles between 70°C and -20°C , followed by 1-2 h under normal conditions	

5. 产品包装规范 Product packaging specification

产品名称: 2.4G 天线
Product: 2.4G Antenna

天线形式: 屏蔽线+FPC
Antenna form: shielded wire + FPC

ANTENNA SPECIFICATION

一、标签要求 Label Requirement

内标签长 5.5CM, 宽 2.2CM 左右
INNER LABEL: 5.5CM*2.2CM

外标签长 8.8CM, 4.4CM 左右
OUTER LABEL: 8.8CM*4.4CM

供 应 商	深圳市飞敏科技有限公司
Supplier	Shenzhen Feimin Technology Co.,Ltd
产品名称	*****
Product	
物料编码	*****
No. :	
规格型号	*****
Model :	
数 量	***PCS
QTY	

客户名称 Customer			
供 应 商	深圳市飞敏科技有限公司		
Supplier	Shenzhen Feimin Technology Co.,Ltd		
订单编号	*****		
Order			
物料编码	*****		
No			
规格型号	*****	产品名称	*****
Model		Product	
数 量	*****PCS	检验	
QTY		QC	
备品	***PCS	备注	
Spare part		Note	

二、装箱流程

作业说明:

1. 产品_PCS 用 PE 开口袋装好, 每小袋贴好内标签;
将__小袋装入大 PE 封口胶带袋中, 尾数及备品除外。
2. 每箱装__大袋产品, 将箱子用胶纸以“工”字形封箱。
3. 在箱子的右上角贴上外标签, 不可有漏填、填错现象。

The packing process Description:

1. The product __PCS packed with PE open pocket, and each pouch is labeled with an inner label; Put __ pouch into a large PE sealing tape bag, except for tail and accessories.
2. Each box contains __ large bags of products, and the box is sealed with adhesive paper in an "I" shape.
3. Attach an outer label to the upper right corner of the box, and there should be no omissions or errors.

三、注意事项

装箱时要注意将天线平整放好, 封胶后不可出现严重晃动情况, 未填满整箱的情况需塞入泡棉填充, 避免运输过程中造成产品不良的情况。

Precautions:

When packing, pay attention to the placement of the antenna, and there should be no serious shaking after sealing.

In the case of moving, the case of not filling the whole box needs to be stuffed with foam to avoid transportation situations that cause poor products in the process.

