SOLUM CO., LTD. 귀중

APPROVAL SHEET (승인원)

Date	2023.08.23
Part Name	3.03.0101003151
Description	2.4G PCB Antenna with RF 1.13 Cable, L=260mm
ETC	Lead & Halogen Free PRODUCT

승인 유효기간	승인일로부터 단종, 대체 부품 승인시까지

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FEIYUXIN 飞宇信 **Shenzhen Feiyuxin Electronics Co., Ltd.**

规格承认书

Specification for Approval

客户名称： YNOT Co., Ltd (Solu-M)

Customer:

规格描述： 2.4G PCB Antenna with RF 1.13 Cable, L=260mm

Part name

飞宇信料号： 3.03.0101003151

Part No.

客户料号:

Customer Part No.

客户承认印 CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR

SALES	CHECK	CHIEF	DESIGN
Effy	Zhou	Jerry	Young
Date:2023-08-10		Date:2023-08-10	
THANKS FOR OFFERING US THE OPPORTUNITY TO SEND SAMPLES FOR APPROVEMENT. PLS KINDLY SIGN BACK THIS DOCUMENT TO US WHEN SAMPLES ARE APPROVED.			

FEIYUXIN HEADQUARTER

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Modification Record

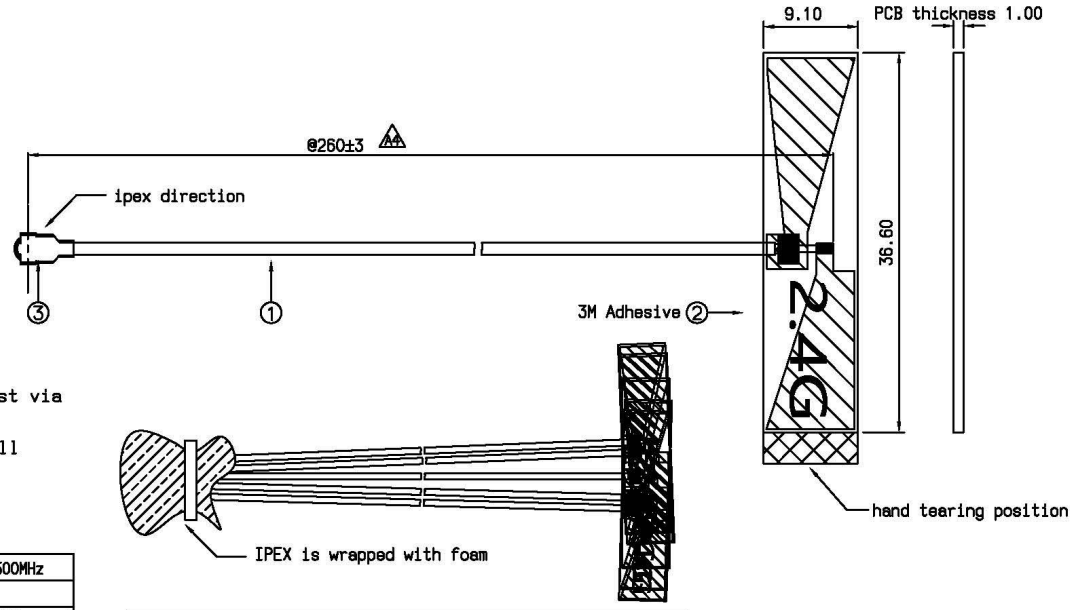
Revision	Date	Engineer	Modified Content
01	2023.08.10	Jerry	NEW

Antenna Drawing

END PRODUCT DRAWING成品

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	2018.04.23	修改PCB蜂芯线尺寸		陈阳辉
A2	2018.07.16	修改包装方式和数量	ECN2018071001	陈阳辉
A3	2018.09.04	修改每扎数量	ECN20180904001	陈阳辉
A4	2023.05.13	按要求变更线材长度及增加背胶	ECN20230513001	郑少娟
A5	2023.06.01	变更背胶		郑少娟

RoHS Compliant



Remarks:
1. Finished products 100% test via network analyzer;
2. Finished products 100% full inspection;
3. RoHS compliant;
4. @: key dimension.

工作频段(Frequency Range)	2400~2500MHz
增益(Gain)	2dBi
电压驻波比(VSWR)	compare with sample
极化方式(Polarization)	Linear
特性阻抗(Impedance)	50 ohm

No.	PART No.	PART No.	Name	Qty	Remark
⑥	1802-0039	1.10.0402340500	28*23*20CM K=K材质-有印刷 A2	1/2000	纸箱
⑤	1801-0015	1.10.0301512000	330*250*0.04(白边骨袋)-打孔	1/200	PE袋
④		1.11.0303600000	L36.0*8.5*T=0.15MM-3M9448A-手撕位 A5 A4	1	背胶
③	1113-0004	1.04.1248000100	20278-112R-13-插头	1	IPEX
②	1601-0266	1.08.0101511100	L36.6*9.1*T=1.0mm-2.4G-黑色-单面板-丝印	1	PCB
①	1301-0009	1.01.0102212100	1.13黑-64-双铜-FEP	1	线材

角法 ANGLE PROJECTION

公差 GENERAL TOLERANCE
100~200: ±3.00
50~100: ±2.00
25~50: ±0.20
10~25: ±0.10
1~10: ±0.05

▼:Critical Dim
@:Major

产品名称(PRODUCT NAME)	IPEX-2.4 PCB Antenna-RF1.13 Black-L260MM
产品料号(PRODUCT NO)	单位(UNIT) M M 比例(SIZE) FREE
	页数(PAGE) 1 OF 1 幅面(FORMAT) A4
设计(D S) 陈阳辉	深圳飞宇信电子有限公司
审核(CHK) 周锡华	SHENZHEN FYX ELECTRONICS CO.,LTD
校准(APPD) 李贺	

表单编号: FYX/E-QR-14A 版本: 第三版

Product Specifications

Product Name: 2.4G PCB Antenna with RF1.13 Cable	
DESCRIPTION	**VALUE**
Frequency range	2400~2500MHz
Impedance	50Ω
V.S.W.R	Compare with sample
Gain	1~2dBi
Radiation	Omni-directional
Radiating element	1/4 Wave Helical
Polarization	Linear Vertical
Admitted power	5W
Connector	RF 1.13
Operating temp	-40℃~+70℃
Storage temp	-45℃~+75℃

1. Summary 概要：

This report states the measurement and result of the antenna. The measurement includes VSWR and reflection coefficient of s-parameter.

2. S-Parameter Measurement S 参数的量测：

A. Reflection coefficient:

a. Instrument：Network Analyzer .

b. Setup：

(1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.

(2) Connect the antenna under test to the Network Analyzer.

(3) Measure the S11(reflection coefficient) shown in Fig. 1.

(4) Generally, the S11 is less than –10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

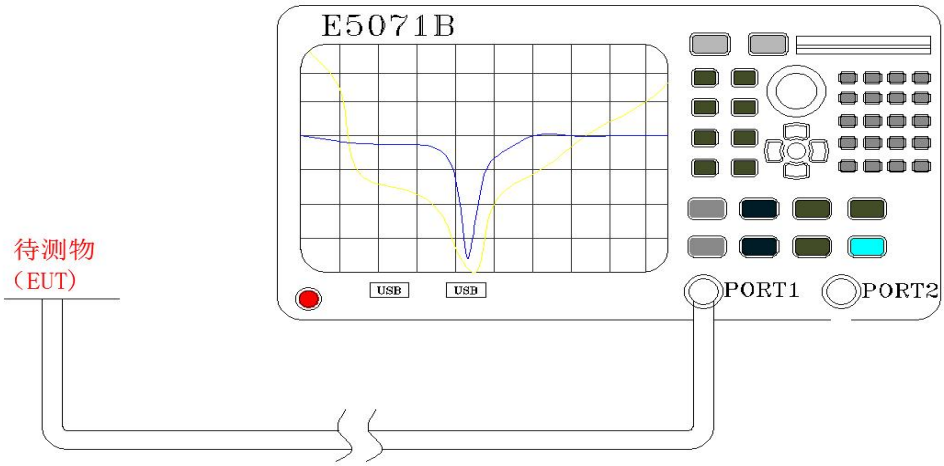


Fig.1 Antenna measured in Network Analyzer

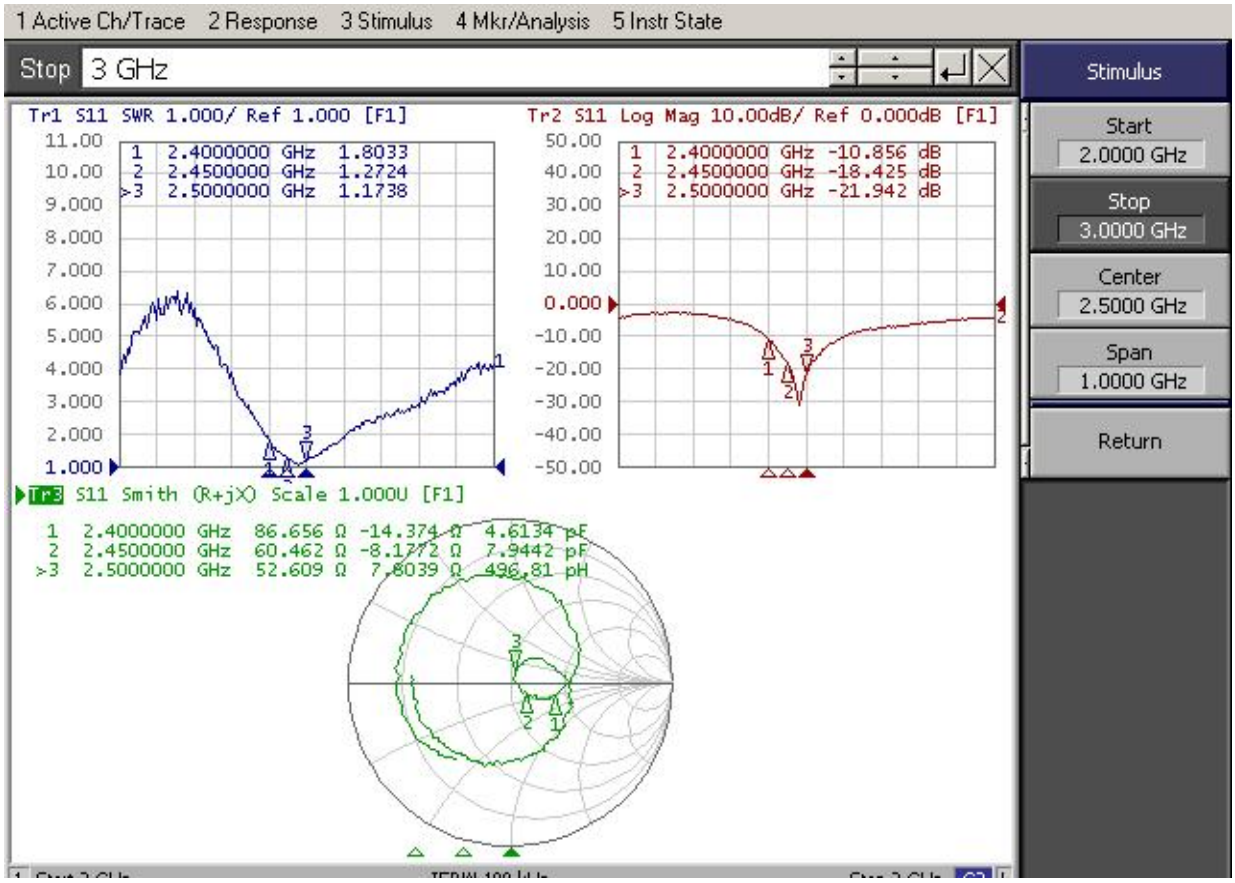
图 1 天线测量网络分析仪

3. S-Parameter Measurement Result S 参数的量测结果：

S-Parameter test data S-参数量测数据：

Frequency MHz 工作频段	2400MHz	2450MHz	2500MHz
V.S.W.R 驻波比	1.80	1.27	1.17

S-Parameter test image S-参数量测图片：



4. Test Information from Anechoic Chamber 全电微波暗室测试报告

4-1 Summary 概要

This test defines the measurement range of a far-field antenna, which includes：

1) One 400 cm (W) x 300 cm (H) x 500 cm (L) Antenna Measurement Anechoic Chamber.

2) Testing Equipment: Agilent 5071B

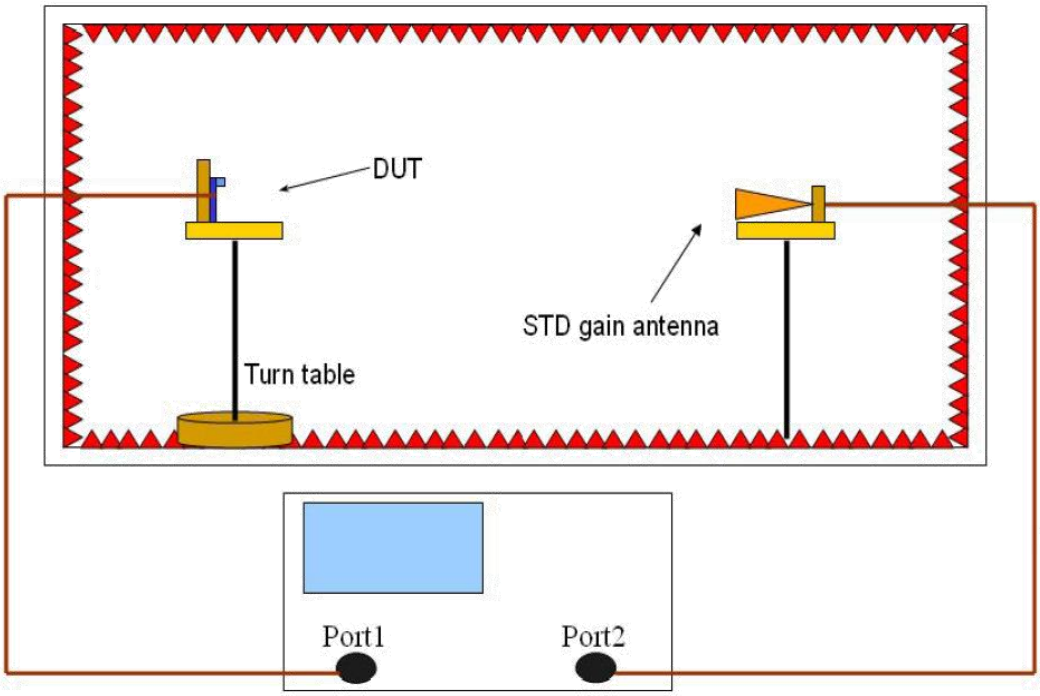


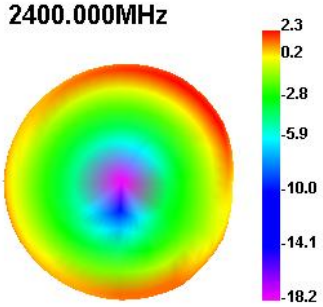
Fig.1 Antenna measured in Network Analyzer
图 1 天线测量网络分析仪

4-2 Antenna Measurement Result 天线测试结果

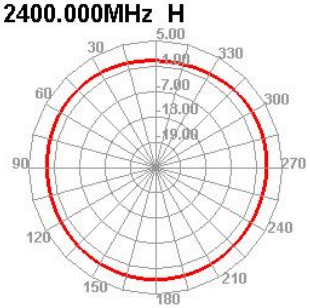
Wi-Fi Antenna Gain and Efficiency：

Freq (MHz)	Effi (%)	Gain (dBi)
2400	84.74	2.29
2410	90.29	2.46
2420	82.99	2.04
2430	86.22	2.17
2440	85.86	2.2
2450	90.91	2.42
2460	91.45	2.5
2470	88.87	2.35
2480	85.64	2.18
2490	84.25	2.03
2500	83.51	1.97

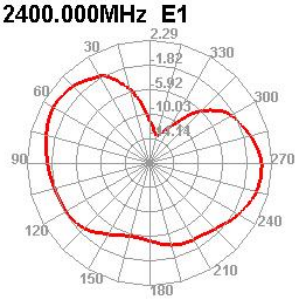
2400.000MHz



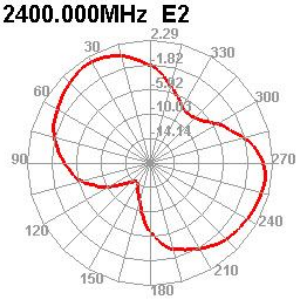
2400.000MHz H



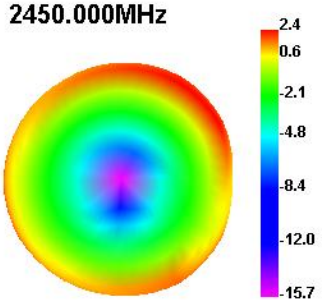
2400.000MHz E1



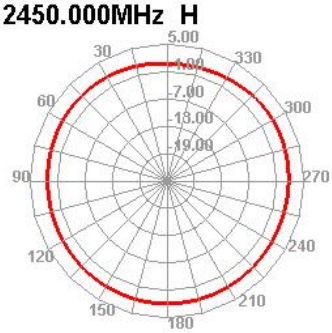
2400.000MHz E2



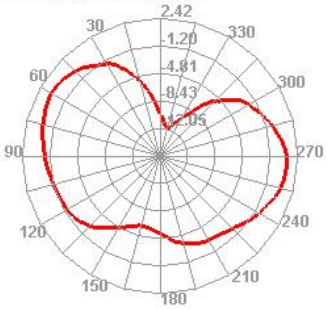
2450.000MHz



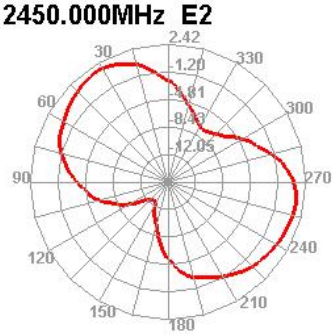
2450.000MHz H



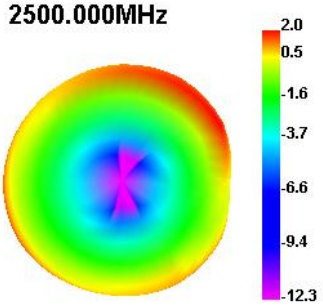
2450.000MHz E1



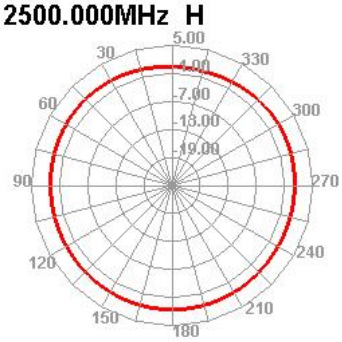
2450.000MHz E2



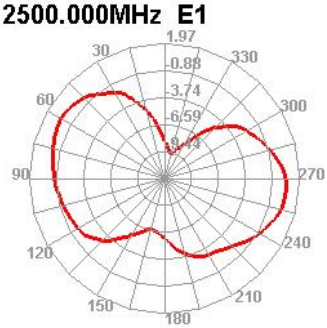
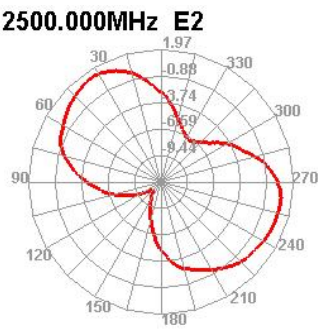
2500.000MHz



2500.000MHz H



2500.000MHz E1



2500.000MHz E2