

星士达 铜管 天线规格承认书
Product Specifications for Approval

Antenna frequency band

: 2400-2500MHz

Date of production: 2026-07-18

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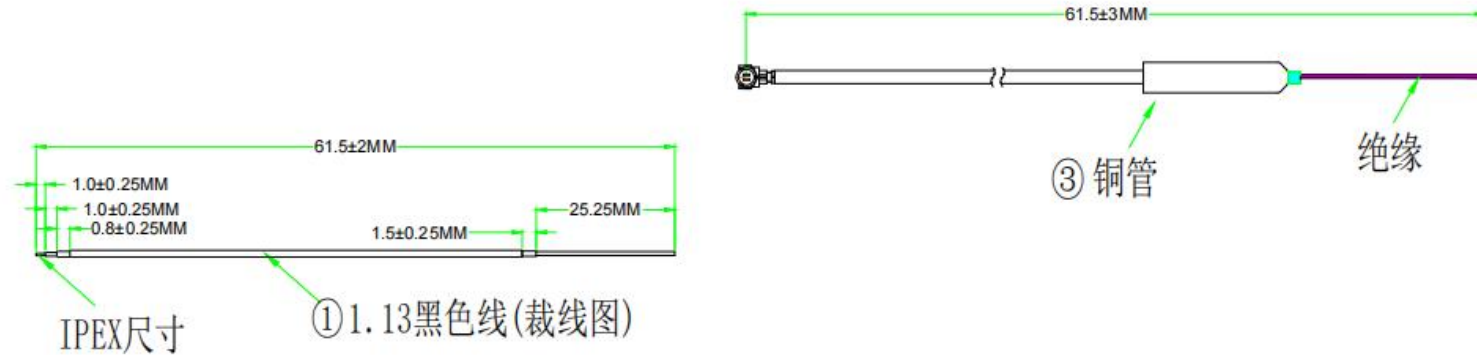
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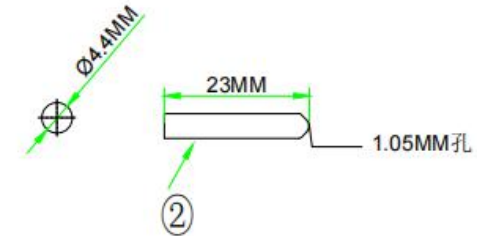
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工作频段 (Frequency Range)	2400MHz-2500MHz
增益 (Gain)	3DBi
电压驻波比 (VSWR)	对比波形
极化方式 (Polarization)	垂直
特性阻抗 (Impedance)	50 OHM

技术要求:

- 特性阻抗50Ω; 频率范围2400-2500MHz; 驻波比SWR≤2.0;
检测方法: 单测天线, 使用网络分析仪100%测试;
- 尺寸检验: [*]为FAI检测项目, *为重点检测项目;
- 外观检验: 电缆裁切须平整, 镀锡光亮,
导体无多余股伸出或散乱;
焊接须饱满, 无假焊、虚焊、毛刺;
电缆外无破损、折皱或异色等不良;
- 包装: 环剥焊接端包泡棉 100PCS/一扎, 即100PCS/包;



NO.	NAME	Specification Description	QTY	角法 ANGLE PROJECTION	产品名称 (PRODUCT NAME)					
⑨			1		铜管天线-WIFI-1.13线-黑色-IPEX L=61.5MM					
⑧			1							
⑦			1	公差 GENERAL TOLERANCE 100~200 : ± 3.00 50~100 : ± 2.00 25~50 : ± 0.20 10~25 : ± 0.15 1~10 : ± 0.1	产品料号 (PRODUCT NO)	单位 (UNIT)	MM	比例 (SIZE)	1:1	
⑥			1			页数 (PAGE)	1 OF 1	幅面 (FORMAT)	A4	
⑤			1		设计 (D S)	吴 唐				
④			1		审核 (C H K)					
③	IPEX	一代端子	1		核准 (APPD)					
②	铜管	23*4.4MM 黄铜	1	DIN GRADE						
①	线材	1.13黑色线-双锡 线长L=61MM	1							

Product feature specification table

1, the basic characteristics of the product:

Product type: copper antenna -WIFI-1.13IPEX generation terminal -1.13 wire-double tin wire-black-l = 61.5mm.	
DESCRIPTION	VALUE
Frequency range (工作频段)	2400-2500MHz
Impedance (特性阻抗)	50 Ω
V.S.W.R (电压驻波比)	Contrast sample waveform
Gain (增益)	3DBi
Radiation (方向性)	Omni-directional
Polarization (线化方式)	linear Vertical
Admitted power (功率)	1W
Connector (接头型号)	IPEX CONN
Operating temp (工作温度)	-45℃~+85℃
Storage temp (储存温度)	-45℃~+85℃

1. Summary 概要:

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

这份报告用以说明量测的天线的结果，该测量设置包括 S 参数的 电压驻波比及反射系数，为量测天线的数据表示及分析

2. S-Parameter Measurement S 参数的量测:

A. Reflection coefficient 反射系数:

(a) Instrument (仪器): Network Analyzer (网络分析仪).

(b) Setup 建立:

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

仪器的校正通过 OSL 校准套件进行一个端口的校正.

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

连接待测天线至网络分析仪.

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

测量 S11 如图一所示.

(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.

一般来说, S11 小于 -10dB VSWR 小于 2.0: 1, 以确保 90% 的功率转换成天线和只有不到 10% 的功率反射回系统.

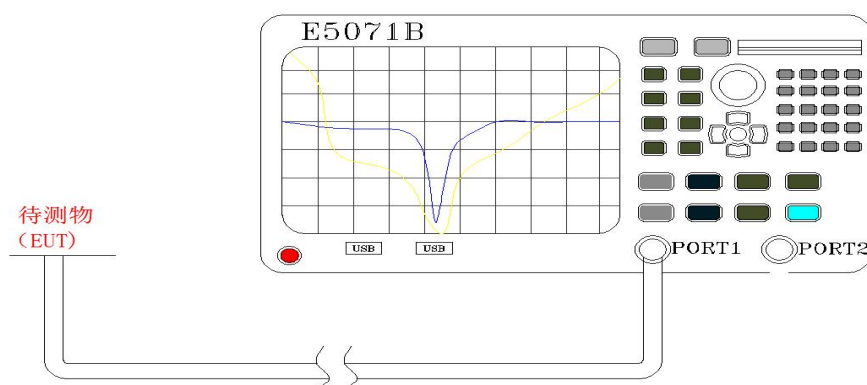


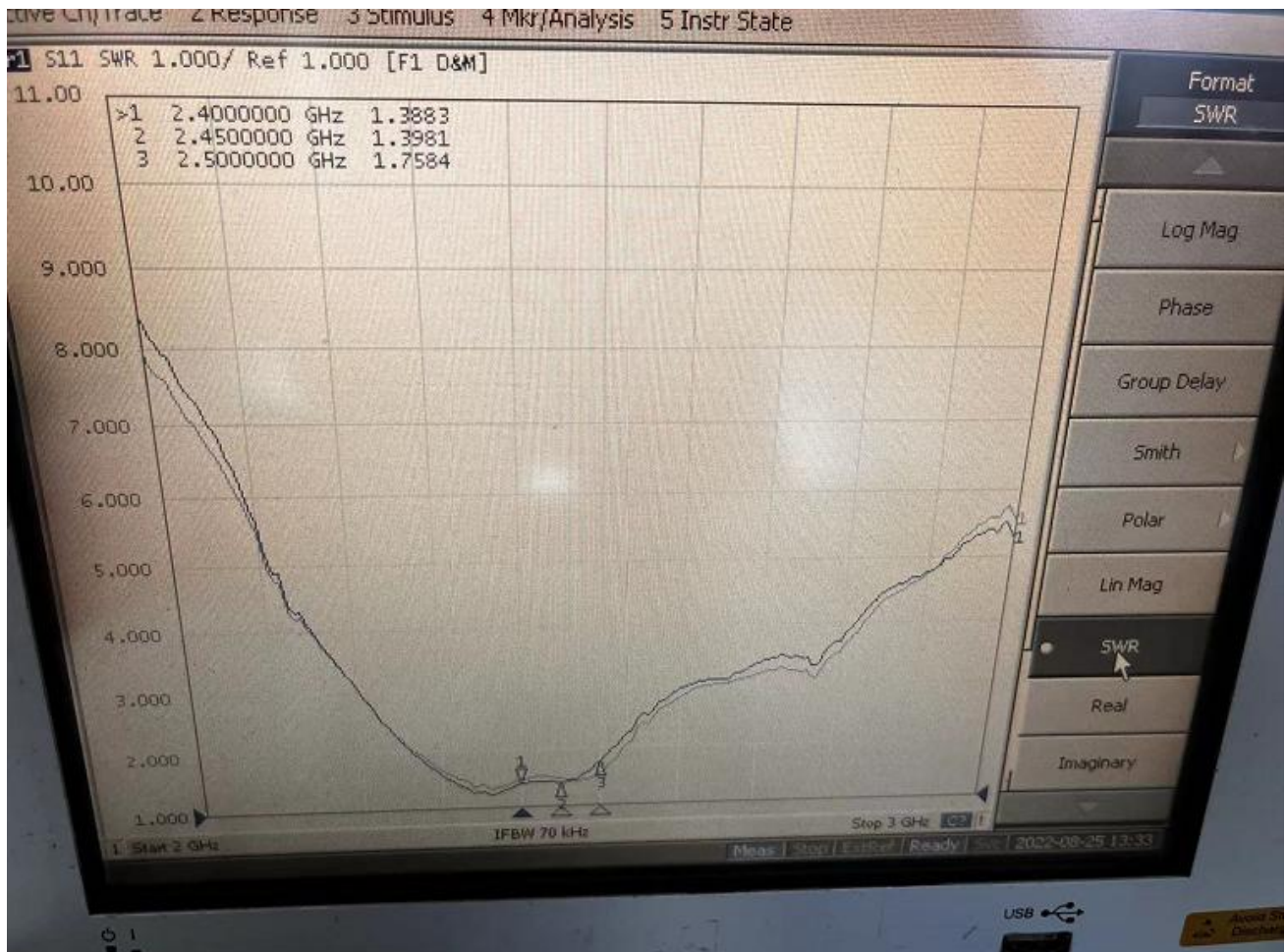
Fig.1 Antenna measured in Network Analyzer 图 1 天线测量网络分析仪

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	2400	2450	2500
V.S.W.R 驻波比	1.38	1.39	1.75

S-Parameter test image S-参数量测图片:

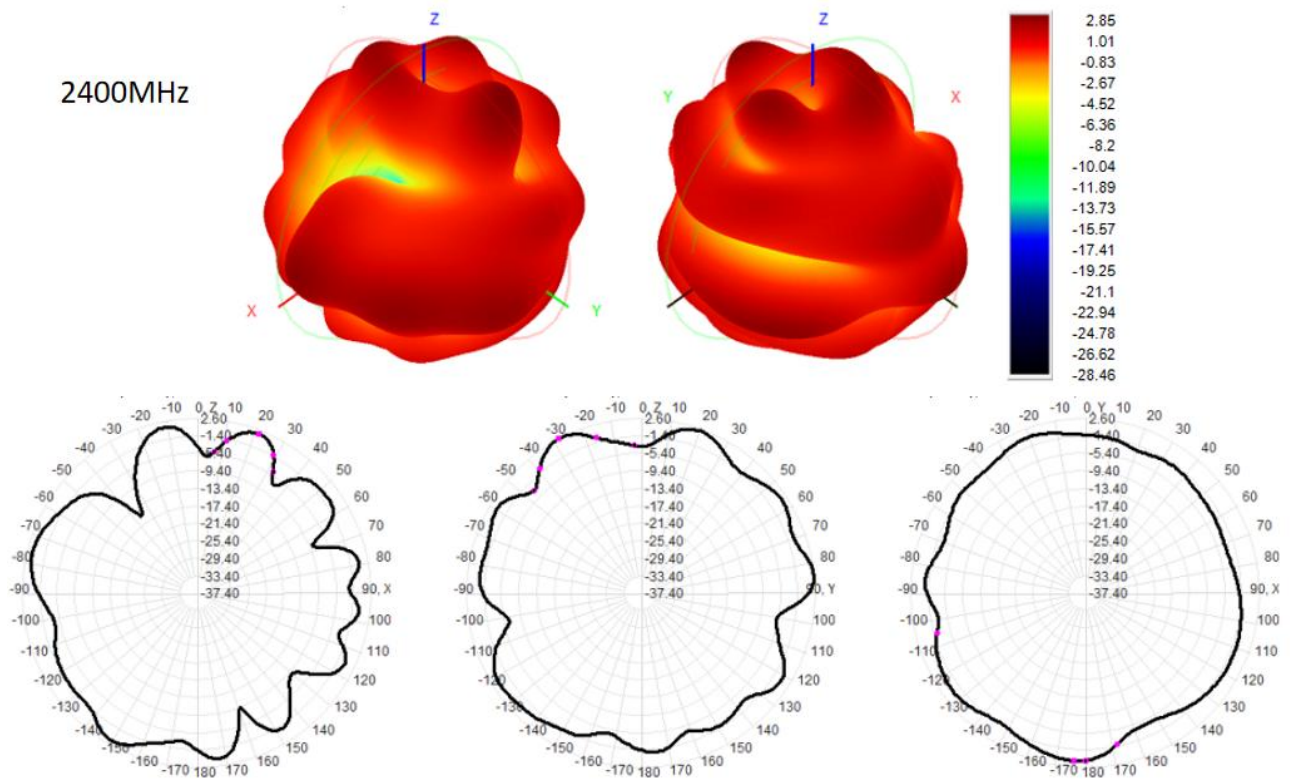


Passive numerical value:

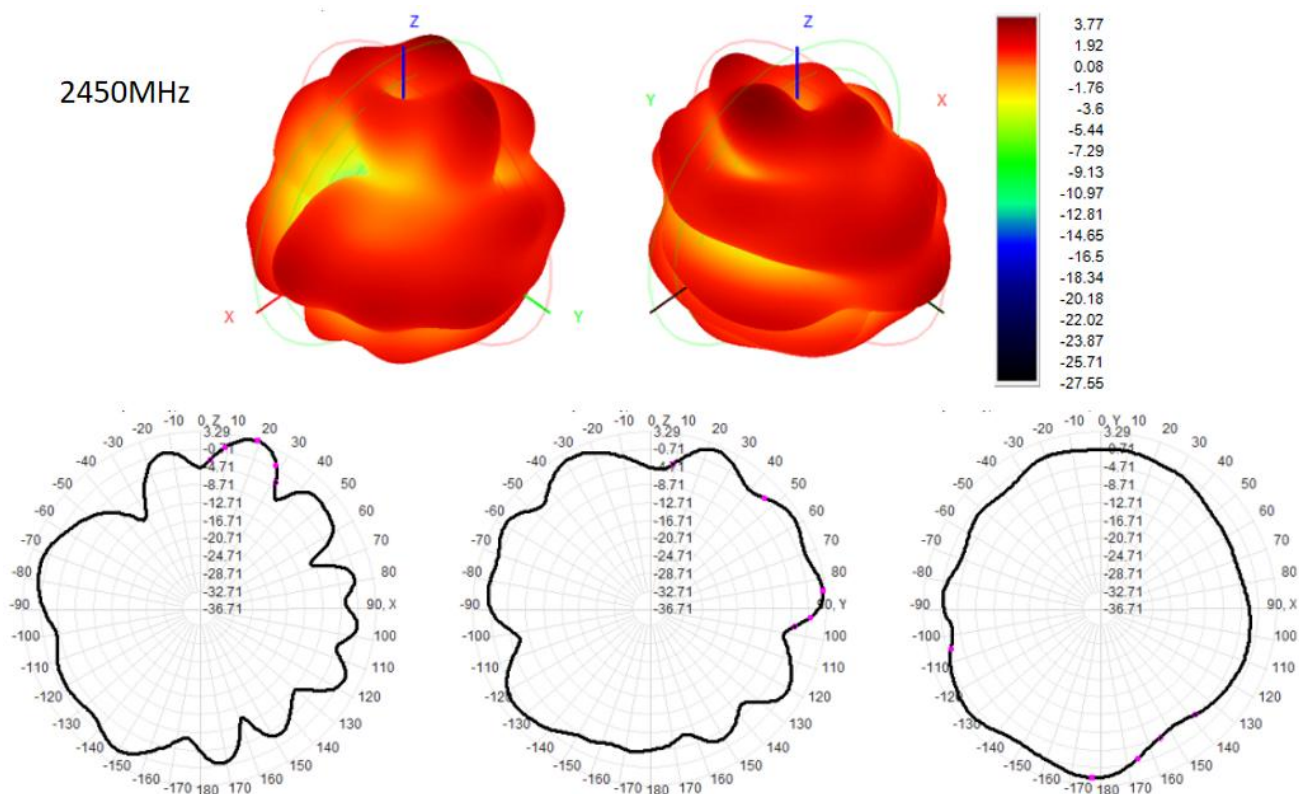
Frequency (MHz) (工作频段)	Efficiency (%) (效率)	Peak GAIN (dBi) (增益)
2400	70.73	2.45
2450	65.28	2.84
2500	64.23	2.71

2D、3D

2400MHz



2450MHz



2500MHz

