Shenzhen Top Smart Technology Co., Ltd

承認書 APPROVAL

客 户 :	
品名规格 DESCRIPTION:	铜管天线-2.4G -1.13 黑-L130-IPEX
料 号 PART NO.:	
客户料号 CUS PART NO.:	
日期 DATE:	2022. 7. 4

工程	品 保	业务
ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT

客户承认签章

工 程 ENGINEERING DEPARTMENT	品 保 Q C DEPARTMENT	采 购 PURCHASING DEPARTMENT

联系电话:

- ж 承认书一式三份, 惠蒙贵司承认签章
- ж Approval in duplicate, please signed by your company.

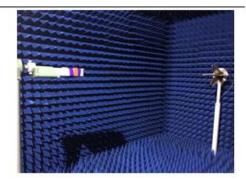
1.测试项目与设备

	测试项目	设备
1. S11 参数 (S-parameter)	1. 回波损耗 (Return Loss) 2. 电压驻波比(VSWR)	网络分析仪: Agilent E5071B HP 8753D
2. 有源测试 (Active)	1. 发射功率 (TRP) 2. 接收灵敏度(TIS)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.综合测试仪: Agilent 8960 E5515B ×2 StarPoint SP6011
3.无源测试 (Passive)	1.天线增益 (Gain)2.天线效 率 (Efficiency)	1. 暗室: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. 网络分析仪: Agilent E5071B HP 8753D

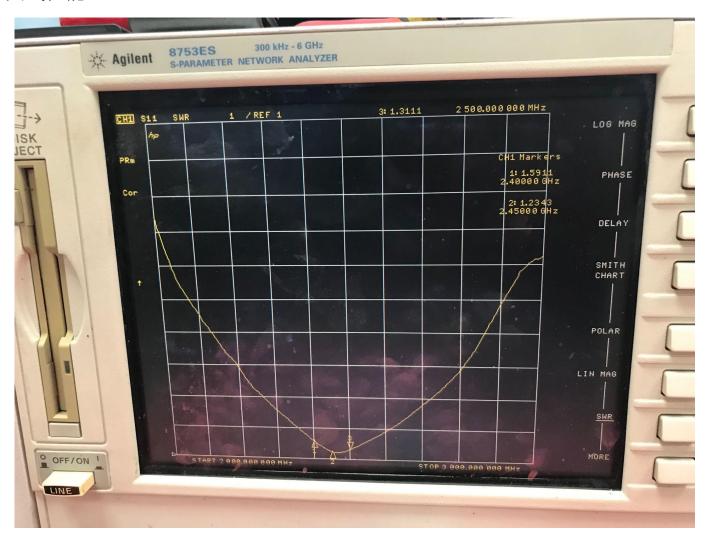






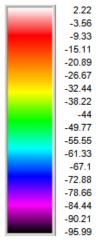


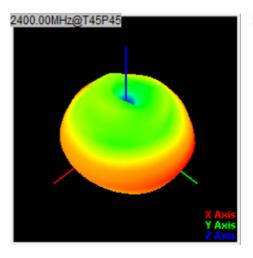
2.天线性能

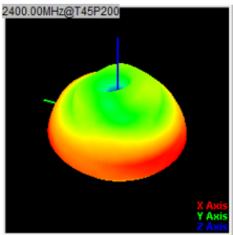


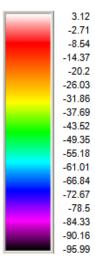
3.暗室无源数据:

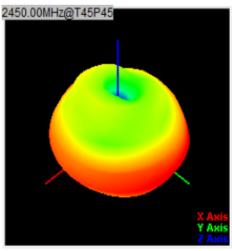
				Passiv	e Test Fo	r WIFI				
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	52.5	-2.8	1.77	-0.38	33.79	18.711	1.77	-16.22	48.09	47.94
2410	52.19	-2.82	1.65	-0.5	33.644	18.548	1.65	-15.92	48.07	47.87
2420	51.69	-2.87	1.5	-0.65	33. 325	18.362	1.5	-15.32	48.18	48
2430	50.49	-2.97	1.33	-0.82	32.605	17.886	1.33	-15.32	48.17	47.99
2440	52. 25	-2.82	1.49	-0.66	33. 893	18.354	1.49	-15.44	48.33	48.11
2450	54.16	-2.66	1.64	-0.51	35.564	18.592	1.64	-15.72	48.44	48.14
2460	53.18	-2.74	1.53	-0.62	35.419	17.761	1.53	-16.88	48.41	48.06
2470	53.35	-2.73	1.51	-0.64	35. 958	17.389	1.51	-17.44	48.49	48.11
2480	54.2	-2.66	1.5	-0.65	36.806	17.391	1.5	-16.88	48.63	48.18
2490	54.75	-2.62	1.43	-0.72	37. 292	17.459	1.43	-16.87	48.76	48. 29
2500	51.65	-2.87	1	-1.15	35.18	16.467	1	-17.68	48.69	48.16

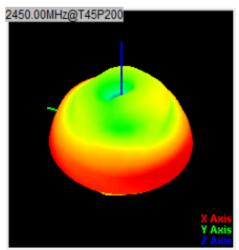


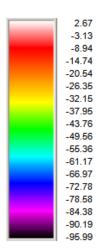


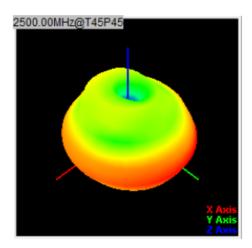


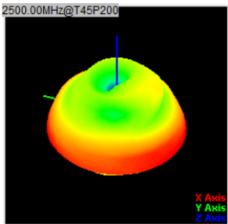




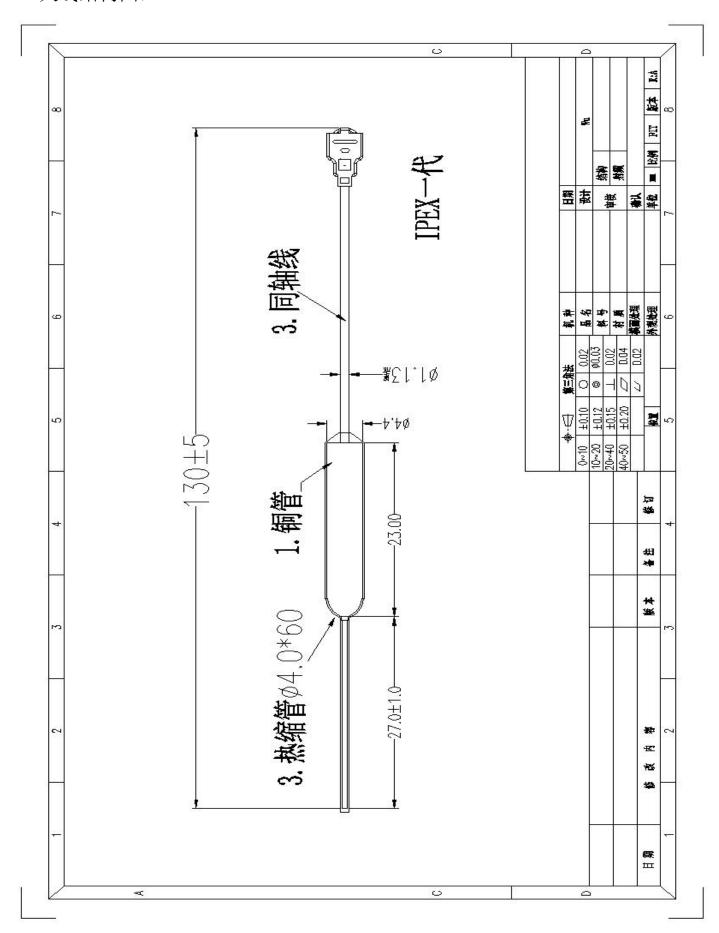








4.天线结构图:



电器技术参数

电性	生能指标	Electrical Specifications		
频率范围	2400~2500MHz	Frequency Range	2400~2500MHz	
电压驻波比	≤2.0	VSWR	≤2.0	
输入阻抗	50 Ω	Input Impedance	50 Ω	
增益	2DBI	Gain	2DBI	
辐射方向	全向	Radiation direction	omnidirectional	
机 械 指 标		Mechanical Specifications		
线材颜色	黑色	Antenna Color	Black	
接口形式	IPEX	Input connector	IPEX	
天线线长	130mm	Cable length	130mm	
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃	
工作湿度	20~80%	Working Humidity 20~80%		

RF113 规格

1. 适用范围

本规格书制定了电线的结构和电气特性

同轴线

AWG 32

1. Scope

This specification covers the construction and the electrical properties of wire.

Coaxial Wire

AWG 32

2. 结构/Construction

单位/Unit: mm

项目/Item		单位/Unit	详细资料/Details
	材料/Material	-	绞合镀银铜丝 Silver-coated copper wire
Conductor	构成/Composition	(No./mm)	7/0.08
	外径/OD.	mm	0.24
	绞向/Orientation	-	S
	材料/Material	-	FEP(进口料)
Insulation	绝缘颜色/Insulation color	-	本色/Natural
绝缘层	标称绝缘厚度/	mm	0.22
	绝缘线径/OD.	mm	0.69
Braid Shield	材料/Material	-	镀锡铜丝 Tinned copper wire
编织	构成/Composition	(No./mm)	16/4/0.05
	编织密度/Coverage	(%)	>=90
	材料/Material	-	FEP
Jacket 外被	标称绝缘厚度/ Nom. Thickness	mm	0.12
	外径/OD.	mm	1.13±0.10

3. Electrical Properties (at 20℃) /电气特性(20℃时)

项目/Item	单位/Unit	详细资料/Details
导体电阻/Conductor Resistance	Ω /km	571 (Max.)
绝缘电阻/Insulation Resistance	MΩ • km	100(Min.)
耐压强度(AC)/Dielectric Strength(AC)	V/ 1 Min	500
特性阻抗/Impedance	Ω	50 ± 3
耐温等级/ Temperature	${\mathbb C}$	200
额定电压/rated voltage	V	30

4. 电线截面图示如下:

