



公司地址：东莞市塘厦镇清湖头三坑工业区1号

东莞市仁丰电子科技有限公司

Dongguan RF Electronic Technology Co., Ltd

电话：0769-38940168 传真：0769-39010966 网址：http://rflink.net.cn

承认书

SPECIFICATION FOR APPROVAL

客 户 名 称:

CUSTOMER NAME: T&W electronics co., ltd

产 品 名 称

PRODUCT NAME: 2.4/5G 5dBiWhite antenna exposure =160mm

客 户 料 号

CUSTOMER P/N: 80000014368

仁 丰 料 号

Ren Feng P/N: U00T01S039N03016 REV: A

内部结构

Internal structure: Grounding tube

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:	周荣创	
AUDITOR BY:	黄磊	
APPROVED BY:	姚定军	
DATE:	2023-02-14	



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履历表 Resume

版次号 Edition No.	修改章节 Modify chapter	修改页码 Modify Page	生效日期 Effective date	文件和资料更改内容 File and data changes	更改记录 人 Change recorder



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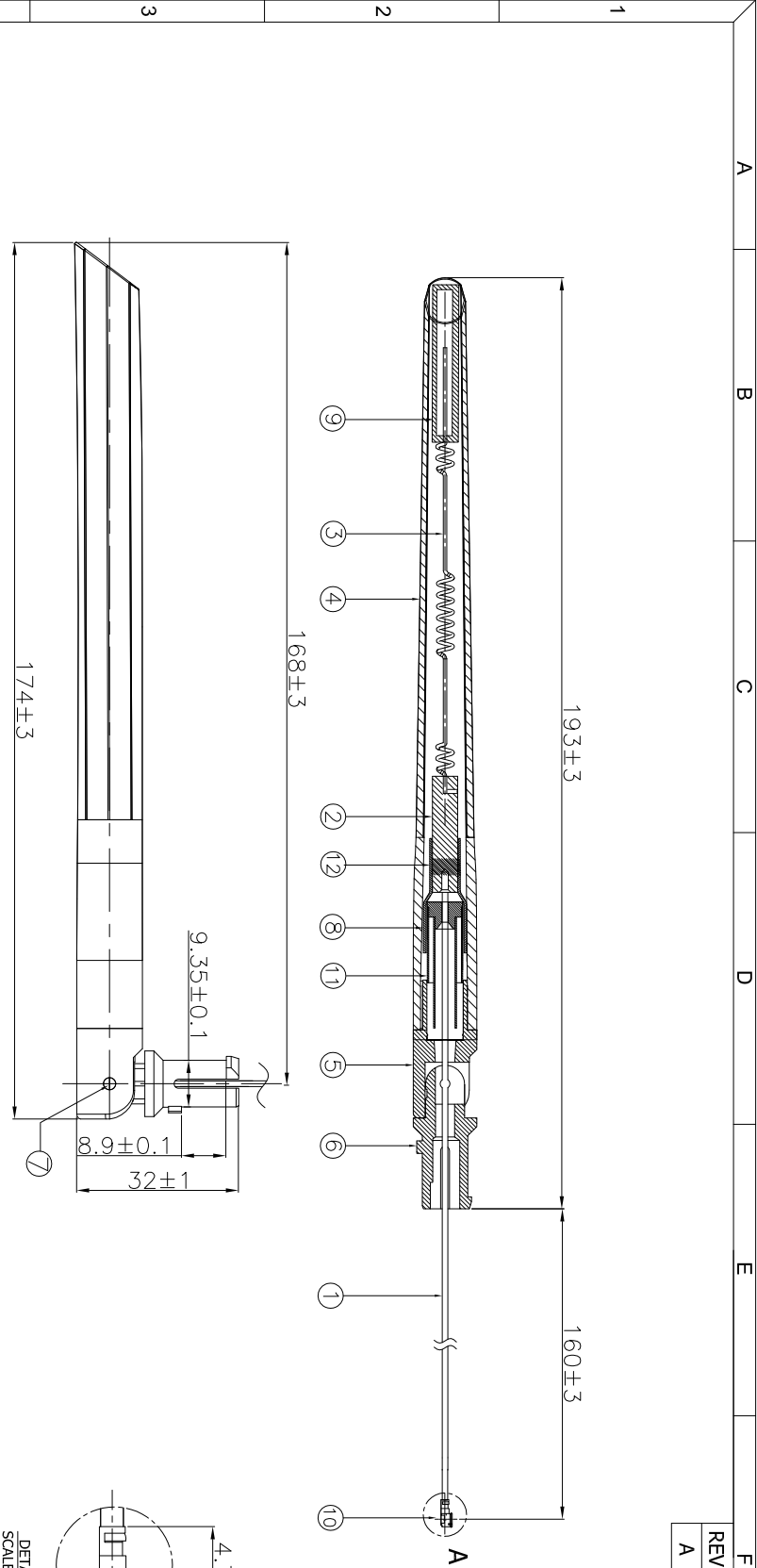
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产品主要技术参数

Main technical specifications

主要技术指标		Main technical specifications	
频率范围 (MHZ)	2400-5150	Frequency Range (MHZ)	2400-5150
中心频率 特性阻抗(Ω)	50 ± 10	Impedance(Ω)	50 ± 10
增益(dBi)	2.4G:3.89 Max 5G:5.57 Max	Gain(dBi)	2.4G:3.89 Max 5G:5.57 Max
反射损耗	≤ -9.5	Return Loss(dB)	≤ -9.5
输出电压 驻波比	≤ 2.0	VSWR	≤ 2.0
极化方式	垂直极化	Polarization	Linear, Vertical
方向性	全向性	Radiation	Omni-directional
连接方式	端子	Connector Type	
物理性能		Physical Properties	
天线本体材料	TPEE	Antenna Base	TPEE
工作温度	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$	Operating Temp	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
保存温度	$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$	Storage Temp	$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

F		G	
REV	DATE	DESCRIPTION	
A	2022-12-22	NEW ISSUE	



Specifica tion:
Frequency Range : 2.4~2.483GHz

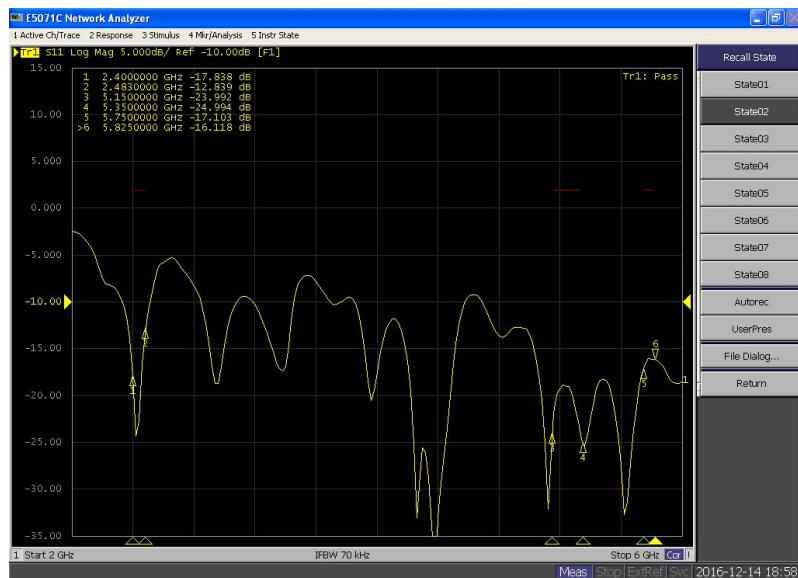
5.15~5.825GHz
VSWR: 2.0 max
Gain(peak): 5dBi

12	泡棉	1	EVA; Black
11	接地管	1	Brass
10	端子	1	Copper
9	吸管	1	PP;Transparent
8	热缩套管	1	PE; Black
7	铆钉	2	POM; White
6	下固定座	1	PC+ABS; White
5	上固定座	1	PC+ABS; White
4	杆套	1	TPEE; White
3	螺旋杆	1	Brass
2	实心柱	1	Zinc alloy
1	线材	1	Ø1.37 Red
NO.	DESCRIPTION	QTY	REMARK
带公差尺寸为检验尺寸 产品符合环保RoHS2.0之要求			
A		B	C

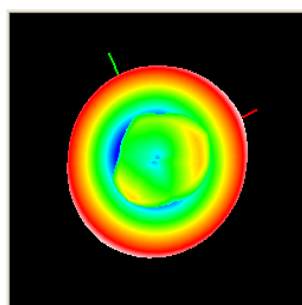
尺寸范围 (mm)		公差 (mm)		APPROVED		COSTOMER:	
0<L≤6		±0.10				PART NO :	
6<L≤30		±0.10				PARTNAME : RF Antenna Assembly	
30<L≤90		±0.15					
90<L≤180		±0.20		CHECKED		R.F P/NO : U00T01S039N03016	
180<L≤315		±0.25		DRAWING		REV	
315<L≤800		±0.35				UNIT	
角度		±0.5°				SCALE	
				A		mm	
						1 : 1	
						A4	
						10F2	

3. 测试报告 Testing report

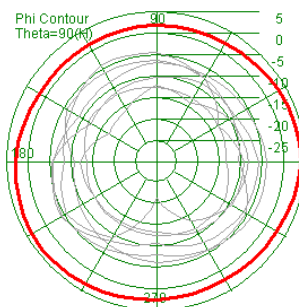
3.1 网络分析仪测试报告



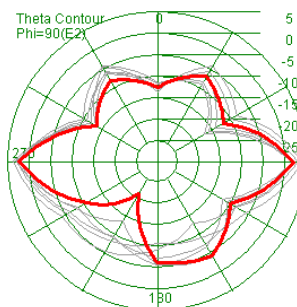
3.2: 暗室 2D、3D Radiation Pattern



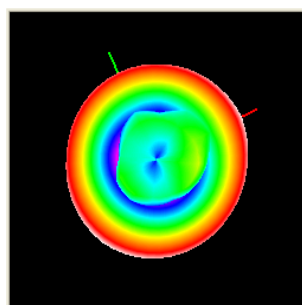
2.4GHz



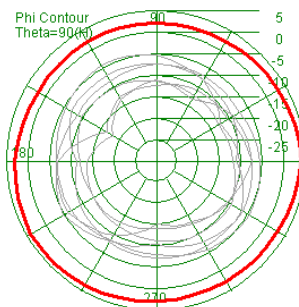
Gain(Peak): 3.89dBi



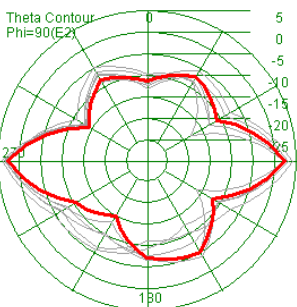
Efficiency: 80.9%



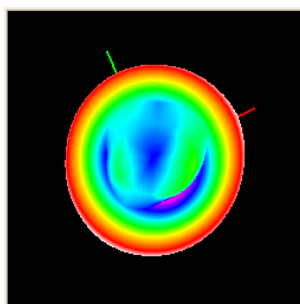
2.45GHz



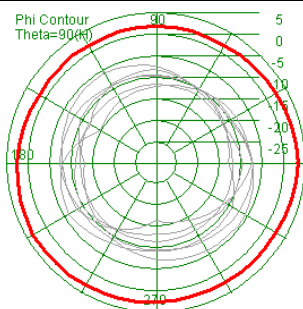
Gain(Peak): 3.87dBi



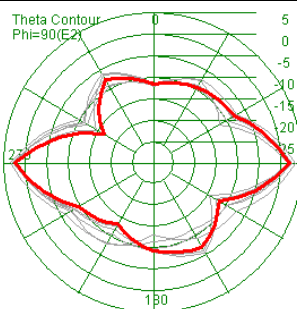
Efficiency: 75.9%



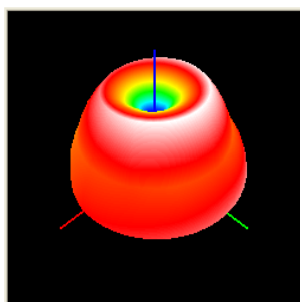
2.5GHZ



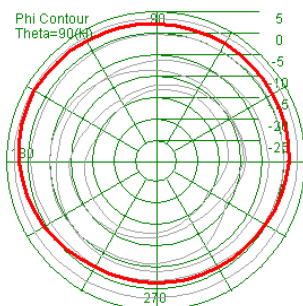
Gain(Peak):3.29dBi



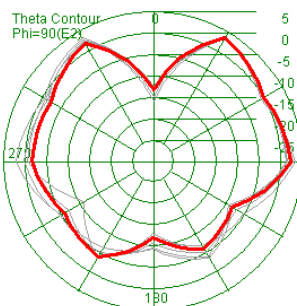
Efficiency: 67.2%



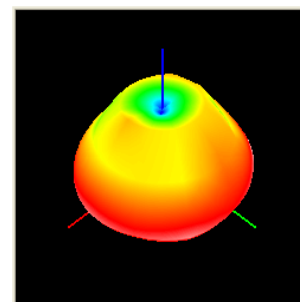
5.15GHZ



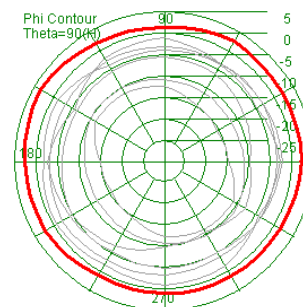
Gain(Peak):3.51dBi



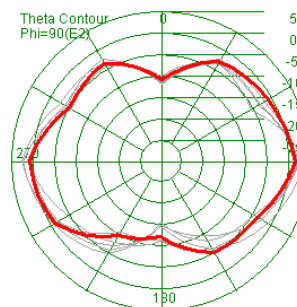
Efficiency: 71.



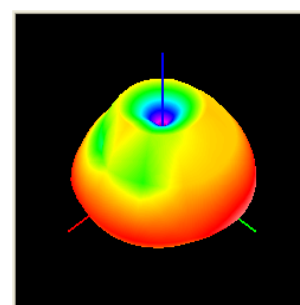
5.35GHZ



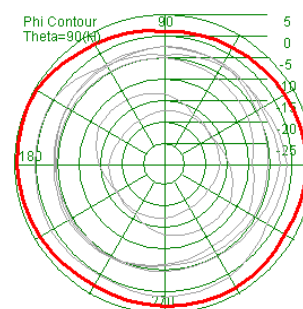
Gain(Peak):3.5dBi



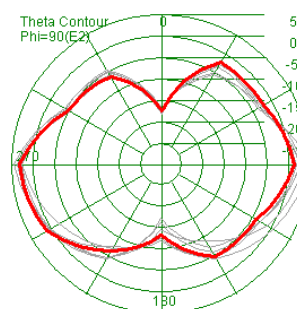
Efficiency: 70.9%



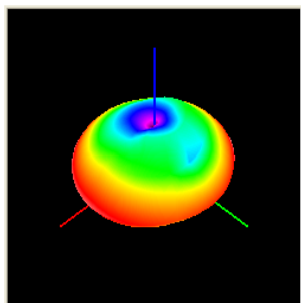
5.55GHZ



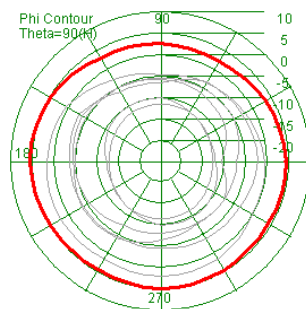
Gain(Peak):4.70dBi



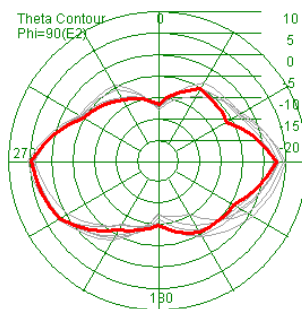
Efficiency: 78.7%



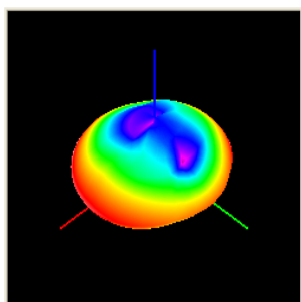
5.75GHZ



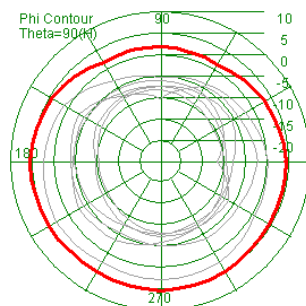
Gain(Peak):5.57dBi



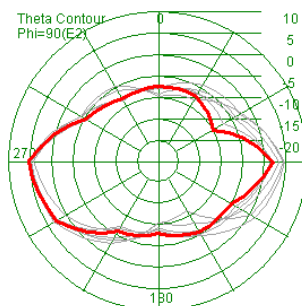
Efficiency: 85.3%



5.825GHZ



Gain(Peak):5.52dBi



Efficiency: 85.5%