

东莞市涵屹电子有限公司

## 东莞市涵屹电子有限公司送样天线 承认书

客户名称：东莞市涵屹电子有限公司

客户料号：5G 天线黑色套筒/67MM/4.4MM  $\phi$  /天线扣

规格描述： 5.8G，铜管天线，线长L=67mm带端子

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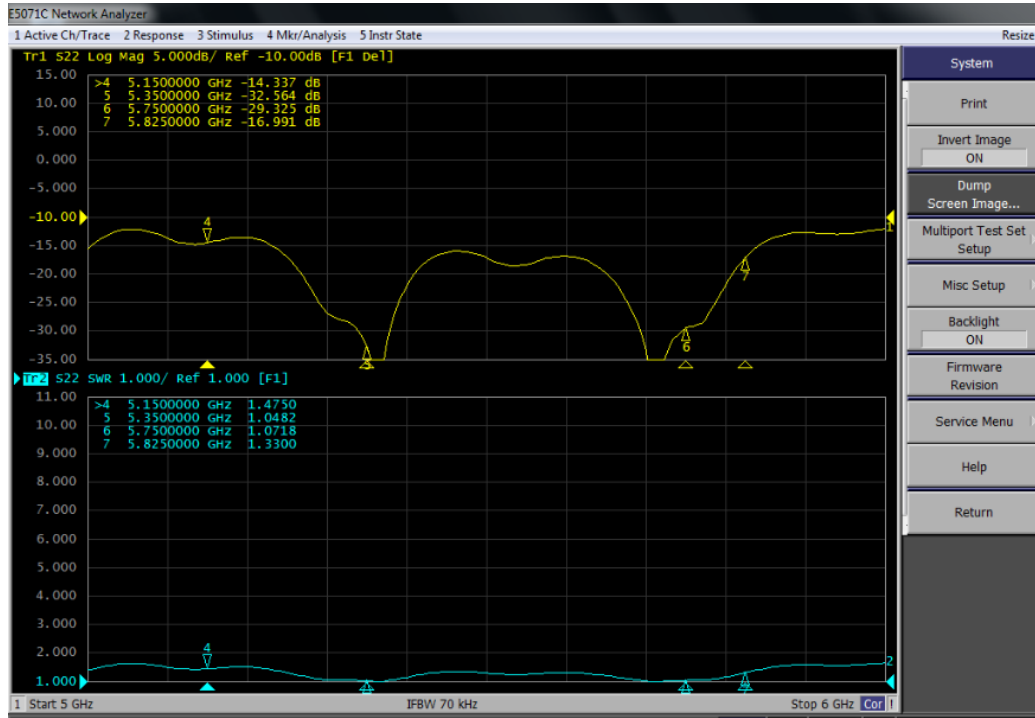


4、性能参数(Specification)

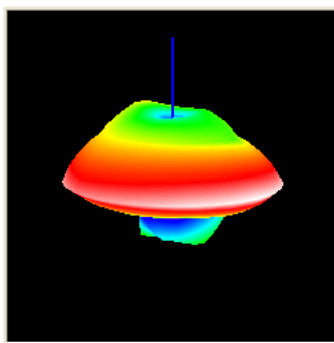
电气参数(Parameter)	
频率范围(Frequency)	5150~5850MHz
输入阻抗(Impedance)	50 Ω
驻波比(VSWR)	≤2
转接型号(Connector)	一代端子
机械参数(Mechanical Parameter)	
总长(Length)	67±3mm
同轴电缆(Cable)	/
盐雾测试(Salt Spray Test)	24H
环境参数(Environment Parameter)	
工作温度 (Operation Temperature)	-20℃~65℃
储藏温度 (Storage Temperature)	-30℃~75℃

## 5、电气性能测试报告 (Radiation Report)

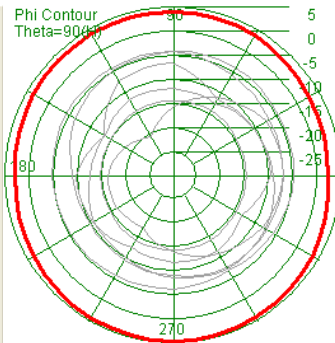
### 5.1: 网络分析仪测试报告



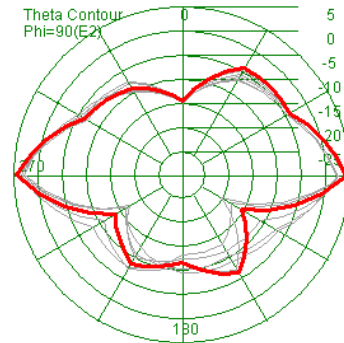
### 5.2: 暗室 2D、3DRaditation Pattern



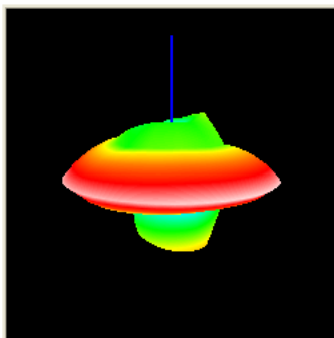
5.15GHz



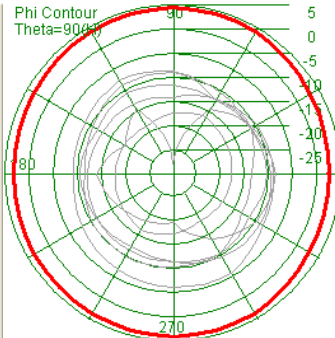
Gain(Peak):4.03dBi



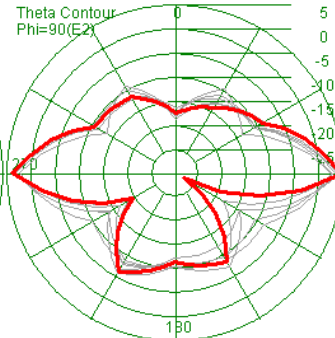
Efficiency:76.1%



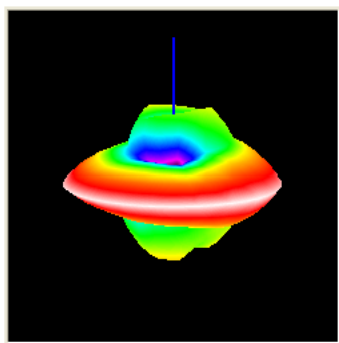
5.35GHz



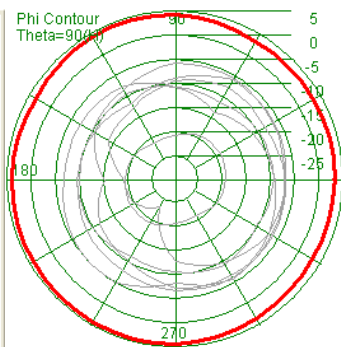
Gain(Peak):3.98dBi



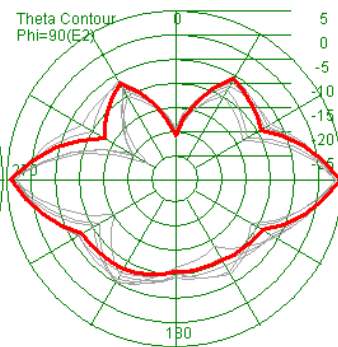
Efficiency:76.5%



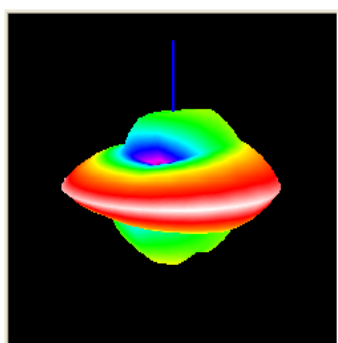
5.725GHz



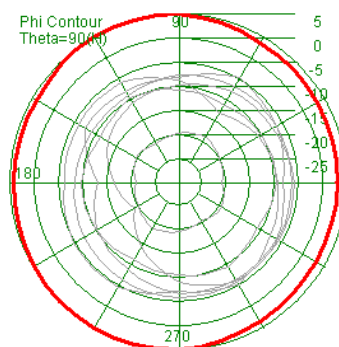
Gain(Peak):3.93dBi



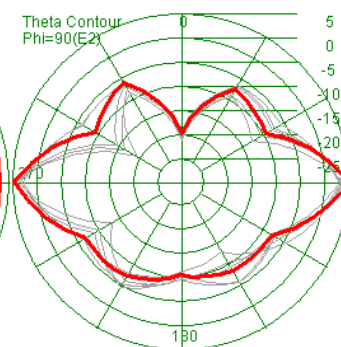
Efficiency:77.1%



5.85GHZ



Gain(Peak):4.01dBi



Efficiency:77.6%

6.可靠性试验报告(Reliability Report)

6. 1. 恒温恒湿试验(Constant Temperature and Humidity Test)

试验/试验项目 (Project)	恒温恒湿试验 (Constant Temperature and Humidity Test)		检验单号 (Check ID)	
产品名称/规格 (Product Name)	5.8G 铜管天线		试验数量: 5PCS (quantity:5PCS)	
送检日期: 2022-07-01 (Date Of Test)			完成日期: 2022-07-04 (Date of Complete)	
试验/检验设备(Equipment For Test) 1. 可编程恒温恒湿试验箱(Programmable Constant Temperature And Humidity Test Box) 2. 8753ES 网络分析仪(8753ES Network Analyser)				
试验/检验条件: (Condition For Test) 1. 常温 25° C ,湿度 65%下试验 (Under room temperature,65% humidity) 2. +80° 85~90%RH 2 小时一个循环, 共 24 小时 (Under 80° ,85%~90% humidity ,2 hour per circulation, total 24 hours)				
试 验 结 果 (Test Result)				
判定标准(Standard) 1、金属表面镀层应无剥落, 裂痕起皱, 分离等; 非金属部分不应发生变色, 开裂, 变形, 脱胶等不良 (Shedding-free, Non-cracking, No separation on the surface of metal ;Non-fading, Non-cracking, Non-deforming on the surface of nonmetal) 2、电气测试符合标准要求: 电压驻波比测试合格 (Test result meet the technical requirements)				
检验项目 (Project)	恒温恒湿试验前 (Before Test)	恒温恒湿试验后 (After Test)	缺陷描述 (Problem)	判定结果 (Result)
外观 (Appearance)	外观无变色开裂、 变形、脱胶 (shedding-free, Non-cracking, No separation)	外观无变色开裂、 变形、脱胶 (Non-fading, Non-cracking, Non-deforming)	无 (Void)	合格 (Pass)
电性能 performance	天线电压驻波比 测试合格 (VSWR Pass)	天线电压驻波比测 试合格 (VSWR Pass)	无 (Void)	合格 (Pass)
试验/检验判定: Result: <input checked="" type="checkbox"/> 合格 PASS <input type="checkbox"/> 不合格 FAIL <input type="checkbox"/> 不作判定 Unable to judge				

6. 2. 盐雾测试(Salt Spray Test)

试验/试验项目 (Project)	盐雾测试(Salt Spray Test)		检验单号 (Test ID)																		
产品名称/规格 (Product Name)	5. 8G 铜管天线		试验数量: 5PCS (quantity:5PCS)																		
送检日期: 2022-07-01 (Date Of Test)		完成日期: 2022-07-04 (Date of Complete)																			
试验/检验设备: (Test equipment) 1. HL-60-SS 盐雾测试仪 (HL-60-SS Salt Spray Test Tester )																					
试验/检验条件: (Test Condition) 1. 盐雾箱内温度为 $35\pm 2^{\circ}\text{C}$ ; 试验室温度 $22\sim 30^{\circ}\text{C}$ ( $35\pm 2^{\circ}\text{C}$ in the salt spray test box; $22\sim 30^{\circ}\text{C}$ in the laboratory) 2. 盐雾沉降速度经 24H 喷雾后每 80cm 面积上为 1-2ML/h 氯化钠浓度为 $50\pm 10\text{g/L}$ , PH 值为 6.5/7.2 (PH=6.5/7.2, the concentration of the sodium chloride decade to $50\pm 10\text{g/L}$ after 24 hours on per 80 square centimeter )																					
试验/检验结果: 合格 (Pass)																					
<table border="1"> <thead> <tr> <th>样品编号 (Number)</th> <th>评价等级 (Result)</th> <th>缺陷描述 (Problem)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>合格 (Pass)</td> <td>Void</td> </tr> <tr> <td>2</td> <td>合格 (Pass)</td> <td>Void</td> </tr> <tr> <td>3</td> <td>合格 (Pass)</td> <td>Void</td> </tr> <tr> <td>4</td> <td>合格 (Pass)</td> <td>Void</td> </tr> <tr> <td>5</td> <td>合格 (Pass)</td> <td>Void</td> </tr> </tbody> </table>				样品编号 (Number)	评价等级 (Result)	缺陷描述 (Problem)	1	合格 (Pass)	Void	2	合格 (Pass)	Void	3	合格 (Pass)	Void	4	合格 (Pass)	Void	5	合格 (Pass)	Void
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1	合格 (Pass)	Void																			
2	合格 (Pass)	Void																			
3	合格 (Pass)	Void																			
4	合格 (Pass)	Void																			
5	合格 (Pass)	Void																			
试验/检验判定: <input checked="" type="checkbox"/> 合格 <input type="checkbox"/> 不合格 <input type="checkbox"/> 不作判定 Result:                      PASS                      FAIL                      Unable to judge																					
测试: 刘杰                                      审核: 李飞                                      核准: 张云春																					