

COMMITMENT

Customer Name: Shantou Shanheng Toys Technology Co.,Ltd

Specification Description : 5G antenna black sleeve 274mm / 4.4mm /
antenna buckle / need to wrap the tail / white part 9.5MM

目录 (Content)

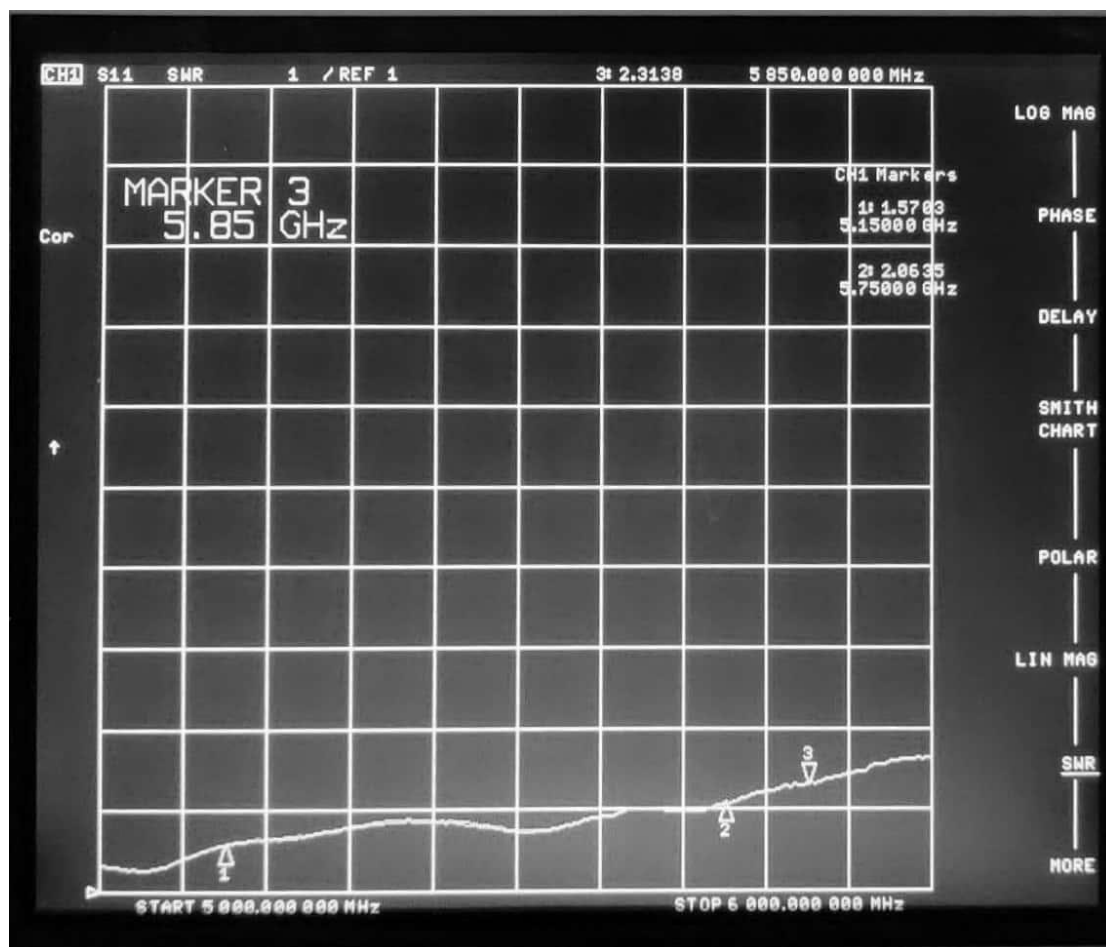
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4、性能参数(Specification)

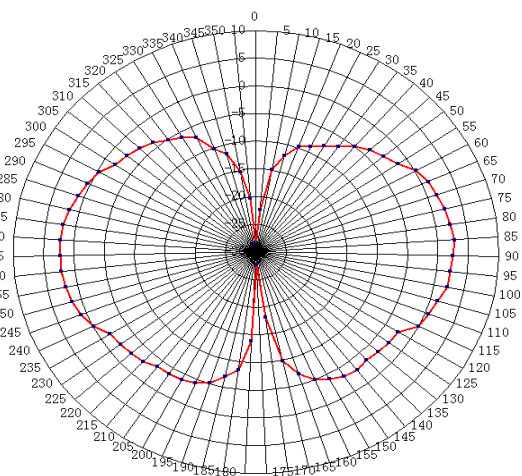
电气参数(Parameter)	
频率范围(Frequency)	5.15-5.85GHz
输入阻抗(Impedance)	50Ω
驻波比(VSWR)	≤3.0
转接型号(Connector)	一代端子 (Generation Terminal)
机械参数(Mechanical Parameter)	
总长(Length)	274±3mm
同轴电缆(Cable)	/
盐雾测试(Salt Spray Test)	24H
环境参数(Environment Parameter)	
工作温度 (Operation Temperature)	-20℃~65℃
储藏温度 (Storage Temperature)	-30℃~75℃

5、电气性能测试报告(Radiation Report)

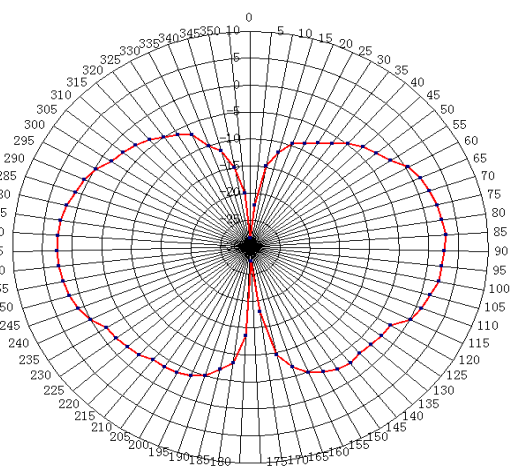
5.1 驻波图(Stationary Wave Graph)



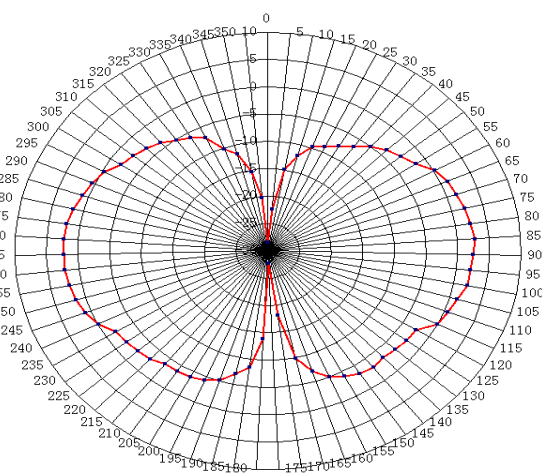
5.2 方向图(Direction Graph)



5.15GHz



5.35 GHz



5.85GHz

5.3 增益效率(Gain and Efficiency)

频点 Frequency (MHz)	增益 Gain(dBi)	效率 Efficiency(%)
5150	2.11	73.35
5200	2.40	78.35
5250	2.00	63.85
5300	2.77	71.62
5350	2.07	64.12
5400	2.08	63.34
5450	2.41	72.82
5500	2.81	75.29
5550	2.11	66.26
5600	2.42	70.58
5650	2.45	72.40
5700	2.66	75.02
5750	2.97	74.67
5800	2.18	63.77
5850	2.15	61.01

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)	铜管天线(Copper Tube Antenna)		试验数量: 5PCS (quantity:5PCS)	
送检日期: 2018-09-21 (Date Of Test)			完成日期: 2018-09-21 (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: ☒ 合格 ☐ 不合格 ☐ 不作判定 Result: PASS FAIL Unable to judge				
测试: 刘杰 审核: 李飞 核准: 张云春				

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 (Project Name)	铜管天线(Copper Tube Antenna)		试验数量: 5PCS (quantity)																		
送检日期: 2018-09-21 (Date of test)		完成日期: 2018-09-21 (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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