深圳全向通广通讯技术有限公司

Antenna Approval Sheet

For

K21 project

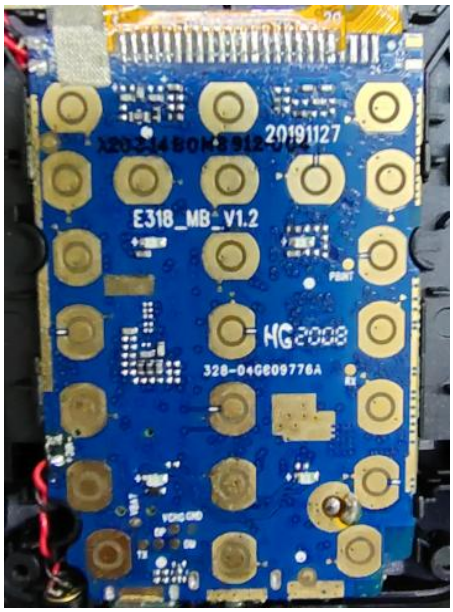
Customer	欧执信	Project	K21
Band	GSM900/DCS180 GSM850/PCS1900	Color	
QuanXiang PN	2020K211230	Version	R:A

技术部门 Technical	研发测试 R&Dtesting	品质 QA	批准 Approval	日期 Date
				2020.10.15
Customer Confirm				

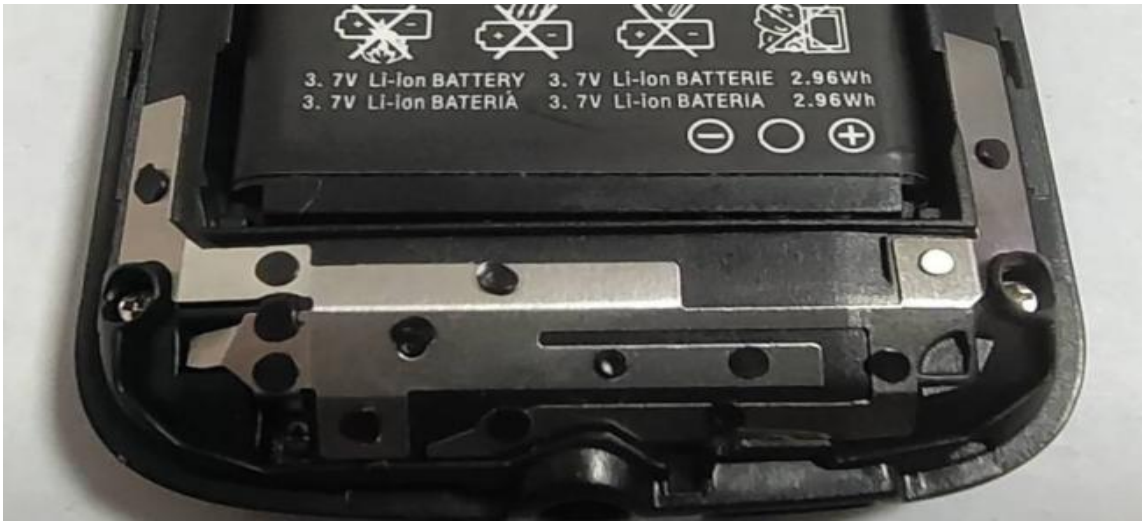
1. Summary of the Test results

The test fixture was made for further testing, which was shown below.

手机照片



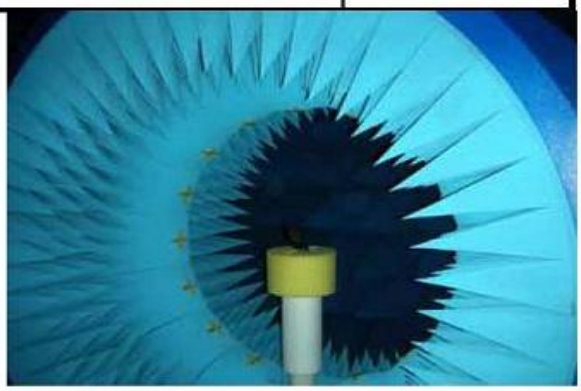
天线照片

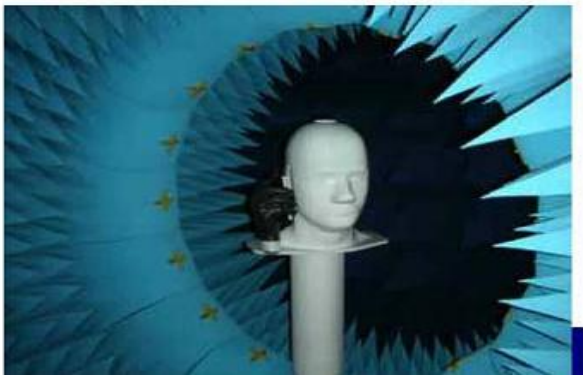


2. Test Result

2.1 Test Condition

	测试项目	测试设备和型号	备注
1. 静态测试	1. Return Loss 2. S.W.R.	AGILENT ENA5071C	
2. 活机测试	1. GSM Band Power 2. DCS Band Power	1. GSM Tester: AGILENT 8960 E5515C 2. Shielding Box: TC-5062A	
3. 全向测试	1. Radiation Pattern 2. Antenna Gain	1. Anechoic Chamber 7x5x4 m (3D) 2. Network Analyzer AGILENT 5071C	





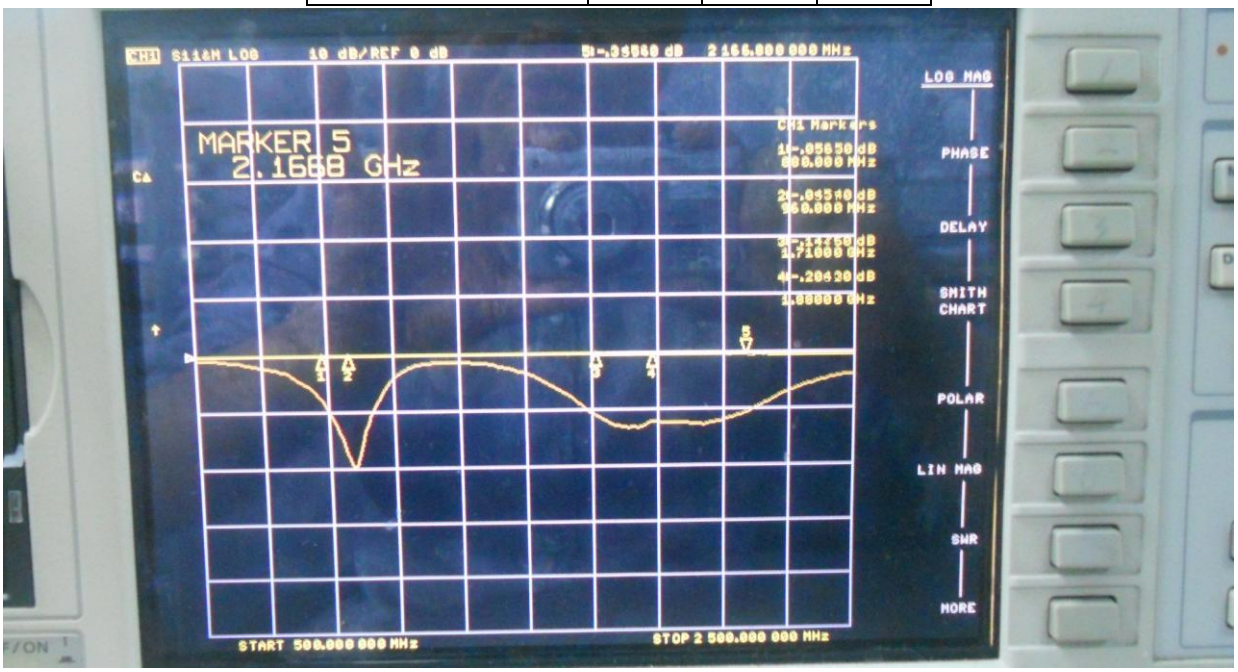
2.2 RF Performance

2.2.1 S11 Measurement

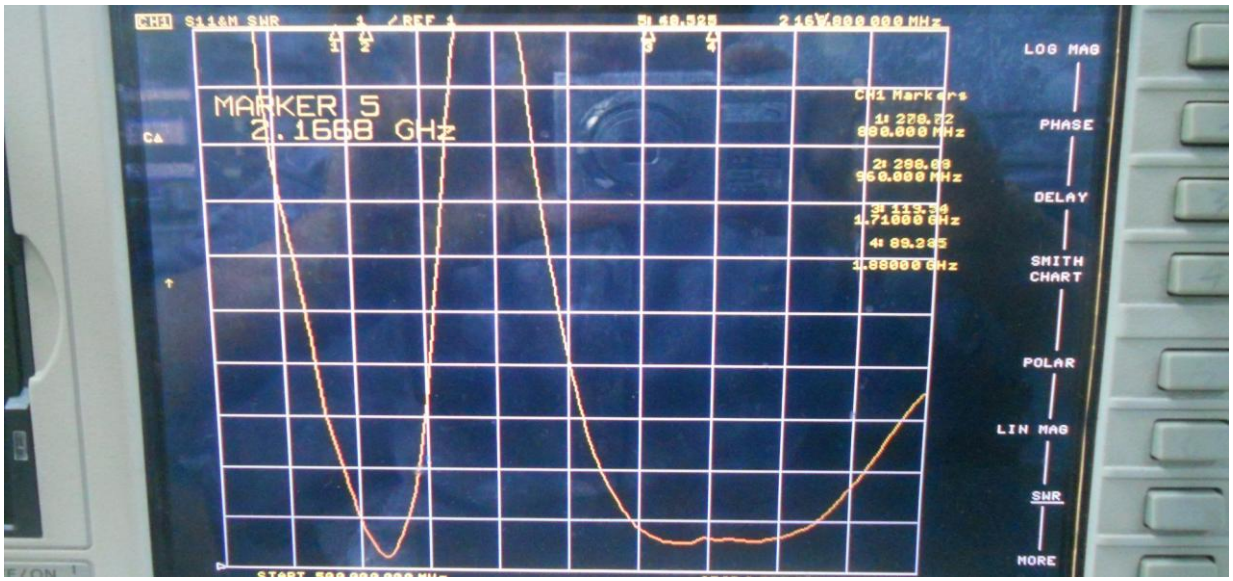
频率（MHZ）	880	960	1710	2150
回波损耗(dB)	-8.6	-7.8	-8.6	-7.8
驻波比	1.5	2.1	1.5	2.1

蓝牙天线

频率（MHZ）	1575.42	2450	2500
回波损耗(dB)	-8.11	-8.51	-8.41
驻波比	2.29	2.20	2.22

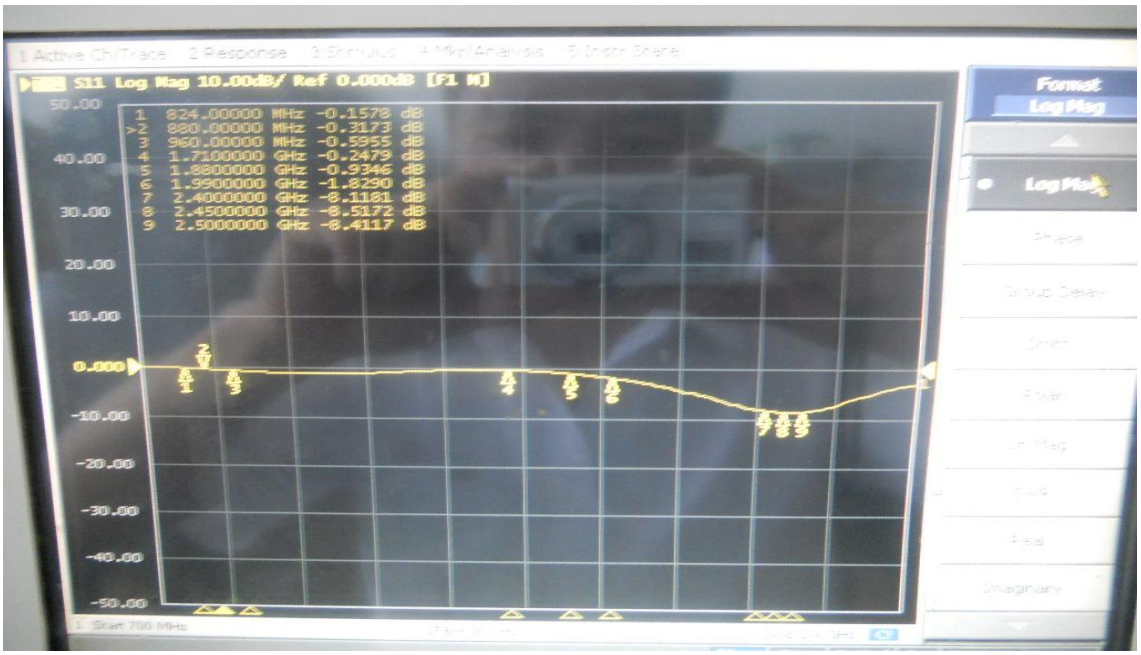


回波损耗

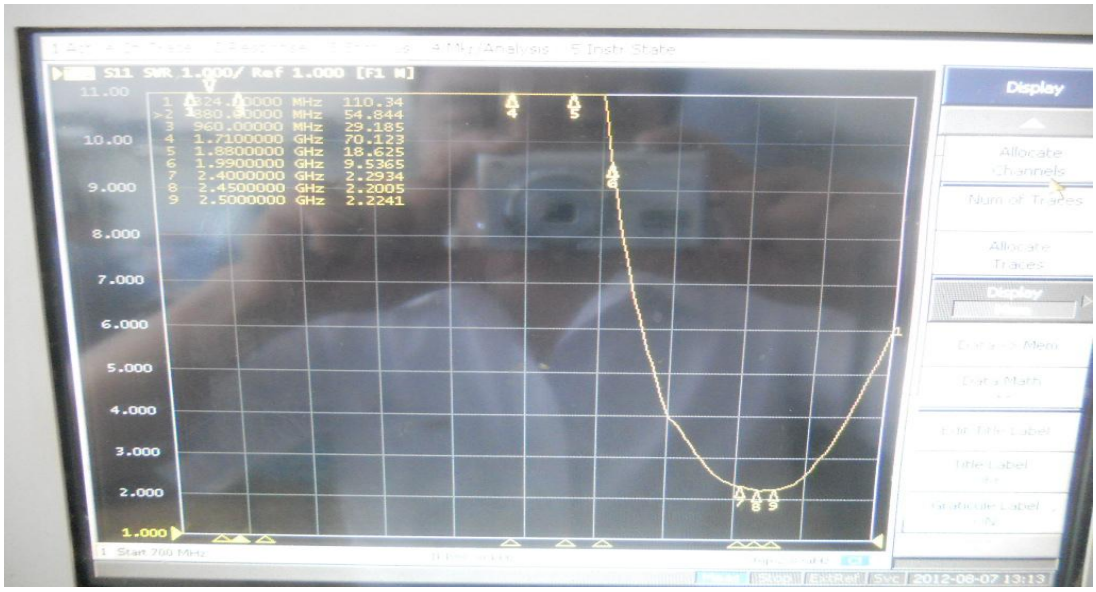


驻波比

Bluetooth



回波损耗



驻波比

The S11 parameter was performed using a Hewlett Packard 5071C Network Analyzer and QuanXiang’s test fixture that was using customer-providing device. We use a 30cm long ferrite de-coupling sleeve to mitigate surface currents on the outside of the testing cable.

The matching circuit was shown below:

材质	钢片
匹配电路	原始匹配

2.2.2 TRP&TIS Measurement

The TRP&TIS parameter was shown below, you could check it.

2.2.3 Environmental treatment

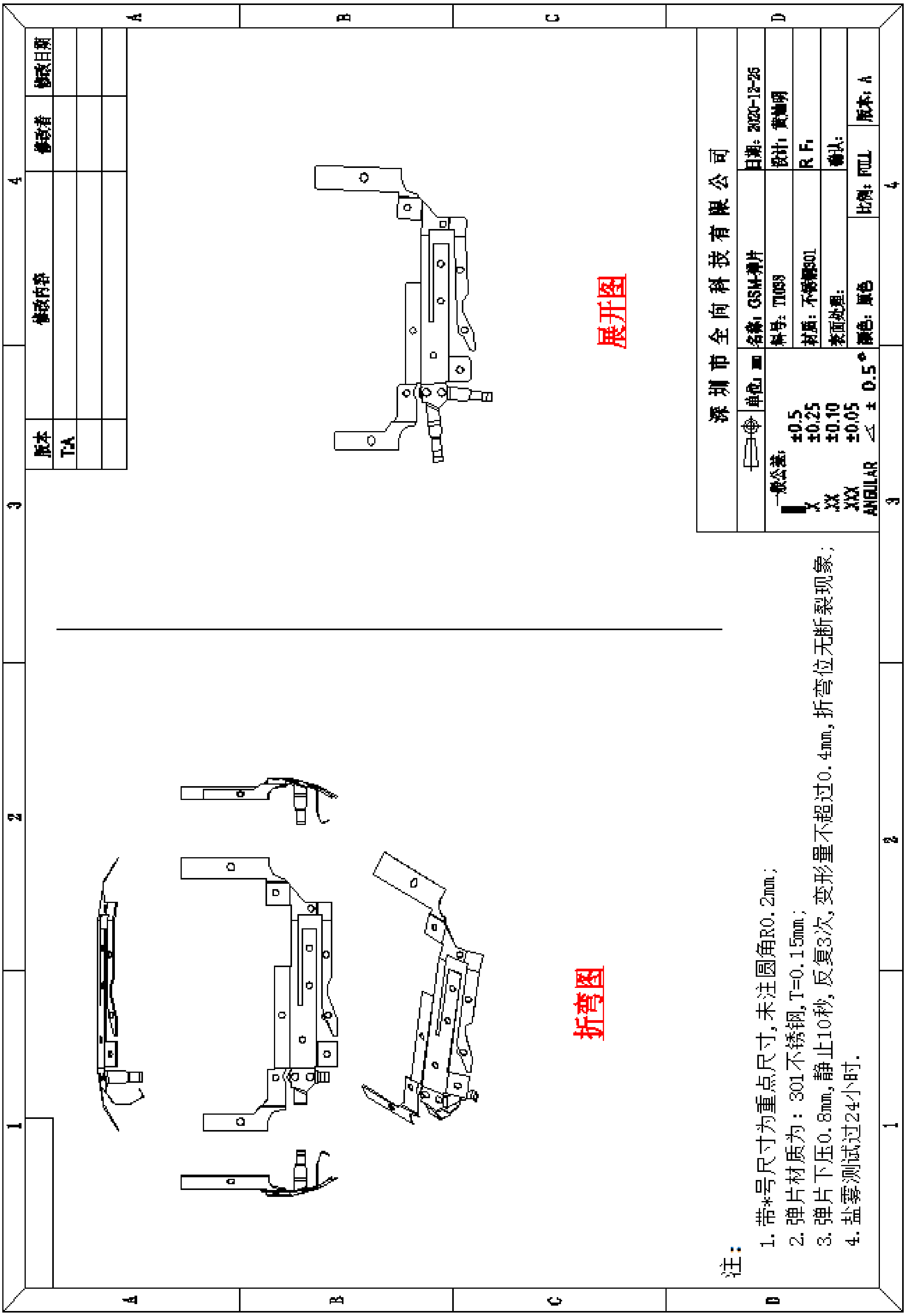
主天线

ANWEIANT TRP&TIS parameter Summary of GSM k21						
频段	GSM850			GSM900		
信道	128	189	251	1	62	124
TRP	26.25	26.34	26.57	27.67	28.04	27.13
TIS	-102.43	-102.26	-102.31	-103.03	-102.42	-102.31
频段	DCS1800			PCS1900		
信道	512	698	885	512	661	810
TRP	24.84	25.64	25.39	24.36	24.47	24.09
TIS	-102.46	-102.38	-102.57	-102.15	-102.48	-101.35

天线增益

☑ GSM850	-1.51dBi
☑ GSM900	-1.02dBi
☑ DCS1800	1.23dBi
☑ PCS1900	0.6 dBi
☑ BT	0.8dBi

3.OME Drawing for the antenna


展开图
折弯图
深圳市全向科技有限公司
名称：GSM-弹片
材质：不锈钢301
表面处理：
颜色：原色
日期：2020-12-26
比例：FULL
版本：A
注：
1. 带*号尺寸为重点尺寸，未注圆角R0.2mm；
2. 弹片材质为：301不锈钢，T=0.15mm；
3. 弹片下压0.8mm，静止10秒，反复3次，变形量不超过0.4mm，折弯位无断裂现象；
4. 盐雾测试过24小时.