东莞市广正模具塑胶有限公司

承 认 书

(<u>结构料</u>类) SPECIFICATION FOR APPROVAL

物料描述

DESCRIBE:S6031 WIFI-BT天线

物料型号

PRODUCTS: S6031

物料编码 PART NO:

品牌(制造商)

BRAND:

适用机种

APPLICATION: S6031

日期

DATE: 2013-7-15

供应商

PROVIDER: 磊德科技有限公司

	APPROVE	D BY	VENDOR		
确认	校对	审核		批准	
APPROVED BY JANUS					
	minovi	<i>i</i> D D1	JIHAOO		
确认	校对		审核	批准	

文件编号: TN-WI-018

V1.0

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三、变更履历表

序号	变更日期	项目名称	版本	变更内容	备注
1	2013-7-15	S6031 WIFI-BT天线	V1. 0	无	新版发行
			<u> </u>		

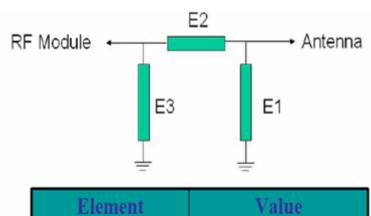
四、电特性

1. Antenna Structure



Figure 1 antenna structure

2. Matching Network



Element	Value
E1(0402)	N/A
E2(0402)	0Ω
E3(0402)	3. <u>9</u> NH

3. Passive Test

1. Return Loss

Test Equipment: HP8753E

Test Result:

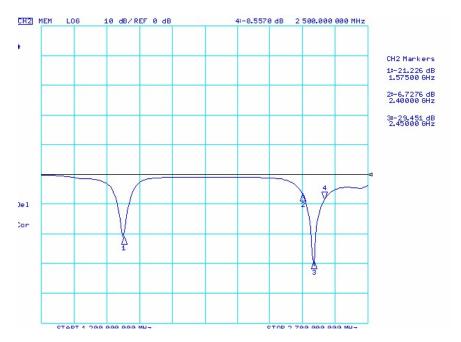


Figure 3.1 S11 curve

2. Vswr

Test Equipment: HP8753E

Test Result:



Figure 3.2 vswr curve

3. Smith

Test Equipment: HP8753E

Test Result:

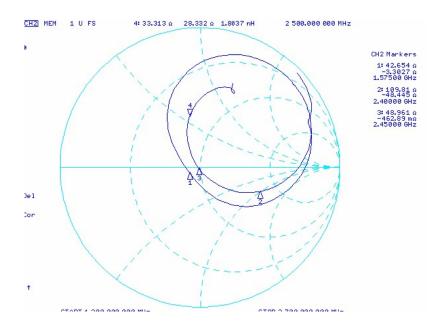


Figure 3.3 smith curve

4. S21

Test Equipment: HP8753E

Test Result:

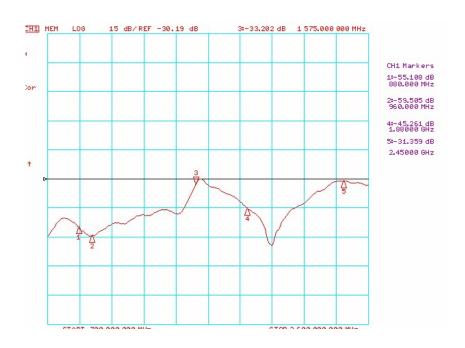


Figure 3.4 S21 (GSM&GPS&WIFI&BT)

5. Radiation pattern

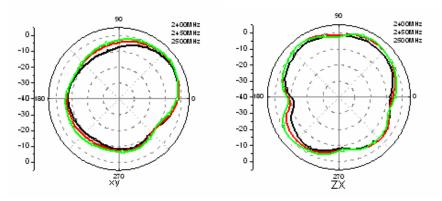


Figure 3.5.1 WIFI&BT XY plane Antenna pattern

Figure 3.5.2 WIFI&BT ZX plane Antenna pattern

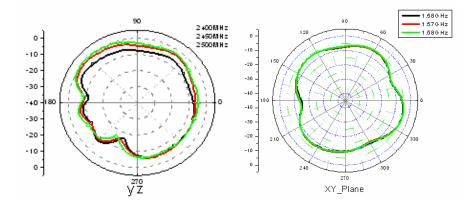


Figure 3.5.3 WIFI&BT YZ plane Antenna pattern Figure 3.5.4 GPS XY plane Antenna pattern

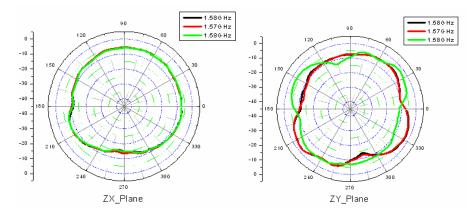


Figure 3.5.5 GPS ZX plane Antenna pattern Figure 3.5.6 GPS YZ plane Antenna pattern

6. 3D radiation pattern

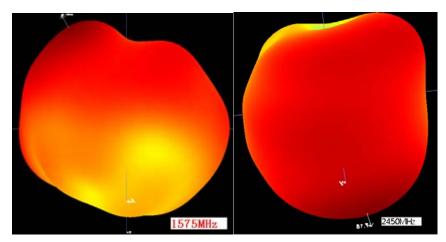
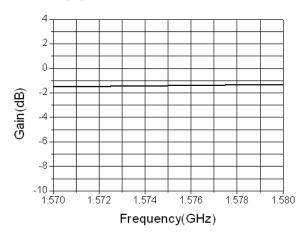


Figure 3.6 antenna 3D pattern

7. Peak gain

Test Equipment: Satimo StarLab, HP8753E, Shielding Room



8. Efficiency

Test Equipment: Satimo StarLab, HP8753E, Shielding Room

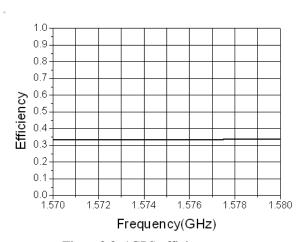


Figure 3.8 .1 GPS efficiency curve

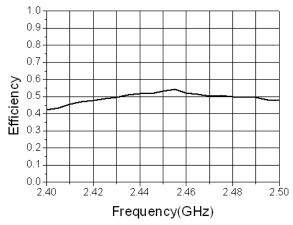


Figure 3.8.2 WIFI&BT efficiency curve

8. efficiency and gain table

GPS

Frequency (GHz)	1.570	1.575	1.580
Efficiency (%)	33.6	33.3	34.1
Gain (dB)	-1.41	-1.42	-1.22

WIFI&BT

Frequency (GHz)	2.40	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48	2.49	2.50
Efficiency (%)	42.4	45.6	47.9	49.7	51.9	53.2	52.0	50.3	50.0	49.4	47.6
Gain (dB)	0.52	0.97	1.16	1.28	1.31	1.45	1.66	1.68	1.44	1.32	1.11

Table1 efficiency and gain table

4. Material

antenna module	materials
materials	Steel

Table2 antenna material

5. Conclusion

Test results arrive at customer requirement. Recommend that customers to accept