深圳市维力谷无线技术股份有限公司

ShenZhen VLG Wireless Technology Co,.Ltd

承认书

项目名称	New C6 dual-band WIFI antenna specifications			频段	2400~2500,5200~5800MHz		
VLG机种编码	V1334-273-A-1			版本	A		
射频	黄亚虎	确认	黄亚虎	品质	余洪	确认	
结构	柴晓瑞		柴晓瑞	PM	王春新		
日期	2021.4.15						
客户项目名称料号	客户项目名称：New C6 dual-band WIFI antenna specifications						
	客户项目编号：						
客户确认							

VLG Wireless Technology

研发项目客户满意度调查（客户请针对我们的研发或PM管理人员工作进行一个评述，督促我们更好服务于你）

RF技术人员	□满意	□基本满意	□不满意
结构技术人员	□满意	□基本满意	□不满意
项目管理（PM管理人员）	□满意	□基本满意	□不满意

建议项说明：

antenna photo ： refer to the photo file

表单编号：VLG/QRF7.3-24/A5　　保存年限：汽车产品保存15年，其余产品停产后保存3年

Design Specifications	Typical	Units
Antenna type	FPC antenna	
工作频率(working Frequency)	2400~2500，5200~5800	MHz
增益（Gain）	3.32~3.83 & 1.66~3.39	DBi
天线效率（Antenna efficiency）	55.23~60.20 & 35.04~48.67	%
电压驻波比（VSWR）	<3	
极化方式(Ploriaztion)	Linear polarization	
轴比(Axial Ratio)	When the antenna is circularly polarized, note the magnitude of the axial ratio in the operating bandwidth	N/A
辐射方向(Radiation pattern)	omnibearing	
馈电阻抗(impedance)	50 ohm	
功率容量(Power handling)	33	dBm
天线接口(Interface)	IPEX	
天线尺寸(Overal dimensions)	refer to operation description	
重量(Weight)	---	
工作温度(Operatin Temp)	-30 ----- 70	°
储存温度(Storing Temp)	-30 ----- 70	°

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New C6 dual-band WIFI antenna specifications

1、**规格：**报告主要提供新 C6 双频 WIFI 天线的各项电性能参数的测试状况。 （请看内部照）

1.Specifications: The report mainly provides the test status of various electrical performance parameters of the new C6 dual-band WIFI antenna. (as shown internal photo)

2、Electrical performance

2.1 The standard specifications

New C6 dual-band WIFI antenna specifications at **2400-2500 ，5200-5800MHz。**

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2.3 Standing wave ratio (VSWR) test

A. Setup for tests

VSWR 测试装置依次的连接为：E5071B 网络分析仪→50 欧姆的同轴 Cable→100mm 长的铜管→测试治具。

测试治具的处理：从新 C6 双频 WIFI 天线 50 欧姆测试点处用一根电缆引出 SMA 接头，与套有扼流圈的铜管连接，再依次连接其他装置。

The VSWR test device is successively connected as: E5071B Network analyzer→ 50 ohm coaxial cable→100mm long coaxial cable→test fixture

Processing of test fixture: Use a cable to draw out the SMA connector at the 50 ohm test point of the new C6 dual-frequency WIFI antenna, connect it with the copper pipe covered with choke coil, and then connect other devices in turn

B. VSWR

下表所示为新 C6 双频 WIFI 天线频段边缘频点的驻波比数值。测试所得的 VSWR, 相关波形图如附件所示。

The following table shows the VSWR values of edge frequency points in the frequency band of the new C6 dual-band WIFI antenna. The VSWR obtained from the test and the relevant waveform diagram are shown in the attachment.

frequency band	frequency (MHz)	VSWR
2.4G WIFI	2400	1.44
	2500	1.27
5.8G WIFI	5200	2.25
	5800	1.84

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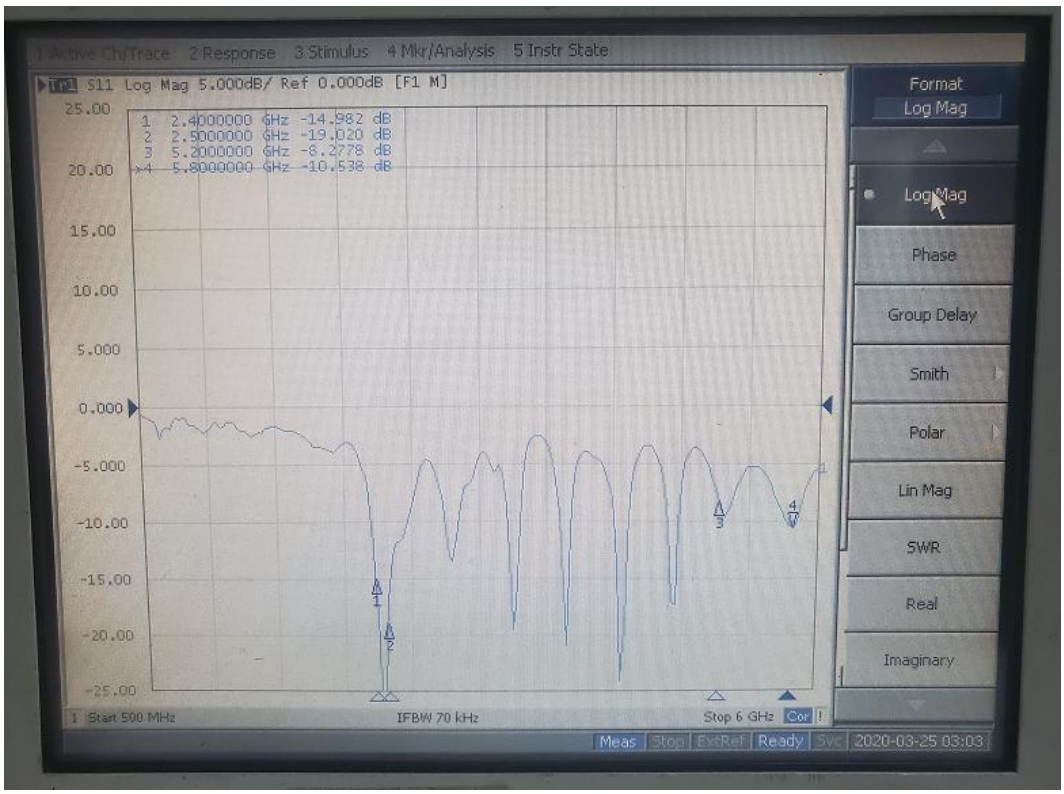
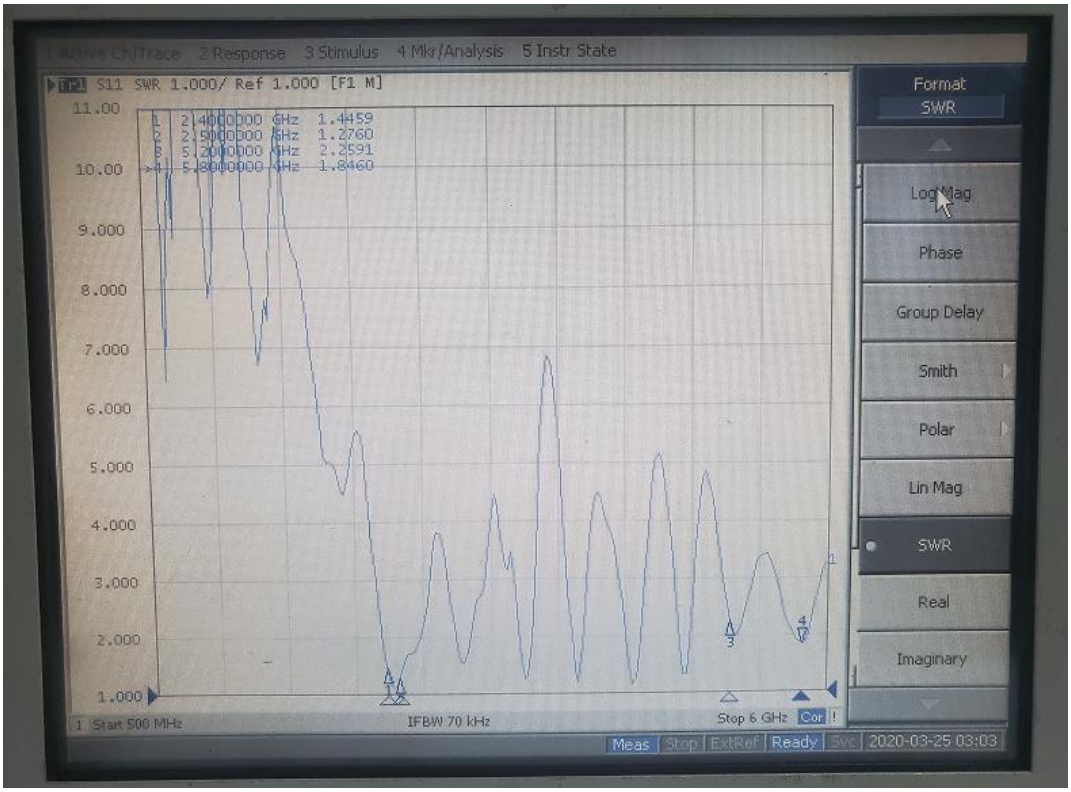
2.3.1 S11 parameter





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2.3.2 Passive antenna efficiency

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
2400	3.32	-2.58	55.23
2410	3.41	-2.51	56.14
2420	3.43	-2.49	56.39
2430	3.40	-2.45	56.84
2440	3.33	-2.44	57.07
2450	3.37	-2.36	58.06
2460	3.38	-2.34	58.35
2470	3.47	-2.28	59.15
2480	3.74	-2.20	60.20
2490	3.83	-2.24	59.73
2500	3.75	-2.32	58.62
5200	2.66	-3.53	44.35
5250	3.39	-3.13	48.67
5300	2.89	-3.58	43.87
5350	2.10	-4.06	39.24
5400	1.82	-4.12	38.76
5450	2.34	-4.32	36.98
5500	1.66	-4.55	35.04
5550	1.66	-4.41	36.24
5600	2.26	-4.07	39.15
5650	2.57	-3.93	40.41
5700	2.49	-3.62	43.42
5750	2.69	-3.47	44.99
5800	2.54	-3.77	41.93

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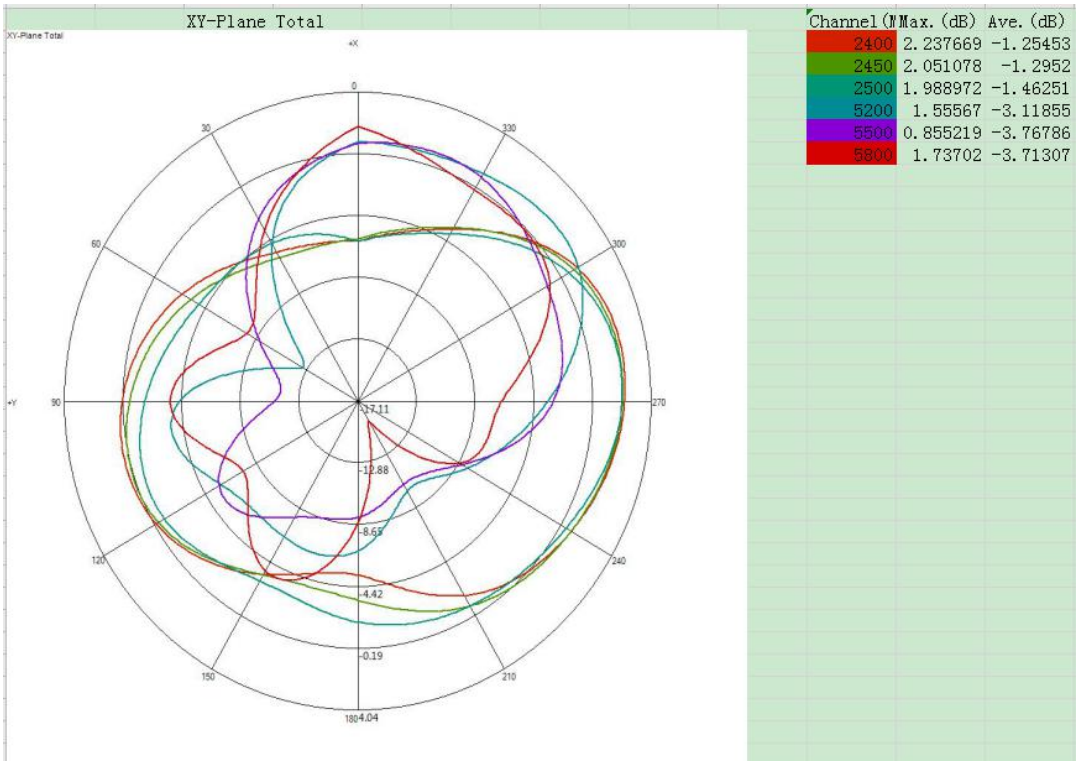
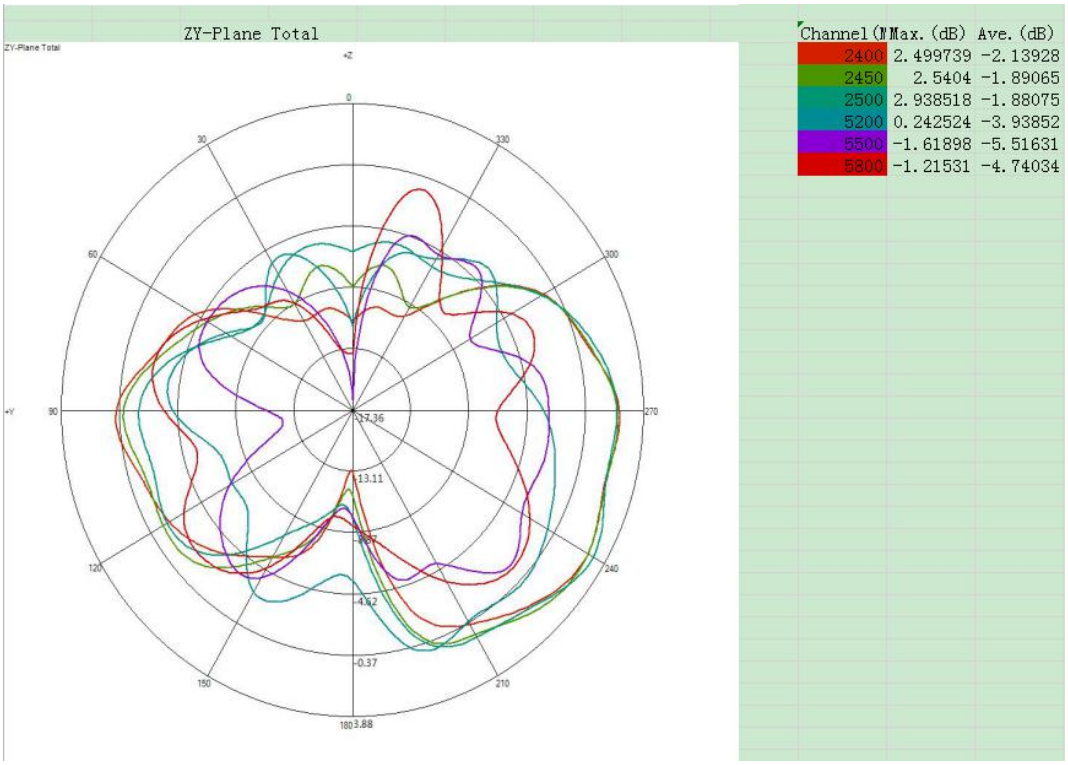
2.3.3 directional diagram





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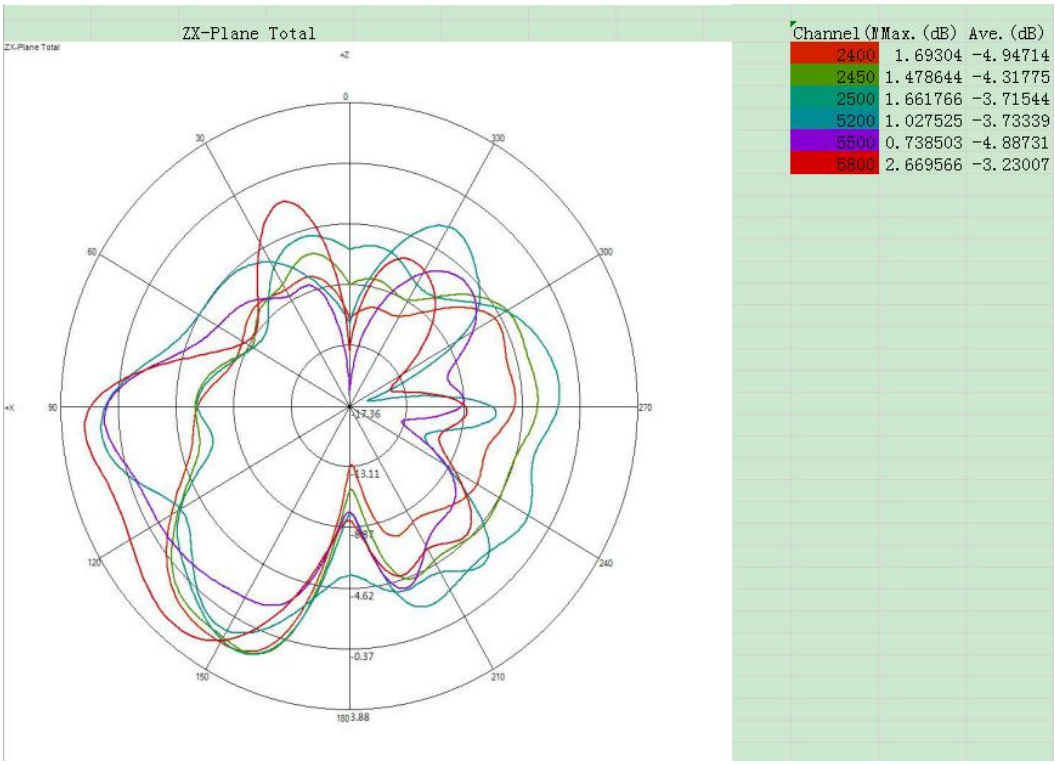

3、建议与结论

此报告是根据客户提供新 C6 双频 WIFI 天线的最终版测得的天线电气性能。

从如上测试数据可以看到，此天线提供了较好的电气性能。

维力谷研发期盼您的确认，谢谢合作！

Suggestions and Conclusions

This report is based on the measured electrical performance of the new C6 dual-band WIFI antenna provided by the customer with the final version. As can be seen from the above test data, this antenna provides good electrical performance.

ShenZhen VLG is looking forward to your confirmation, thank you for your cooperation!

4、antenna photo please refer to internal photo file.

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