

深圳市安威无线科技有限公司

承认书
APPROVAL SHEET

客户 Customer	苏州财纳电子科技有限公司	规格型号 Specs	CN471TXP02-V02
安威料号 Part Number		频 段 Frequency Band	2.4G
颜 色 Color	黑色	版 本 Edition	REV:A
销 售 Salesperson	张旭	设 计 Design	雷耀波
结 构 Structure	覃云林	确 认 Confirm	
日 期 Date	2022/05/06	签字日期 Signing Date	

客户确认 Customer confirmation:

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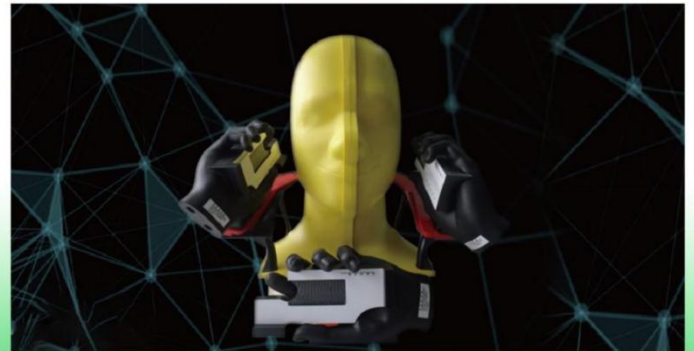
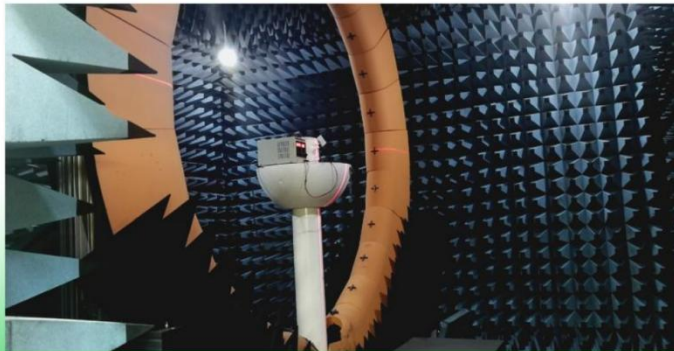
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安威无线一直都是您值得信赖且优秀的合作伙伴，我们为您提供全方位一站式的产品以及技术服务！

“质量第一，服务至上”是安威一直以来的发展宗旨

一、产品规格 Product specifications

报告主要提供 CN471TXP02-V02 天线性能的参数测试。CN471TXP02-V02 天线为 2.4G 天线。

(如下图 1 所示)

The report mainly provides parameter testing for the performance of the CN471TXP02-V02 antenna. The CN471TXP02-V02 antenna is a 2.4G antenna. (As shown in Figure 1 below)



二、电器性能 Electrical performance

1.规格标准 Specification standards

CN471TXP02-V02 天线工作频段在 2.4G-2.48G，在此频段产生谐振。

The CN471TXP02-V02 antenna operates in the frequency range of 2.4G-2.48G, generating resonance in this frequency range.

2.天线的匹配电路 Matching circuit of antenna

天线的结构方式：FPC

Antenna structure: FPC

匹配电路 (Matching circuit)

三、参数的测试 Testing of parameters

1.测试的设置

VSWR 测试装置依次连接为：

The VSWR testing device is sequentially connected as follows:

E5071B 网络分析仪 → 50 欧姆的同轴 Cable → 110mm 长的铜管 → 测试治具

E5071B network analyzer → 50 Ohmic Coaxial Cable → 110mm Long copper tube → Test fixture

测试治具的处理:

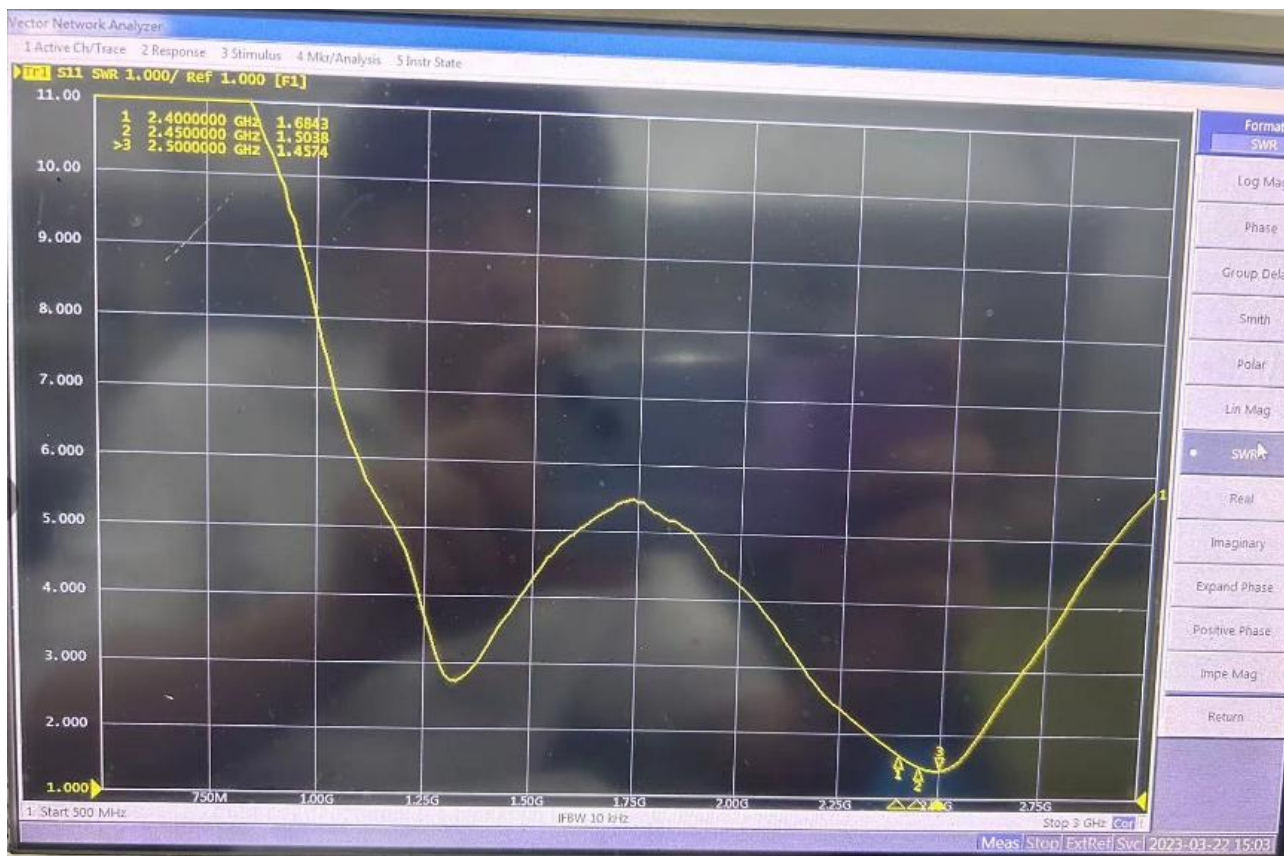
Handling of testing fixtures:

从手机 PCB 上天线 50 欧姆测试点处用一根硬质电缆引出 SMA-J 接头，与套有扼流圈的铜管连接，再依次连接其他装置。

Use a hard cable to lead out the SMA-J connector from the 50 ohm test point of the antenna on the mobile phone PCB, connect it to a copper tube covered with a choke, and then connect other devices in sequence.

2.测试结果 test result

2.1 驻波 (SWR)



四、有源测试的设置 Settings for active testing

有源测试装置依次的连接为:

The active testing device is sequentially connected as follows:

Agilent8960 → 50 欧姆的同轴 Cable → Satimo SG16 测试系统 → 待测试的手机

Agilent8960 → 50 Ohmic Coaxial Cable → Satimo SG16 test system → Phone to be tested

1.测试的场地 Testing site

AW 微波暗室：测试频率范围为 400MHz—6GHz，静区范围为 40cm 圆周，反射率小于 -90 dB。

AW microwave anechoic chamber: The testing frequency range is 400MHz -6GHz, the quiet zone range is 40cm circumference, and the reflectivity is less than -90 dB.

2.测试结果 test result

最大辐射功率和最大接收灵敏度反映了天线在整个辐射空间内最大功率辐射值和最佳接收性能。TRP 和 TIS 反映了天线的平均辐射功率和平均接收灵敏度，即反映了天线的整体接收性能。

The maximum radiation power and maximum reception sensitivity reflect the maximum power radiation value and optimal reception performance of the antenna in the entire radiation space. TRP and TIS reflect the average radiation power and average reception sensitivity of the antenna, which reflects the overall reception performance of the antenna

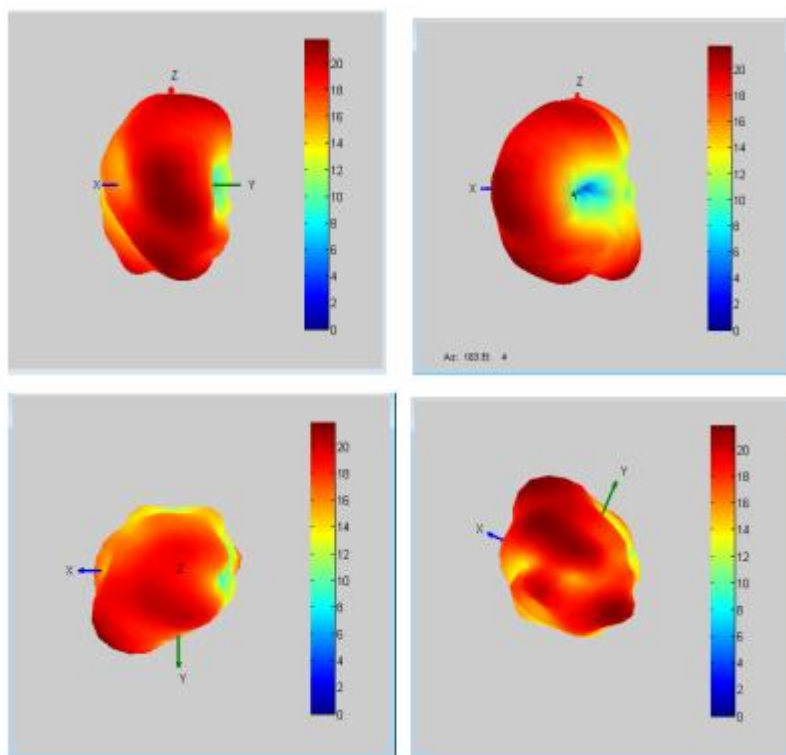
下面为 CN471TXP02-V02 手机 2.4G 天线无源测试结果:

The following are the passive test results of CN471TXP02-V02 mobile phone 2.4G antenna:

天线效率

Antenna efficiency

frequency 频率(MHz)	gain 增益(dBi)	mingain 最小增益	efficiency 效率(dBi)	efficiency 效率(%)
2400	-0.18	-21.03	-6.11	24.50
2410	-0.53	-20.68	-6.62	21.79
2420	-0.78	-20.19	-6.96	20.13
2430	-0.86	-19.57	-7.39	18.26
2440	0.35	-22.72	-6.51	22.35
2450	0.38	-25.26	-6.31	23.39
2460	-1.67	-23.73	-6.95	20.18
2470	-2.58	-25.09	-7.59	17.41
2480	-2.16	-26.35	-7.14	19.30
2490	-1.97	-19.97	-6.84	20.69
2500	-1.44	-19.98	-6.84	20.72

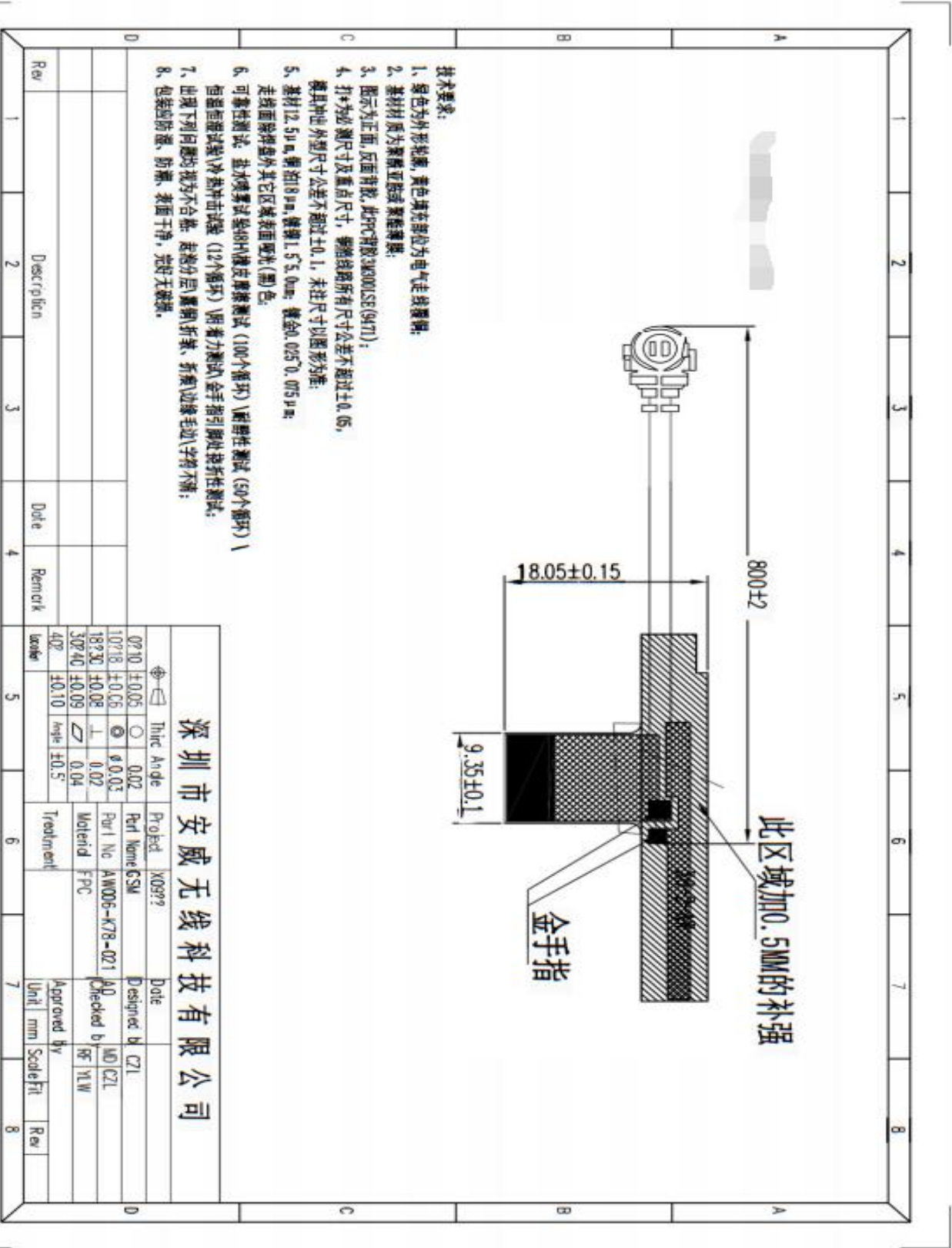


五、建议与结论 **Suggestions and conclusions**

此报告是根据客户提供样品测得的天线电器性能,请贵公司认真查阅。

This report is based on the antenna electrical performance measured by the sample provided by the customer. Please review it carefully.

六、结构图纸 **structural drawings**



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