

天线规格书
Antenna specification for approval

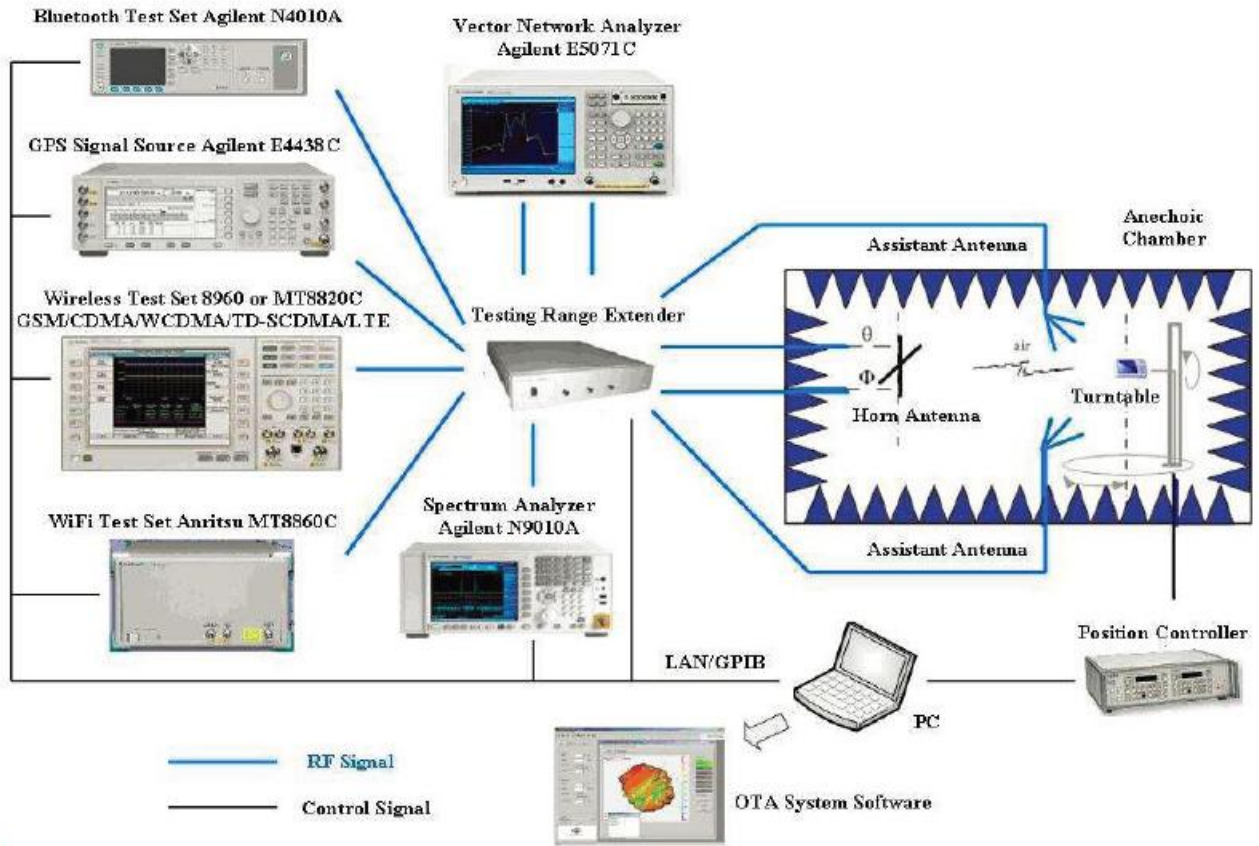
客户名称 Customer name	Hank		
机型 Model	DCP225R-WIFI Riflescope-Military		
天线频段 Antenna frequency	2.4GHZ		
天线功能 Antenna function	WIFI antenna		
天线材质 Antenna material	FPC	FPC 颜色 FPC color	黑色
型号 model	SF2303A-1B2-A		
料号 Material number	SF2303A-1L22B-060-A		
客户料号 Customer Part Number			

序号	认证编号	材质类型	发证日期	备注
1	A2230173541101001E	镀锡铜线	2023-04-24	一年
2	CANEC2227657305	卤素	2023-05-30	一年
3	CANEC2227657306	背胶	2023-05-30	一年
4	SHAEC23021984701	FEP 护套	2024-01-04	一年
5	SHAEC23020095573	FEP 绝缘	2023-12-12	一年
6	SZXEC23001647204	锡线	2023-07-28	一年
7	SZXEC23001647208	锡条	2023-07-28	一年
8	ETR23701480	印刷油墨	2023-07-13	一年
9	A2230173918101001E	基材	2023-04-18	一年
10	CANEC23017402018	EVA 泡棉	2024-01-03	一年
11	A2230383826101003	导电布	2023-08-04	一年
12	CANEC23002609908	金镀层	2023-05-11	一年

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1. Device support & testable antenna types



天线功能	频率范围	测试仪器	测试方式	测试标准
2G天线 (GSM)	824MHz-960MHz, 1710MHz-1990MHz	5071B、8960、 OTA暗室	有源测试、无源测试	索沃德标准、客户要求
3G天线 (WCDMA/TDSCDMA/CDMA-EVDO/2000)	824MHz-960MHz, 1710MHz-2170MHz	5071B、8960、 OTA暗室	有源测试、无源测试	索沃德标准、客户要求
4G天线 (LTE-FDD/LTE-TDD)		5071B、CMW500、 SP8011、OTA暗室	有源测试、无源测试	索沃德标准、客户要求
WIFI天线	2.4GHz-2.48GHz, 5.15GHz-5.35GHz, 5.725GHz-5.825GHz	5071B、CMW500、 OTA暗室、路由器 、PC	有源测试、无源测试 、APK实测、吞吐量 测试	索沃德标准、客户要求
BT天线	2.4GHz-2.48GHz	5071B、OTA暗室 、蓝牙音箱	无源测试、实测	索沃德标准、客户要求
定位天线 (GPS、GLONASS、北斗、伽利略)	1575.42MHz±10MHz 1602MHz+0.5625MHz 1561MHz+2.046MHz	5071B、OTA暗室 、APK	无源测试、实测	索沃德标准、客户要求
NFC天线	13.56MHz	5071B、专用测试 治具、OTA暗室、 APK	无源测试、实测	索沃德标准、客户要求
遥控天线	433MHz	5071B、OTA暗室	无源测试、实测	索沃德标准、客户要求

2. Overview

(1)Antenna performance

1. This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of WIFI antenna.
2. Antenna shape size: Meet the requirement of MID
3. Antenna band: 2400MHz~2500MHz
4. Antenna material: Antenna material meet the requirement of MID
5. Adhesive performance: Adhesive performance meet the requirement of MID
6. Antenna performance meet the spec below:

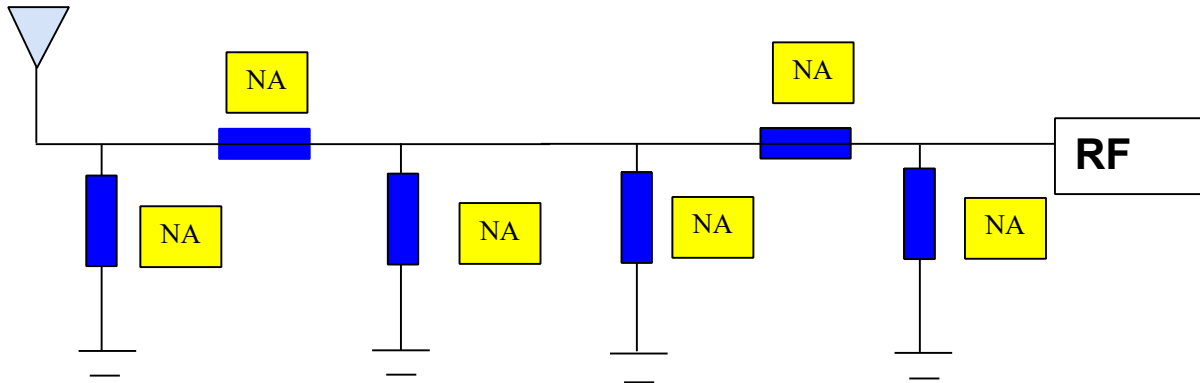
Description	2. 4GHZ~2. 5GHz	Units
VSWR	≤2.0	
Average Antenna Gain	≥-4.5	dB
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

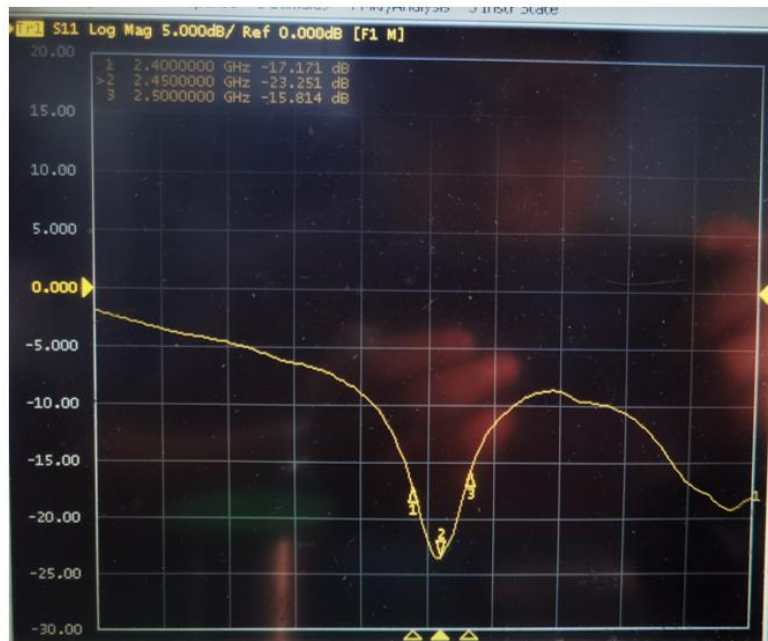
Mechanical Dimension	
Cable Length	060mm/BLACK
Description	WIFI antenna
Material	FPC
Coaxial Cable	50Ω/O. D. 0. 81mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

3. Matching circuit diagram & machine picture & antenna picture

(1) 匹配电路

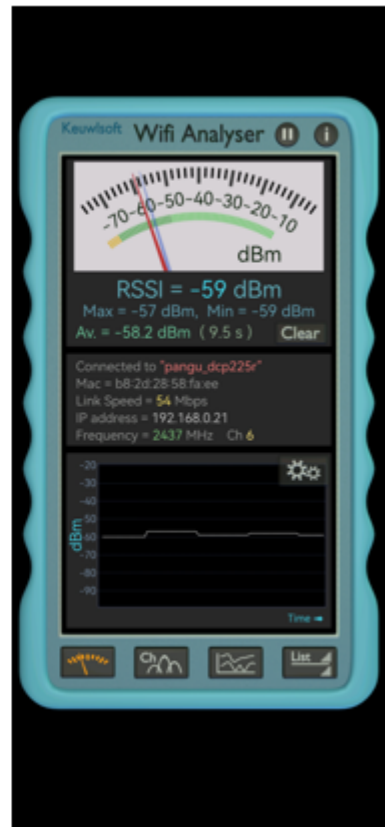
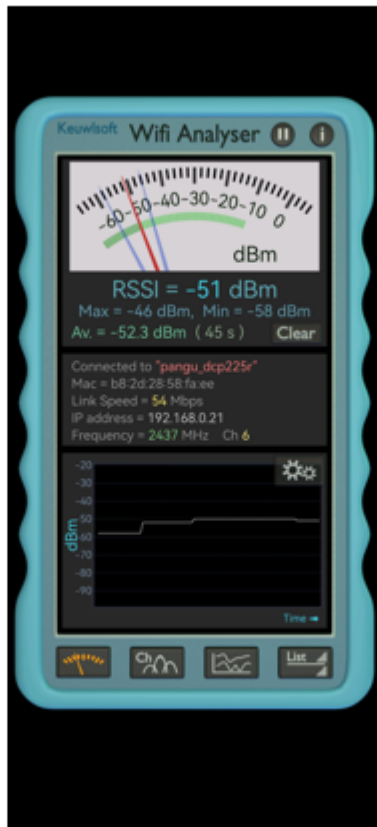
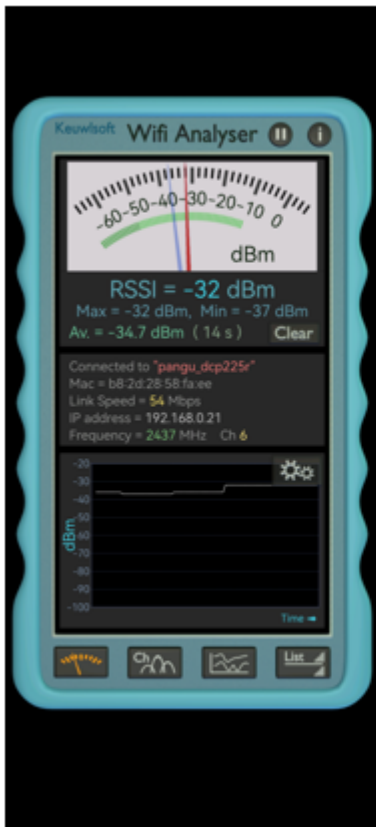


4. Antenna Standing Wave & Efficiency

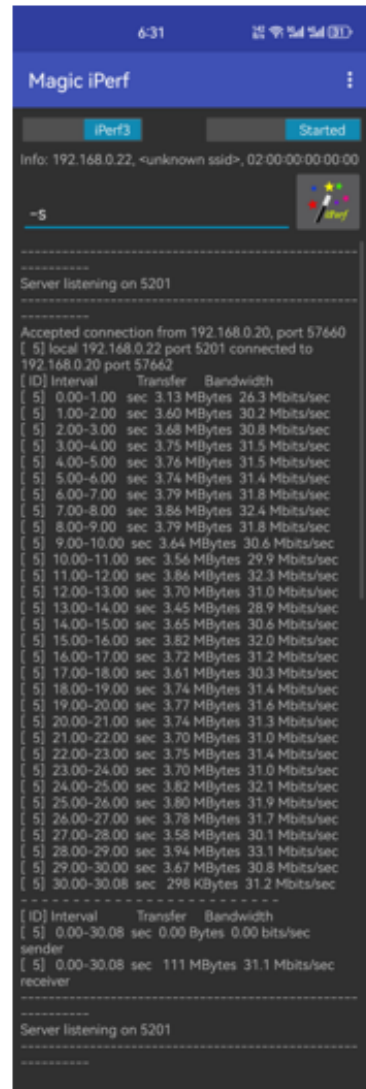
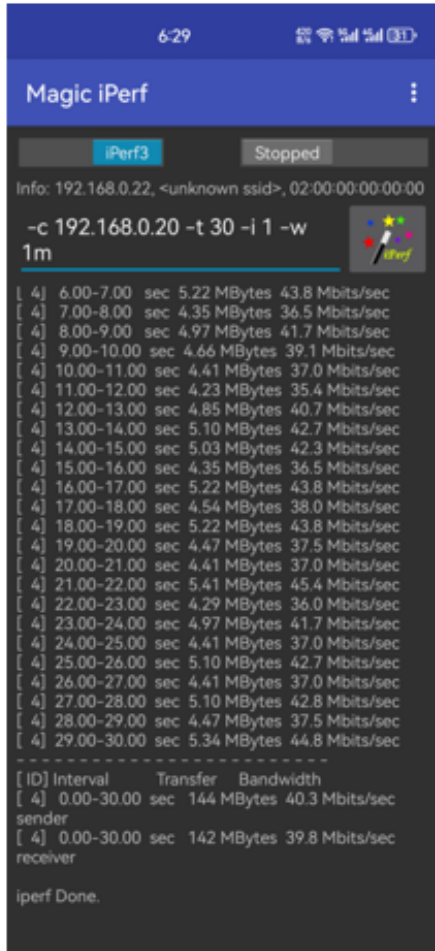


Passive Test For 2.21-2.8G												
Freq	Effi	Effi	Gain	Gain	UHS	DHS	Max	Min	Directivity	Beamwidth	AttH	AttV
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	(dBi)	(3dB)	(dB)	(dB)
2400	14.36	-8.43	-8.55	-10.7	1.642	2.198	-8.55	-25.02	5.61	30	48.71	48.41
2410	14.89	-8.27	-7.97	-10.12	1.763	2.383	-7.97	-24.04	5.85	90	48.63	48.4
2420	13.71	-8.63	-8.39	-10.54	1.591	2.212	-8.39	-23.81	5.81	90	48.85	48.58
2430	14.18	-8.48	-7.98	-10.13	1.641	2.3	-7.98	-21.56	6.06	90	48.6	48.33
2440	15.74	-8.03	-7.54	-9.69	1.736	2.478	-7.54	-21.41	6.21	90	48.83	48.54
2450	19	-7.21	-6.17	-8.32	2.366	3.384	-6.17	-19.63	6.23	90	49.13	48.81
2460	20.62	-6.86	-5.69	-7.84	2.621	3.775	-5.69	-19.01	6.25	90	48.89	48.7
2470	21.76	-6.62	-5.14	-7.29	2.862	4.147	-5.14	-18.98	6.4	90	48.95	48.79
2480	23.1	-6.36	-5.37	-7.52	2.667	3.909	-5.37	-19.08	6.45	90	49.53	49.35
2490	23.91	-6.22	-4.84	-6.99	2.873	4.333	-4.84	-18.62	6.58	90	49.19	49.14
2500	24.03	-6.19	-4.83	-6.98	2.804	4.336	-4.83	-18.61	6.63	90	49.69	49.65

5. Antenna measurement diagram

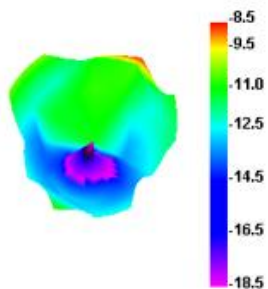


6. Throughput data.

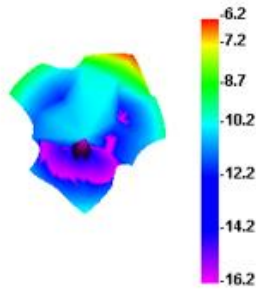


7.3D pattern

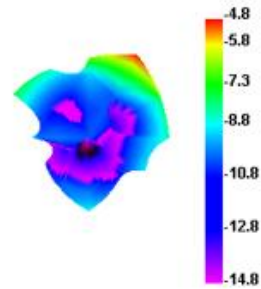
2400.000MHz



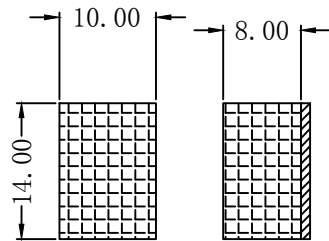
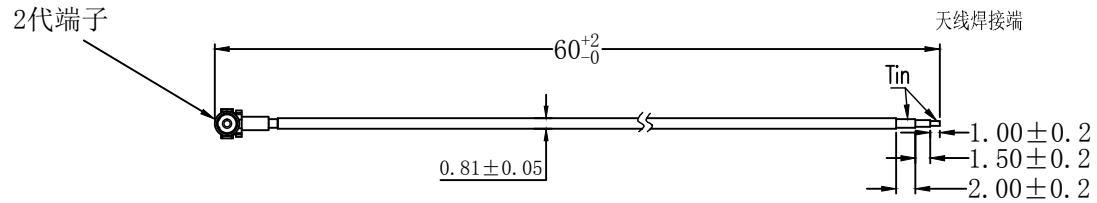
2450.000MHz



2500.000MHz

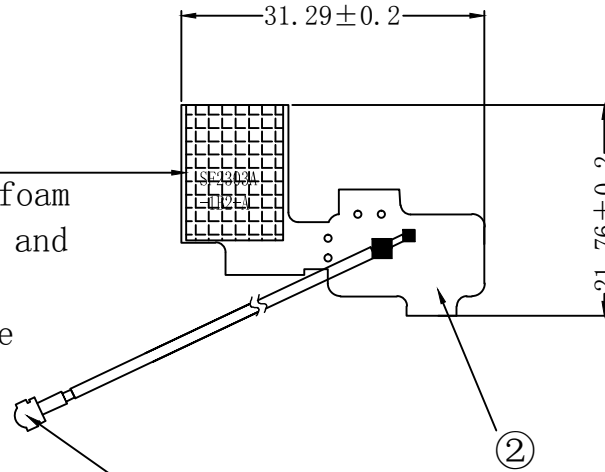


8. Structural drawings



Single-sided adhesive insulation foam

③ Place the foam in the center and paste the ink surface on the front



① Terminals facing inwards

技术要求:

1. 打*为重点尺寸;
2. 尺寸符合图纸要求;
3. 焊点无虚焊、假焊。要求圆润、饱满。
4. 网分测试通过 (出现指定波形)。
5. 线形尺寸未注公差按照SJ/T 10628 1995 6级, 公差值由上下偏差均分;

5											
4											
3	绝缘泡棉		黑色	1	10*14*8mm		签名	年月日	量产	签名	年月日
2	FPC		黑色	1	SF2303A-1B2-A	RD	YWD	2023. 12. 18	Q C		
1	同轴线	2代端子	黑色	1	φ=0.81mm	RF					
序号	名称	材料	颜色	数量	描述	审核			批准		

SWARD

SF2303A-1L22B-060-A

阶段标记

比例

1 A 1 : 1

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ROHS