产品特性规格表

一、产品基本特性：

产 品 类 型 ： WIFI 天线	
DESCRIPTION	**VALUE**
Frequency range（工作频段）	2400-2500MHz 5150-5850MHz
Impedance（特性阻抗）	50Ω
V.S.W.R（电压驻波比）	对比波形
Gain(Peak)	2.0dBi
Radiation（方向性）	Omni-directional
Polarization（线化方式）	linear Vertical
Admitted power（功率）	1W
Connector（接头型号）	IPEX CONN
Operating temp（工作温度）	-10℃~+70℃
Storage temp（储存温度）	-10℃~+60℃

1. Summary 概要：

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

这份报告用以说明量测的天线的结果，该测量设置包括 S 参数的 电压驻波比及反射系数，为量测天线的数据表示及分析

2. S-Parameter Measurement S 参数的量测：

A. Reflection coefficient 反射系数:

(a) Instrument（议器）：Network Analyzer (网络分析议).

(b) Setup 建立：

(1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.
议器的校正通过 OSL 校准套件进行一个端口的校正.

(2) Connect the antenna under test to the Network Analyzer.
连接待测天线至网络分析议.

(3) Measure the S11(reflection coefficient) shown in Fig. 1.
测量 S11 如图一所示.

(4) Generally, the S11 is less than –10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.
一般来说，S11 小于-10dB VSWR 小于 2.0：1，以确保 90％的功率转换成天线和只有不到 10％的功率反射回系统.

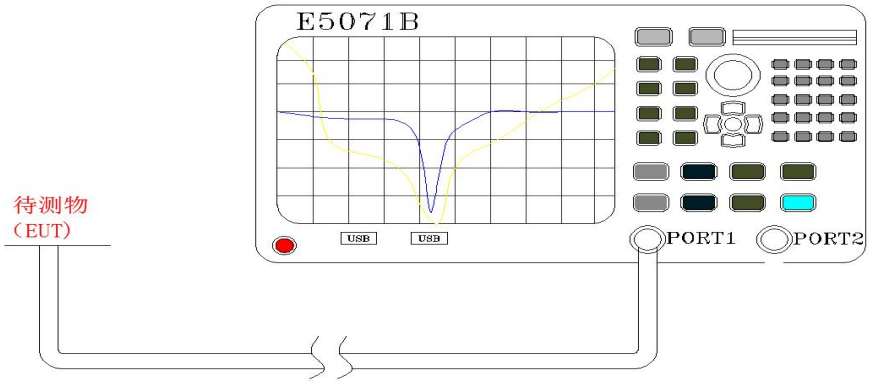


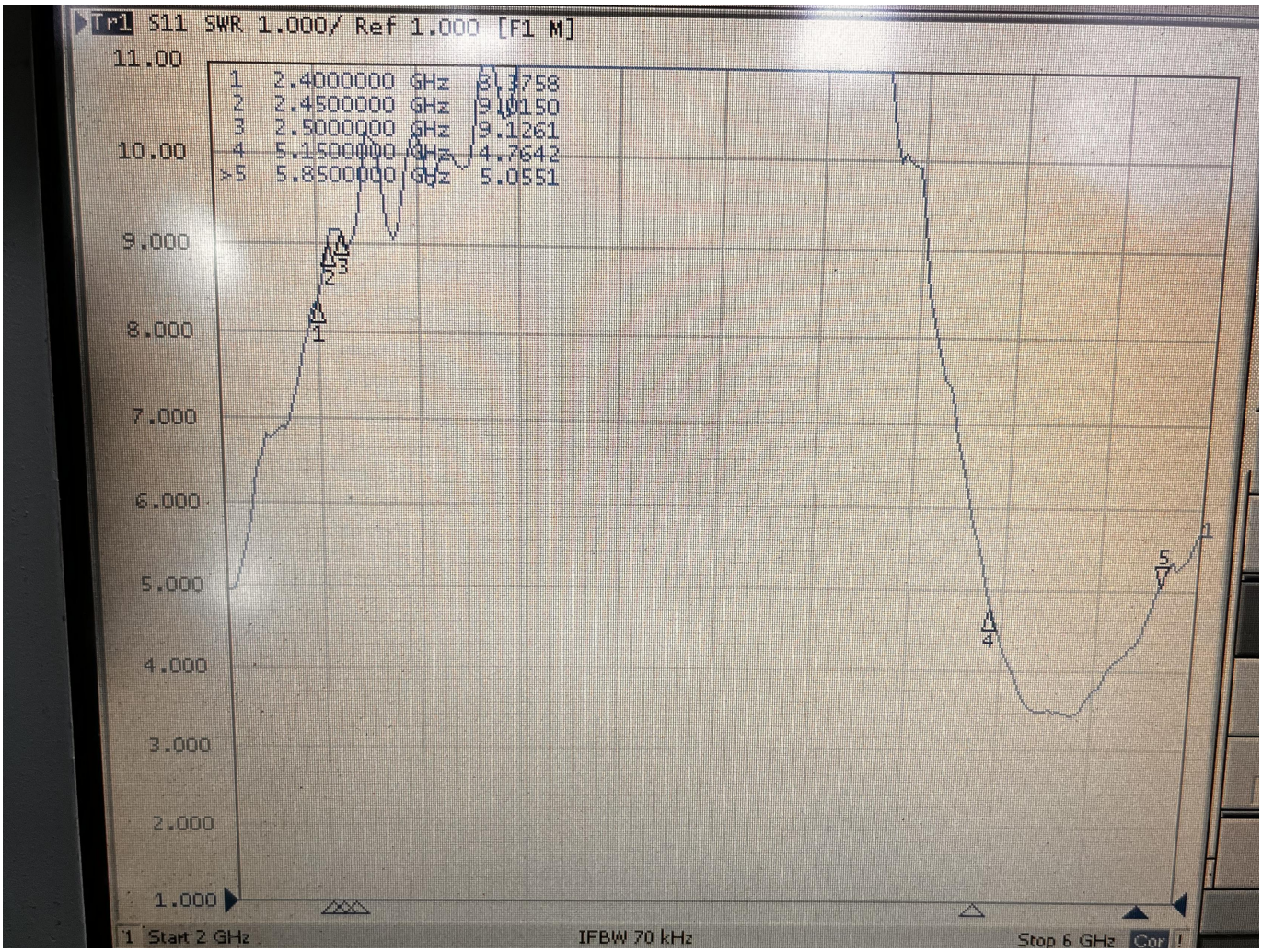
Fig.1 Antenna measured in Network Analyzer 图 1 天线测量网络分析仪

3. S-Parameter Measurement Result S 参数的量测结果：

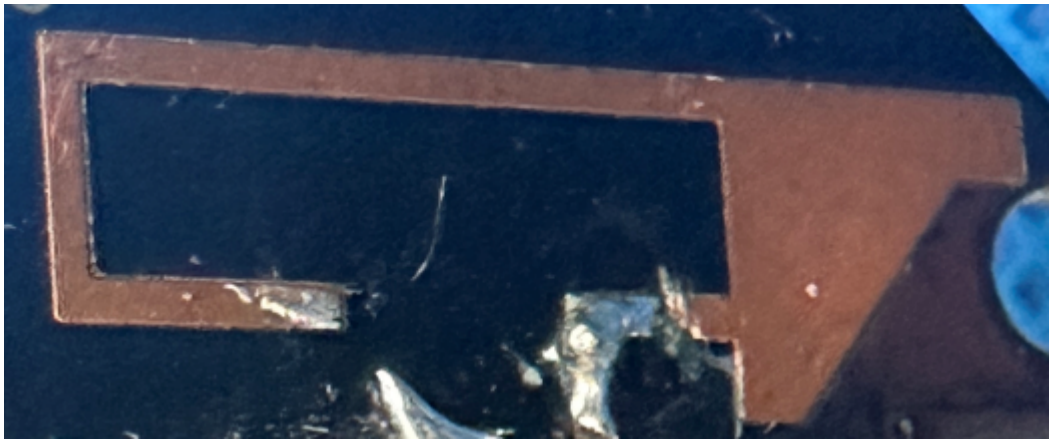
S-Parameter test data S-参数量测数据：

Frequency MHz 工作频段	2400	2450	2500	5150	5850
V.S.W.R 驻波比	8.37	9.01	9.12	4.76	5.05

S-Parameter test image　S-参数量测图片：



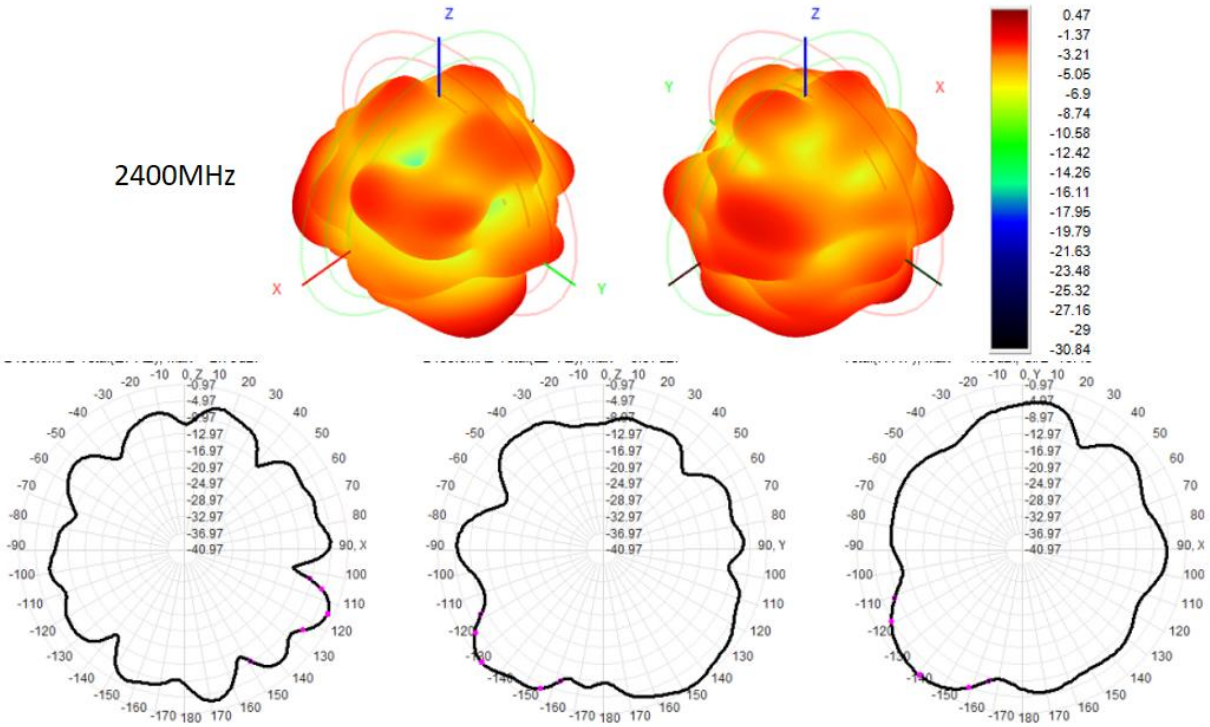
天线图片
Antenna picture



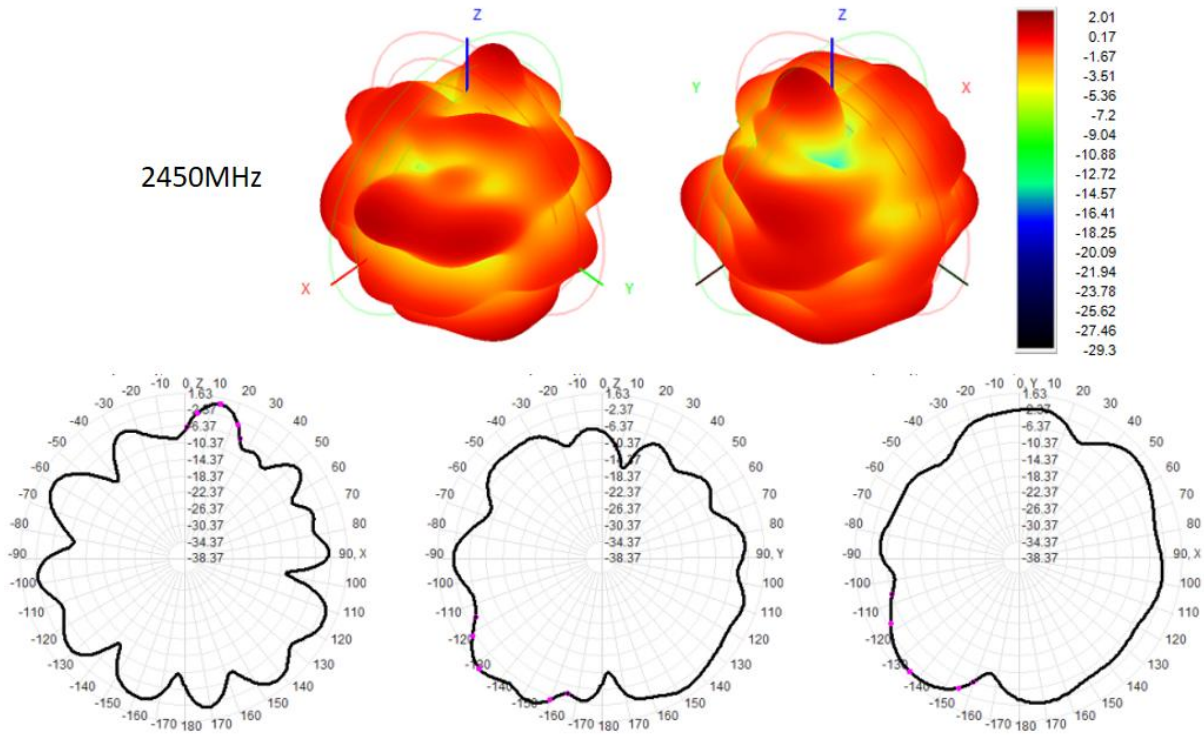
Frequency (MHz) （工作频段）	Efficiency (%) （效率）	Peak GAIN (dBi) （增益）
2400	30. 42	1. 4
2450	43. 37	2. 0
2500	41. 53	2. 0
5150	41. 68	2. 0
5850	45. 71	2. 0

2D/3D 图

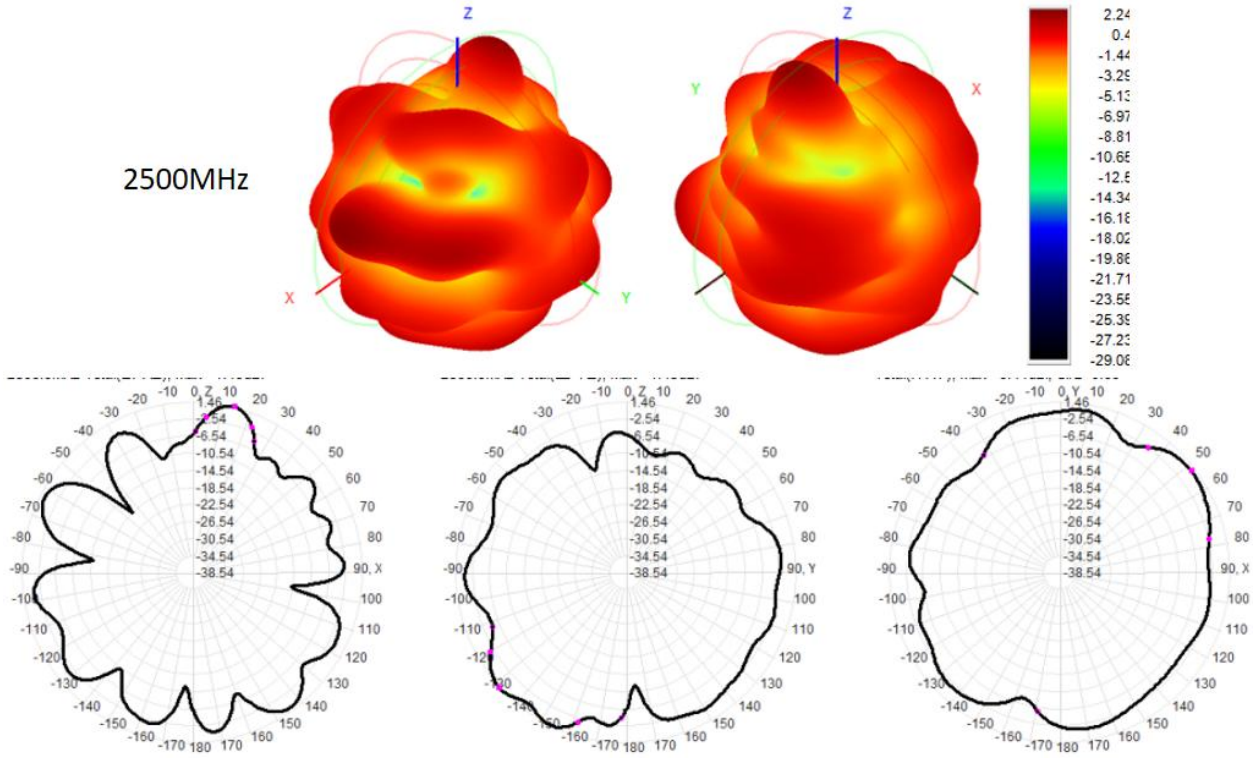
2400MHz



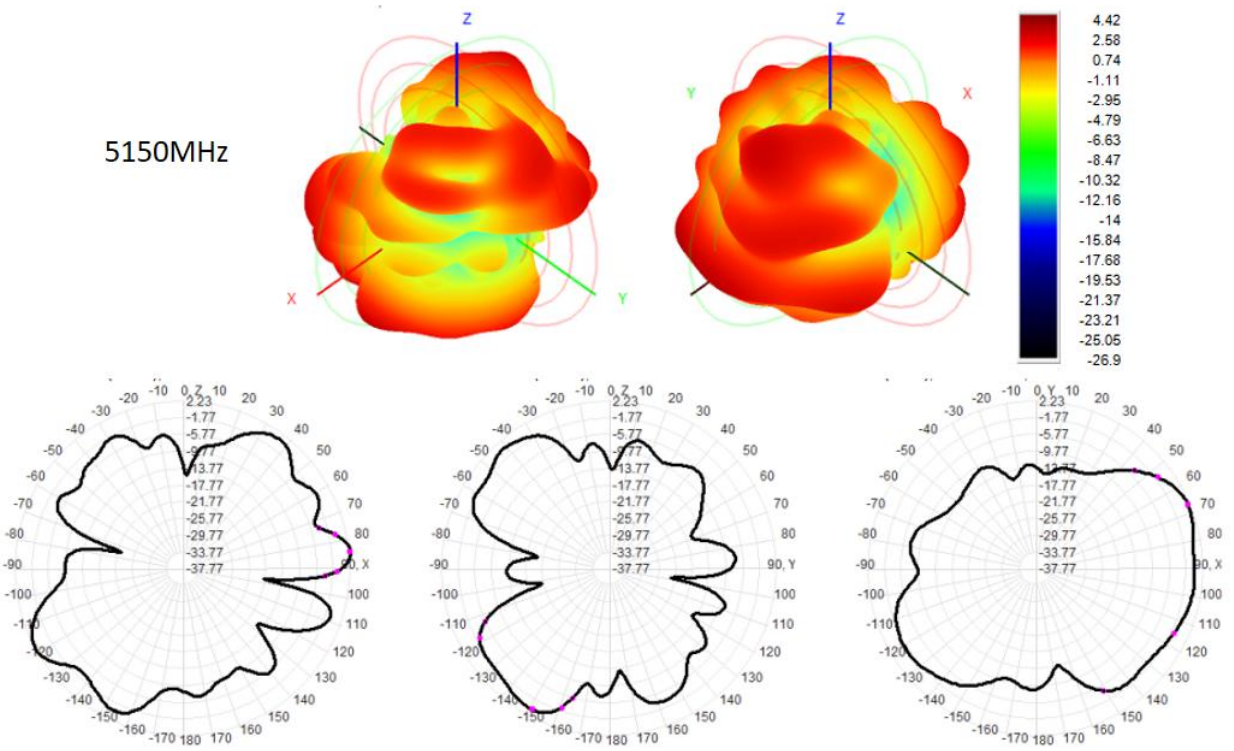
2450MHz



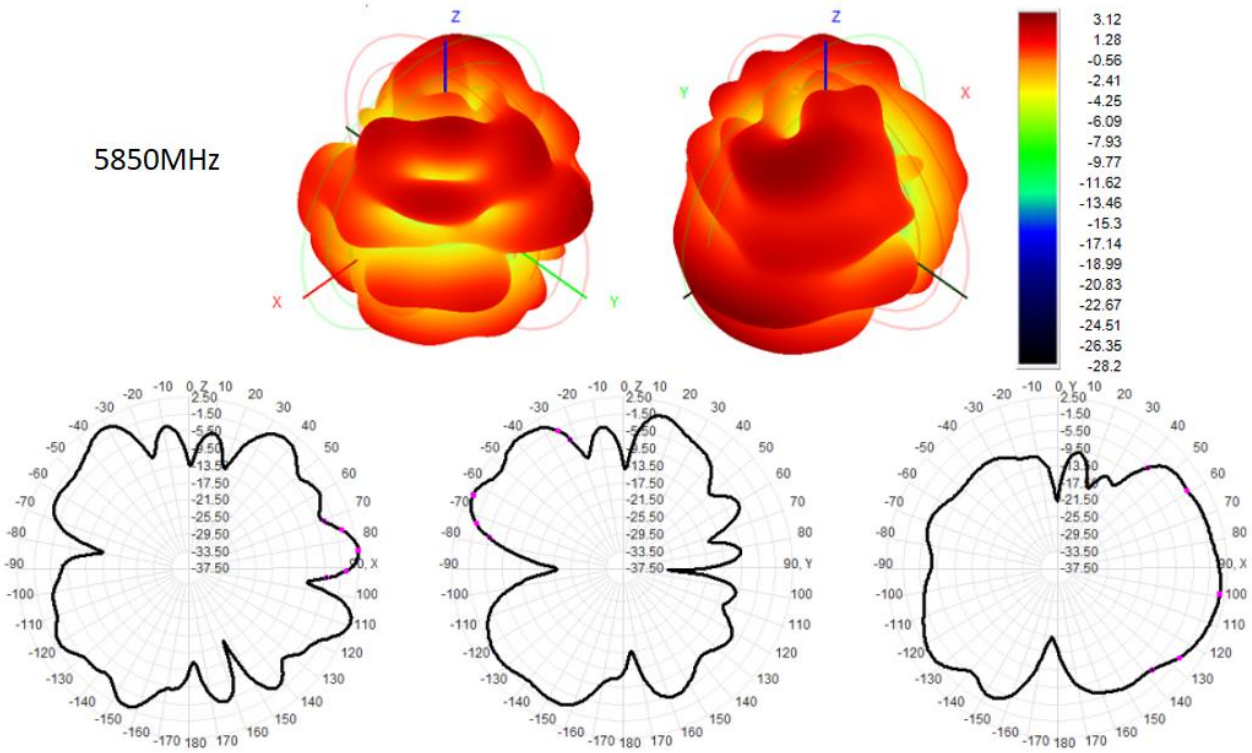
2500MHz



5150MHz



5850MHz



	Test items	Test methods and conditions	Test equipment	Test results
1	Temperature and humidity test	Refer to EIA 364-31 Method III, Test condition A The purpose of this test procedure is to detail the standard test methods used in products, and they are evaluated by the effects of high humidity and heat that affect the properties of the material. Requirements: Temperature: 70℃ Humidity: 90~95% (R.H) Time: 72 hours	K.SON INS THS-A4L-150	qualified
2	Low temperature test	Refer to Feisheng Electronic test Specification: The test sample should be placed in a constant temperature environment, the temperature is set at -20℃ Requirements: Time: 24小时	K.SON INS THS-A4L-150	qualified
3	High temperature test	Refer to Feisheng Electronic test Specification: The test sample should be placed in a constant temperature environment, the temperature is set at 70℃. Requirements: Time: 24 hours	K.SON INS THS-A4L-150	qualified
4	Cold and heat shock	Refer to Feisheng Electronic test Specification: The test sample should be placed in a fixed environment, the temperature is set to -20~70℃. Requirements: More than 8 hours.(30 minutes/time, 12 cycles)	K.SON INS THS-A4L-150	qualified
5	Salt spray test	Refer to Feisheng Electronic test Specification: The measured samples should be placed in a fixed environment under its requirements: NaCL concentration: 40-60g/1Kg PH value: 6.5-7.2 Test time: 24H 1. Gold-plated products are not allowed to have rust spots peeling 2. Other nickel-plated, tin-plated and galvanized products shall not be on the same axis or surface There are more than two rust spots.	Salt spray tester	qualified

Mechanical test requirements

	Test items	Test methods and conditions	Test equipment	Test results
1	Vibration test	Test condition A The purpose of this test procedure is to detail the standard test methods used in the evaluation of the properties of the materials affected by movement or lifting. Requirements : Range of vibration: 10-55HZ Amplitude of displacement: 0.35mm Amplitude of acceleration: 50.0M/S Frequency sweep cycle number: 30次	Vibration testing machine	qualified
2	Drop off test	Refer to Feisheng Electronic test specification: The measured sample should be placed at a certain height, the height is set to 1M, and it should be free to fall 3 times according to the direction of the 6 faces Requirements : The mechanical properties of the product are normal after the drop test	Drop test fixture	qualified
3	Tensile force test	Refer to Feisheng Electronic test Specification: The measured object is fixed by the fixture. After applying a certain force in the opposite direction, the product can not be disassembled. Requirements: 1. The product shall not be disassembled. 2. Minimum pull force: 1.2KG	Tension testing machine	qualified