	Sprocomm Technologies CO.,LTD.	DCC#:
Sprocomm	Material Classification Sample Acknowledgment	Release date:

Antenna – Acknowledgement Letter Check List

A. Manufacturers should fill in basic data:

Item number:	15.01.2004	Acknowledgement Version:	V1.0
Entry name:	E6726BL_3IN1 Antenna	Cooperative manufacturers:	Huizhou Speed Wireless Technology Co.,Ltd.
Part name:	E6726BL_WIFI/GPS/BT 3IN1Antenna__FPC_Black	Address:	No. 138 Huize Avenue, Dongjiang High tech Industrial Park, Zhongkai High tech Zone, Huizhou City, Guangdong Province
Antenna silk screen model:	E6726BL-G+W-V1.0		

B. Manufacturers should fill in product data:

1. Antenna type:

☐ a.Pull rod Material type and specifications_____

☐ b.Metal stamping Material type and specifications_____ Thickness of fragmented gold: _____

☑ c.FPC Base material type and specification PI half base material Gold finger gold thickness: ≥ 0.05um Nickel thickness:3-8um

FPC backing material (specified as 3M9471LE, please specify if special) 3M467 thickness 0.05mm

C. Manufacturers should attach relevant documents to the acknowledgement letter; Email the electronic file (PDF) to Hemao.

- ◆ 1. Standard 2D drawings and full (key) dimension measurement report
- ◆ 2. Material certificate ◆ 3. Packaging method
- ◆ 4. Antenna performance test report (such as TRP, TIS, SAR, frequency and phase error data)
- ◆ 5. Reliability Test Report ◆6. ROHS Declaration

D. Confirmation column.

Supplier signs and stamps with company seal		Hemiao signs and stamps the controlled seal	
Business	Jianwei Cao	Customer Manager	
		Hardware testing	
R&D	Xiangsheng Ji	Structural engineering	
		DQE	
Quality	Xiaoman Zhong	Project manager	

	Sprocomm Technologies CO.,LTD.	DCC#:
	Material Classification Sample Acknowledgment	Release date :

E. Change Record Column

Date of Compilation/Change	Reason for Change	Change content	Edition

Explain：1. Five copies of the sample acceptance letter are required, with a total of 5-10 samples to be provided;

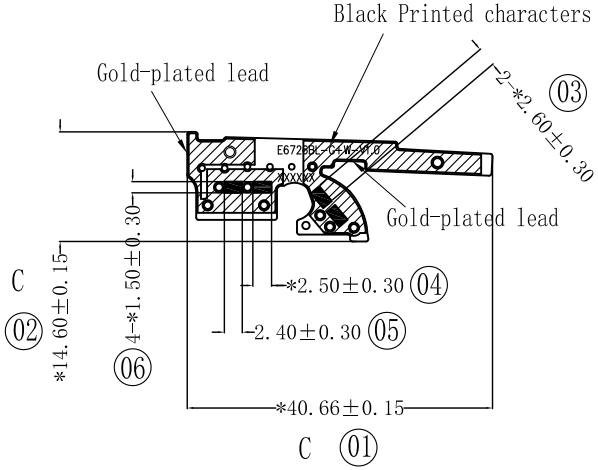
2. Suppliers must receive a sample acknowledgement letter signed by both parties and controlled by HeMiao DCC before bulk delivery;

3. The goods delivered in bulk by the supplier must comply with the sample and acceptance letter. If there are any problems, they need to be confirmed in advance through communication, otherwise they will be returned in bulk

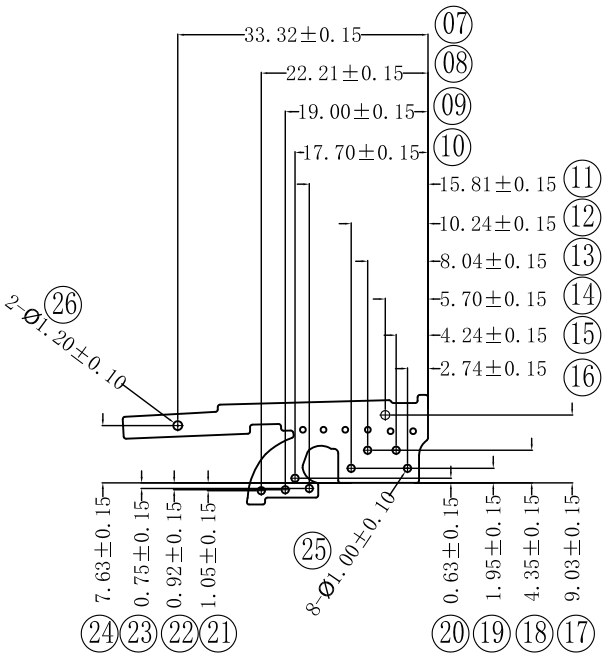
4. All quality standards shall be based on Hemiao's quality requirements. If there are special defects (unable to meet quality standards), the supplier shall specifically mark the defects when admitting the sealed samples and state them in the content of the admission letter.

Mark	Times	Modifled content	Signature	Date

Dimension tolerance table not marked					
>	≤	plastic cement	Metal	Die-cutting	Silica gel
0	3	±0.05	±0.05	±0.10	±0.10
3	6	±0.07	±0.05	±0.10	±0.10
6	30	±0.10	±0.10	±0.15	±0.15
30	120	±0.15	±0.15	±0.25	±0.25
120	～	±0.20	±0.20	±0.30	±0.3%
Angular tolerances are not specified ±0.5°					



The front side



Adhesive side

Technical requirements:	
Tolerance	Marked * size is the key control size, Marked C size is the CPK sizeand , the unmarked tolerance conforms to the unmarked tolerance table;
Material	Copper material:◆ Electrolytic copper thickness _0.018mm_ ◇Rolled copper thickness_PI: ◇PIhalf-and-half ◆PI A pair and a half
	Adhesive: Model 3M467 Thickness 0.05mm ◇Original release paper_Semi-cut ◇Release paper color_
	◇Reinforcement: Material_____Thickness_____ ◆No Reinforcement
Process flow	◆Electroplating:Nickel 3-8um _ Gold_>0.05um ◇Chemical plating ___
Surface treatment	◇Ink Color:_Thickness: _◆Cover film Color_Black_Thickness_0.0275mm_
Package	◆Semi-cut ◇Single PCS bag. ◇Pallet packing
Quality requirements	Comply with our 《FPC inspection standards》 and reliability standards.
	◇AOI Full-inspection ◇AOI Spot-check ◇Electric resistance___
Environmental protection requirements	◆To meet the reliability testing requirements of our company ◇Environmental standards of customers_____

Name	E6726BL-GPS+WIFI Antenna	Design	Zhang na	Date	2024.11.11
Machine	E6726BL	Auditing		Date	
P / N	F-2A-T5-4656-000-K0	Approved		Date	
Material	PI half-and-half	Version	S01		
Scaling	FIT				
Unit	mm				

Huizhou speed wireless technology co.,ltd.

CPK Report

Part Number)	F-2A-T5-4656-000-K0				Vendor		SPEED		
Description	E6726BL-GPS+WIFI Antenna				Inspected				
Tool Number					Inches/MM		mm		
Cavity					Material Name				
					Material Code				
Revision	S01				Date		2024/11/11		
Dim. Designator	1	2							
Nominal	40.660	14.600							
+ Tolerance	0.150	0.150							
- Tolerance	-0.150	-0.150							
Upper Limit	40.810	14.750							
Lower Limit	40.510	14.450							
1	40.663	14.690							
2	40.668	14.600							
3	40.659	14.630							
4	40.661	14.602							
5	40.662	14.612							
6	40.658	14.618							
7	40.659	14.608							
8	40.656	14.613							
9	40.661	14.609							
10	40.661	14.608							
11	40.662	14.613							
12	40.663	14.606							
13	40.660	14.613							
14	40.664	14.605							
15	40.660	14.603							
16	40.658	14.611							
17	40.661	14.612							
18	40.660	14.613							
19	40.666	14.604							
20	40.656	14.608							
21	40.664	14.608							
22	40.663	14.618							
23	40.663	14.615							
24	40.665	14.613							
25	40.666	14.611							
26	40.662	14.612							
27	40.660	14.613							
28	40.661	14.603							
29	40.667	14.608							
30	40.663	14.601							
31	40.662	14.603							
32	40.669	14.612							
MAX.	40.67	14.69							
MIN.	40.66	14.60							
AVERAGE	40.66	14.61							
STDEV	0.00	0.02							
CP	15.89	3.25							
Cpk	**15.68**	**2.98**							
TOOLING	2D	2D							

Reviewer：Xiaoqun Hu Producer:Supeng Deng

Huizhou Speed Wireless Technology Co.,Ltd.
Dimensional Inspection Report

Project name:E6726BL-GPS+WIFI Antenna				Part number: F-2A-T5-4656-000-K0									Number of measured cavities:5	
Revision: S01				Surveyor:Supeng Deng			Reviewer: Xiaoqun Hu						Measurement date:	2024/11/11
Size number	Specifications			Measurement value					Measurement	Determine the deviation value				
	Nominal	Tu	Tl	1	2	3	4	5						
1	40.66	0.15	-0.15	40.669	40.665	40.662	40.661	40.664	二次元	OK	OK	OK	OK	OK
2	14.60	0.15	-0.15	14.603	14.604	14.609	14.609	14.601	二次元	OK	OK	OK	OK	OK
3-1	2.60	0.30	-0.30	2.620	2.615	2.607	2.607	2.611	二次元	OK	OK	OK	OK	OK
3-2	2.60	0.30	-0.30	2.611	2.615	2.607	2.607	2.611	二次元	OK	OK	OK	OK	OK
4-1	2.50	0.30	-0.30	2.511	2.515	2.507	2.507	2.511	二次元	OK	OK	OK	OK	OK
4-2	2.50	0.30	-0.30	2.504	2.520	2.521	2.529	2.516	二次元	OK	OK	OK	OK	OK
5-1	2.40	0.30	-0.30	2.404	2.403	2.400	2.405	2.407	二次元	OK	OK	OK	OK	OK
5-2	2.40	0.30	-0.30	2.401	2.408	2.402	2.408	2.404	二次元	OK	OK	OK	OK	OK
6-1	1.50	0.30	-0.30	1.516	1.506	1.506	1.525	1.525	二次元	OK	OK	OK	OK	OK
6-1	1.50	0.30	-0.30	1.509	1.502	1.509	1.501	1.504	二次元	OK	OK	OK	OK	OK
6-1	1.50	0.30	-0.30	1.511	1.508	1.511	1.506	1.512	二次元	OK	OK	OK	OK	OK
6-1	1.50	0.30	-0.30	1.508	1.504	1.509	1.507	1.504	二次元	OK	OK	OK	OK	OK
7	33.32	0.15	-0.15	33.325	33.324	33.328	33.326	33.322	二次元	OK	OK	OK	OK	OK
8	22.21	0.15	-0.15	22.220	22.213	22.214	22.221	22.245	二次元	OK	OK	OK	OK	OK
9	19.00	0.15	-0.15	19.098	19.087	19.102	19.094	19.084	二次元	OK	OK	OK	OK	OK
10	17.70	0.15	-0.15	17.787	17.780	17.750	17.784	17.750	二次元	OK	OK	OK	OK	OK
11	15.81	0.15	-0.15	15.814	15.836	15.832	15.817	15.835	二次元	OK	OK	OK	OK	OK
12	10.24	0.15	-0.15	10.257	10.254	10.255	10.250	10.252	二次元	OK	OK	OK	OK	OK
13	8.04	0.15	-0.15	8.130	8.117	8.120	8.130	8.117	二次元	OK	OK	OK	OK	OK
14	5.70	0.15	-0.15	5.783	5.763	5.774	5.798	5.716	二次元	OK	OK	OK	OK	OK
15	4.24	0.15	-0.15	4.241	4.247	4.249	4.246	4.241	二次元	OK	OK	OK	OK	OK
16	2.74	0.15	-0.15	2.774	2.773	2.784	2.766	2.789	二次元	OK	OK	OK	OK	OK
17	9.03	0.15	-0.15	9.080	9.081	9.086	9.083	9.082	二次元	OK	OK	OK	OK	OK
18	4.35	0.15	-0.15	4.394	4.390	4.395	4.390	4.391	二次元	OK	OK	OK	OK	OK
19	1.95	0.15	-0.15	2.004	2.000	2.001	2.005	2.012	二次元	OK	OK	OK	OK	OK
20	0.63	0.15	-0.15	0.701	0.702	0.702	0.710	0.701	二次元	OK	OK	OK	OK	OK
21	1.05	0.15	-0.15	1.072	1.078	1.067	1.089	1.069	二次元	OK	OK	OK	OK	OK
22	0.92	0.15	-0.15	0.990	0.984	0.975	0.974	0.971	二次元	OK	OK	OK	OK	OK
23	0.75	0.15	-0.15	0.801	0.778	0.798	0.774	0.768	二次元	OK	OK	OK	OK	OK
24	7.63	0.15	-0.15	7.660	7.690	7.701	7.694	7.688	二次元	OK	OK	OK	OK	OK
25-1	1.00	0.10	-0.10	1.002	1.009	1.012	1.008	1.007	二次元	OK	OK	OK	OK	OK
25-2	1.00	0.10	-0.10	1.008	1.002	1.011	1.007	1.012	二次元	OK	OK	OK	OK	OK
25-3	1.00	0.10	-0.10	1.005	1.008	1.008	1.007	1.003	二次元	OK	OK	OK	OK	OK
25-4	1.00	0.10	-0.10	1.004	1.005	1.012	1.013	1.014	二次元	OK	OK	OK	OK	OK
25-5	1.00	0.10	-0.10	1.001	1.012	1.005	1.011	1.007	二次元	OK	OK	OK	OK	OK
25-6	1.00	0.10	-0.10	1.005	1.009	1.013	1.008	1.015	二次元	OK	OK	OK	OK	OK
25-7	1.00	0.10	-0.10	1.004	1.008	1.009	1.011	1.018	二次元	OK	OK	OK	OK	OK
25-8	1.00	0.10	-0.10	1.001	1.011	1.011	1.008	1.011	二次元	OK	OK	OK	OK	OK

Huizhou Speed Wireless Technology Co.,Ltd.

Hazardous Substance Declaration Form

Supplier name	Material number	Project name	Material Name	Written by	Date of filling out the form	Person email
Huizhou Speed Wireless Technology Co.,Ltd.	/	E6726BL-Diversity E6726BL-GPS+WIFI E6726BL-Main antenna	FPC	Shanhai Li	2024/4/15	lishanhai@speed-hz.com

Serial number	Part name	Homogeneous substance	Test report number	Test date	Third party testing agency	Limited substance content PPM											Test report	MSDS	Remarks
						Cd	Pb	Hg	Cr+6	PBBs	PBDEs	DIBP	BBP	DBP	DEHP	Cl	Br			
1	FPC	Fubon single sided substrate	A2240082746101006E	2024/3/1	CTI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	98	ND	富邦单面基材卤素+RoHS 20230	新富邦基材MSDS.pdf	
2		Fubon black covering film	A2240082746101002E	2024/3/1	CTI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	391	ND	富邦黑膜卤素+RoHS 20240301.p	富邦覆盖膜MSDS（2023中英互译	
3		Kaiyao character ink	A2240082622101002E	2024/2/27	SGS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	238	ND	KTM-310F BK2A2240082622	KTM-310F BK2 MSDS.pdf	
4		Back glue 3M467	CANEC23009060001_1 CANEC23008562801	2023/10/8 2023/8/28	SGS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	178	ND	468MP(467MP,467MC,468MC	467MP_halogen(1).pdf	467MP 468 MSDS.pdf	
5		Electric nickel gold	A2230512090101001C	2023/10/11	CTI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	乾圣镀镍金ROHS+HF	FPC镀镍金层MSDS 715.pdf	

Instructions:

1、Homogeneous material:material that cannot be further divided into different materials by mechanical means.

2、If the limited substance exceeds the limit but meets the exemption clause,please state the exemption clause in the remakes.

3、Third party test report and MSDS can not be embedded in this table,in the form of compressed package,in oeder to facilitate the audit,please use the name of the raw material as the file name of the third party report.

1 Antenna Test Environment

Antenna input characteristics test using Agilent E5071C vector network analyzer。
The antenna radiation characteristics test uses the SATIMO near-field microwave anechoic chamber. The test coordinate system is shown in Figure 3,

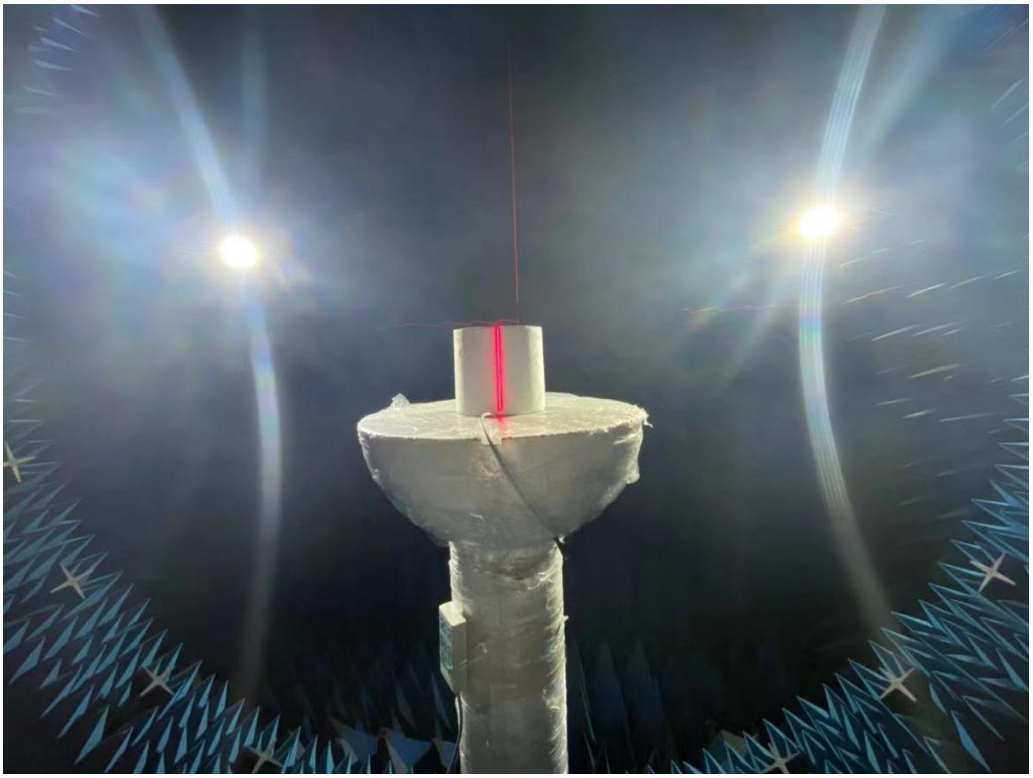


Figure 2 3D microwave anechoic chamber test environment

1.1 3-in-1 antenna active test results

WIFI	Band	SPEC				
		TRP	TIS		TRP	TIS
2.4G WIFI	11b(TRP1Mbps,TIS11Mbps)	12	-82	1	11.82	-82.47
				6	12.81	-83.25
				11	14.12	-82.58

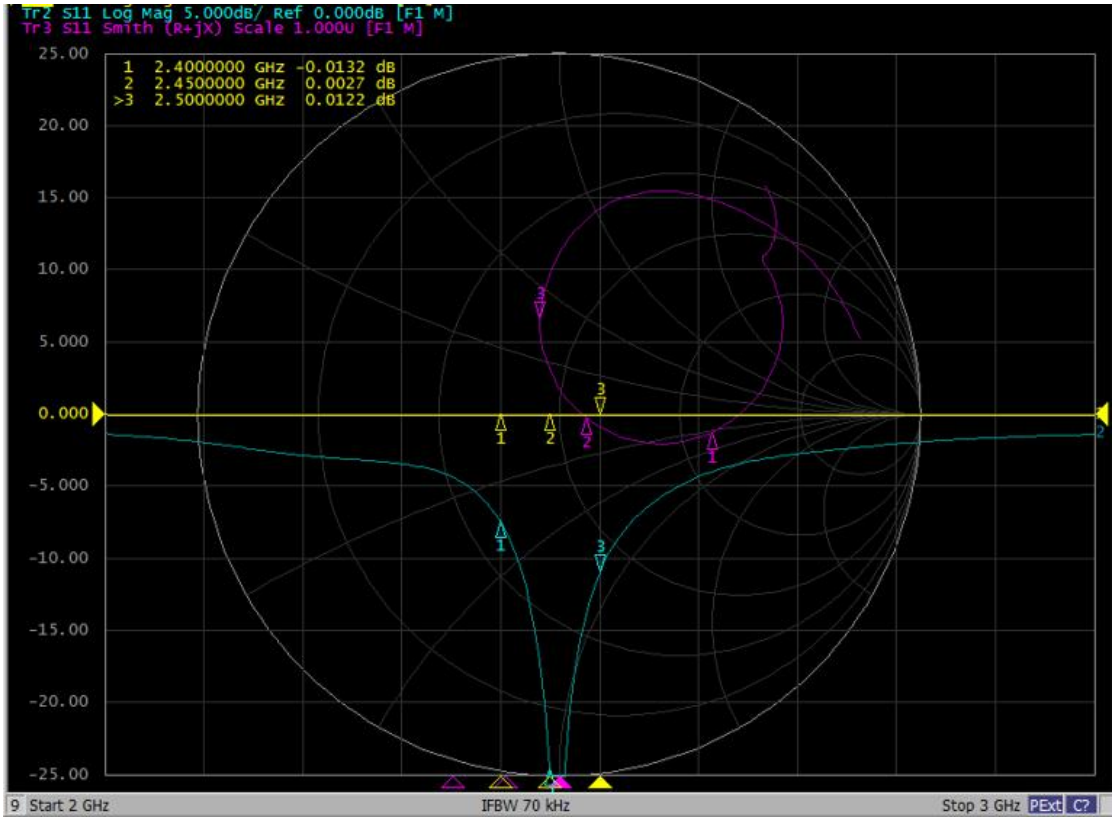
GPS TIS: -150.1

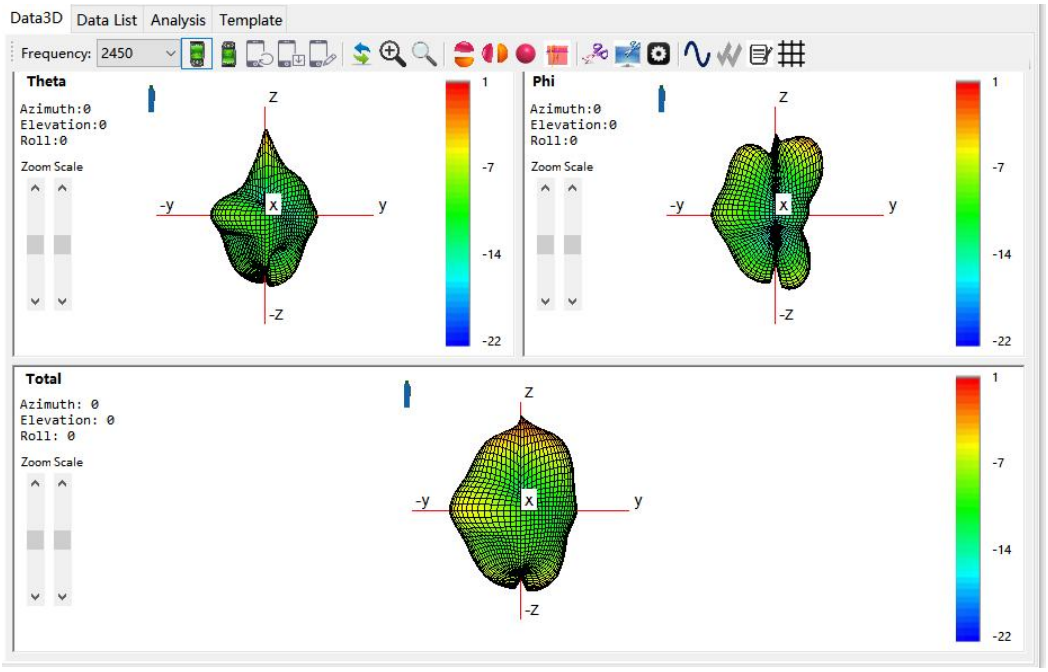
WIFI GPS Sourceless efficiency

WIFI	2.4G	-5
GPS	1575.42	-3.8

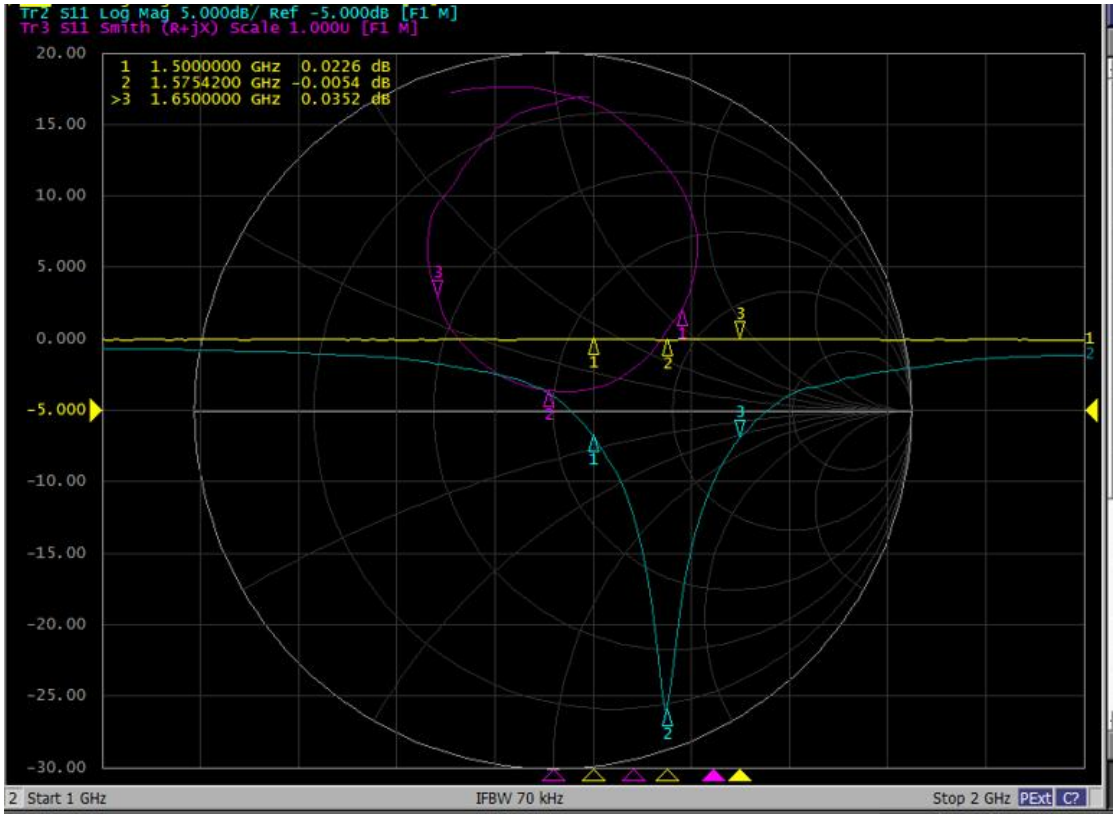
	Frequency	Antenna gain dBi
WIFI	2.4G	-4
GPS	1.575G	1

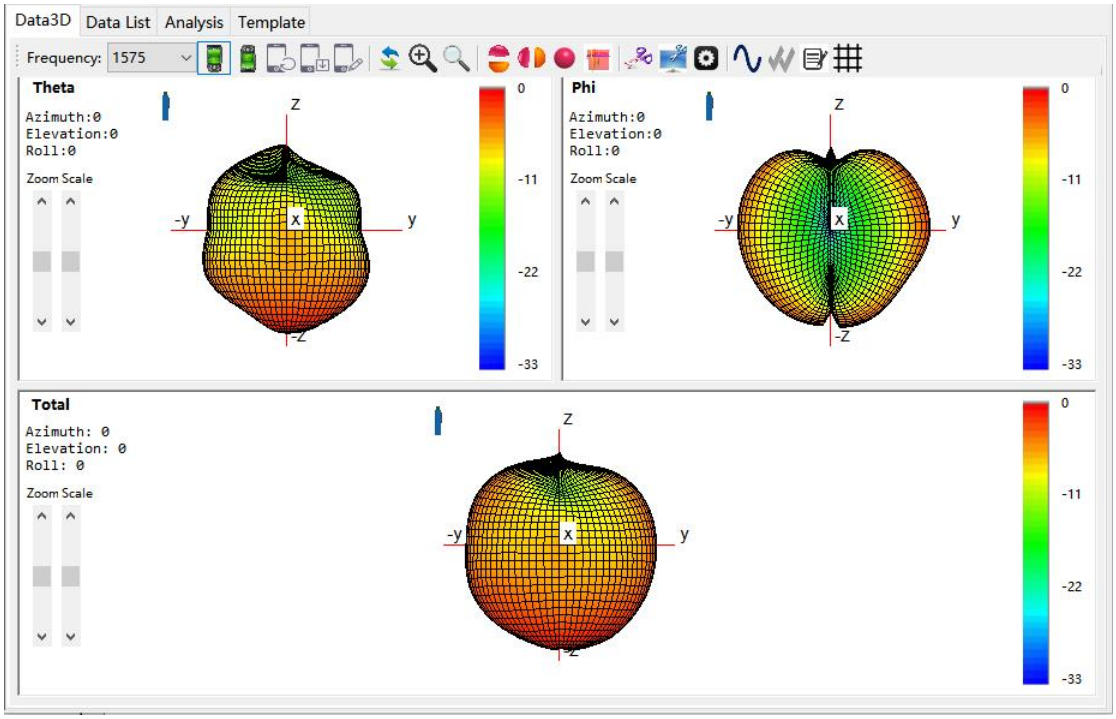
WIFI S11 Parameters and directional graph





GPS S11 Parameters and directional graph





Huizhou Speed Wireless Technology Co.,Ltd.

Reliability test report

Client	He Miao	Sample source	A	Project name	E6726BL-GPS+WIFI antenna	Finished Part number	T5-4656	Inspector	Wenrong Liang	Test date	2024/11/11

Reliability test items and requirements					Test results					Remarks
Item	Test items	Test instruments	Test conditions	Criteria for Determining	1	2	3	4	5	
1	High and low temperature storage	Constant temperature and humidity box	70℃±2℃ low temperature environment storage for 24h and then in a low temperature of －40 ℃ storage for 24h,after that place in the normal temperature environment for more than 2h to check the appearance of the product	No obvious deformation and shedding of parts, no oxidation of FPC golden finger and no FPC Defects such as warping,blistering and wrinkling; RF Pass the test as qualified	OK	OK	OK	OK	OK	
2	Constant temperature and humidity test	Constant temperature and humidity chamber	Place the product in a constant temperature and humidity chamber, with a temperature of 55 ℃± 2 ℃ and a humidity of 95% ± 3%, and store it for 48 hours. After the test, place it at room temperature for 2 hours and check the appearance of the product	The surface of the product is free of discoloration, warping, and other phenomena. The paint adhesion test is OK (≥ 3B), and passing the RF test is considered qualified	OK	OK	OK	OK	OK	
3	Salt spray test	Salt spray testing machine	Put the product in the salt spray testing machine, in a closed environment of 35 ℃± 2 ℃, with the PH value within the range of 6.5-7.2, use 5% ± 1% Nacl solution for continuous 48H saline spray, rinse the sample with clean water, and check the appearance of FPC gold finger and other hardware electroplating parts	The surface is free from defects such as rust, coating peeling, discoloration, and blistering. The FPC gold fingers are not oxidized, and the FPC is free from defects such as warping, blistering, and wrinkling; Passing the RF test is considered qualified	OK	OK	OK	OK	OK	
4	Temperature shock test	Thermal shock chamber	Place the antenna into the temperature shock test chamber; First, maintain a low temperature environment of -40 ℃± 2 ℃ for 1 hour. Within 3 minutes, switch the temperature to a high temperature environment of+70 ℃± 2 ℃ and maintain it for 1 hour, for a total of 22 cycles. After the experiment is completed, place the product at room temperature for at least 2 hours and inspect its appearance	The components have no cracks, obvious deformation, or detachment, the FPC gold fingers have no oxidation, and the FPC has no defects such as warping, bubbling, or wrinkling; Passing the RF test is considered qualified	OK	OK	OK	OK	OK	
Judgment of test results		Reliability test qualified								

Remarks: Sample sources are divided into the following five types: A, New Product Development B, 5MIE Change Product C, Mass Production Product D, Customer Provided Samples E, Competitor Products

SCT/QRF 8.4-01/A.4

Approver： Xiaoman Zhong　　Tester： Qin Liu　　Production date：2024-11-04

Packing（FPC）

General requirements:

1.Specify customer name,project name,model,

2. Illustrations of inner and outer boxes, packaging method at the time of shipment, number of layers, quantity per layer, etc.

3.Material names and quantities to be filled in the remarks column, etc.

4.Signature of quality department supervisor, date

Figure 1: Made into a version;

Figure 2: About every 40 versions is 1PE bag or splint;

Figure 3: 10PE bags/box

Figure 4: The stacking form of the packaging box

Figure 5: Outer box label.

Figure 6: Outer box shape

Product material number:	F-2A-T5-4656-000-K0	
Product name:	E6726BL-GPS+WIFI Antenna	
Product version:	S01	
Packaging method:	PE bag or splint + outer box	
Inner box	Layer number:	20
Outer box	Inner box quantity:	about20000

Remarks:

Outer box material:
A=A double pit

Mass production is based on the actual packaging quantity.

Production:Herui Chen
Date: 2024.11.11

Sprocomm Technologies CO.,LTD.

Supplier Environmental Statement

To Sprocomm Technologies CO.,LTD.(hereinafter referred to as Sprocomm):

All environmental protection products and components supplied directly or indirectly by _Huizhou Speed Wireless Technology Co., Ltd._ (including its subsidiaries and) to Hermetica comply with the environmental laws and regulations of Hermetica's products and activities, including but not limited to the following requirements, and related materials provided are true and valid. If this causes Hermetica to suffer fines, compensation, product recalls, market bans, etc., all losses and expenses (direct and indirect) will be borne by _Huizhou Speed Wireless Technology Co., Ltd._, and it is willing to bear all related responsibilities

◆EU ROHS Directive（Directive2015/863/EU　2011/65/EU 2002/95/EC　GB/T 26572）
◆EU Directive on Packaging and Packaging Waste（94/62/EC）
◆EU Directive on certain hazardous substances contained in batteries and accumulators（2006/66/EC）
◆The SHVC requirement in the REACH regulation（No 1907/2006 2009/251/EC）
◆Other EU harmful substance requirements：
◆ Lead (Pb) and Lead Compounds (Proposition 65)
◆Polycyclic aromatic hydrocarbons (PAHs)（ZEK 01.4-08）
◆ Ozone-Depleting Substances (Montreal Protocol)
◆ Conflict Minerals Requirement (H.R.4173)

Declare the full name of the company：Huizhou Speed Wireless Technology Co., Ltd.
Responsible person's signature：Shanhai
Effective date: 2023-04-20
Company seal：