

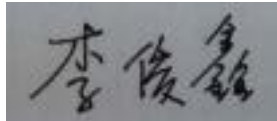
Development Case No.: SG201608190611/1

Date: August 24th, 2016

Edition: A0

Client: Guangzhou Shirui Electronic Technology Co., Ltd.

Model name: AG-011320-0679



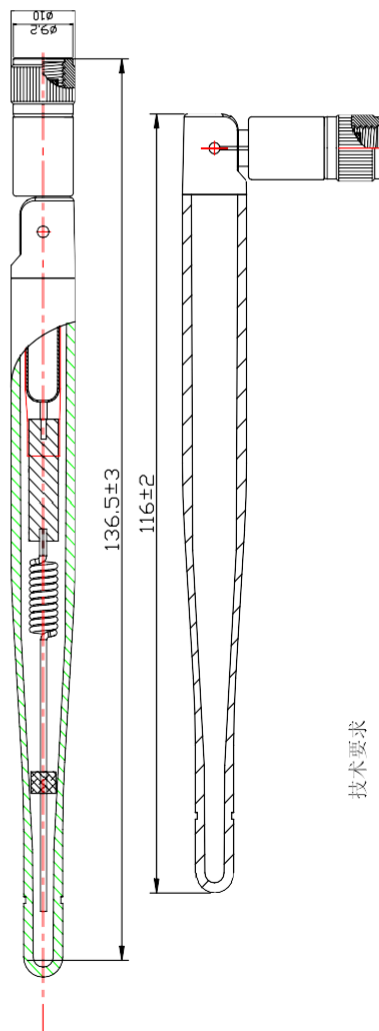
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文件编号

单位: mm

版次	修订	日期
A0	新增产品	16-08-24



技术要求

- 1: 天线所用频段为2400~2500/5150~5850MHz, 颜色为黑色。
- 2: 天线电压驻波比 $VSWR \leq 2.0$ 。
- 3: 天线可折角度为90度。
- 4: 外观要求不可有污漬。外套分胶线要对准折部分胶线。
- 5: 焊点光滑, 无短路, 无虚焊。

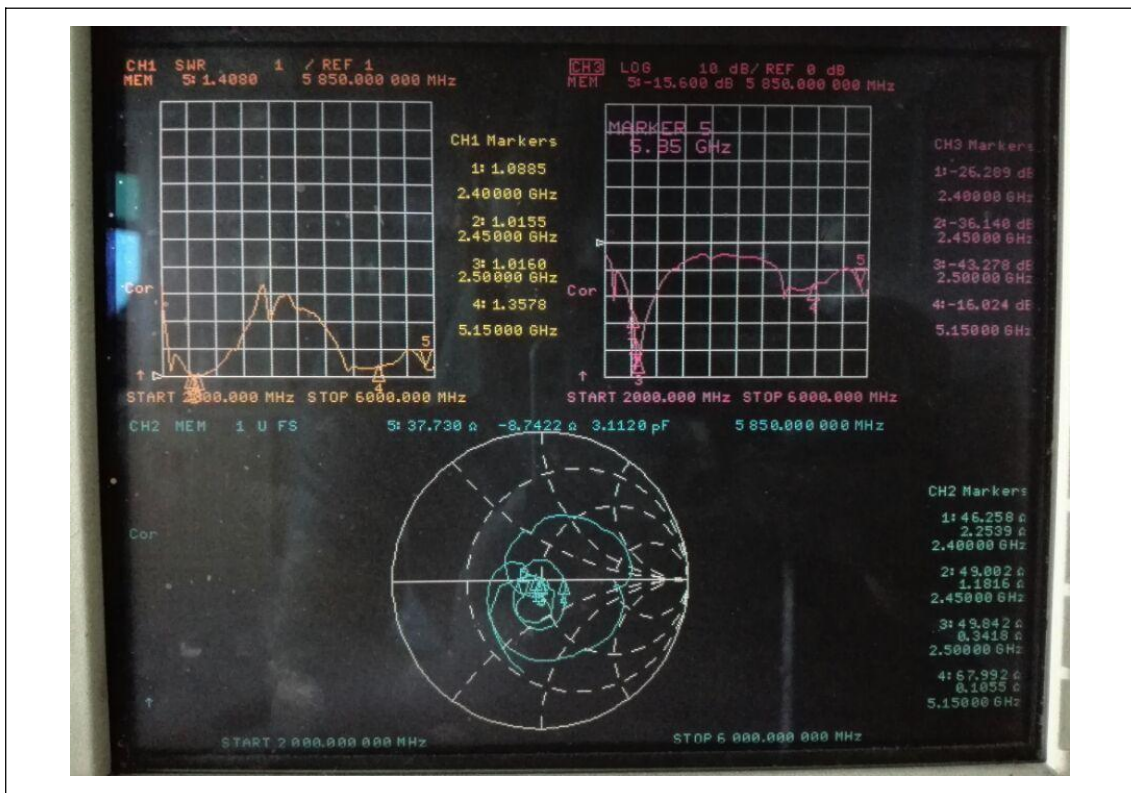
SIP									
外观				目视	按外观检验规范				
RPSMA 外径	ø10	±0.4		尺	连接器黑色				
天线总长	136.5	±3		尺	外套黑色				
VSWR	2.0	MAX		网络仪	频率为2.4~5.8GHz				
天线转动角	顺/逆	GO/NG		手折	可稳定的停在三个转动卡位				
RPSMA 拉力	0.2~1.5KG.CM	GO/NG		拉力计					
RPSMA 牙距	1/4-UNEF-2B	GO/NG		扭力	扭力RPSMA K				
接地内容	接地值	公差		测试工具	中心点需平齐				
		AQL=0.25			备注				

4. Performance parameters

Electrical parameters	
frequency range	2400~2500/5150~5850MHz
input impedance	50Ω
standing-wave ratio	≤2.0/ sample sealing of control project
increase	3.0dBi/4.5dBi
Capacity	1w
Withstand voltage test	1KV
On-off test	thoroughfare
Polarization mode	be on the perpendicular
radiation direction	omnidirection
Connector model	RPSMA-J
Mechanical parameters	
cabinet minister	136.5±3mm
Maintenance force	3KG
Insertion force	/
coaxial line	RG178 line
Salt spray test	24H
environmental parameter	
Working temperature	-30℃~65℃
Storage temperature	-30℃~75℃

5. Electrical performance test report

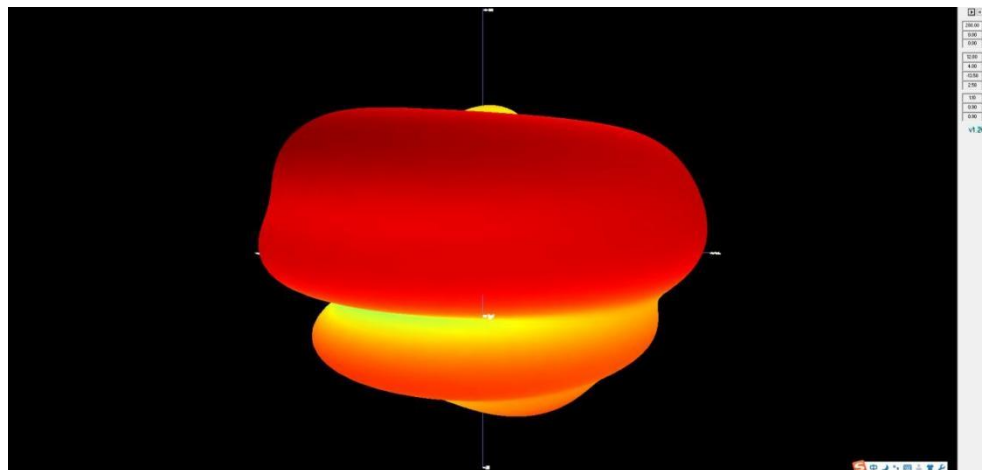
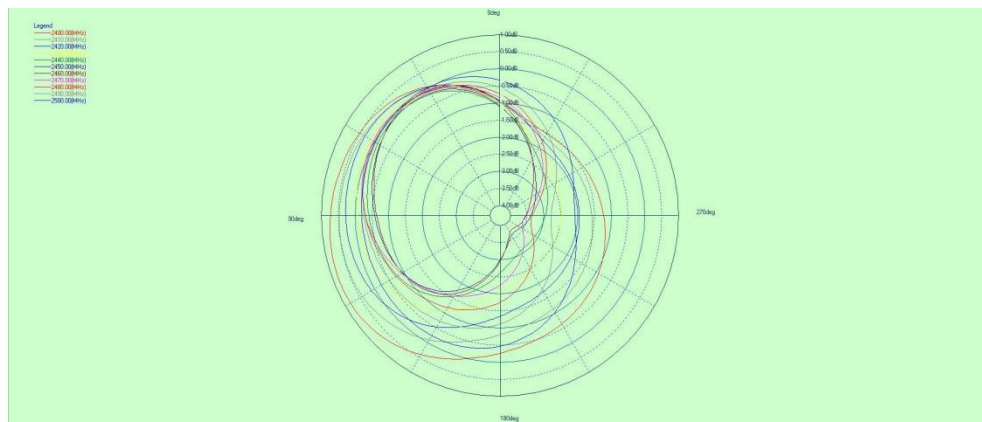
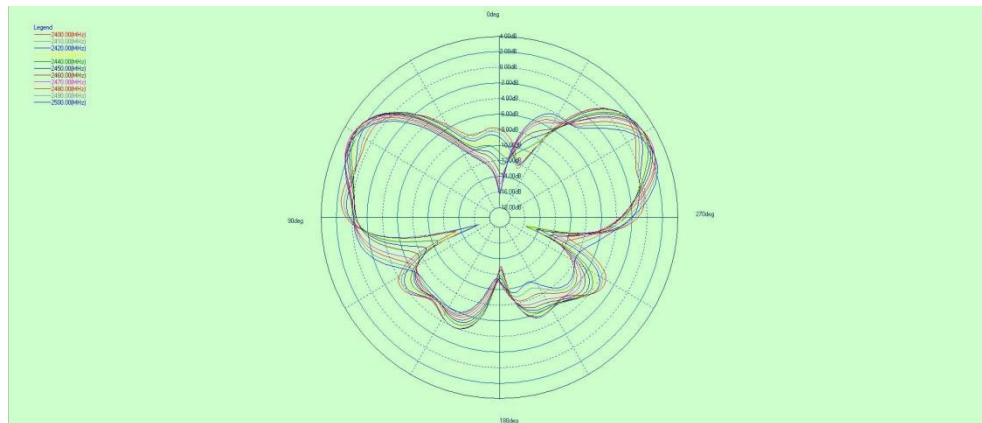
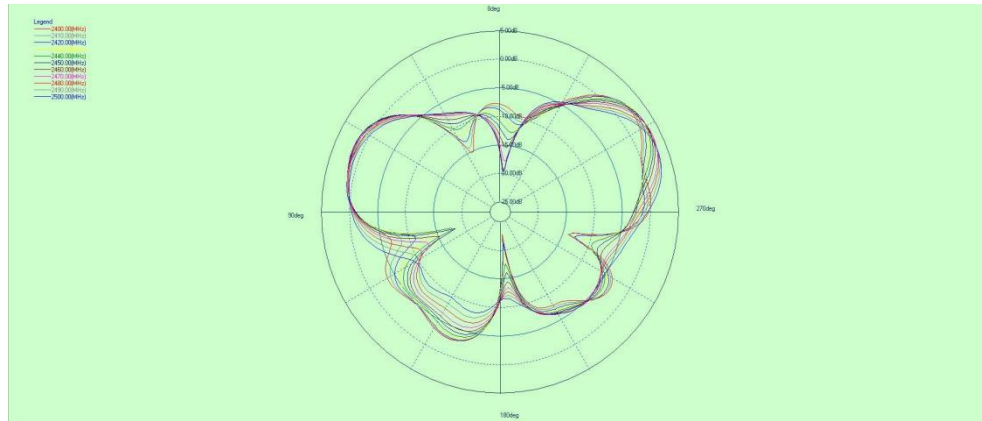
S11 Parameter

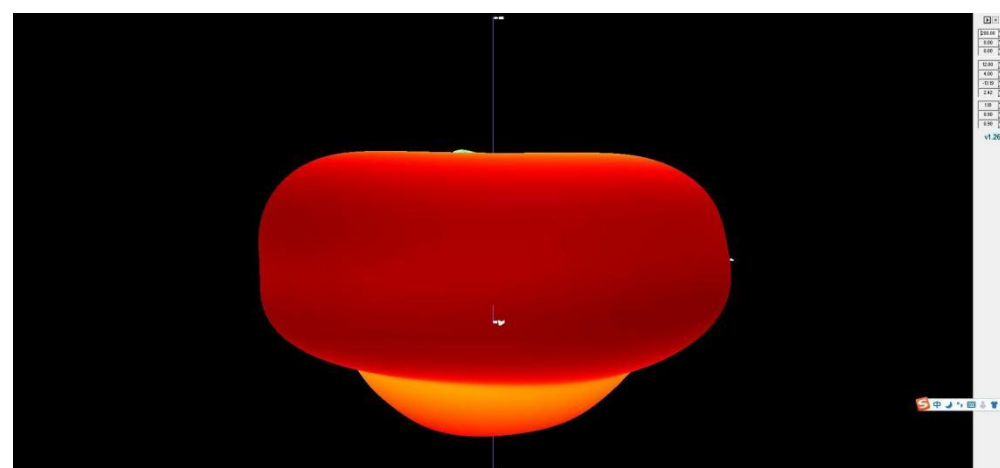
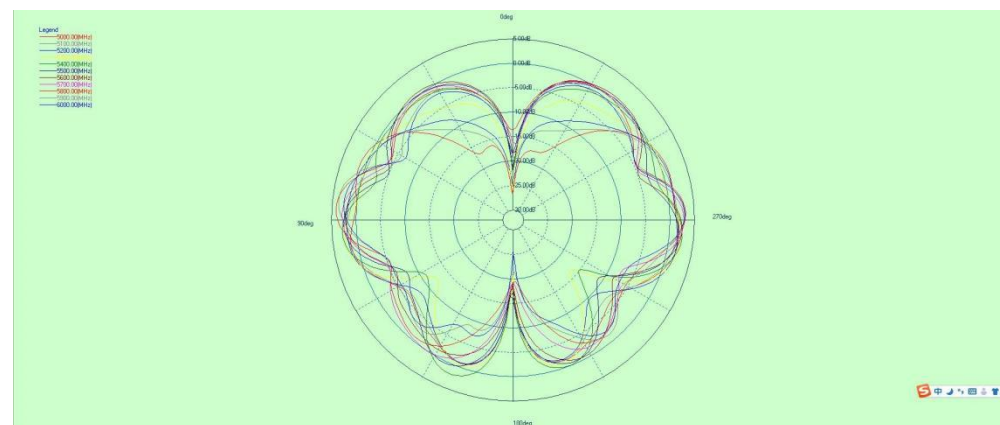


Freq/GHz	2.4	2.45	2.5	5.15	5.85
VSWR	1.09	1.02	1.02	1.36	1.41
Return loss	-26.29	-36.14	-43.28	-16.02	-15.6

Frequency(MHz)	Gain(dB)	Efficiency
2400000000	2.82	74%
2450000000	2.71	77%
2500000000	3.00	72%
5100000000	3.53	72%
5500000000	3.24	77%
5800000000	4.50	82%

2.4G





6. Reliability test report

6.1. Maintenance force

Test/test items	Maintenance force					Inspection number
Product name/specification	2.4G-5G external 3dBi black 136.5mm long foldable antenna -RPSA-J head					Test quantity: 5PCS
Date of submission: August 23rd, 2016					Completion date: August 24th, 2016	
Test/inspection equipment: 1. tensile tester						
Test/inspection conditions: 1. Temperature: 18-25°C 2. Temperature \leq 70% RH						
Test/inspection result: acceptable.						
project condition	The maintaining force between the connector and the folding part is $\geq 3\text{kgf}$.					
Test times	one	2	three	four	five	
test result	3.0	3.2	3.0	3.1	3.3	
Remarks:						
Test/inspection judgment: <input checked="" type="checkbox"/> qualified <input type="checkbox"/> unqualified <input type="checkbox"/> no judgment.						
Test: Jiang Hongying Approved: Wen Hui						

6.2. Constant temperature and humidity test

Test/test items	Constant temperature and humidity test		Inspection number	
Product name/specification	2.4G-5G external 3dBi black 136.5mm long foldable antenna -RPSA-J head		Test quantity: 5PCS	
Date of submission: August 23rd, 2016			Completion date: August 24th, 2016	
Test/inspection equipment: 1. Programmable constant temperature and humidity experiment box 2.8753ES network analyzer				
Test/inspection conditions: 1. Test at room temperature of 25°C and humidity of 65% 2.+80 85 ~ 90% RH for a cycle of 2 hours, totaling 24 hours;				
Test fruit				
Criteria: 1. The metal surface coating shall be free from peeling, cracking, wrinkling, separation, etc. Non-metallic parts should not be discolored; cracked; deformed and degummed. 2. Electrical test meets the standard requirements: voltage standing wave ratio test is qualified.				
inspection item	Before constant temperature and humidity test	After constant temperature and humidity test	Description of defects	Judgment result
exterior	No discoloration, cracking or change in appearance. Shape and degumming	No discoloration, cracking, deformation, come unglued	without	qualified
Test/inspection judgment: <input checked="" type="checkbox"/> qualified <input type="checkbox"/> unqualified <input type="checkbox"/> no judgment.				
Test: Jiang Hongying Approved: Wen Hui				

6.3. High and low temperature cold and heat shock

Test/test items	High and low temperature cold and heat shock		Inspection number	
Product name/specification	2.4G-5G external 3dBi black 136.5mm long foldable antenna -RPSA-J head		Test quantity: 5PCS	
Date of submission: August 23rd, 2016			Completion date: August 24th, 2016	
Test/inspection equipment: 1. High-low temperature alternating damp-heat box 2.8753ES network analyzer				
Test/inspection conditions: -40°C (2h)-interval of 80°C(2H), 6 cycles for 24 hours.				
T e s t f r u i t				
Criteria: 1. The metal surface coating shall be free from peeling, cracking, wrinkling, separation, etc. Non-metallic parts should not be discolored; cracked; deformed and degummed. 2. The electrical test meets the standard: the voltage standing wave ratio test is qualified.				
inspection item	Before high and low temperature cold and heat shock test	After high and low temperature cold and heat shock test	Description of defects	Judgment result
exterior	No discoloration, cracking, deformation and degumming.	No discoloration, cracking, deformation and degumming.	without	qualified
electrical	The antenna VSWR test	The antenna VSWR test	without	qualified
Test/inspection judgment: <input checked="" type="checkbox"/> qualified <input type="checkbox"/> unqualified <input type="checkbox"/> no judgment.				
Test: Jiang Hongying Approved: Wen Hui				

6.4. Salt spray test

Test/test items	Salt spray test	Inspection number
Product name/specification	2.4G-5G external 3dBi black 136.5mm long foldable antenna -RPSA-J head	Test quantity: 5PCS
Date of submission: August 23rd, 2016		Completion date: August 24th, 2016
Test/inspection equipment: 1.HL-60-SS salt spray tester		
Test/inspection conditions: 1. The temperature in the salt box is 35 2°C; The laboratory temperature is 22~30°C 2. The settling speed of salt spray is 1-2ML/h per 80cm area after 24H spraying, the concentration of sodium chloride is 50 10g/L, and the PH value is 6.5/7.2.		
Test/inspection result: acceptable.		
Sample number	opinion rating	Description of defects
one	qualified	
2	qualified	
three	qualified	
four	qualified	
five	qualified	
Test/inspection judgment: <input checked="" type="checkbox"/> qualified <input type="checkbox"/> unqualified <input type="checkbox"/> no judgment.		
Test: Jiang Hongying Approved: Wen Hui		

Product packaging specification

PACKING CRITERION

Item number:

Product specifications: 2.4G-5G external 3dBi black 136.5mm long foldable antenna -RPSA-J head

I. Labeling Requirements

The inner label is about 10cm long and 6cm wide, and the outer label is about 10cm long and 6cm wide.

demanding side	*****		
supplier	Shenzhen boantong technology co., ltd		
Purchase order no.	*****		
Material code	*****		
Product name specificati	*****	inspector	**

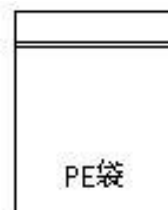
demanding side	*****		
supplier	Shenzhen boantong technology co., ltd		
Purchase order no.	*****		
Material code	*****		
Product name specificati	*****	inspector	**

II. Packing requirements.

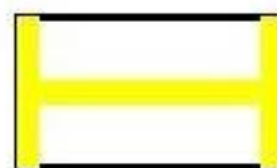
Operating instructions: 1.

Inner packaging:

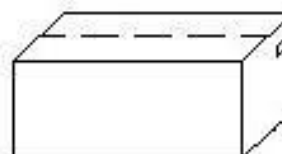
A bag of 1 PCS products, put into a small PE bag; A bag of 50 PCS products, put in a big PE bag;



2. Outer packaging:
100pcs a box



纸箱



Matters needing attention:

1. Whether to add partition board and pearl cotton;
2. Attachment of labels, such as ROHS, etc.;