



SPECIFICATION FOR APPROVAL

Customer Name	Jin lang Technology Co., Ltd		
Customer Project Name	2.4G Col lector	Surbaner Project Name	2.4G Col lector
Customer P/N	200400471	Surbaner P/N	FIEXWF01059AA
Band	2400-2483MHz		
Vers ion	A0		
Des igner Informat ion			
RF Engineer	ZhouHongl iang	EE Engineer	ZhouHongl iang
ME Engineer	ZouRongkai		

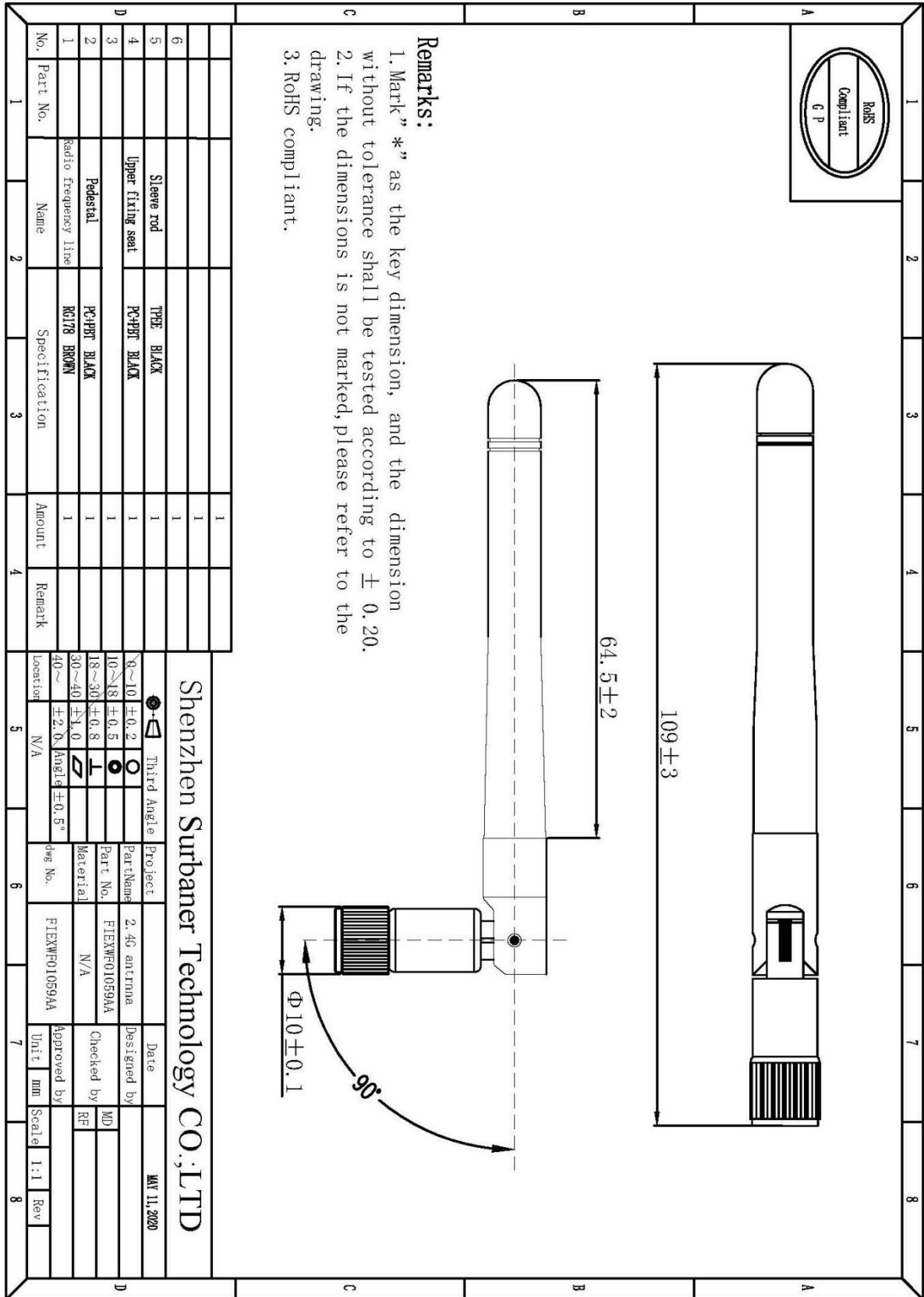
Surbaner Approval			Customer Approval		
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	LiuShengrong	ZengBinghao			
Date	May 11, 2020				

Change Log				
Vers ion	Change Descript ion	Person in Charge	Approval By	Date

Catalogue

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3、Product drawing

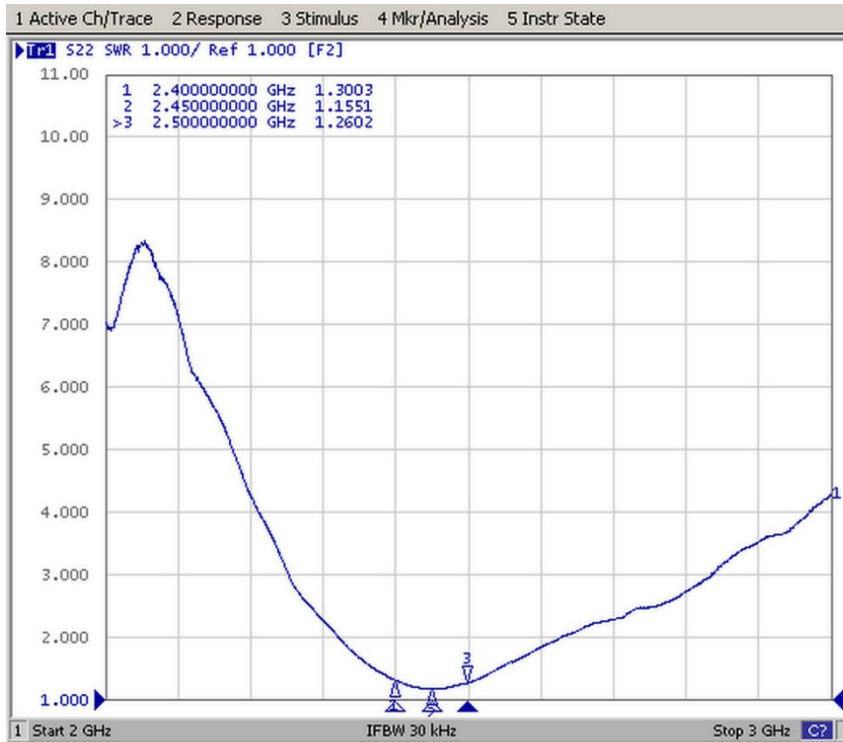


4、Table of performance parameters

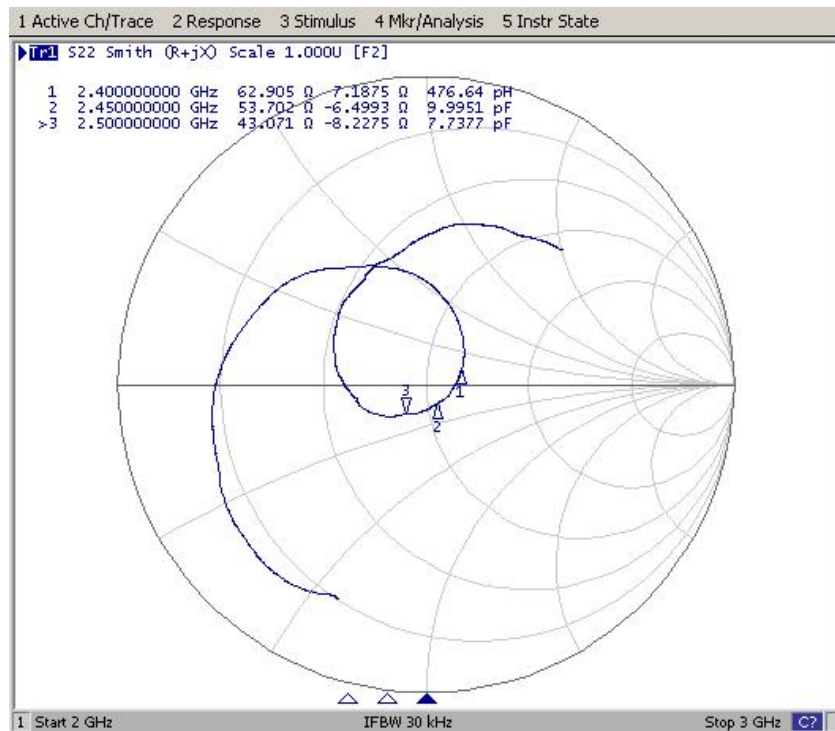
Electrical parameters	
Frequency	2400~2483 MHz
Input impedance	50 Ω
VSWR	≤2.0
Gain	2.75dBi
Power capacity	1w
Withstand voltage test	1KV
Polarization mode	vertical
Radiation direction	Omnidirectional
Connector	RP-SMA-J
Mechanical parameters	
Total length	109 ± 3mm
Maintenance	4Kg
Coaxial cable	RG178
Salt fog	24H
Environmental parameters	
Working temperature	-30 C~65 C
Storage temperature	-30 C~75 C

5、Electrical performance test report

S11 Parameter

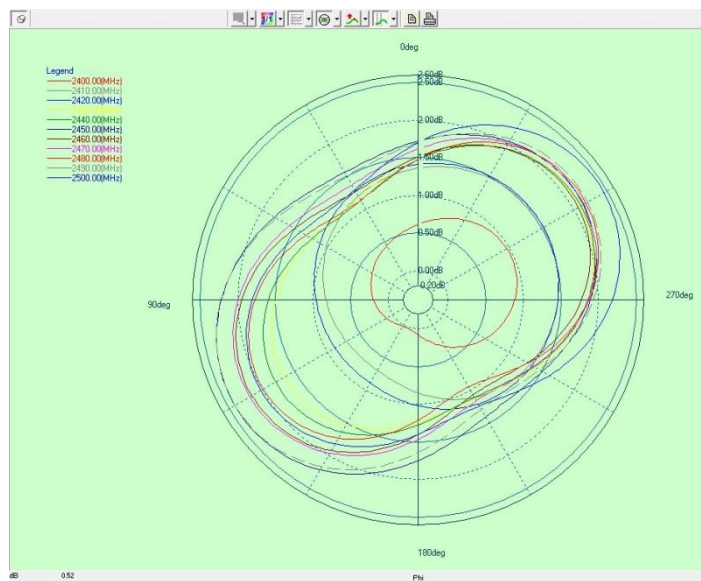
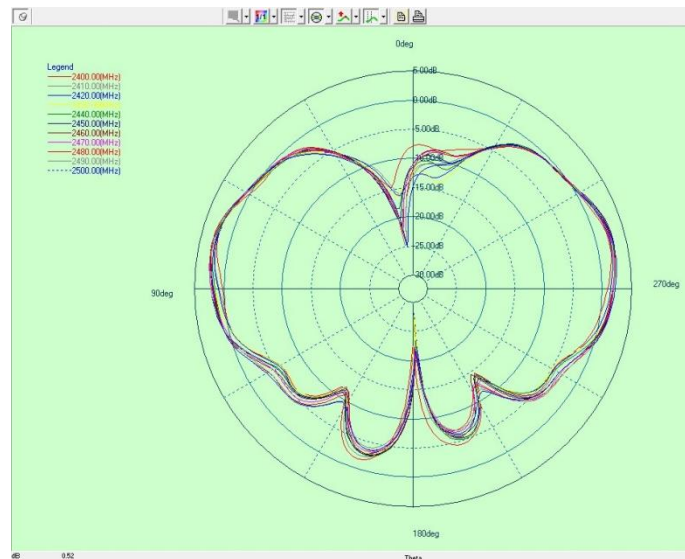
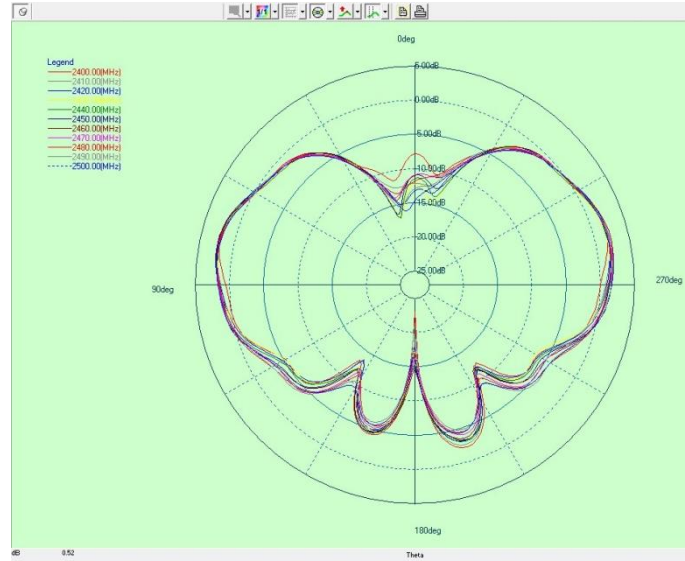


Frequency (mhz)	2400	2450	2500
VSWR	1.30	1.15	1.26



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SBR Communication has possession of proprietary information provided in this report and this proprietary information shall be kept in strict confidence and not disclosed to any person or firm without the prior written consent of SBR Communication Technology.



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6. Gain & Efficiency

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	62%	2.32
2410	62%	2.26
2420	63%	2.29
2430	65%	2.47
2440	66%	2.51
2450	68%	2.41
2460	70%	2.66
2470	69%	2.75
2480	69%	2.54
2490	67%	2.53
2500	65%	2.33

6、Reliability test report

6.1. Maintenance

Test/Test items	Maintenance					
Product name/ Specifications	2.4G antenna/Total length 8.5CM, Black SMA-J Plastic head				Number of tests: 5PCS	
Date of submission for inspection: May 11, 2020					Completion Date: May 12, 2020	
Test/Inspection equipment: 1. Tensile tester						
Test/Inspection conditions: 1. Temperature: 18-25℃ 2. Humidity ≤ 70% RH						
Test/Inspection results : Qualified						
Project condition	Maintenance force between connector and folding part ≥ 4 kgf					
Number of tests	1	2	3	4	5	
Test result	4.2	4.0	4.1	4.0	4.0	
Remarks:						
Test/Inspection results: <input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Unqualified						
Tester: PengJinqin Auditor: HeChunhui						

6. 2. Constant temperature and humidity test

Test/Test items	Constant temperature and humidity test			
Product name/ Specifications	2. 4G antenna/Total length 8. 5CM, Black SMA-J Plastic head		Number of tests:	5PCS
Date of submission for inspection: May 11, 2020			Completion Date: May 12, 2020	
Test/Inspection equipment: 1. Programmable constant temperature and humidity experimental box 2. 8753ES Network analyzer				
Test/Inspection conditions: 1. Test at normal temperature 25 ° C and humidity 65% 2. +80 ° 85 ~ 90% RH, one cycle for 2 hours, a total of 24 hours;				
<h1>Test results</h1>				
Judgment criteria: 1、The metal surface coating shall be free of peeling, crack, wrinkle, separation, etc ; Non metallic parts shall be free from discoloration, cracking, deformation, degumming and other defects; 2、The electrical test meets the standard requirements: the voltage standing wave ratio test is qualified				
Inspection items	Before constant temperature and humidity test	After constant temperature and humidity test	Defect description	Judgment result
Appearance	The appearance shall be free of discoloration, cracking, deformation and degumming	The appearance shall be free of discoloration, cracking, deformation and degumming	Nothing	Qualified
Electrical properties	The antenna voltage standing wave ratio test is qualified	The antenna voltage standing wave ratio test is qualified	Nothing	Qualified
Test/Inspection results: <input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Unqualified				
Tester: PengJinqin			Auditor: HeCHunhui	

6.3 High and low temperature cold and heat shock

Test/Test items	High and low temperature cycle			
Product name/ Specifications	2.4G antenna/Total length 8.5CM, Black SMA-J Plastic head		Number of tests: 5PCS	
Date of submission for inspection: May 11, 2020			Completion Date: May 12, 2020	
Test/Inspection equipment: 1. High and low temperature alternating damp heat box 2. 8753ES Network analyzer				
Test/Inspection conditions: -30℃ (2H) ---75℃ (2H) , 6 cycles for 24 hours				
Test results				
Judgment criteria:				
1、The metal surface coating shall be free of peeling, crack, wrinkle, separation, etc ; Non metallic parts shall be free from discoloration, cracking, deformation, degumming and other defects; 2、The electrical test meets the standard: the voltage standing wave ratio test is qualified.				
Inspection items	Before high and low temperature cold and thermal shock test	After high and low temperature cold and thermal shock test	Defect description	Judgment result
Appearance	The appearance shall be free of discoloration, cracking, deformation and degumming	The appearance shall be free of discoloration, cracking, deformation and degumming	Nothing	Qualified
Electrical properties	The antenna voltage standing wave ratio test is qualified	The antenna voltage standing wave ratio test is qualified	Nothing	Qualified
Test/Inspection results: <input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Unqualified				
Tester: PengJinqin			Auditor: HeCHunhui	

6. 4. Salt spray test

Test/Test items	Salt spray test		
Product name/ Specifications	2. 4G antenna/Total length 8. 5CM, Black SMA-J Plastic head	Number of tests: 5PCS	
Date of submission for inspection: May 11, 2020		Completion Date: May 12, 2020	
Test/Inspection equipment: 1. HL-60-SS Salt spray tester			
Test/Inspection conditions: 1. The temperature in the salt spray box is $35 \pm 2^{\circ}\text{C}$; Laboratory temperature $22 \sim 30^{\circ}\text{C}$ 2. The salt spray deposition rate of the laboratory temperature was 24H 80cm after spraying with 1-2ML/h NaCl concentration of 50 + 10g/L and pH value of 6.5/7.2			
Test/Inspection results : Qualified			
Sample number	Evaluation grade	Defect description	
1	Qualified		
2	Qualified		
3	Qualified		
4	Qualified		
5	Qualified		
Test/Inspection results: <input checked="" type="checkbox"/> Qualified <input type="checkbox"/> Unqualified			
Tester: PengJinqin		Auditor: HeCHunhui	

PAC KING CRITERION

Product item No: FIEXWF01059AA

Product specification: 2.4G antenna/Total length 8.5CM, Black SMA-J Plastic head

一、 Labeling requirements

Inner label About 10cm long and 6cm wide

Demander	*****		
Supplier	Shenzhen Surbaner Technology CO.;LTD		
Material code	*****		
Product Name	***	examination clerk	**
Quantity / unit	****	Date	**
Remarks	*****		

External label About 10cm long and 6cm wide

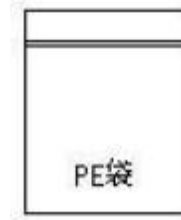
Demander	*****		
Supplier	Shenzhen Surbaner Technology CO.;LTD		
Material code	*****		
Product Name	****	examination clerk	**
Quantity / unit	****	Date	**
Remarks	*****		

二、 Encasement requirements

Job description:

1. Inner packaging:

One bag of 50 pcs;



2. Outer packaging:

2000 PCs one box



纸箱

Matters need ing attention:

1. Whether to add partition board and pearl cotton;

2. Labeling, such as RoHS, etc;

