



SPECIFICATION FOR APPROVAL

CUSTOMER (客户名称)		
CS P/N (客户机种)		
PART NAME (品名)	FPC Antenna L32.2*W11.7mm 2.4~2.5GHz&5.15~5.85GHz White1.13 Cable150MM withIPEX ROHS	
FREQUENCY (频率)	2.4~2.5GHz&5.15~5.85GHz	
RTANT NO. (物料编号)	K220-10025-A	
DATE (日期)	2019.08.08	
Manufacturer Signature 出样签章		
APPROVED BY 核准	CHECKED BY 确认	DRAWED BY 制作
HLB黄龙保	SYF宋逸锋	LYH刘云海
Remark (备注):		
Customer Signature 客户承认签章		
APPROVED BY 核准	CHECKED BY 确认	TESTED BY 检测
Sign (客户确认签字盖章): _____		

电话: 0769-85833836

传真: 0769-82582573

Http://www.rtant.com

地址: Building E, Delang Industrial Innovation Park, Shalong Road,
 Shatang Industrial Zone, Houjie Town, Dongguan City

1. Contents 项目表

No.	Content	Pages
0	Cover	1
1	Item List	2
2	Revision History	2
3	Product Picture	3
4	Specification	3
5	Electrical Test Report	4-6
6	Sample Inspection Report	7
Attachment	2D Product Picture、Package Rules	Attachment

2. Revision history 变更履历

Revision 版本	Date 日期	Change the content 变更内容
X0	19.08.08	新版 Initial Version

3. 产品实物图片Product picture



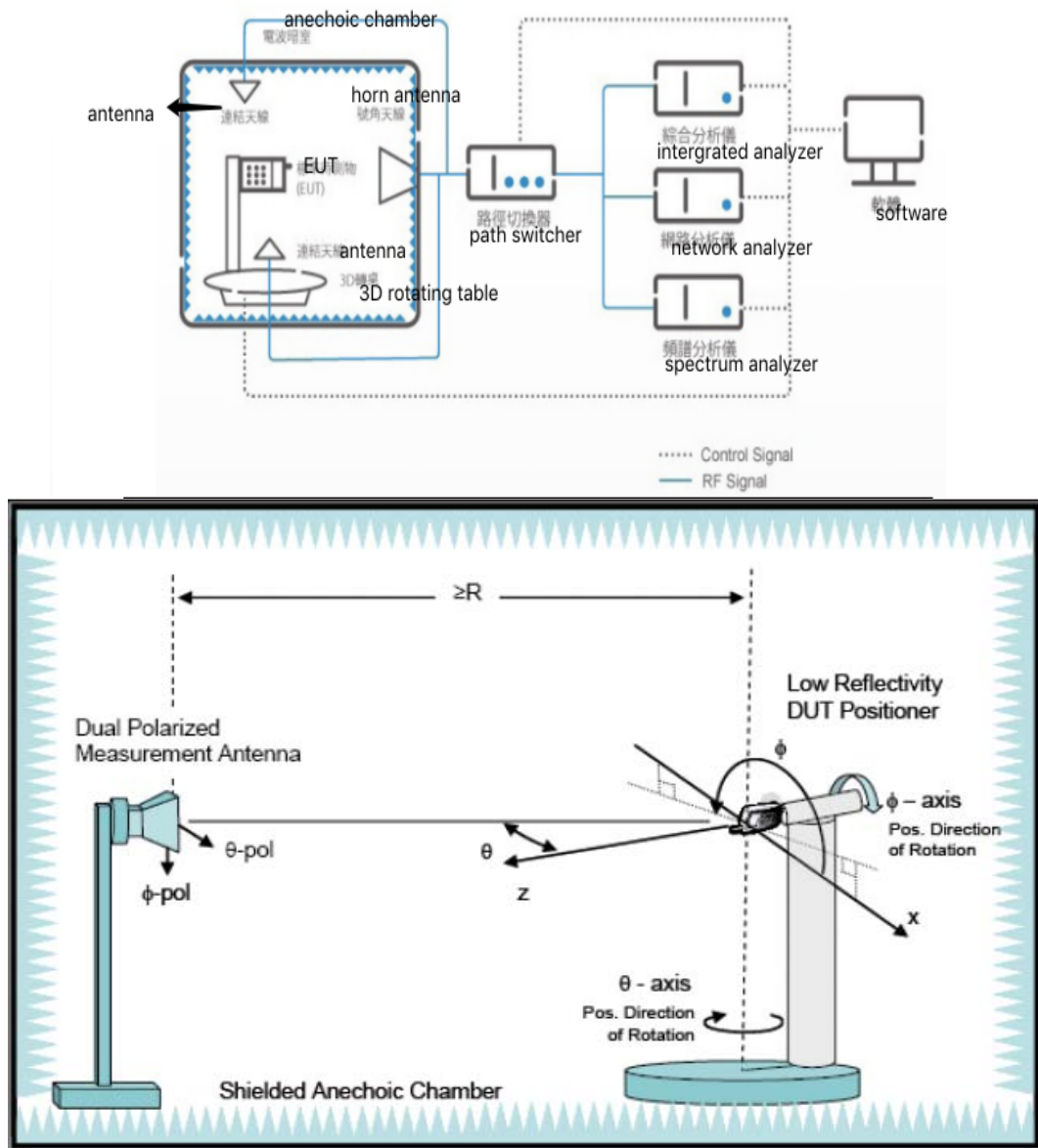
4. 规格表Specification

A. Electrical Properties	
Frequency Rang频段范围	2.4-2.5GHz&5.15-5.85GHz
Impedance特性阻抗	50 Ω Nominal
VSWR电压驻波比	2.0Max. (带机壳)
Gain(peak)增益(峰值)	2.06dBi
Efficiency效率	>40%
Out of roundness不圆度	3.0 dBi (Max.)
Radiation辐射方式	Omni-Directional/全向
Polarization极化方式	Linear Vertical/垂直
B. Physical Properties	
Connector Type连接方式	First IPEX
Cable线材	Φ 1.13mm
Antenna Radiator天线振子体	FPC
C. Environmental	
Storage Temp存储环境范围	-10 $^{\circ}$ C~+60 $^{\circ}$ C
Operating Temp工作环境	-40 $^{\circ}$ C~+65 $^{\circ}$ C
Storage humidity存储湿度	95%
Working humidity工作湿度	5%~95%

5. 电性测试报告Electrical Test Report

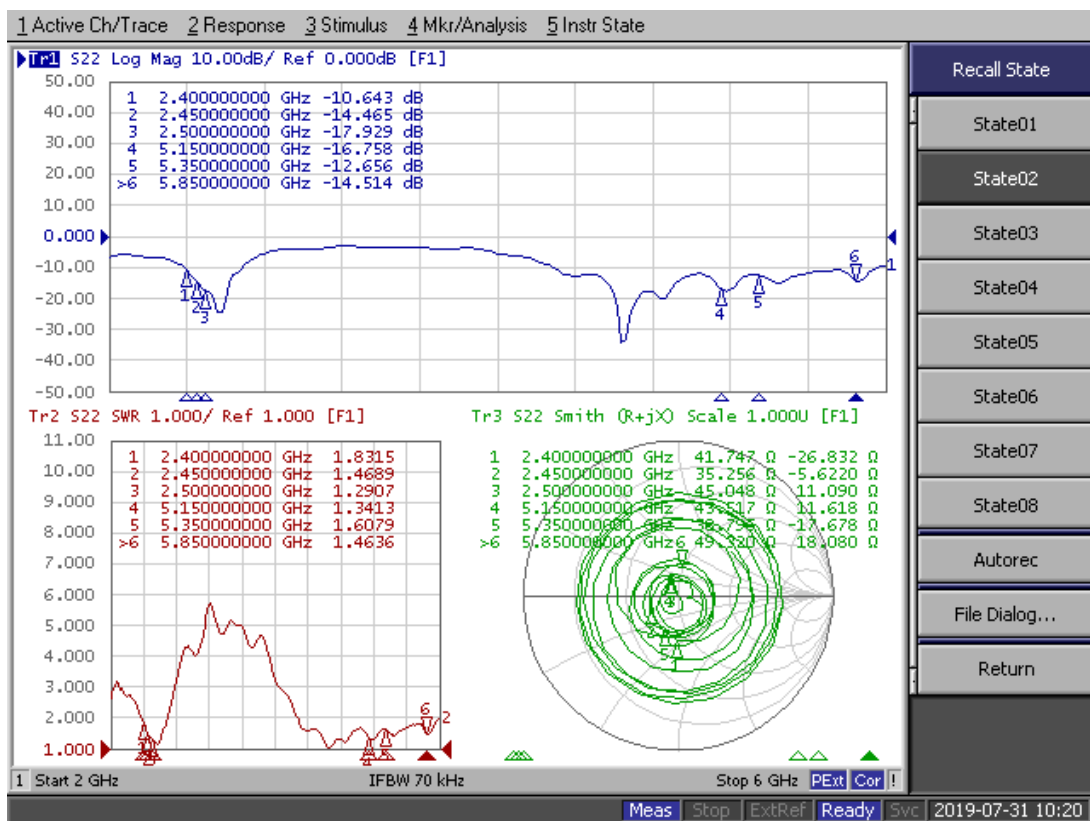
5.1 Test equipment

OTA 系統架構圖 OTA system architecture diagram

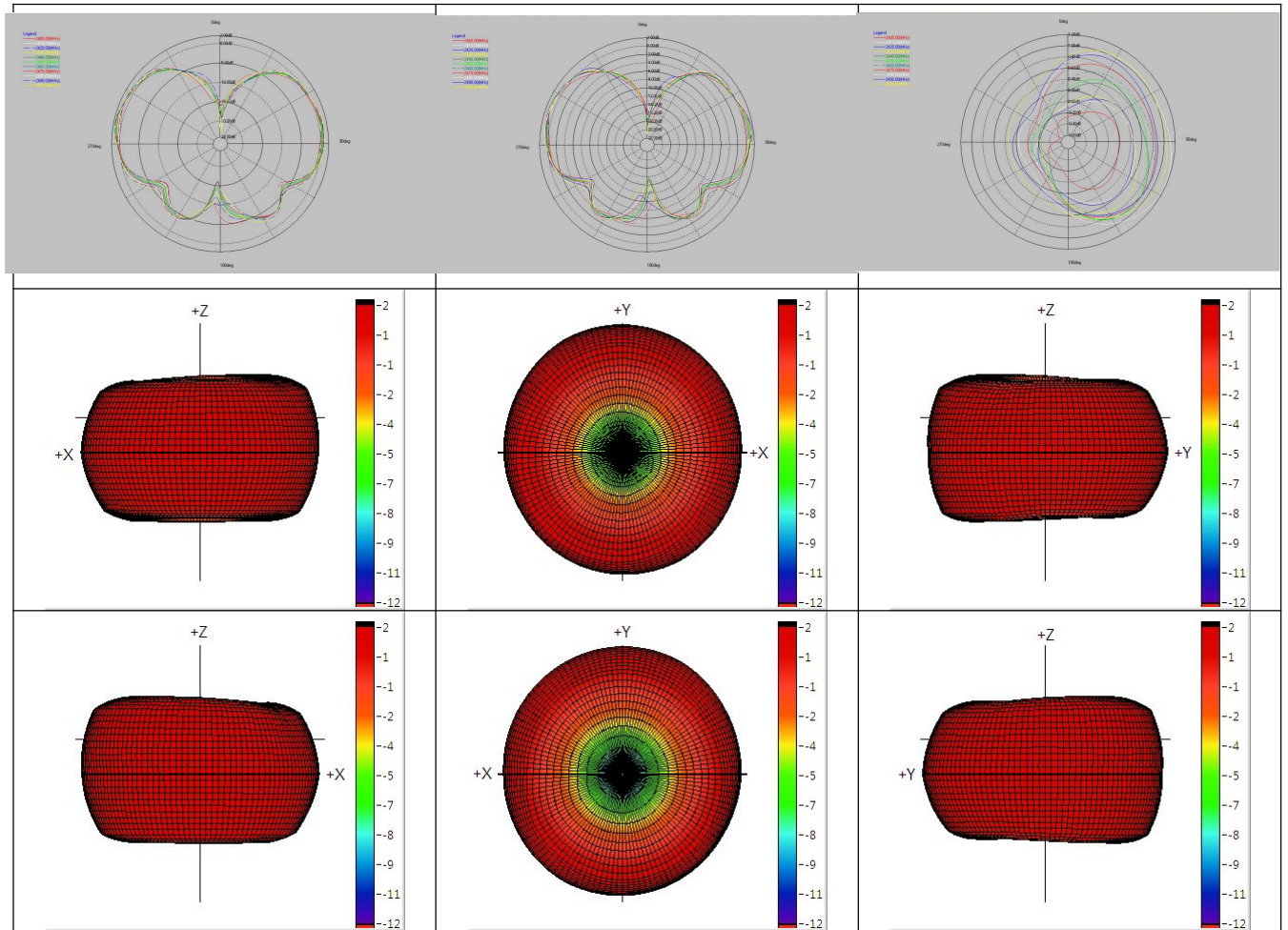


antenna

5.2 网络分析仪测试报告 Network Analyzer Test Report



5.3 暗室2D、3DRaditation Pattern



5.4 暗室无源测试数据Darkroom Passive Test Data

Frequency	频率 (Mhz)	2400	2410	2420	2430	2440	2450	2460	2470	2480
Efficiency	效率 (%)	70.54	75.31	74.92	72.6	68.52	67.09	67.62	64.99	59.18
Gain	增益 (dBi)	1.78	1.93	2.06	1.93	1.64	1.28	1.12	0.83	0.32

Frequency	频率 (Mhz)	5100	5200	5300	5400	5500	5600	5700	5800	5900
Efficiency	效率 (%)	43.57	40.18	46.56	48.55	49.81	46.99	43.95	41.88	36.64
Gain	增益 (dBi)	0.94	2.49	3.19	1.34	2.55	4.27	2.57	1.6	2.63

6. 样品检验报告 Sample inspection report

日期: 2019.08.08

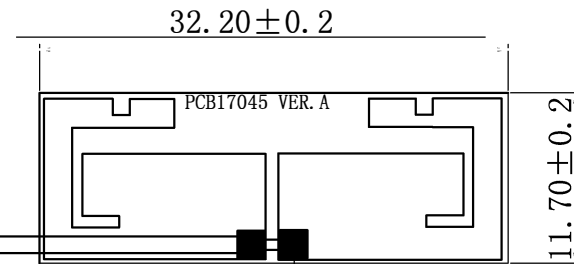
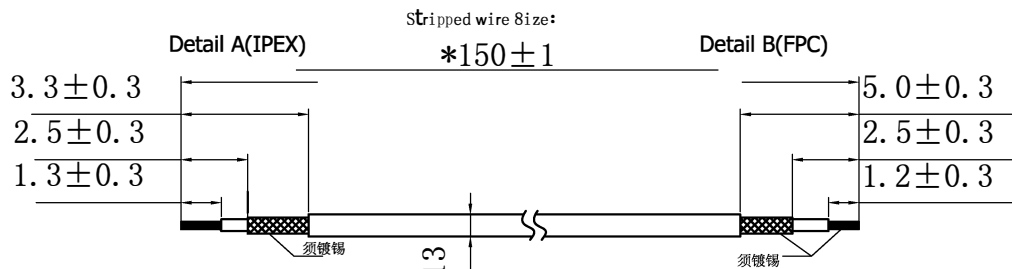
Inspection quantity		5PCS	qualified quantity		5PCS				
Item	Inspection Standards and Instructions	Test result					Determine		
		No. 1	No. 2	No. 3	No. 4	No. 5			
E x t e r i o r	Wire	Φ1.13mm No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	pass	■OK □NG
	Connector	No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	pass	■OK □NG
	PCB/FPC	No color difference, no dirt, no damage, no scratches	pass	pass	pass	pass	pass	pass	■OK □NG
	Solder	After welding, no cold welding, false	pass	pass	pass	pass	pass	pass	■OK □NG
	Immersion tin	welding, tin tip, tin bead, and missing welding are allowed							□OK □NG
	Other								□OK □NG
S I Z E	1	150±5mm	150	150	150	150	150	150	■OK □NG
E L E C T R I C A L T E S T R E P O R T	Frequency Rang	2.4-2.5G 5.15-5.85G							
	VSWR	COMPARITONM	pass	pass	pass	pass	pass	pass	■OK □NG
C H R A C T E R	cable and assembly tension	>1.0kg	1.73	1.63	1.80	1.77	1.58		■OK □NG
Final judgment		■ qualified	unqualified		condition permit				

check: zcc

inspect: LJJ

RoHS

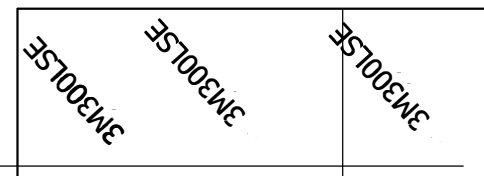
SIGN	DATE	DESCRIPTION	APPROVER
X0	19.08.01	New drawing	JOHN.LIU



The IPEX direction is shown in the picture!

150 ± 3

- NOTE:
1. With "*" is the key control size;
 2. electrical test:
 Frequency Rang: 2.4-2.5GHz
 5.15-5.85GHz
 3. VSWR: 2.0 MAX (With case) Gain (Peak): 2.0dBi
 4. working environment: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$;
 5. Environmental requirements:
 RoHS 2.0; IPEX direction:
 $100\text{mm} \pm 90^{\circ}$ degrees;
 $200\text{mm} \pm 135^{\circ}$ degrees;
 No control over 200mm;



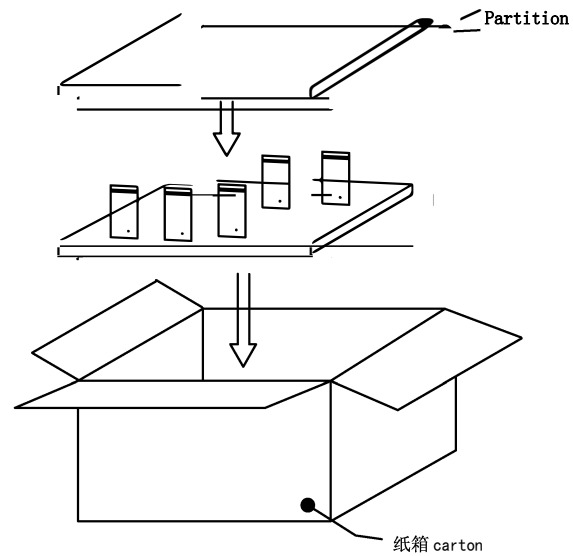
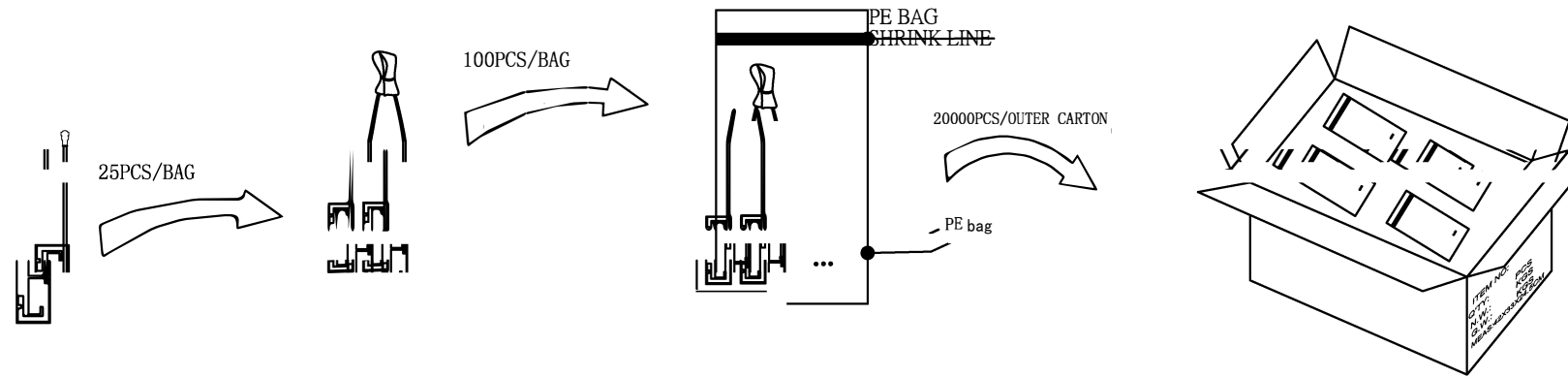
Electrolytic copper



3	Q20-160003-A	IPEX CONN#	copper	gilded	1
2	---	$\Phi 1.13\text{mm}$ CABLE	tinned copper	50 ohm white	1
1	Q70-020003-A	FPC	Electrolytic copper	OSP Black PCB17045	1
No.	Part Number	Name	Material	Describe	Q' ty

TITLE:	Internal FPC Antenna	RTANT COMMUNICATIONS CO.,LTD 东莞市安特通信有限公司 Http://www.rtant.com E-mail:dragon@rtant.com Tel:0769-85833836 Fax:0769-82582573	APPROVED CHECKED DRAWN JOHN 19.08.01	6		
P/N:	ZYCZ					
CUSTOMER:	ofeixin technology					
DRAW NO:	K220-10025-A					
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED		SHEET: 1/1 SCALE: NONE UNIT: mm REV.X0	APPROVED CHECKED DRAWN JOHN 19.08.01	6		
TOLERANCE	XXX				± 0.1	XX.45
	XX				± 0.5	
	X				± 1.0	
	x	± 3.0				

RoHS

SIGN	DATE	DESCRIPTION	APPROVER
X0	19.08.01	New drawing	JOHN.LIU



TITLE:	Internal FPC Antenna	 RTANT COMMUNICATIONS CO.,LTD 东莞市安特通信有限公司	Tel: 0769-85833836 Fax: 0769-87582573																
P/N:	ZYCZ																		
CUSTOMER:	ofeixin technology	RTANT <small>Http://www.rtant.com</small> <small>mail:dragon@rtant.com</small>																	
DRAW NO:	K220-10025-A	 APPROVED																	
DIMENSIONS TOLERANCES UNLESS OTHERWISE NOTED		SHEET: 1/1 SCALE: NONE CHECKED																	
一般公差 TOLERANCE		<table border="1"> <tr> <td>XXX</td> <td>±0.1</td> <td>XX</td> <td>±5</td> </tr> <tr> <td>XX</td> <td>±0.5</td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>±1.0</td> <td></td> <td></td> </tr> <tr> <td>x</td> <td>±3.0</td> <td></td> <td></td> </tr> </table>	XXX	±0.1	XX	±5	XX	±0.5			X	±1.0			x	±3.0			UNIT: mm REV.X0 DRAWED
XXX	±0.1	XX	±5																
XX	±0.5																		
X	±1.0																		
x	±3.0																		