

SPECIFICATION

Shenzhen Strongpower Communication Co., Ltd

ShenzhenStrongpowerCommunicationCo.

SPECIFICATION

Customer	Shenzhen new core electronics Co., LTD	Frequency Band	2402MHz-2480MHz
Model	OTW-324		
Serial No	RQ03B143701B-BT	Color	True Colors
RF designer	Zou Lijun	Structural engineer	Zhou Jun
Technical director	Fu Yicheng	Date	2025/3/21

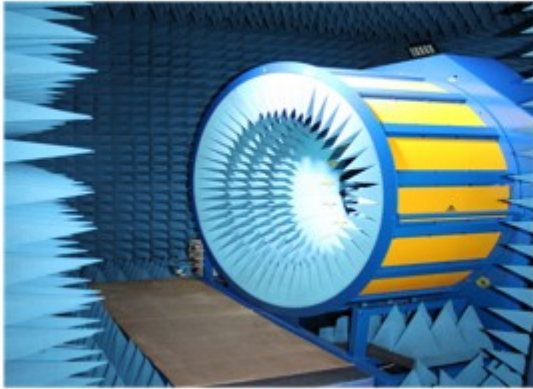
Confirm by customer:

INDEXES

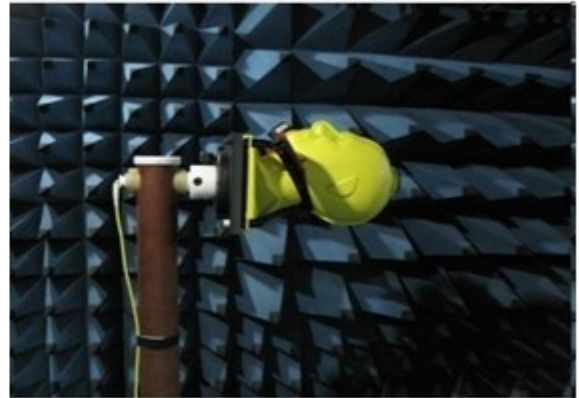
1. The equipment of Active&Passive test.....	3-4
2. Passive test..	5-6
2.1 S Parameters..	5
2.2 Passive Efficiency and Gain	5
2.3 Passive pattern.....	6
3.Active test..	6
3.1 TRP&TIS test.....	6-7
4.Matching Circuit.....	7
5.Engineering drawing	8

1. The Equipment of Active&Passive Test

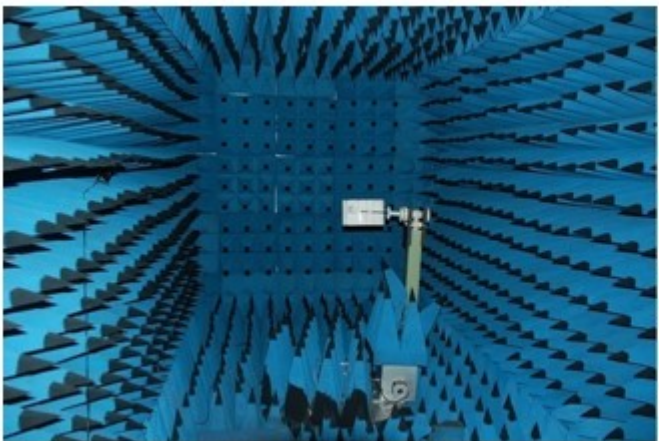
chamber



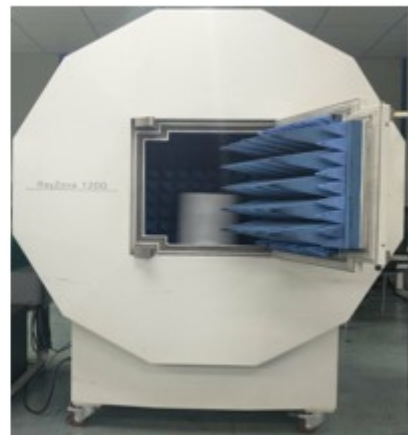
Satimo



Airlink

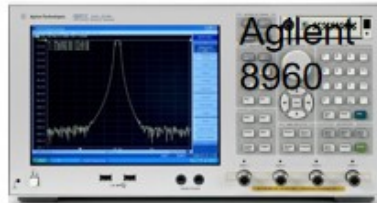


Guang Ping



GTS

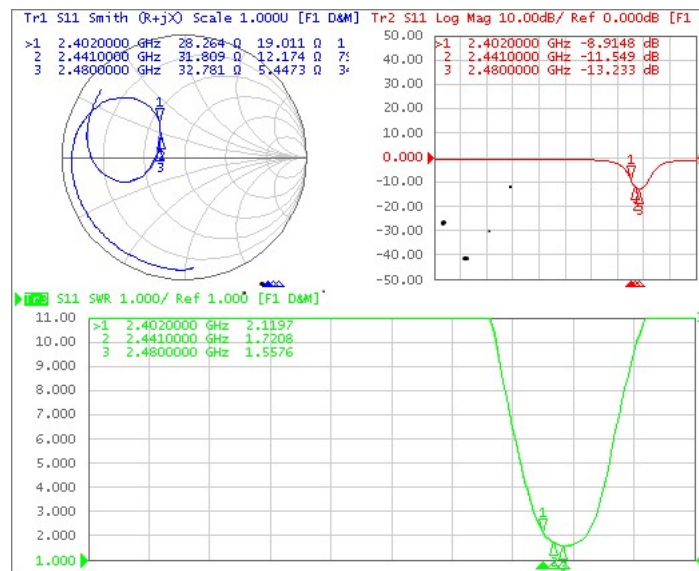
equipment



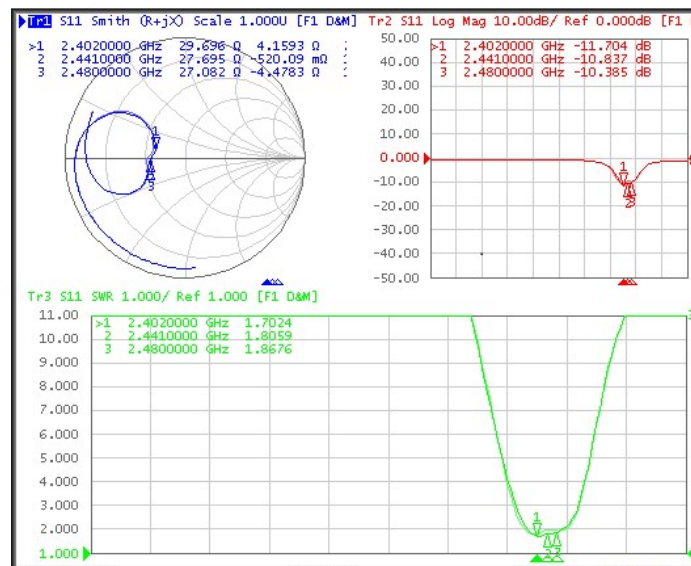
2. Passive Test

2.1 S Parameters, VSWR, Smith Chart

R: S11 Parameter (free space)



L: S11 Parameter (free space)



2.2 Passive Efficiency and Gain

L: Efficiency and Gain(free space)

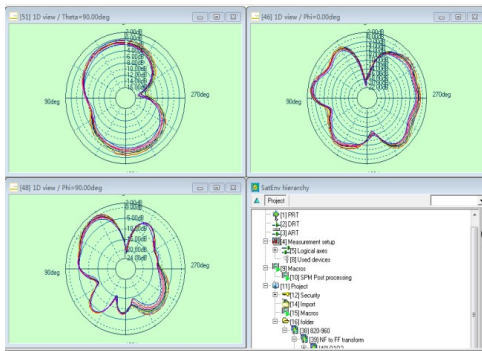
frequency (MHz)	Efficiency %	Gain dBi
2400	50%	1.06
2410	49%	1.15
2420	46%	0.8
2430	46%	0.64
2440	43%	0.26
2450	41%	0.36
2460	39%	0.31
2470	37%	0.25
2480	35%	0.29

R: Efficiency and Gain(free space)

frequency (MHz)	Efficiency %	Gain dBi
2400	48%	0.89
2410	50%	1.12
2420	48%	0.98
2430	50%	1.16
2440	48%	1.03
2450	48%	1.04
2460	46%	0.70
2470	44%	0.49
2480	42%	0.45

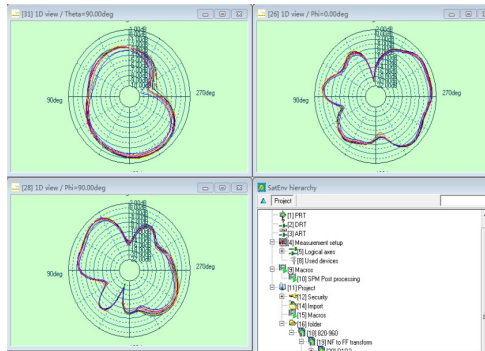
2.3 Passive pattern

L



Theta=90 Phi=0° Phi=90°

R



Theta=90 Phi=0° Phi=90°

3.Active test

3.1 TRP&TIS

FS-R

信道 CH	TRP (dBm)	TIS (dBm)
0	2.39	-88.36
39	7.65	-90.62
78	9.05	-90.1

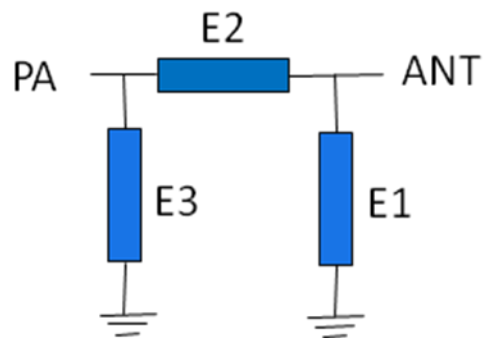
FS-L

信道 CH	TRP (dBm)	TIS (dBm)
0	7.28	-89.75
39	7.84	-89.65
78	5.53	-89.81

4. Matching Circuit

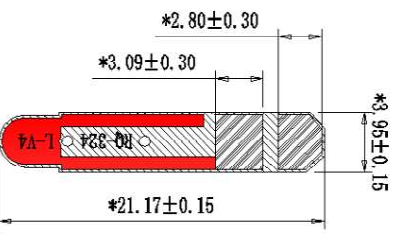
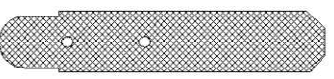
Left&Right are the same

Element	E1	E2	E3
Value	2PF	0 Ω	NC

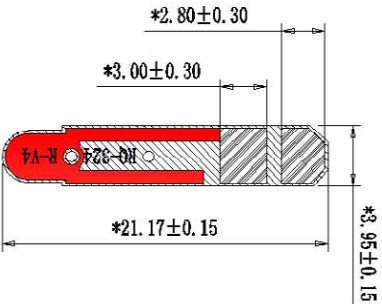


5. Engineering drawing

(see next page)

1	2	3	4	5	6	7	8																																																																																										
Black matte ink for bright white fonts PE film board half-cut shipment																																																																																																	
																																																																																																	
																																																																																																	
NOTES: 1. Red for copper; blank for substrate; yellow for gold plating; blue for back glue; 2. The die must not damage the line, and the gilded area must be communicated with the line. 3. No dirt, scratches, black spots, break and fall off after gold plating on the surface. 4. Materials: FPC single panel [PI (B)] one-to-one substrate + adhesive (3M 94710.06 mm) + surface, black ink (U Li) (& GT; 0.01 mm)] ; 5. Back Glue 3M 9471; 6. The gold finger was plated with gold (thickness: 0.5 U"-1.5 U") , without oxidation (salt spray test was needed) , no corrosion point and coating shedding occurred after 48 ± 1 hour salt spray test. 7. Marked * is the key dimension. Please check the tolerance according to Class B tolerance if not marked.																																																																																																	
<table><tr><td colspan="2">0~10</td><td>±0.10</td><td>○</td><td>0.02</td><td>机 种</td><td>0PW-324</td><td>日期</td><td>2025.03.21</td></tr><tr><td colspan="2">10~20</td><td>±0.12</td><td>◎</td><td>0.03</td><td>品 名</td><td>L-EI-FPC-V1.0</td><td>设计</td><td></td></tr><tr><td colspan="2">20~40</td><td>±0.15</td><td>⊥</td><td>0.02</td><td>料 号</td><td></td><td>审核</td><td>结构</td></tr><tr><td colspan="2">40~50</td><td>±0.20</td><td>∇</td><td>0.04</td><td>材 质</td><td>PI</td><td>审核</td><td>耐 磨</td></tr><tr><td colspan="2"></td><td></td><td>∇</td><td>0.02</td><td>表面处理</td><td></td><td>确认</td><td></td></tr><tr><td colspan="2">位置</td><td>B</td><td></td><td></td><td>外观处理</td><td></td><td>单位</td><td>mm</td></tr><tr><td colspan="2">5</td><td></td><td></td><td></td><td>6</td><td></td><td>7</td><td>比例</td></tr><tr><td colspan="2"></td><td></td><td></td><td></td><td></td><td></td><td></td><td>FTT</td></tr><tr><td colspan="2"></td><td></td><td></td><td></td><td></td><td></td><td></td><td>版本</td></tr><tr><td colspan="2"></td><td></td><td></td><td></td><td></td><td></td><td></td><td>V1</td></tr></table>								0~10		±0.10	○	0.02	机 种	0PW-324	日期	2025.03.21	10~20		±0.12	◎	0.03	品 名	L-EI-FPC-V1.0	设计		20~40		±0.15	⊥	0.02	料 号		审核	结构	40~50		±0.20	∇	0.04	材 质	PI	审核	耐 磨				∇	0.02	表面处理		确认		位置		B			外观处理		单位	mm	5					6		7	比例									FTT									版本									V1
0~10		±0.10	○	0.02	机 种	0PW-324	日期	2025.03.21																																																																																									
10~20		±0.12	◎	0.03	品 名	L-EI-FPC-V1.0	设计																																																																																										
20~40		±0.15	⊥	0.02	料 号		审核	结构																																																																																									
40~50		±0.20	∇	0.04	材 质	PI	审核	耐 磨																																																																																									
			∇	0.02	表面处理		确认																																																																																										
位置		B			外观处理		单位	mm																																																																																									
5					6		7	比例																																																																																									
								FTT																																																																																									
								版本																																																																																									
								V1																																																																																									
ShenzhenStrongpowerCommunicationCo.																																																																																																	
PF PA																																																																																																	

日期	修改内容	版本	修订
1	2	3	4

1	2	3	4	5	6	7	8																																																																																								
Black matte ink for bright white fonts PE film board half-cut shipment																																																																																															
																																																																																															
																																																																																															
NOTES: - Red for copper; blank for substrate; yellow for gold plating; blue for back glue; - The die must not damage the line, and the filled area must be communicated with the line. - No dirt, scratches, black spots, break and fall off after gold plating on the surface. - Materials: FPC single panel [PI (BD) one-to-one substrate + adhesive (3M 9471/0.05 mm) + surface, black ink (U Li) (& GT; 0.01 mm)] ; - Back Glue 3M 9471; - The gold finger was plated with gold (thickness: 0.5 U"-1.5 U") , without oxidation (salt spray test was needed) , no corrosion point and coating shedding occurred after 48 ± 1 hour salt spray test. - Marked * is the key dimension. Please check the tolerance according to Class B tolerance if not marked.																																																																																															
<table><tr><td colspan="2">RF PA</td><td colspan="2">ShenzhenStrongpowerCommunicationCo.</td></tr><tr><td>0~10</td><td>±0.10</td><td>0.02</td><td>机种</td><td>OTW-324</td><td>日期</td><td>2025.03.21</td></tr><tr><td>10~20</td><td>±0.12</td><td>0.03</td><td>品名</td><td>R-BT-FPC-V1.0</td><td>设计</td><td></td></tr><tr><td>20~40</td><td>±0.15</td><td>0.02</td><td>料号</td><td></td><td>审核</td><td></td></tr><tr><td>40~50</td><td>±0.20</td><td>0.04</td><td>材质</td><td>PI</td><td>结构</td><td></td></tr><tr><td></td><td></td><td>0.02</td><td>表面处理</td><td></td><td>射頻</td><td></td></tr><tr><td></td><td></td><td></td><td>外观处理</td><td></td><td>确认</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>单位</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>mm</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>比例</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>FIT</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>版本</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>V1</td><td></td></tr></table>								RF PA		ShenzhenStrongpowerCommunicationCo.		0~10	±0.10	0.02	机种	OTW-324	日期	2025.03.21	10~20	±0.12	0.03	品名	R-BT-FPC-V1.0	设计		20~40	±0.15	0.02	料号		审核		40~50	±0.20	0.04	材质	PI	结构				0.02	表面处理		射頻					外观处理		确认							单位							mm							比例							FIT							版本							V1	
RF PA		ShenzhenStrongpowerCommunicationCo.																																																																																													
0~10	±0.10	0.02	机种	OTW-324	日期	2025.03.21																																																																																									
10~20	±0.12	0.03	品名	R-BT-FPC-V1.0	设计																																																																																										
20~40	±0.15	0.02	料号		审核																																																																																										
40~50	±0.20	0.04	材质	PI	结构																																																																																										
		0.02	表面处理		射頻																																																																																										
			外观处理		确认																																																																																										
					单位																																																																																										
					mm																																																																																										
					比例																																																																																										
					FIT																																																																																										
					版本																																																																																										
					V1																																																																																										
<table><tr><td>日期</td><td>修改内容</td><td>版本</td><td>修订</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>5</td><td>6</td><td>7</td><td>8</td></tr></table>								日期	修改内容	版本	修订	1	2	3	4	5	6	7	8																																																																												
日期	修改内容	版本	修订																																																																																												
1	2	3	4																																																																																												
5	6	7	8																																																																																												