

客户 Customer: \_\_\_\_\_

日期 DATE: \_\_\_\_\_

# 纳入仕様书 SPECIFICATION

产品名称 PRODUCT NAME: 声表双工器

SAW Duplexer

贵司料号 YOUR PART NO.:

敝司料号 OUR PART NO.: MS18U897M-DU08C

版本号 VERSION.: V1.4

接受 RECEPTION

THE SPECIFICATION HAS BEEN ACCEPTED.

该纳入仕様书已被我司接受

日期:

DATE:

公司:  
COMPANY:

批准  
CFMD

审核  
CHKD

接收  
RCVD

深圳市麦捷微电子科技股份有限公司  
SHENZHEN MICROGATE TECHNOLOGY CO., LTD  
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CFMD. 批准	CHKD. 审核	DSGD. 担当
姚艳龙	赖定权	吴继航

## 纳入仕様书改定履历

### MODIFY HISTORY OF SPECIFICATION

NO.	修改日期/DATE	修改内容/CONTENT	批准/APPROVED
1.0	2016.08.16	初稿 /New Released	梁启新
1.1	2018.10.10	版本升级/Version Upgrade	姚艳龙
1.2	2018.12.16	版本升级/Version Upgrade	姚艳龙
1.3	2019.05.08	版本升级/Version Upgrade	姚艳龙
1.4	2020.01.02	版本升级/Version Upgrade	赖定权

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## 1 适用范围 Scope

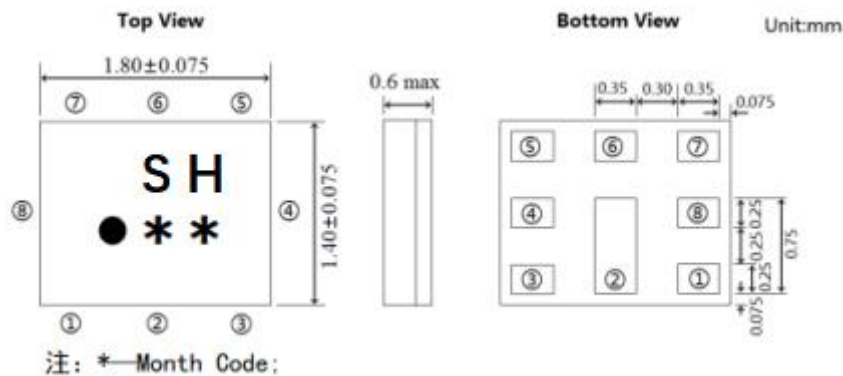
麦捷声表滤波器系列产品设计用于 WIFI、GPS、移动电话和无绳电话机等相关市场中。  
Microgate SAW Component is applicable for WIFI/GPS/Mobile phone/Cordlessphonerelevant market.

## 2 品名构成 Product Identification

MS 18 U 897M - DU 08 C  
① ② ③ ④ ⑤ ⑥ ⑦

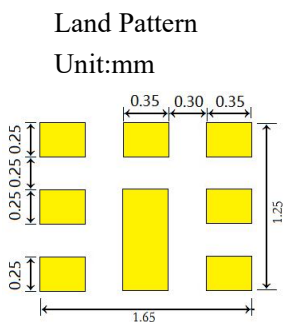
- ① 麦捷声表滤波器/Microgate SAW
- ② 尺寸/Size: (20-2016, 18-1814,15-1511,14-1411, 11-1109)
- ③ 输出/Output: (B-Balance out, U-Unbalance out)
- ④ 频率/Frequency: (897M-897MHz)
- ⑤ 型号/Type: (QP-QPX,DU-Duplexer, DI-Diplexer, Tx-Tx SAW, Rx-Rx SAW)
- ⑥ 频段/Band: 01-Band1
- ⑦ 流水号/Serial number

## 3 尺寸和管脚定义 Dimensions and PIN Configurations

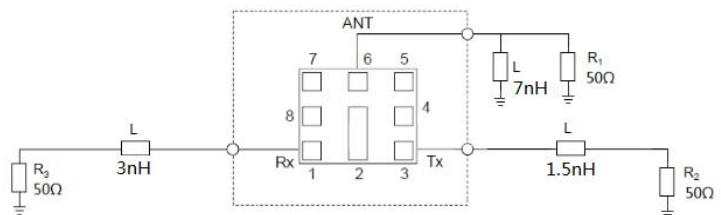


PIN NO.	①	②	③	④	⑤	⑥	⑦	⑧
PIN Name	Rx	GND	Tx	GND	GND	ANT	GND	GND

## 4 推荐焊盘与测试电路 Recommended Land Pattern and Test Circuit



Test Circuit  
Top View



## 5 电气性能 Electrical Characteristics

操作温度范围 Operating Temperature Range : -20 to +85°C

保存温度范围 Storage Temperature Range : -40 to +85°C

湿度敏感等级 Moisture Sensitivity Level: MSL 2a

静电敏感等级 Electrostatic Discharge(ESD) Sensitivity: 250V (Human Body Model)

端口电压 D.C. Volatage between the terminals: 3V (25°C±2°C)

Table1. Electrical Specification

No.	Item	Frequency (MHz)	Specification			
			Min	Max	Typ.	Unit
1	Insertion Loss (全温)	880~915		3.0	2.5	dB
2		880.24~914.76		3.0	2.4	dB
3		882.4~912.6		3.0	2.4	dB
4	Insertion Loss (常温 25°C)	880~915		2.8	2.0	dB
5		880.24~914.76		2.7	1.8	dB
6		882.4~912.6		2.5	1.4	dB
7	Ripple Deviation (全温)	880~915		2.0	1.6	dB
8	Ripple Deviation (常温 25°C)	880~915		2.0	1.0	dB
9	Tx to ANT  Absolute Attenuation	10~716	28		33	dB
10		716~728	28	.	33	dB
11		728~793	28		32	dB
12		832~862	30		41	dB
13		925~960	40		50	dB
14		1559~1563	40		46	dB
15		1565.42~1573.37	35		45	dB
16		1573.37~1577.47	35		45	dB
17		1577.47~1585.42	35		45	dB
18		1597.55~1605.89	38		42	dB
19		1710~1785	30		41	dB
20		1760~1840	36		40	dB
21		1840~1880	36		40	dB
22		1920~1980	30		39	dB
23		2110~2170	27		38	dB
24		2400~2500	32		37	dB
25		2434~2494	32		37	dB
26		2620~2745	30		35	dB
27		3520~3660	20		33	dB

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28		4400~4575	6		15	dB
29		4900~5950	6		15	dB
30	VSWR (全温)	880~915(TX)		2.3	1.7	
31		880~915(ANT)		2.3	2.0	
32	Input Signal Level	+29dBm, 5000h (55°C)				

Table2. Electrical Specification

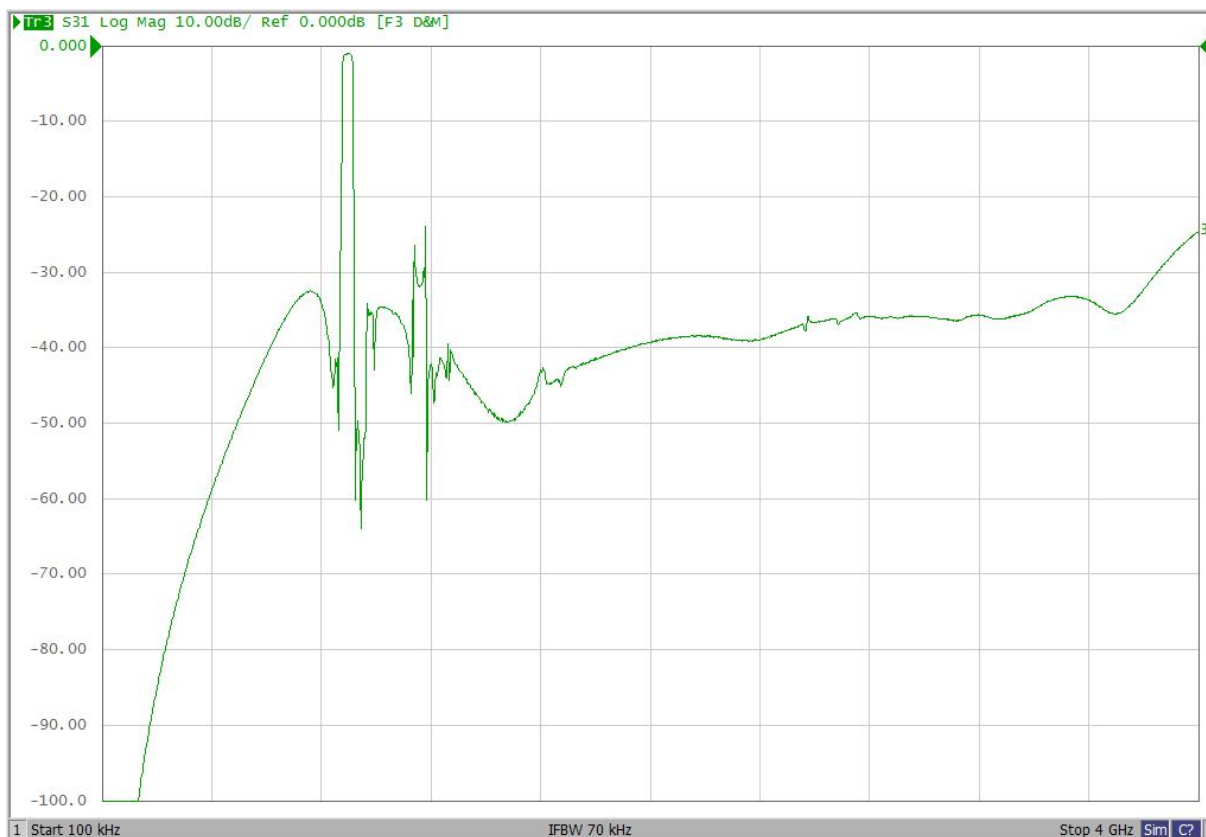
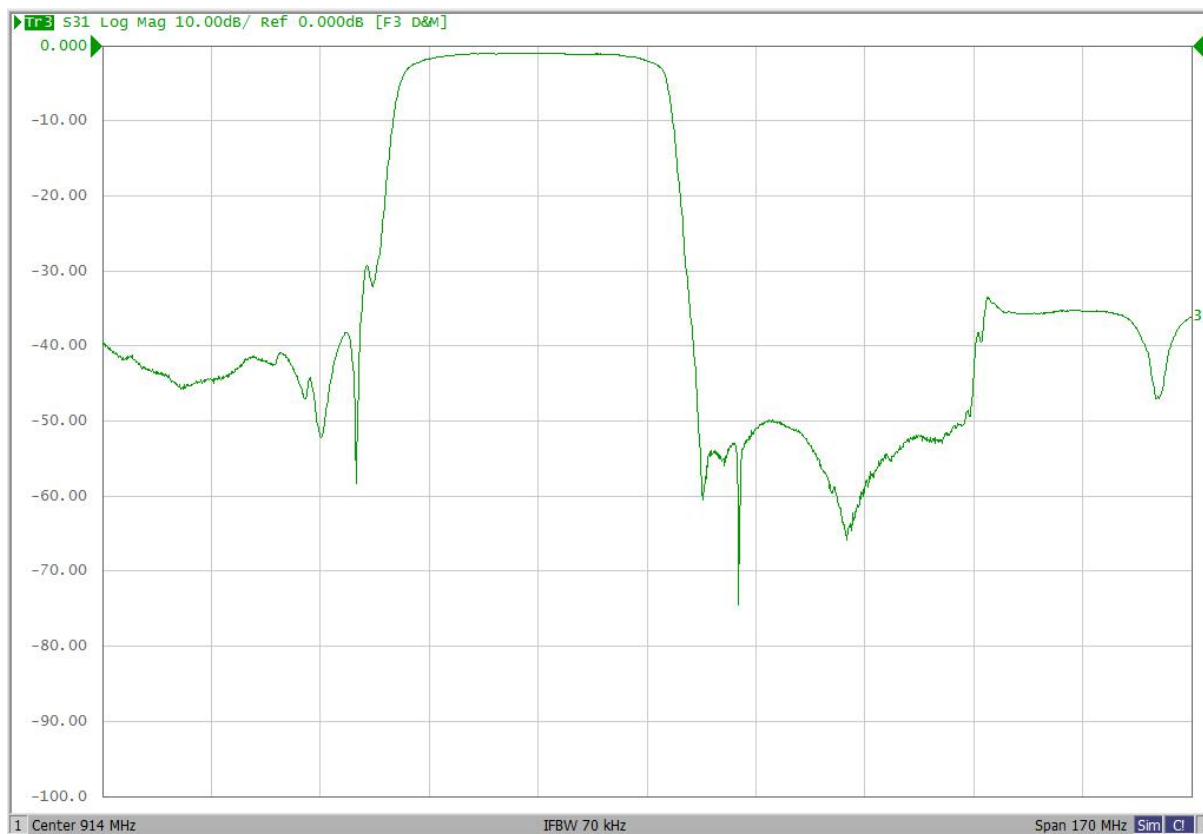
No.	Item	Frequency (MHz)	Specification				
			Min	Max	Typ.	Unit	
1	Insertion Loss (全温)	925~960		4.0	3.5	dB	
2		925.24~959.76		3.8	3.1	dB	
3		927.4~957.6		3.5	2.9	dB	
4	Insertion Loss (常温 25°C)	925~960		3.5	2.0	dB	
5		925.24~959.76		3.3	2.0	dB	
6		927.4~957.6		2.6	1.8	dB	
7	Ripple Deviation (全温)	925~960		2.5	2.0	dB	
8	Ripple Deviation (常温 25°C)	925~960		2	0.9	dB	
9	ANT to Rx	10~880	45		52	dB	
10		835~870	40		57	dB	
11		880~915	45		52	dB	
12		980~1045	20		28	dB	
13		1427~1448	40		54	dB	
14		1710~1785	40		50	dB	
15		1805~1920	40		49	dB	
16		Absolute Attenuation	1920~1980	40		49	dB
17			2400~2500	40		47	dB
18			2500~2570	40		47	dB
19			2685~2790	40		47	dB
20			2775~2880	40		47	dB
21			2880~3700	35		47	dB
22			3700~3840	40		47	dB
23			4625~4800	28		44	dB
24			4900~5950	25		40	dB
25			VSWR (全温)	925~960(ANT)		2.3	1.9
26		925~960(RX)			2.3	2.1	

Table3. Electrical Specification

No.	Item		Frequency (MHz)	Specification			
				Min	Max	Typ.	Unit
1	Tx to Rx	Isolation	880~915	49		52	dB
2			925~960	49		53	dB

## Frequency Performance

Tx to ANT



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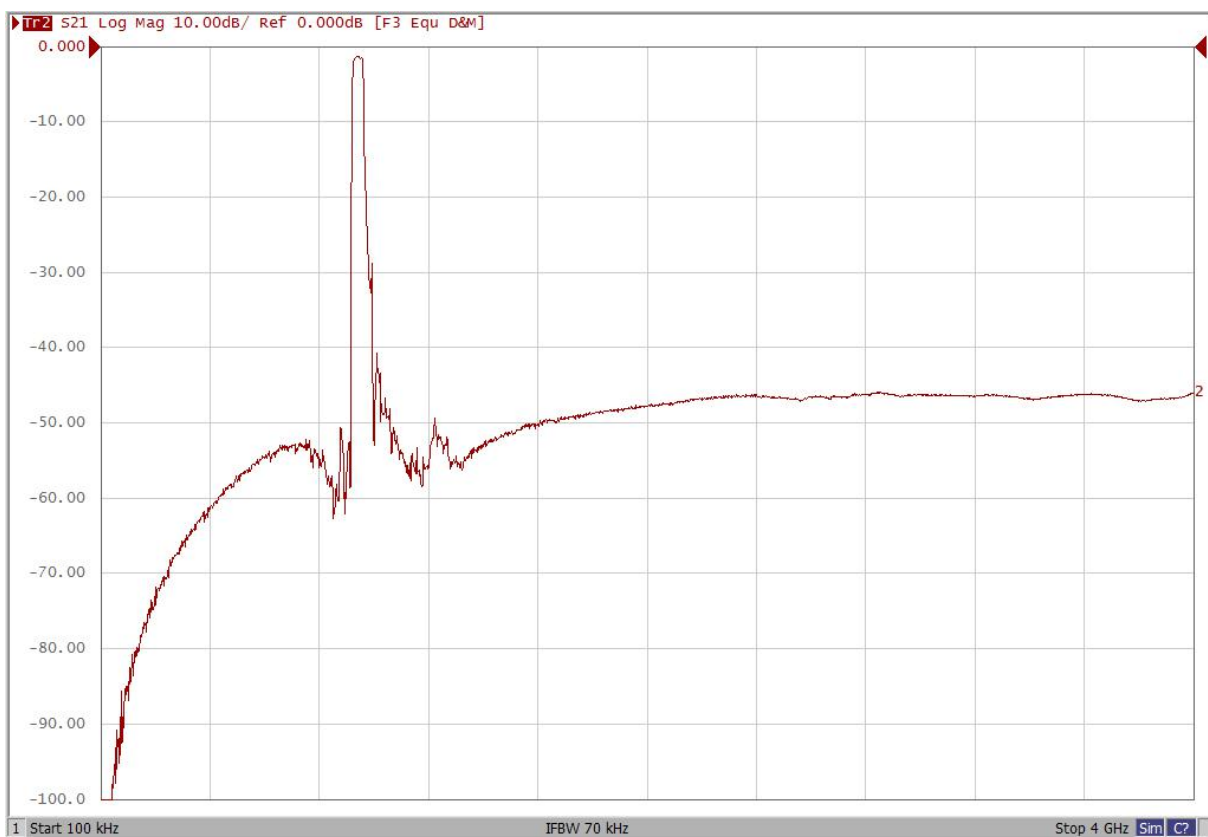
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ANT to Rx



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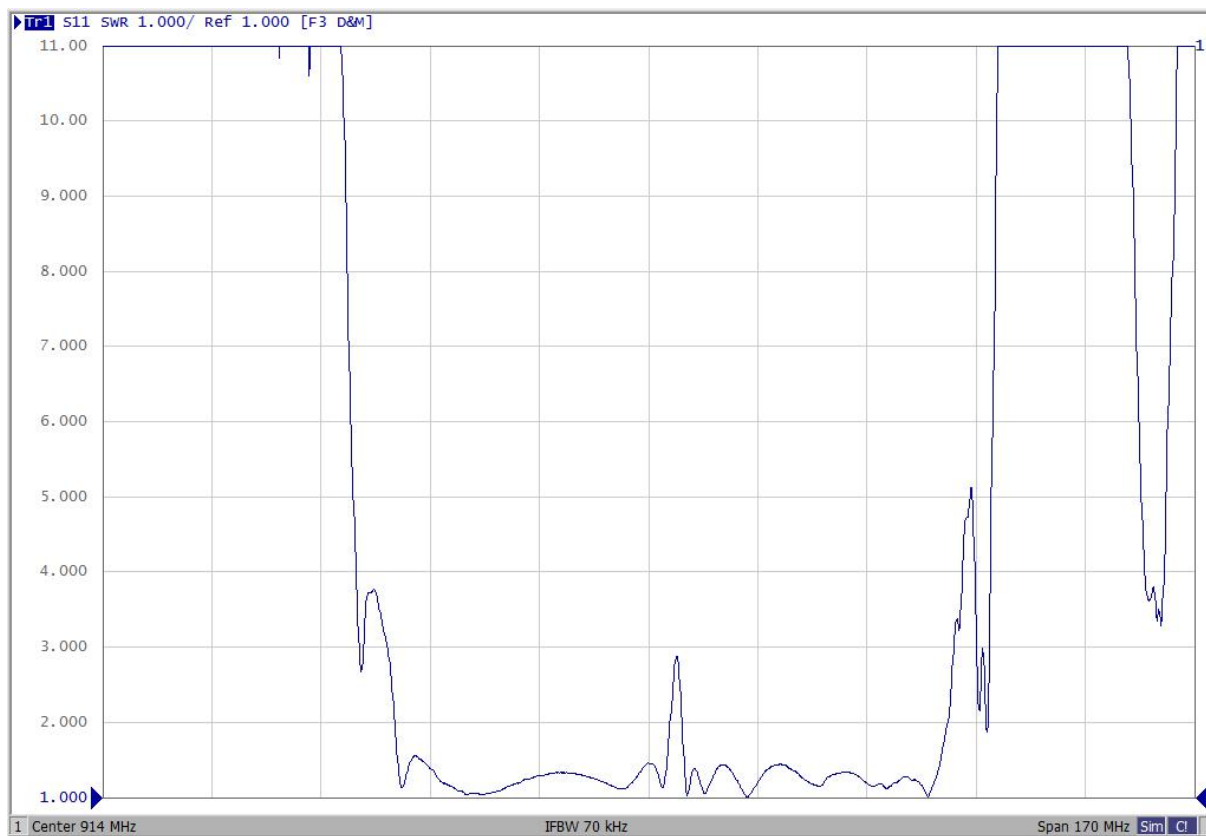
地址：深圳市龙华新区观澜街道高尔夫大道裕新路

电话(Tel): 0755-28085000

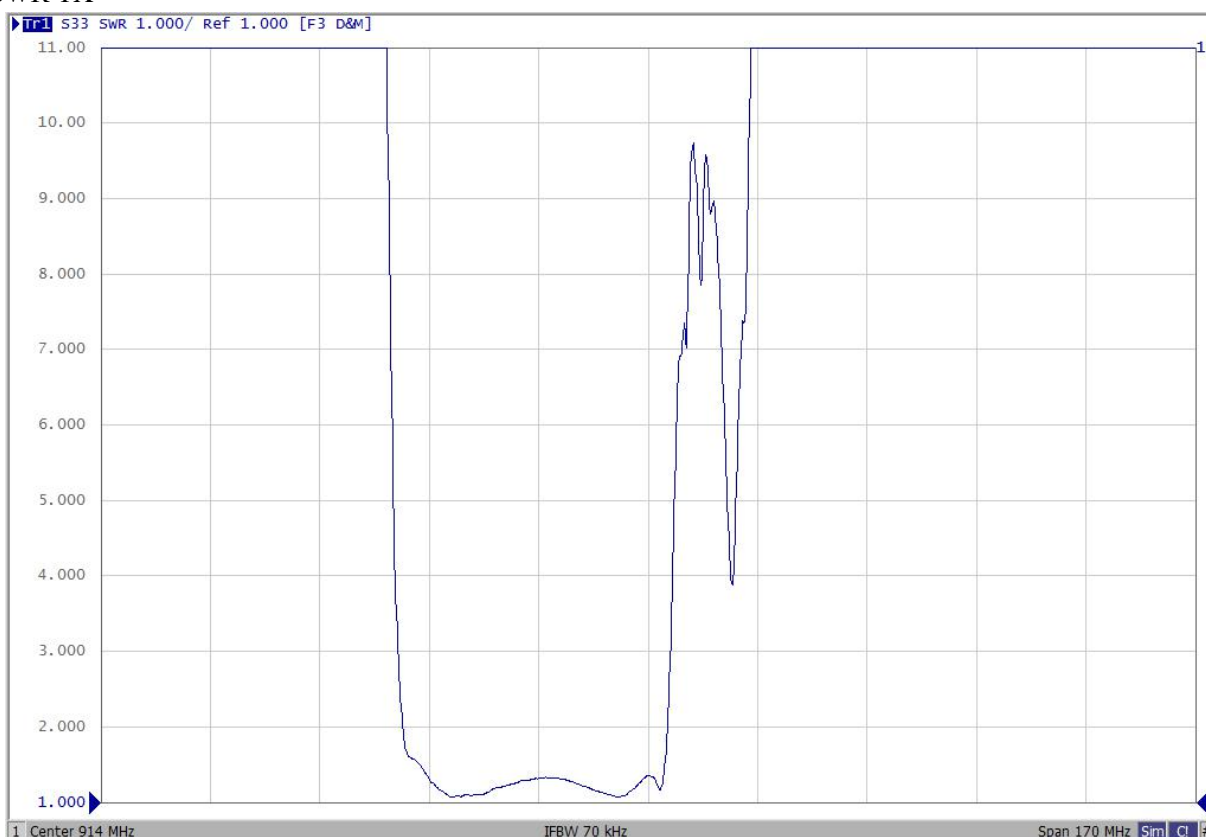
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VSWR ANT



VSWR TX



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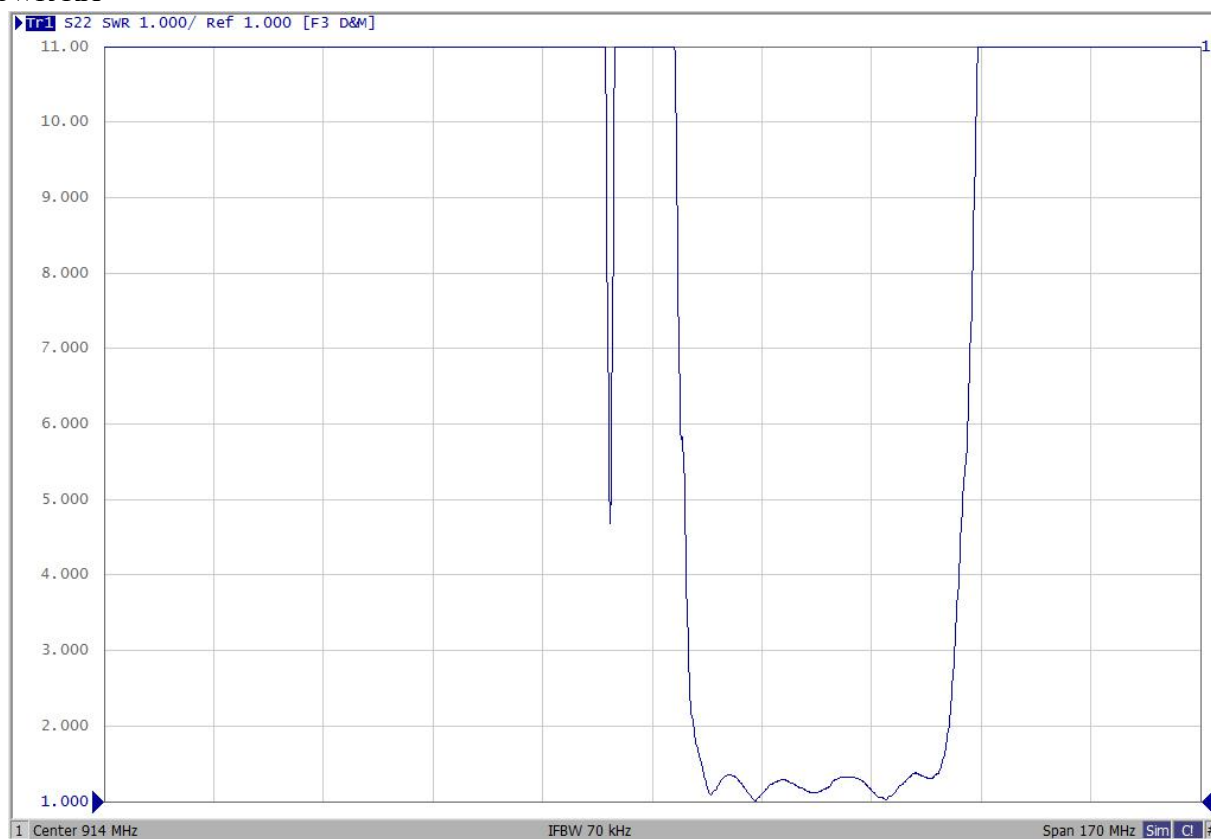
地址：深圳市龙华新区观澜街道高尔夫大道裕新路

电话(Tel): 0755-28085000

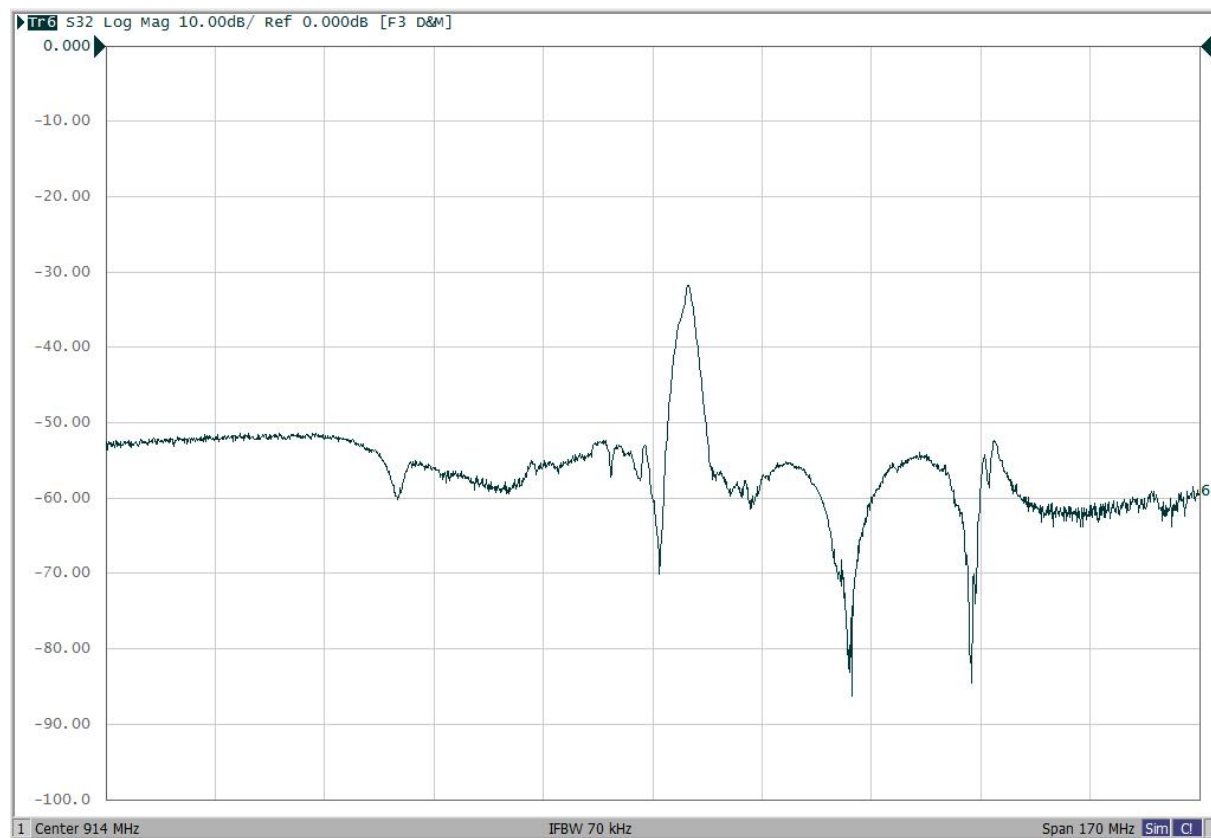
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### VSWR RX



### Isolation TX to RX



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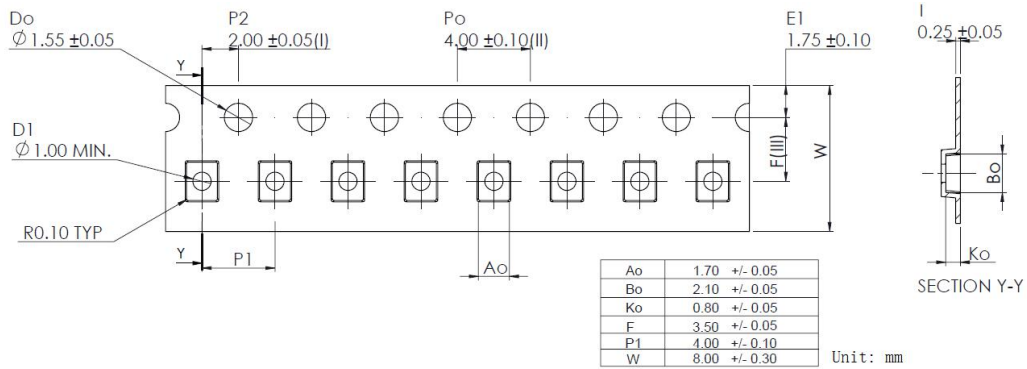
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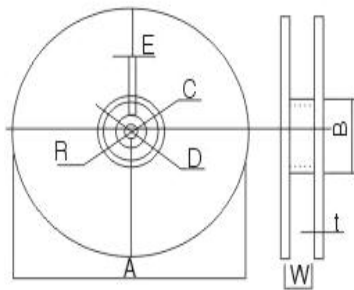
## 6 包装 Packaging

### ① 编带尺寸 Dimensions of Tape:



### ② 带轮尺寸 Dimensions of Reel

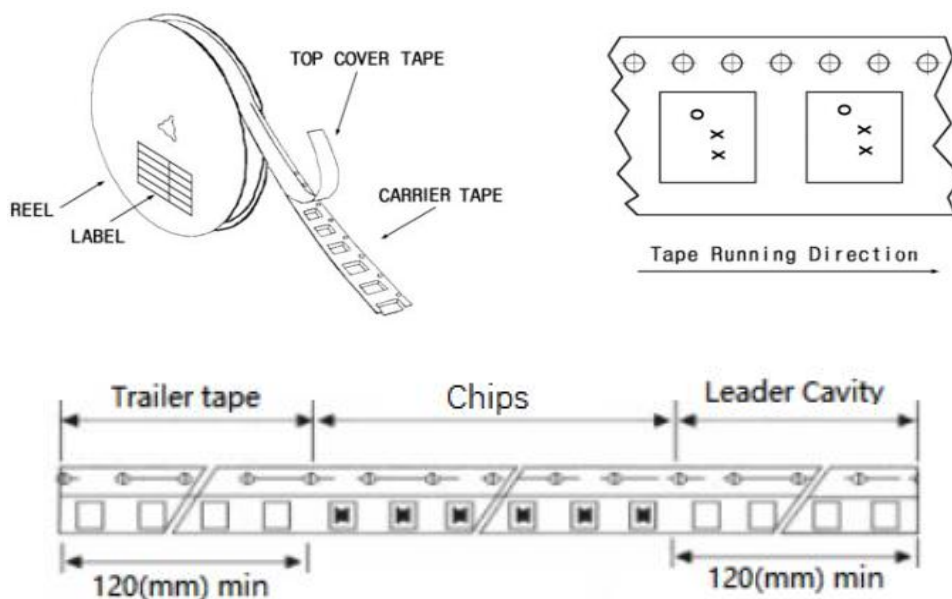
Unit: mm



Reel material: PS (Polystyrene)

<b>A</b>	178±2
<b>B</b>	60±2
<b>C</b>	13.0±0.5
<b>D</b>	21.0±0.8
<b>E</b>	2.0±0.5
<b>W</b>	8.5±1.0
<b>t</b>	1.2±0.2
<b>R</b>	1.0±0.25

### ③ 编带简图及拉伸方向 Taping figure and drawing direction:



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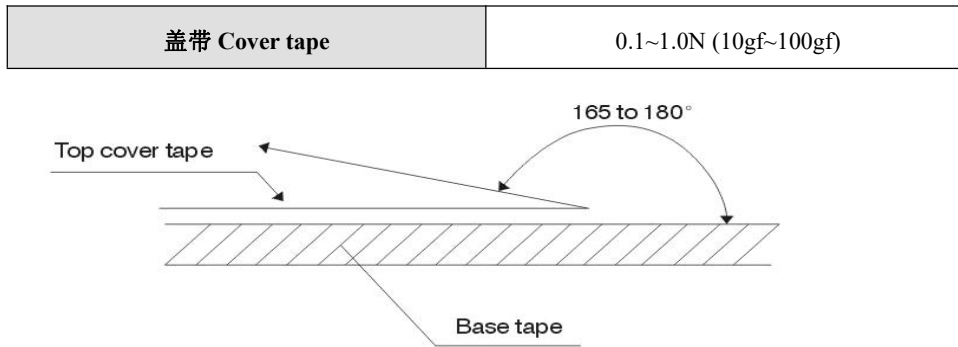
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④ 盖带的剥离强度 Peeling strength of cover tape:



测试条件 Test condition:

- 1) 剥离角度 peel angle: 165°~180° vs. carrier tape.
- 2) 剥离速度 peel speed: 300mm/min±10%.

⑤ 包装数量 Packaging quantities: 3000 PCS / Reel

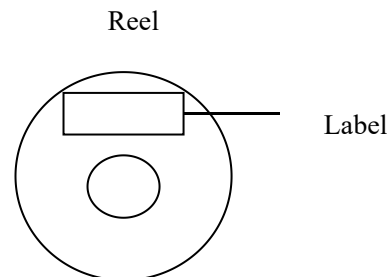
## 7 装箱清单及标志 Packing documents and marking

① 包装文件 Packing documents

- a. 装箱清单 Packing list.
- b. 合格证书 Certificate of compliance.

② 盘上标记 Marking on reels:

- a. 麦捷料号 MICROGATE Part No.
- b. 生产批号 Lot number
- c. 盘装数量 Quantity per reel
- d. 检验员号 Inspector No.



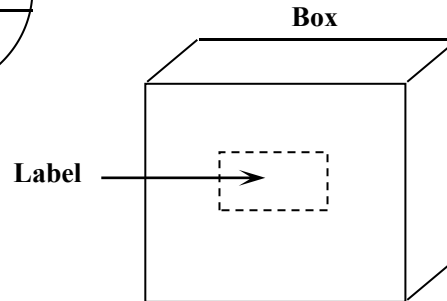
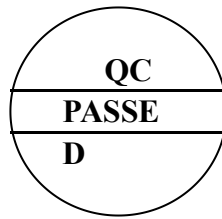
以上内容必须在标签上注明. All above shall be shown on marking label

麦捷公司标签如下所示: MICROGATE marking label will be as following:

<b>MICROGATE</b>		
CUSTOMER:	P. O. NO	
CUSTOMER PART NO:	DATE CODE	LOT NO
MG PART NO:	QUANTITY	INSP. NO

**MG PART NO**

检验合格后, 检验员在标签上盖上合格章。合格章如下所示: The eligible reels will be pressed a mark onto the surface. The mark will be as following:



③ 内包装盒标记: Marking on inner box

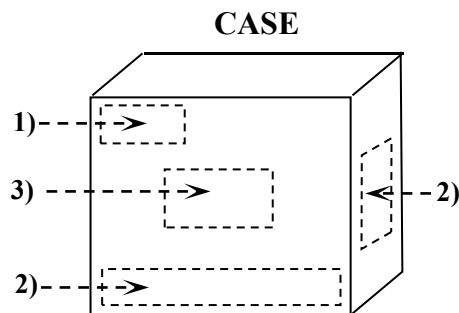
- a. 型号 MICROGATE part No.
- b. 每盒数量 Quantity per box
- c. 包装日期 Date

以上内容必须在标签上注明 (标签见 7.2 所示)。Above shall be shown on marking label (The marking label is shown in item 7.2).

④ 外包装箱标记 Marking on outer case:

- 1) 制造商 Manufacturer: "MICROGATE" ①
- "中国深圳制造" "Made in Shenzhen CHINA" ②
- 2) 发运标记 Ship marking:  
"向上" "UP", "小心轻放" "HAND CARE", "防潮" "MOISTURE-PROOF".
- 3) 包装标签包括以下内容 Packing label include the following:
  - a. 型号 MICROGATE Part No
  - b. 总数量 Total quantity per case

- c. 包装日期 Date;



以上内容必须在标签上注明。(参见 7.2 所示)

All above shall be shown on marking label. (The marking label is shown in item 7.2)

## 8 保管 Storage

### 保存条件 Storage conditions

- 存放货物的库房应满足以下条件 Products should be storage in the warehouse on the following conditions

温度 Temperature:  $\leq 40^{\circ}\text{C}$

湿度 Humidity :  $\leq 70\%$  relative humidity

不允许温、湿度有极剧变化。No rapid change on temperature and humidity

- 禁止将产品保管在腐蚀性物质中，例如硫磺、氯气或者酸，否则将引起端头氧化，导致降低焊接性。  
Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of electrode, resulting in poor solder ability.
- 为了避免受潮气、灰尘等物质的影响，产品应保管于货架上。Products should be storage on the palette for the prevention of the influence from humidity, dust and so on.
- 产品保管在库房中时，应避免热冲击，振动以及直接光照等等。Products should be storage in the warehouse without heat shock, vibration, and direct sunlight and so on.
- 产品应密封包装 Products should be storage under the airtight packaged condition.