

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.: MS18U2G53-DU07N

版本 号 VERSION.: V1.0

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
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CFMD. 批准	CHKD. 审核	DSGD. 担当
赵拥军	赖定权	吴继航

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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	2019.08.16	初稿 /New Released	赵拥军

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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。

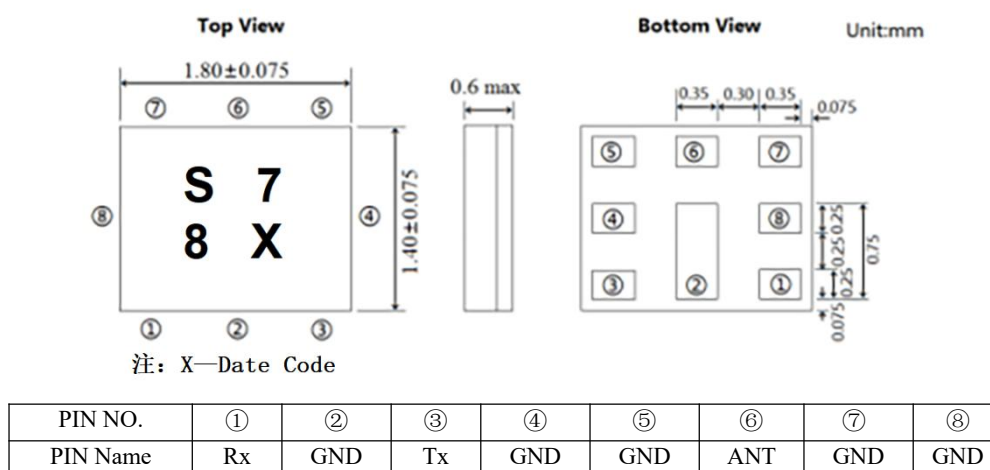
Microgate SAW Component is applicable for WIFI/GPS/Mobile phone/Cordlessphonerelevant market.

2 品名构成 Product Identification

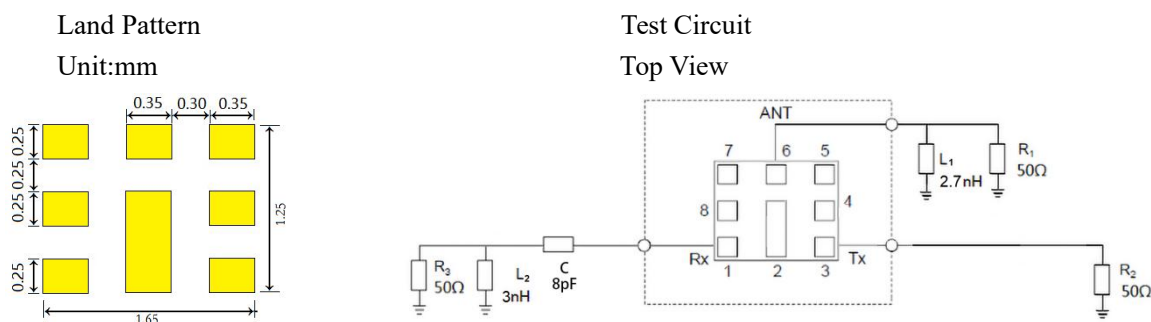
MS 18 U 2G53 - DU 07 N
① ② ③ ④ ⑤ ⑥ ⑦

- 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: (2G53-2.53GHz)
- ⑤ 型号/Type: (QP-QPX, DU-Duplexer, DI-Diplexer, Tx-Tx SAW, Rx-Rx SAW)
- ⑥ 频段/Band: 07-Band7
- ⑦ 流水号/Serial number: N

3 尺寸和管脚定义 Dimensions and PIN Configurations



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



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5 电气性能 Electrical Characteristics

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

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

测试温度范围 Test Temperature: 25℃±2℃

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℃±2℃)

Table1. Electrical Specification

No.	Item		Frequency (MHz)	Specification			
				Min	Max	Typ.	Unit
1	Tx to ANT	Insertion Loss	2500.0 ~ 2570.0		2.7	2.1	dB
2		Ripple Deviation	2500.0 ~ 2570.0		1.5	0.8	dB
3		Absolute Attenuation	50.0 ~ 1565.0	40		44	dB
4			1574.42 ~ 1576.42	40		44	dB
5			1577.0 ~ 1585.0	38		43	dB
6			2403.0 ~ 2453.0	38		43	dB
7			2438.0 ~ 2461.0	38		43	dB
8			2448.0 ~ 2476.0	18		22	dB
9			2463.0 ~ 2481.0	6		11	dB
10			2595.0 ~ 2620.0	8		13	dB
11			2620.0 ~ 2690.0	49		54	dB
12			5000.0 ~ 5140.0	40		45	dB
13		VSWR	2500.0 ~ 2570.0(TX)		2.0	1.5	
14			2500.0 ~ 2570.0(ANT)		2.0	1.4	
15	Input Signal Level		+29dBm, 5000h (55℃)				

Table2. Electrical Specification

No.	Item		Frequency (MHz)	Specification			
				Min	Max	Typ.	Unit
1	ANT to Rx	Insertion Loss	2620.0 ~ 2690.0		2.7	1.9	dB
2		Ripple Deviation	2620.0 ~ 2690.0		1.5	0.5	dB
3		Absolute Attenuation	1.0 ~ 2500.0	30		36	dB
4			45	50		130	dB
5			718.0 ~ 748.0	50		64	dB
6			814.0 ~ 849.0	50		61	dB
7			832.0 ~ 862.0	50		60	dB
8			880.0 ~ 915.0	50		58	dB
9			1710.0 ~ 1785.0	33		38	dB
10			2380.0 ~ 2450.0	35		40	dB

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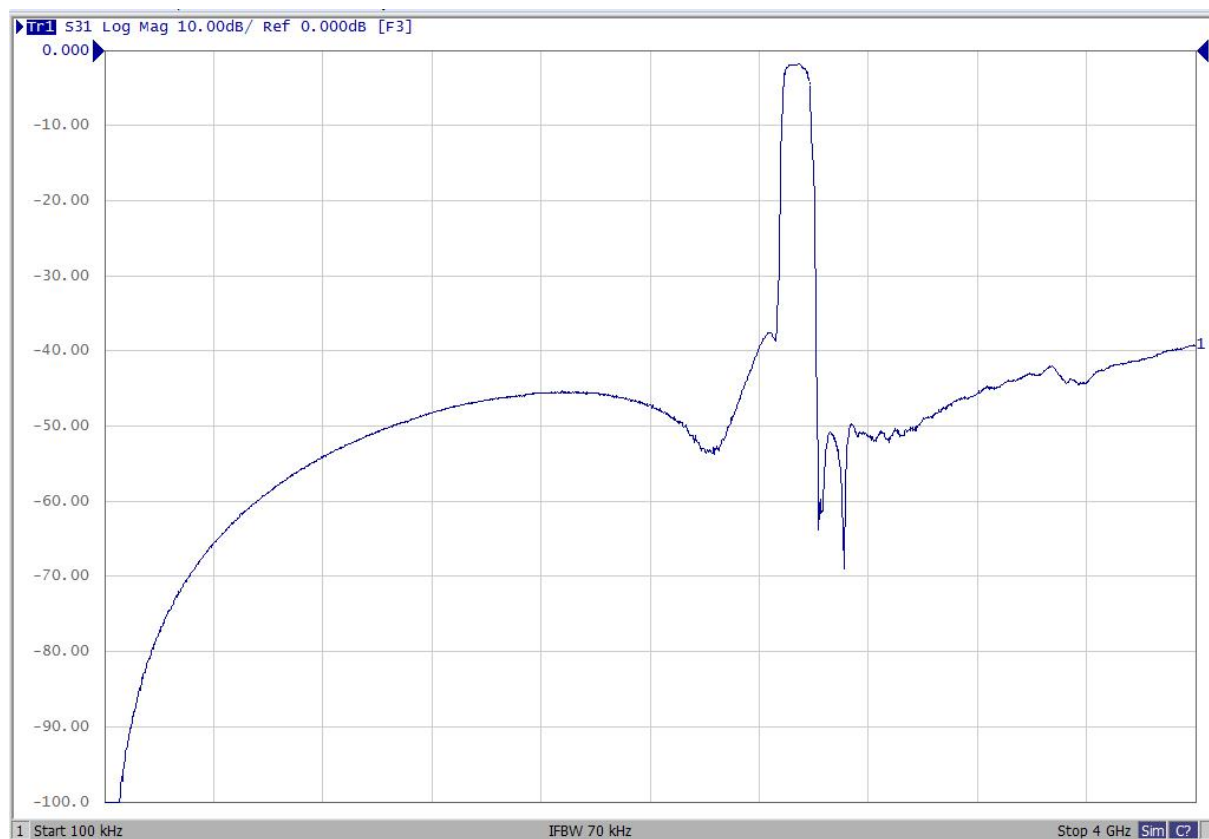
No.	Item		Frequency (MHz)	Specification			
				Min	Max	Typ.	Unit
11			2400.0 ~ 2500.0	36		41	dB
12			2402.0 ~ 2470.0	37		42	dB
13			2500.0 ~ 2570.0	45		53	dB
14			2775.0 ~ 2790.0	50		63	dB
15			2775.0 ~ 6000.0	30		40	dB
16			4900.0 ~ 5300.0	44		54	dB
17			5300.0 ~ 5950.0	50		57	dB
18		VSWR	2620.0 ~ 2690.0(ANT)		2.2	1.9	
19			2620.0 ~ 2690.0(RX)		2.1	1.8	

Table3. Electrical Specification

No.	Item		Frequency (MHz)	Specification			
				Min	Max	Typ.	Unit
1	Tx to Rx	Isolation	1574.0 ~ 1577.0	35		65	dB
2			2500.0 ~ 2570.0	50		52	dB
3			2620.0 ~ 2690.0	50		57	dB
4			5000.0 ~ 5140.0	35		54	dB

Frequency Performance

Tx to ANT



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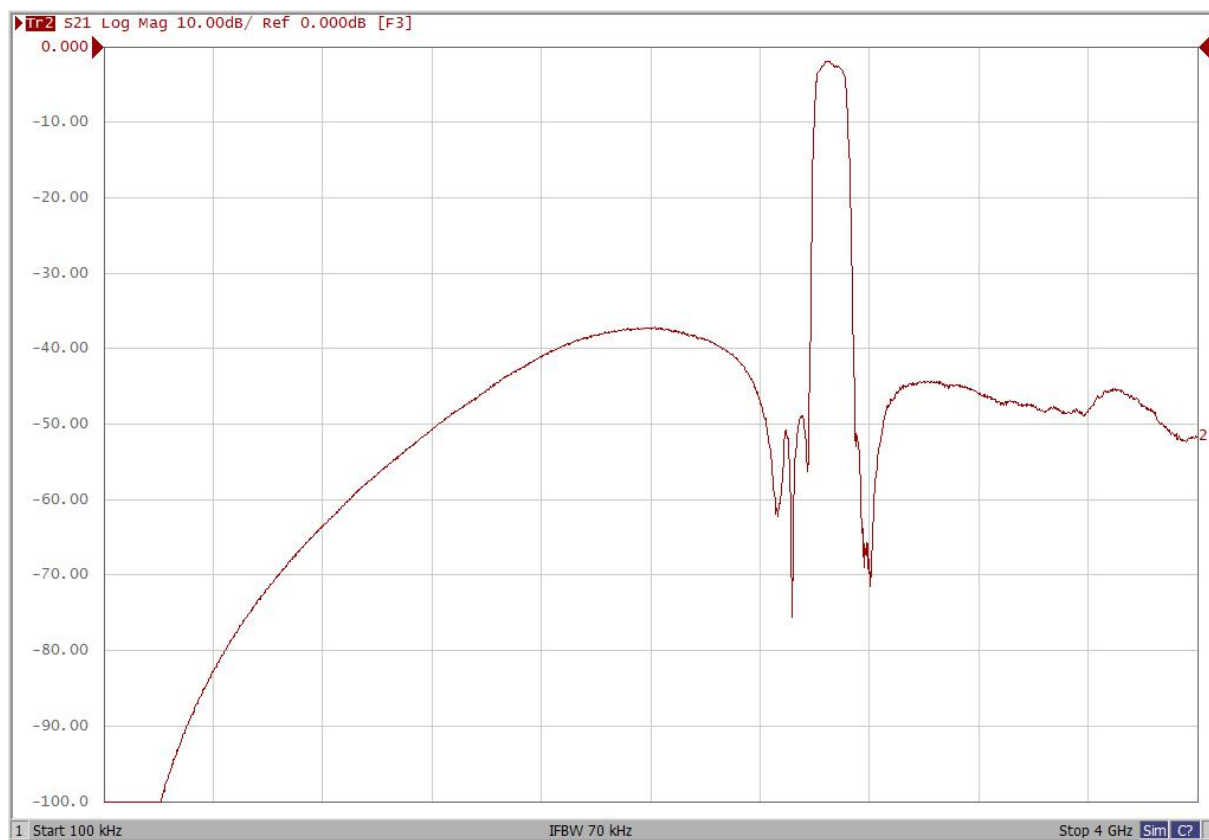
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ANT to Rx



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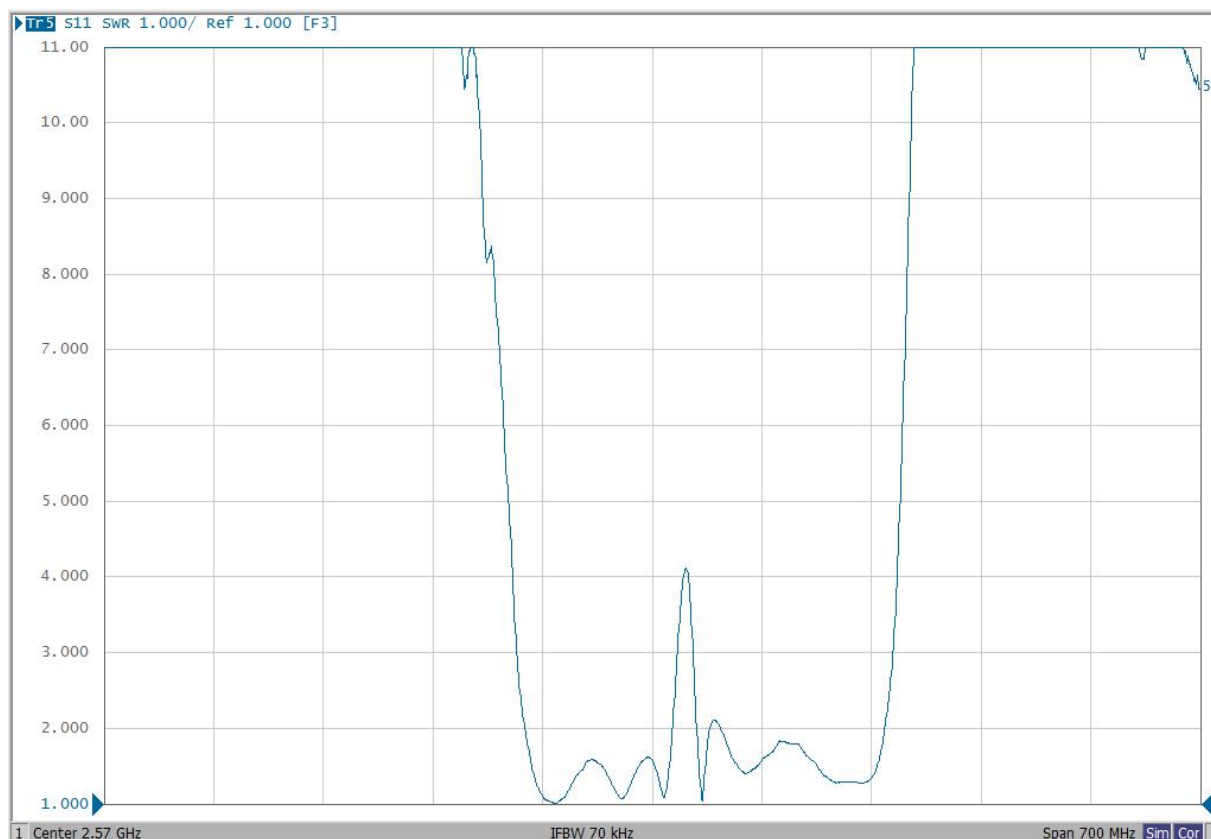
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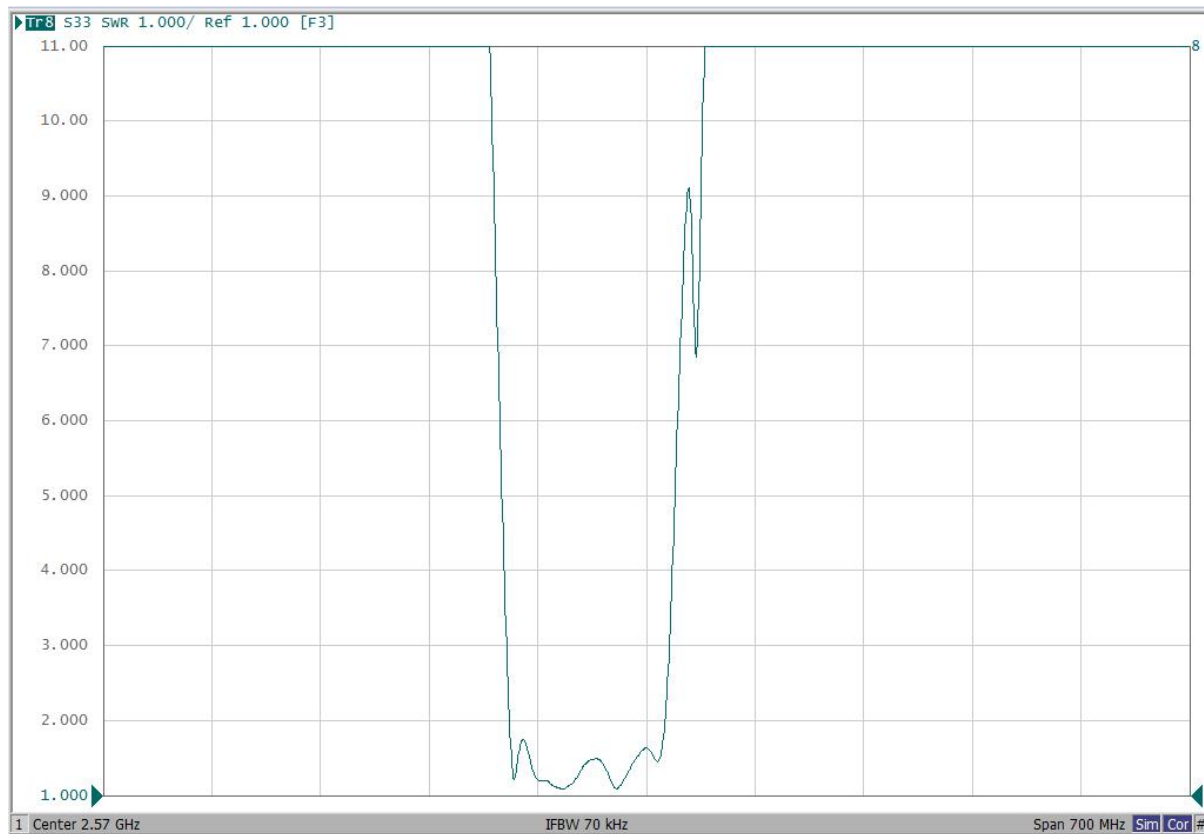
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VSWR ANT



VSWR TX



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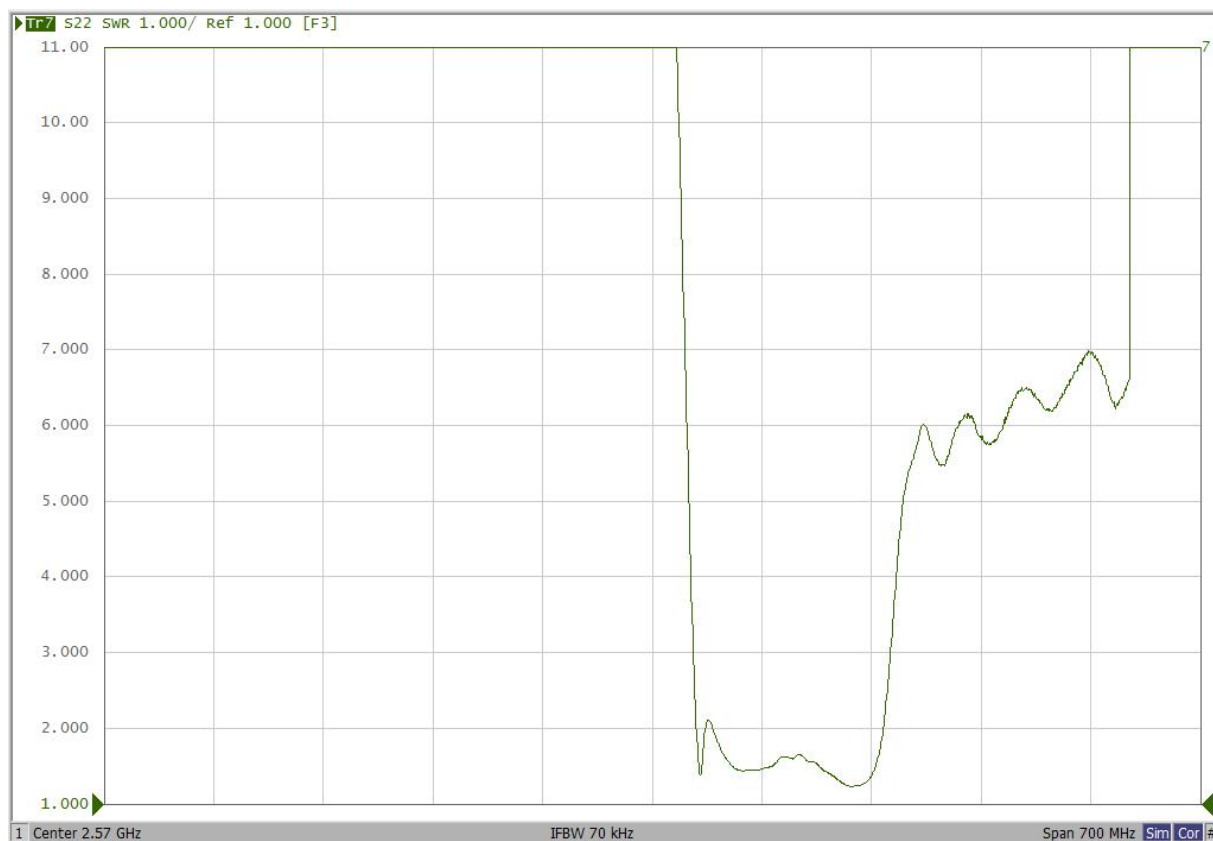
地址：深圳市龙华新区观澜街道高尔夫大道裕新路

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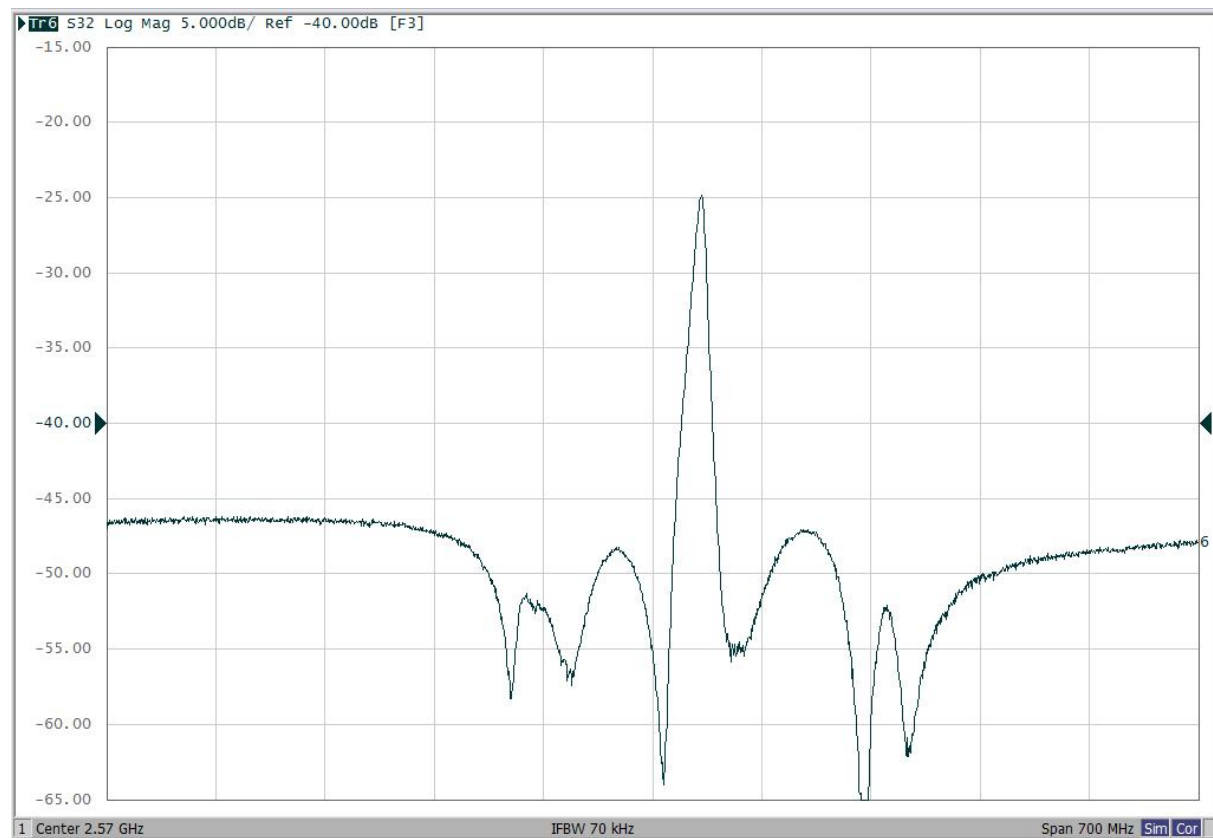
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VSWR RX



Isolation TX to RX



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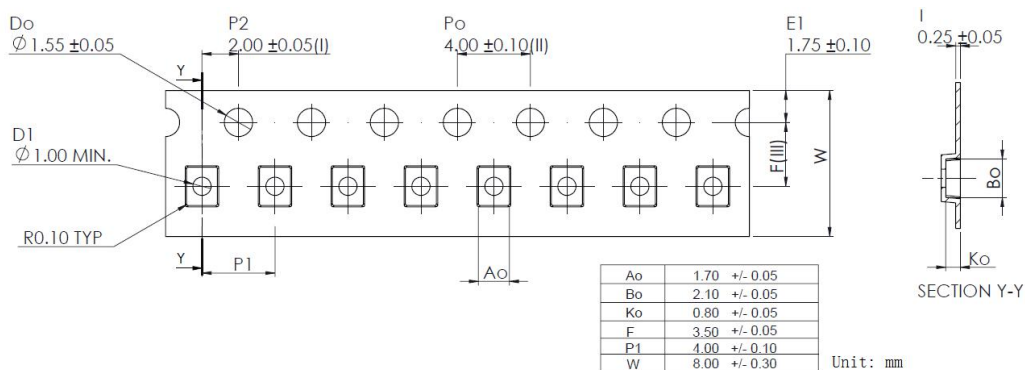
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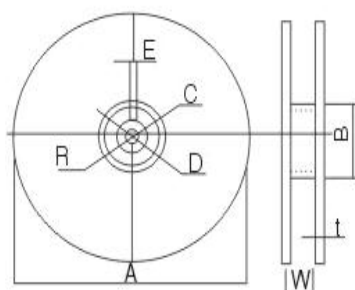
6 包装 Packaging

① 编带尺寸 Dimensions of Tape:



② 带轮尺寸 Dimensions of Reel

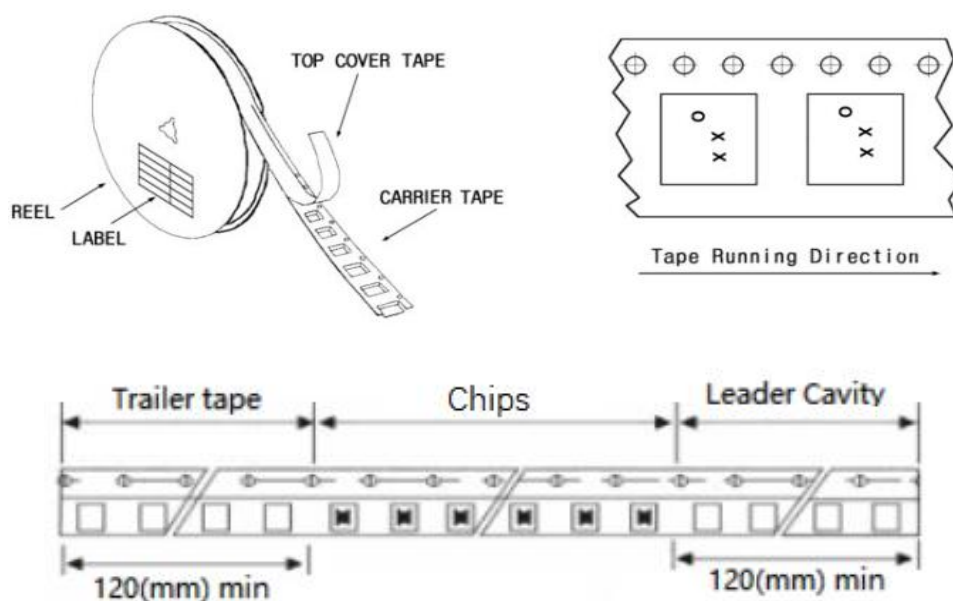
Unit: mm



Reel material: PS (Polystyrene)

A	178 $\pm$ 2
B	60 $\pm$ 2
C	13.0 $\pm$ 0.5
D	21.0 $\pm$ 0.8
E	2.0 $\pm$ 0.5
W	8.5 $\pm$ 1.0
t	1.2 $\pm$ 0.2
R	1.0 $\pm$ 0.25

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



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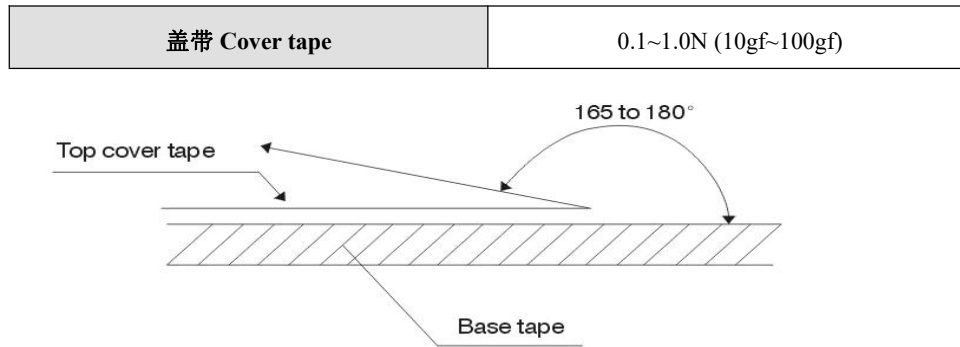
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④ 盖带的剥离强度 Peeling strength of cover tape:



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

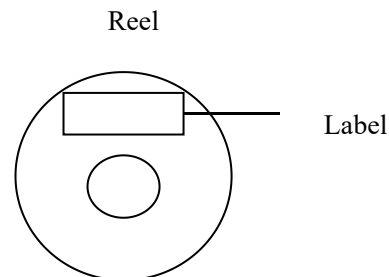
7 装箱清单及标志 Packing documents and marking

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:

MICROGATE		
CUSTOMER:	P. O. NO	
CUSTOMER PART NO:	DATE CODE	LOT NO
MG PART NO:	QUANTITY	INSP. NO

MG PART NO

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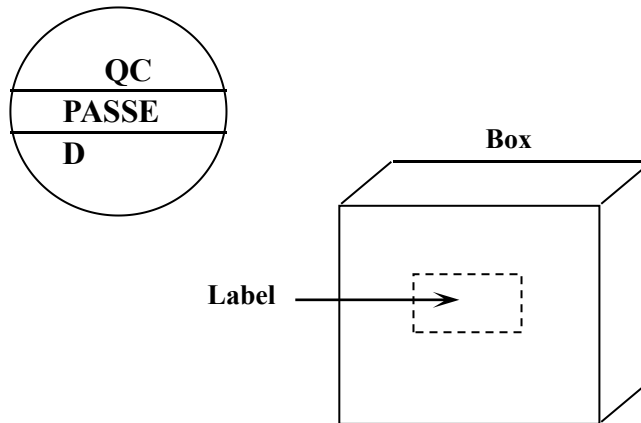
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检验合格后,检验员在标签上盖上合格章。合格章如下所示: The eligible reels will be pressed a mark onto the surface. The mark will be as following:



③ 内包装盒标记:Marking on inner box

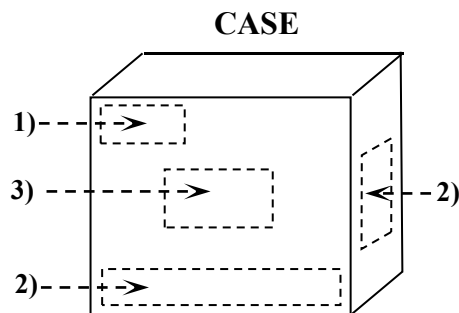
- a.型号 MICROGATE part No.
- b.每盒数量 Quantity per box
- c. 包装日期 Date

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.