

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-DU07S

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
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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	2017.06.18	初稿 /New Released	梁启新
1.1	2018.10.10	版本升级/Version Upgrade	赵拥军
1.2	2018.12.16	版本升级/Version Upgrade	赵拥军
1.3	2019.05.08	版本升级/Version Upgrade	赵拥军
1.4	2019.12.12	版本升级/Version Upgrade	赵拥军

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1 适用范围 Scope

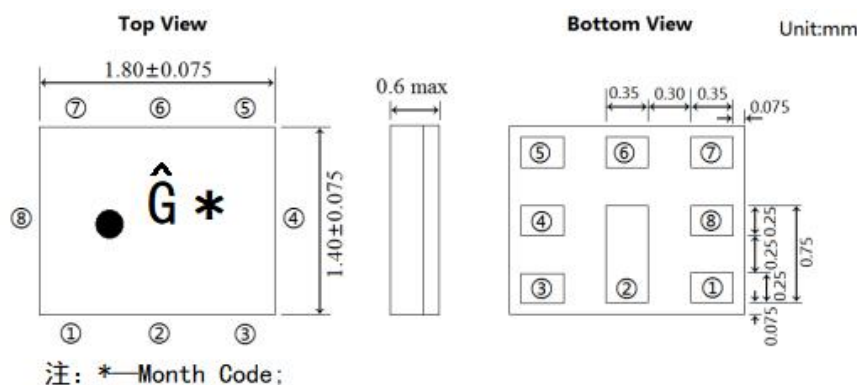
麦捷声表滤波器系列产品设计用于 WIFI、GPS、移动电话和无绳电话机等相关市场中。
Microgate SAW Component is applicable for WIFI/GPS/Mobile phone/Cordless phone relevant market.

2 品名构成 Product Identification

MS 18 U 2G53 - DU 07 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: (2G53-2535MHz)
- 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

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

Land Pattern

Unit:mm

Test Circuit

Bottom View

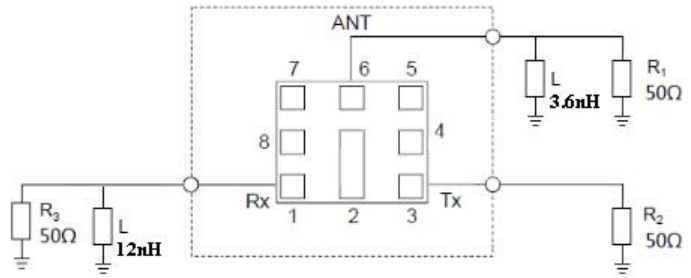
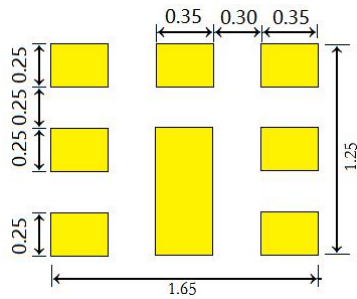
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5 电气性能 Electrical Characteristics

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 (dB)	Max (dB)	Typ. (dB)
1	Insertion Loss	2500~2570		2.7	1.8
2	Ripple Deviation	2500~2570		1.7	0.8
3	Tx to ANT Absolute Attenuation	10~1559	35		38
4		1559~1563	37		40
5		1565.42~1573.37	37		40
6		1573.37~1577.47	37		40
7		1577.47~1585.42	37		40
8		1597.55~1605.89	37		40
9		1605.89~1680	35		37
10		1805~1880	35		37
11		1900~1920	35		37
12		2010~2025	35		37
13		2110~2170	35		37
14		2401~2468	40		45
15		2451~2473	40		45
16		2456~2478	35		40
17		2461~2483	20		24
18		2590~2620	1.5		4
19		2620~2690	45		47
20		4900~5280	40		41
21		7500~7710	20		30

22	VSWR	2500~2570(ANT)		2.0	1.5
23		2500~2570(Tx)		2.0	1.5
24	Input Signal Level		+29dBm, 5000h(55℃)		

Table2. Electrical Specification

No.	Item		Frequency (MHz)	Specification		
				Min (dB)	Max (dB)	Typ. (dB)
1	ANT to Rx	Insertion Loss	2620~2690		2.8	2.1
3		Ripple Deviation	2620~2690		1.6	0.6
4		Absolute Attenuation	10~718	45		50
5			45	50		100
6			718~748	45		51
7			814~849	45		49
8			832~862	45		49
9			880~915	45		49
10			1710~1785	38		43
11			1920~1980	37		43
12			2400~2500	40		45
13			2500~2570	45		55
14			2570~2600	3		8
15			2775~2790	40		55
16			2790~2810	40		55
17			2810~3660	39		43
18			3600~4900	39		42
19			4900~5300	35		42
20			5300~5950	32		37
21			7620~7830	15		20
22		VSWR	2620~2690(ANT)		2.1	1.6
23			2620~2690(Rx)		2.1	1.6

Table3. Electrical Specification

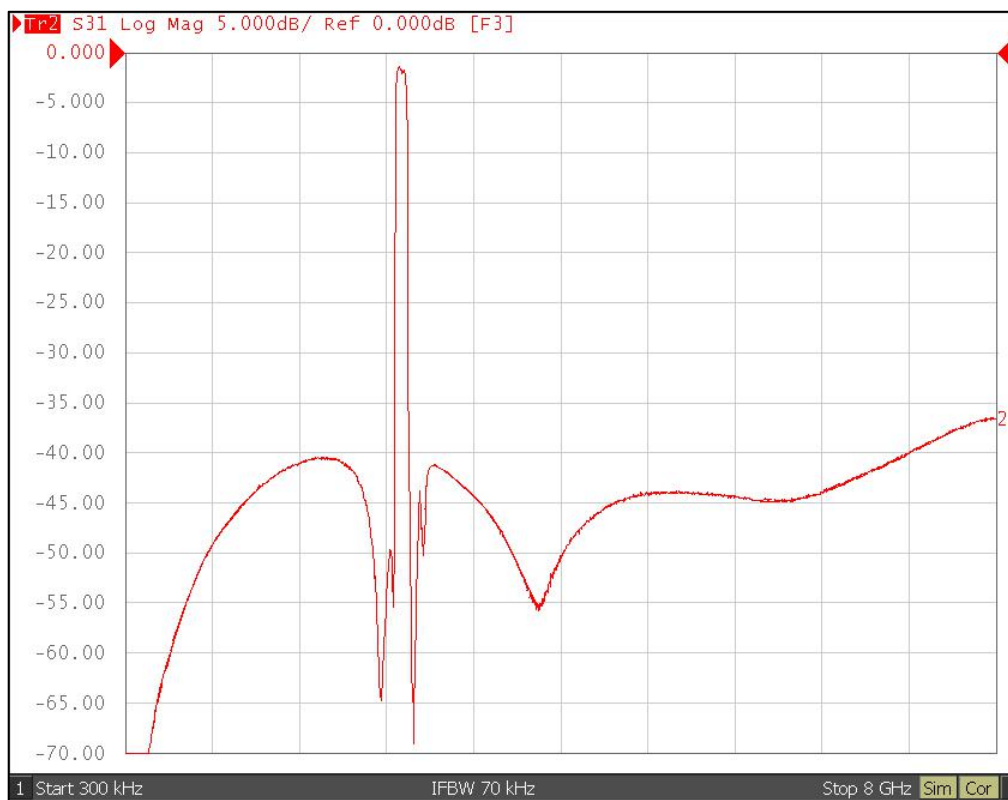
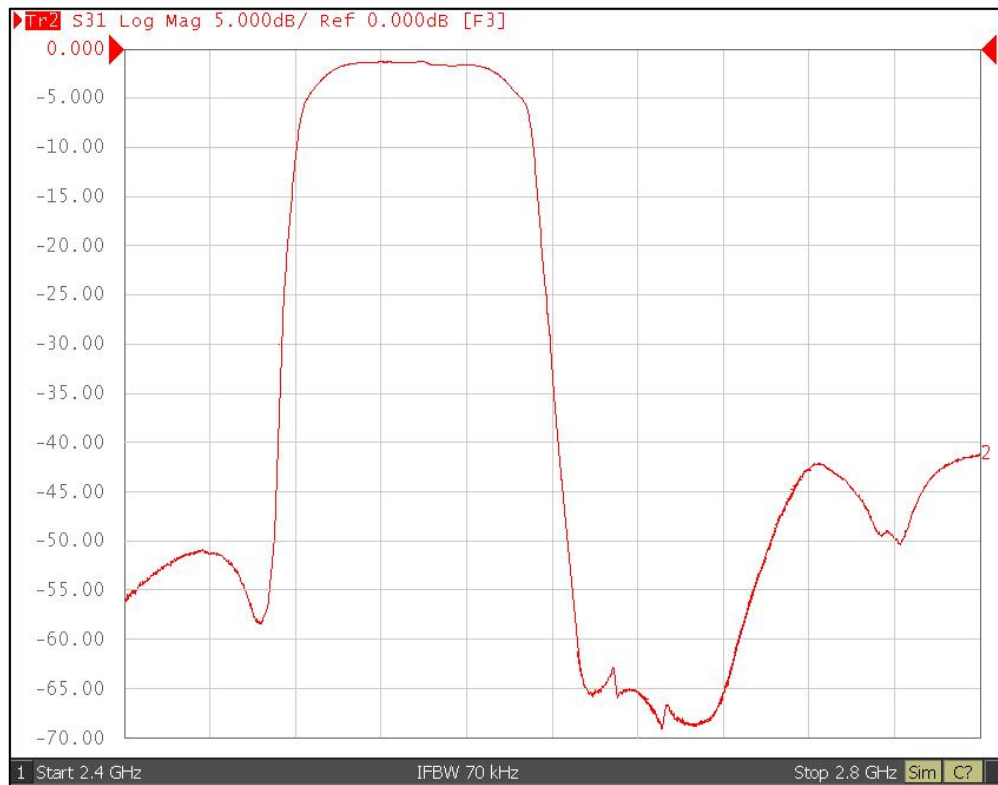
No.	Item		Frequency (MHz)	Specification		
				Min	Max	Typ.
1	Tx to Rx	Isolation	1574~1577	30dB		59dB
2			2500~2570	55dB		59dB
3			2620~2690	55dB		57dB
4			5001~5140	30dB		50dB

Table4. Electrical Specification

No.	Item		Specification	
1	Terminating Match Impedance	ANT Port	50Ω // 3.6nH	Single-ended
2		Tx Port	50Ω	Single-ended
3		Rx Port	50Ω // 12nH	Single-ended

Frequency Performance

Tx to ANT



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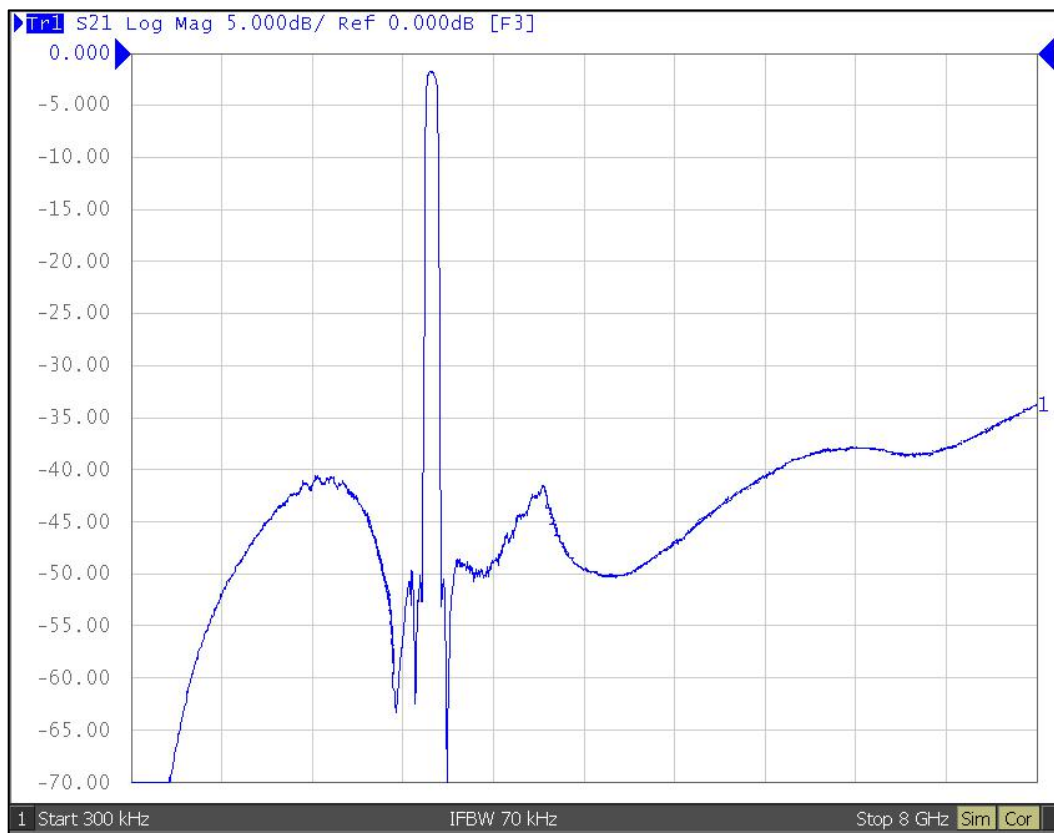
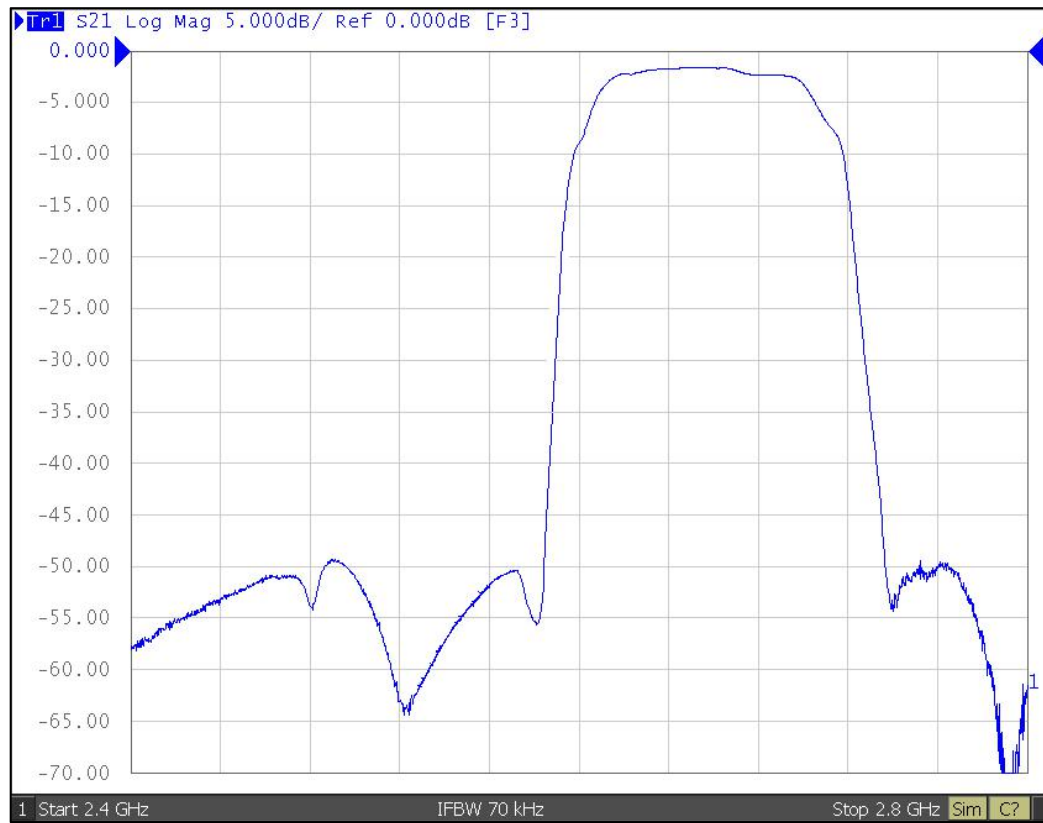
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ANT to Rx



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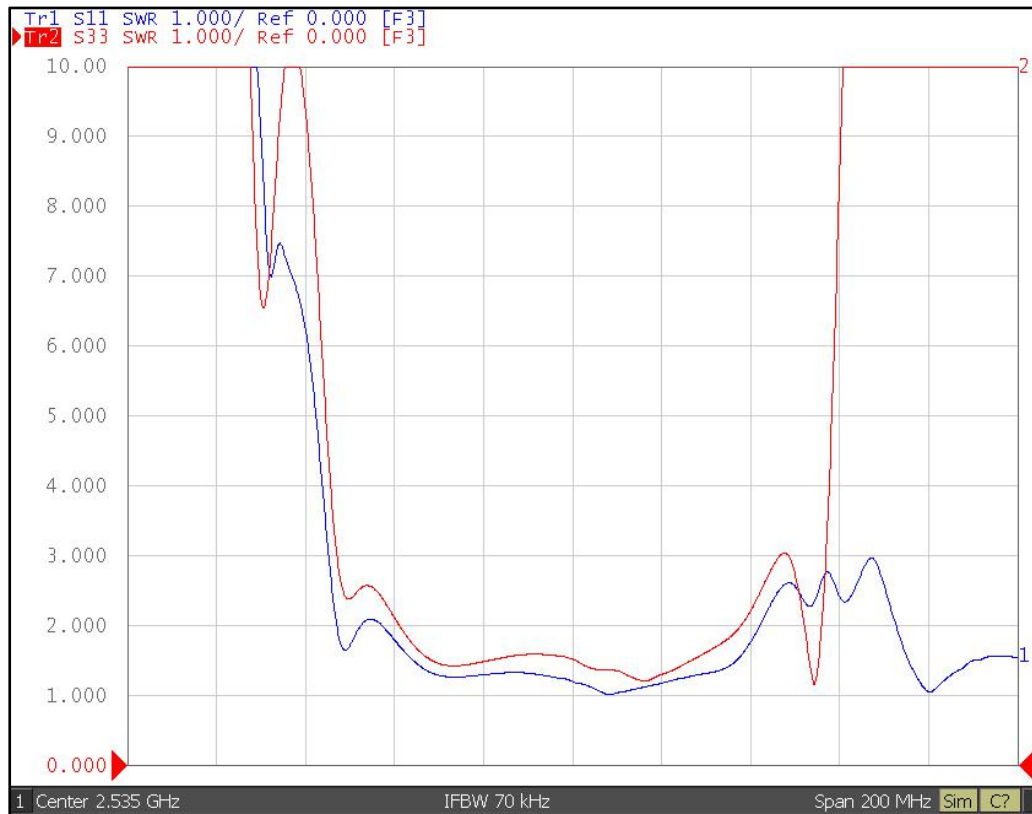
地址：深圳市龙华新区观澜街道高尔夫大道裕新路 65 号

电话(Tel): 0755-28085000

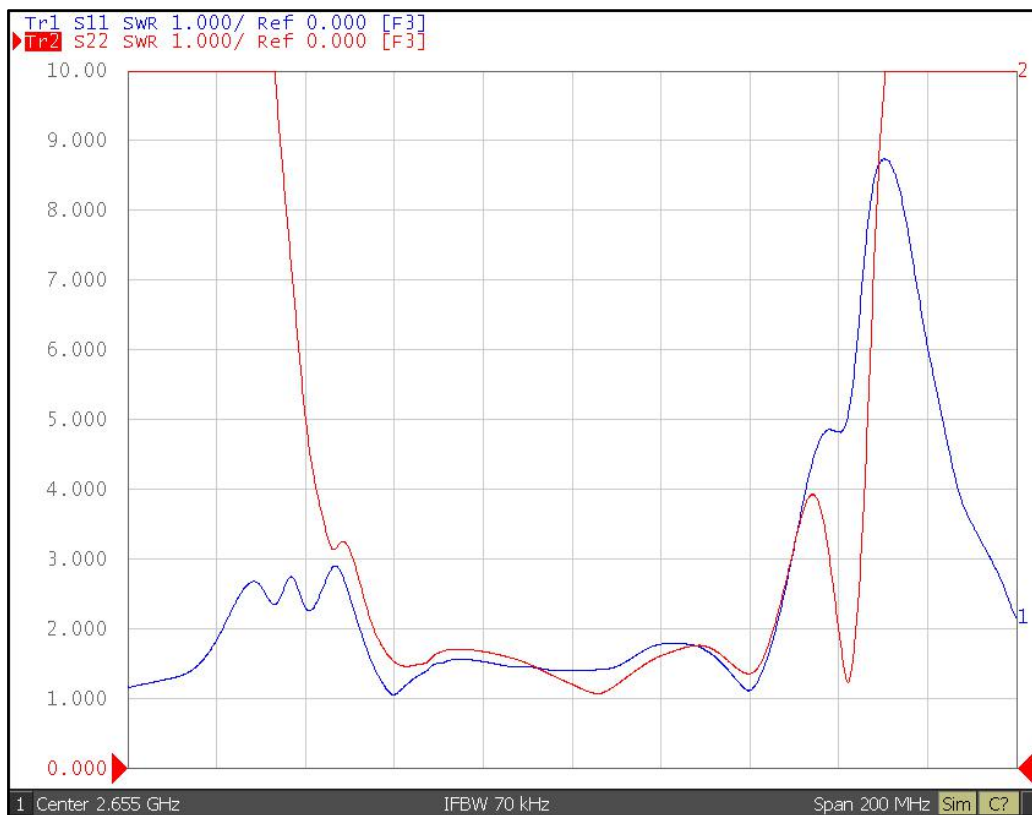
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VSWR Tx to ANT



VSWR ANT to Rx



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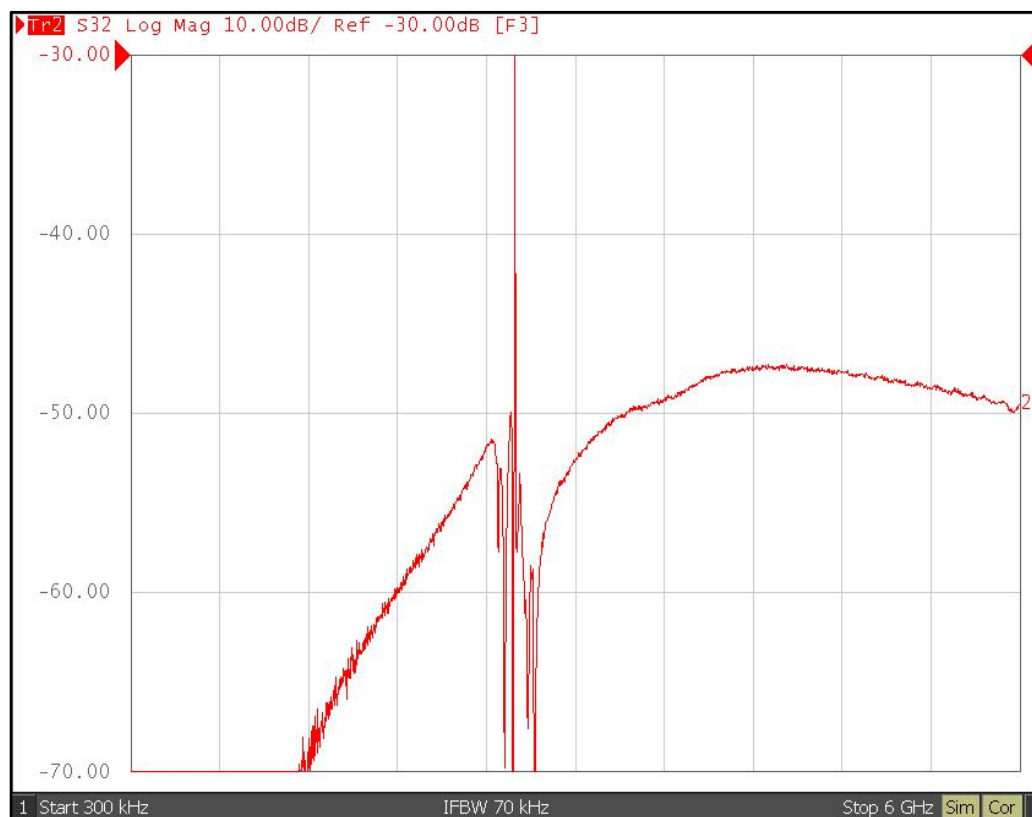
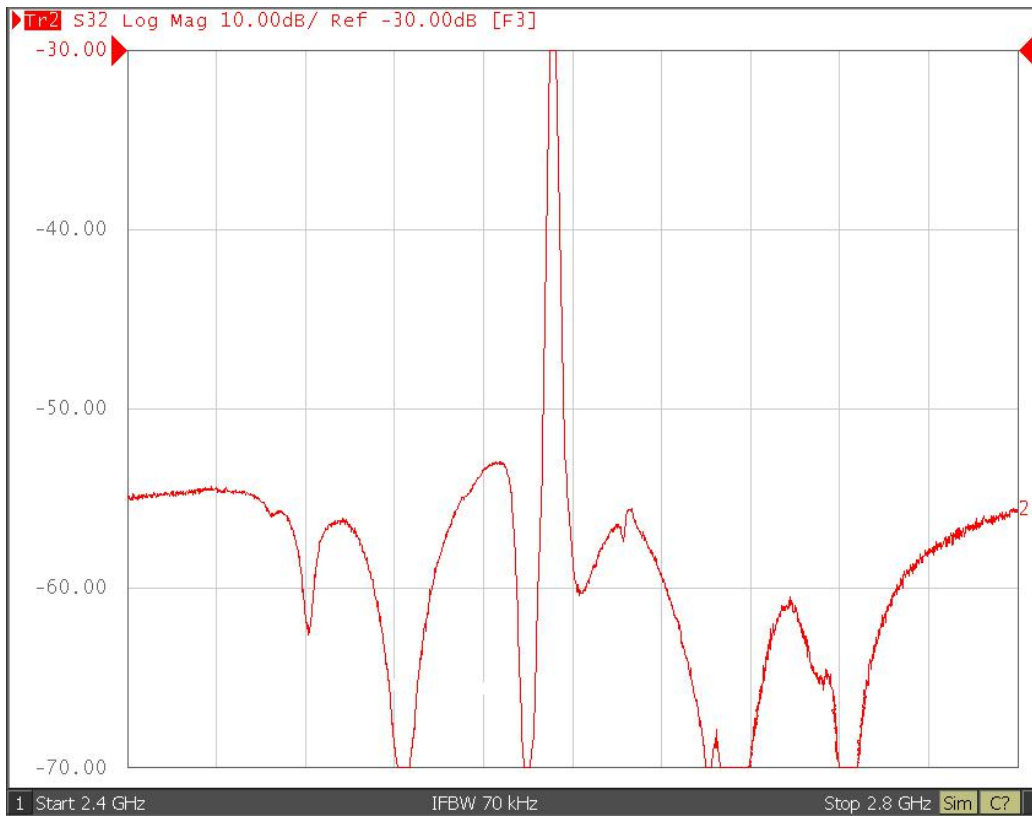
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Isolation Tx to Rx



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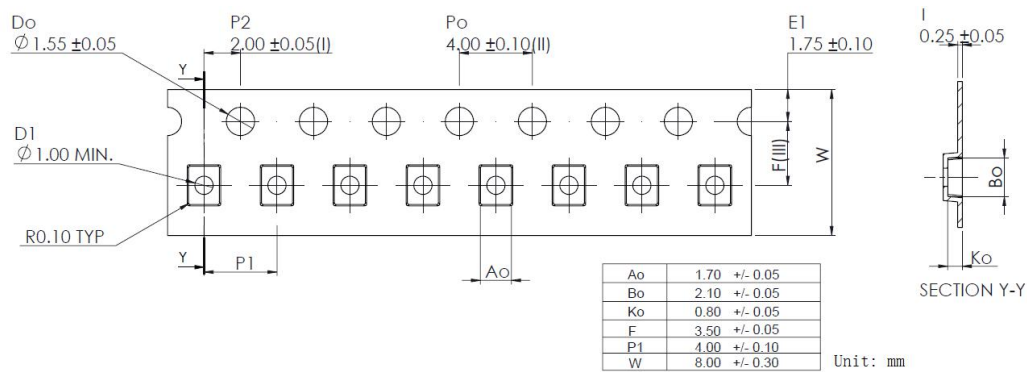
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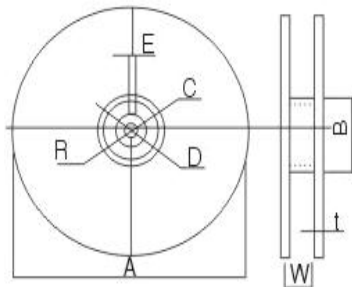
6 包装 Packaging

① 编带尺寸 Dimensions of Tape:



② 带轮尺寸 Dimensions of Reel

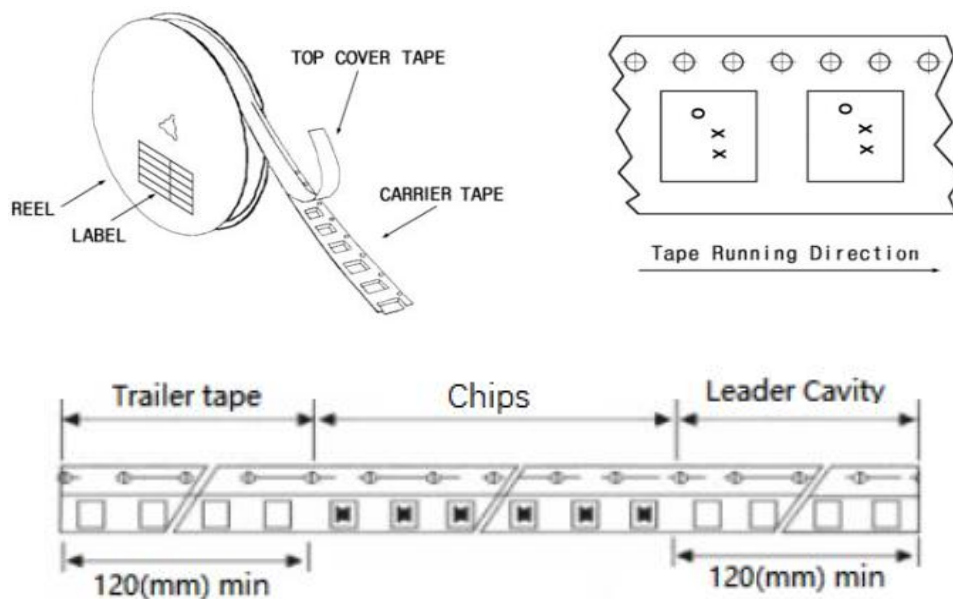
Unit: mm



Reel material: PS (Polystyrene)

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

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



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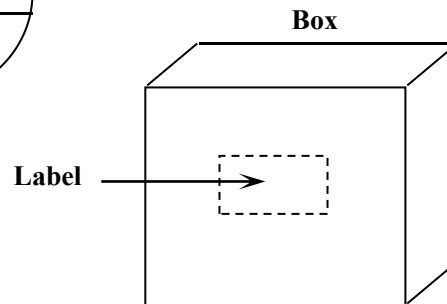
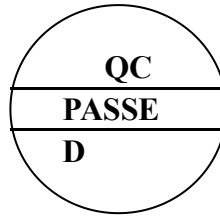
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the surface. The mark will be as following:



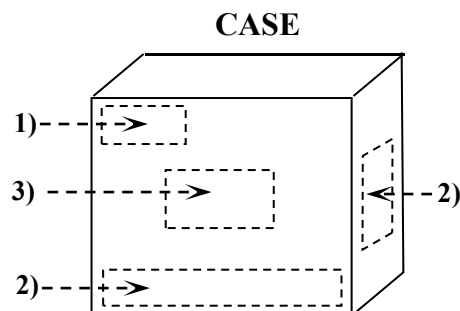
③ 内包装盒标记: Marking on inner box

- 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.