

客户 Customer: \_\_\_\_\_

日期 DATE: \_\_\_\_\_

# 纳入仕様书

## SPECIFICATION

产 品 名 称 PRODUCT NAME: 声表滤波器

SAW Filter

贵 司 料 号 YOUR PART NO.: \_\_\_\_\_

敝 司 料 号 OUR PART NO.: MS11U1G90-TX39S

版 本 号 VERSION.: V1.3

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.<br>批准 | CHKD.<br>审核 | DSGD.<br>担当 |
|-------------|-------------|-------------|
| 姚艳龙         | 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 | 2015.09.16 | 初稿 /New Released     | 梁启新         |
| 1.1 | 2018.09.26 | 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         |

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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.

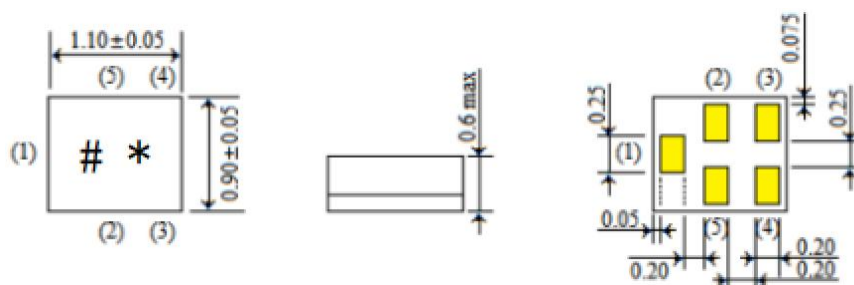
## 2 品名构成 Product Identification

MS 11 U 1G90 - TX 39 S  
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: (1G90-1.90GHz)
- ⑤ 型号/Type: (QP-QPX, DU-Duplexer, DI-Diplexer, TX-TX SAW, RX-RX SAW)
- ⑥ 频段/Band: (39-Band39)
- ⑦ 流水号/Serial number

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

Unit:mm

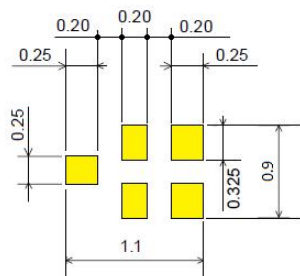


| PIN NO.  | (1)   | (2) | (3) | (4)    | (5) |
|----------|-------|-----|-----|--------|-----|
| PIN Name | Input | GND | GND | Output | GND |

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

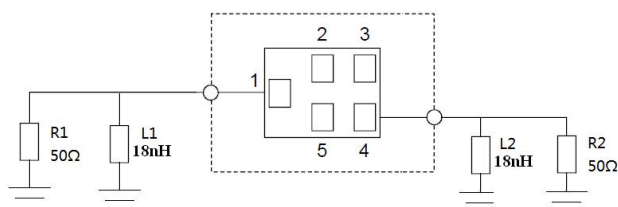
Land Pattern

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°C

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

测试温度范围 Test Temperature: 25°C±2°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)

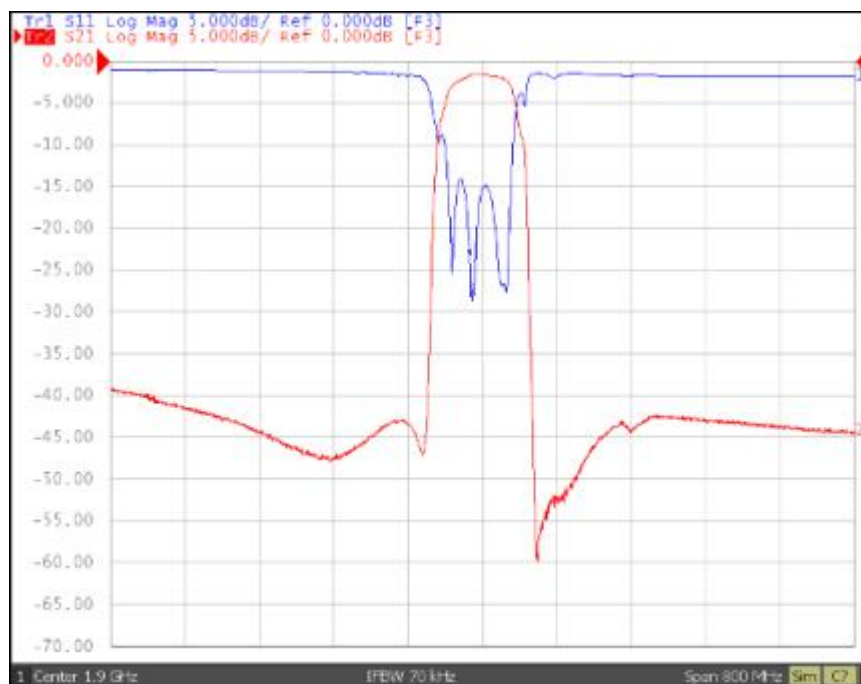
端口电压 D.C. Volatage between the terminals: 3V (25°C±2°C)

Table1. Electrical Specification

| No. | Item               |                         | Frequency<br>(MHz) | Specification |     |      |      |
|-----|--------------------|-------------------------|--------------------|---------------|-----|------|------|
|     |                    |                         |                    | Min           | Max | Typ. | Unit |
| 1   | Tx to ANT          | Insertion Loss          | 1880 ~1920         |               | 2.3 | 1.9  | dB   |
| 2   |                    | Ripple Deviation        | 1880 ~1920         |               | 1.4 | 0.9  | dB   |
| 3   |                    | Absolute<br>Attenuation | 10~1605.89         | 28            |     | 32   | dB   |
| 4   |                    |                         | 880~960            | 27            |     | 31   | dB   |
| 5   |                    |                         | 1805~1830          | 40            |     | 47   | dB   |
| 6   |                    |                         | 1830~1850          | 10            |     | 25   | dB   |
| 7   |                    |                         | 2010~2025          | 35            |     | 45   | dB   |
| 8   |                    |                         | 2300~2400          | 36            |     | 43   | dB   |
| 9   |                    |                         | 2400~2500          | 35            |     | 44   | dB   |
| 10  |                    |                         | 2500~2690          | 27            |     | 35   | dB   |
| 11  |                    |                         | 2690~5000          | 30            |     | 38   | dB   |
| 12  |                    | VSWR                    | 1880 ~1920         |               | 2.0 | 1.6  |      |
| 13  | Input Signal Level |                         | +30 dBm            |               |     |      |      |

### Frequency Performance

Frequency Response



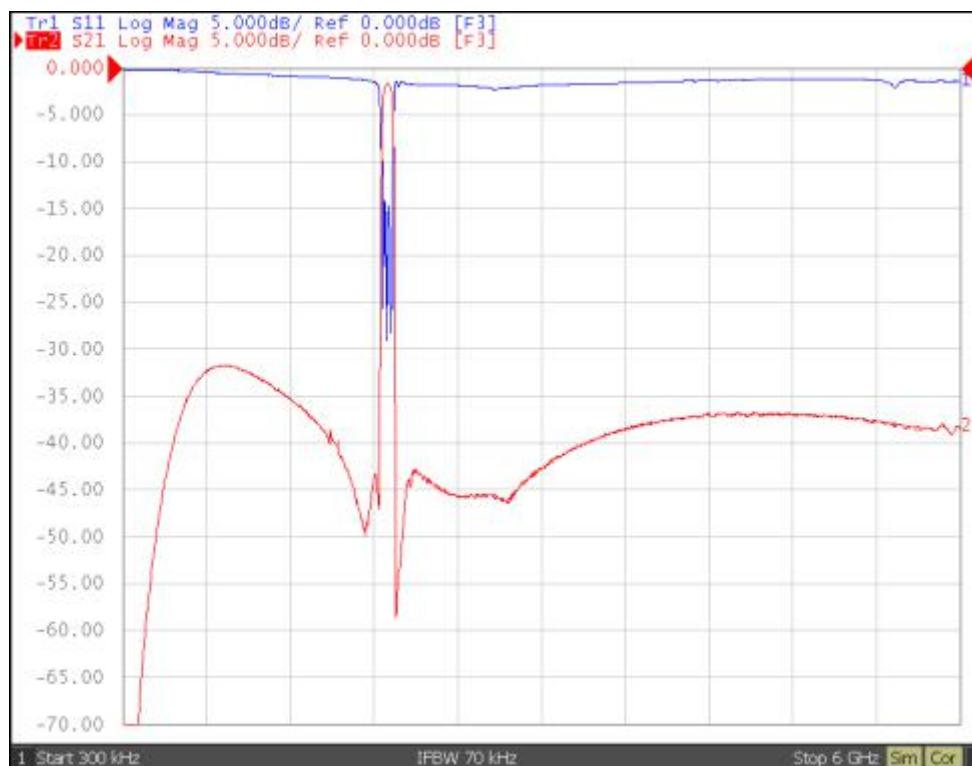
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VSWR



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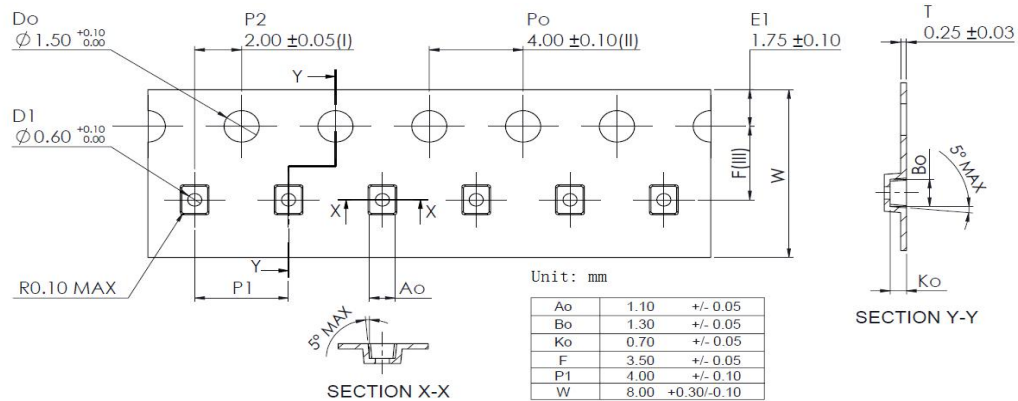
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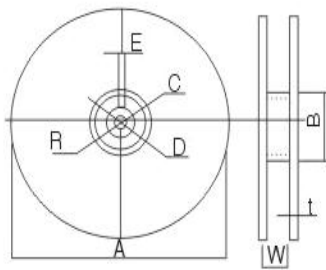
## 6 包装 Packaging

### ① 编带尺寸 Dimensions of Tape:



### ② 带轮尺寸 Dimensions of Reel

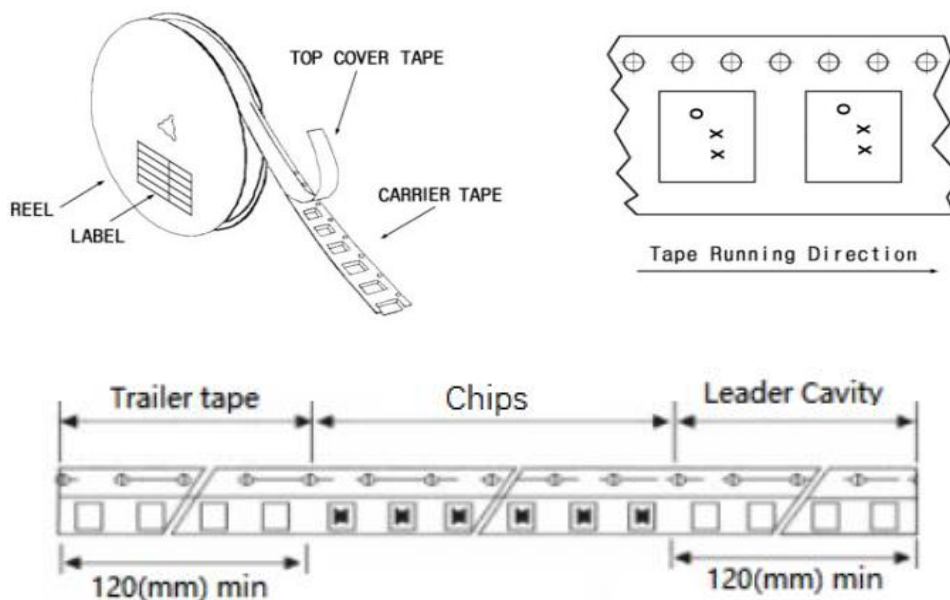
Unit: mm



|   |          |
|---|----------|
| 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 |

Reel material: PS (Polystyrene)

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



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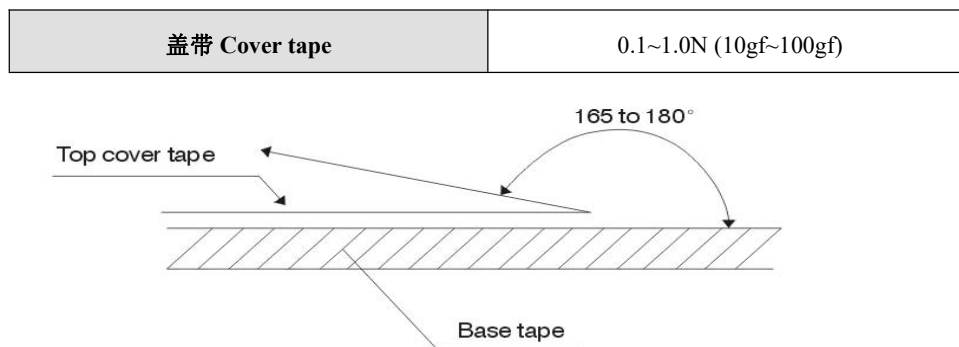
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④ 盖带的剥离强度 Peeling strength of cover tape:



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: 5000 PCS / Reel

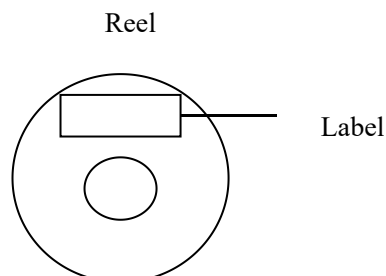
## 7 装箱清单及标志 Packing documents and marking

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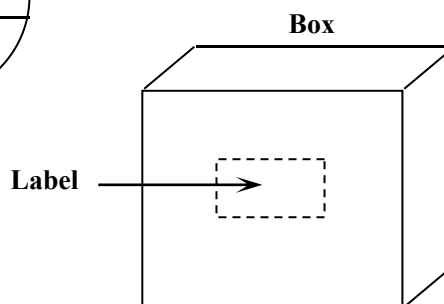
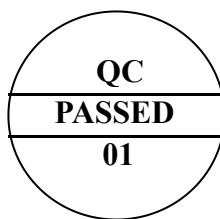
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检验合格后,检验员在标签上盖上合格章。合格章如下所示: The eligible reels will be pressed a mark onto the surface. The mark will be as following:



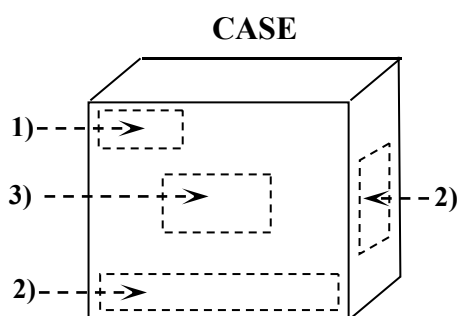
③ 内包装盒标记:Marking on inner box

- 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.