

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.: MS18U1G74-DU03C

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
TEL: 86-755-28085000
FAX: 86-755-28085605

CFMD. 批准	CHKD. 审核	DSGD. 担当
赵拥军	赖定权	赵新佳

深圳市麦捷微电子科技股份有限公司
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 传真(Fax): 0755-28085605

邮编(Postcode): 518110

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
0.0	2017.5.25	预稿 /preliminary	梁启新
1.0	2018.02.07	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	2020.01.15	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。

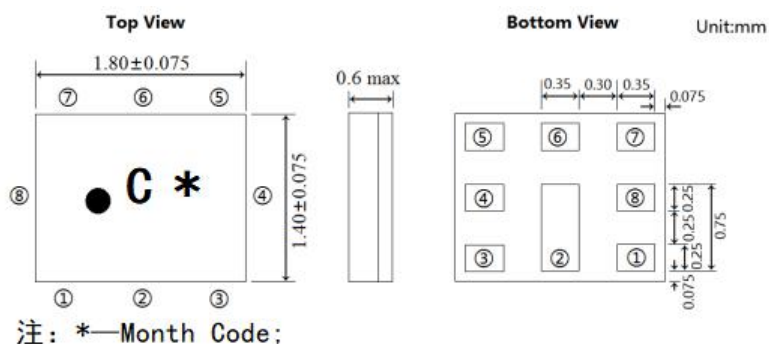
Microgate SAW Component is applicable for WIFI/GPS/Mobile phone/Cordless phone relevant market.

2 品名构成 Product Identification

MS 18 U 1G74 - DU 03 C
① ② ③ ④ ⑤ ⑥ ⑦

- ① 麦捷声表滤波器/Microgate SAW
- ② 尺寸/Size: 18(20-2016, 18-1814,15-1511,14-1411, 11-1109)
- ③ 输出/Output: U(B-Balance out, U-Unbalance out)
- ④ 频率/Frequency: 1G74 -1.74GHz
- ⑤ 型号/Type: DU(QP-QPX,DU-Duplexer, DI-Diplexer, TX-TX SAW, RX-RX SAW)
- ⑥ 频段/Band: 03-Band3
- ⑦ 流水号/Serial number

3 尺寸和管脚定义 Dimensions and PIN Configurations

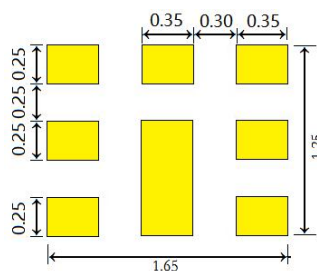


PIN NO.	①	②	③	④	⑤	⑥	⑦	⑧
PIN Name	RX	GND	TX	GND	GND	ANT	GND	GND

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

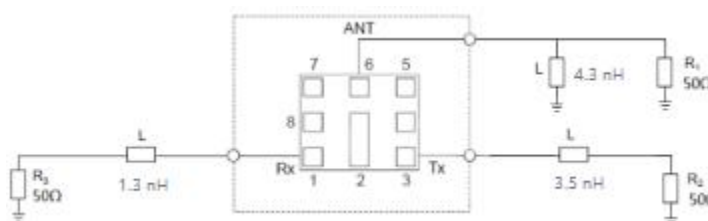
Land Pattern

Unit:mm



Test Circuit

Top 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	Tx to ANT	Insertion Loss	1710.24 ~1784.76		3	2
2		Ripple Deviation	1710.24 ~1784.76		1.8	1
3			10~1565.5	26		30
4			1565.42~1585.42	30		34
5			1597.55~1605.89	33		37
6			1805.24~1879.76	35		44
8			1920~1980	25		32
9			2110~2170	27		35
10			2400~2500	27		35
11			2620~2690	27		35
12			3420~3570	20		29
13			5130~5355	15		22
14		VSWR	1710.24 ~1784.76(Tx)		2.3	1.7
15			1710.24 ~1784.76(ant)		2.3	1.7
16	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	1805.24~1879.76		3.5	2.2
2		Ripple Deviation	1805.24~1879.76		2	1
3		Absolute Attenuation	10~1710	38		42
5			1615~1690	38		45
6			1710.24~1784.76	40		45
7			2400~2500	40		48
8			2500~2570	30		40
9			2570~3515	30		38
10			3515~3760	30		44
11		VSWR	1805.24~1879.76(ant)		2.3	1.8
12			1805.24~1879.76(Rx)		2.3	1.8

Table3. Electrical Specification

No.	Item		Frequency (MHz)	Specification		
				Min (dB)	Max (dB)	Typ. (dB)
1	Tx to Rx	Isolation	1710.24~1784.76	51		54
2			1805.24~1879.76	50		53

Table4. Electrical Specification

No.	Item		Specification	
1	Terminating Match Impedance	ANT Port	50Ω/4.3nH	Single-ended
2		Tx Port	50Ω+3.5nH	Single-ended
3		Rx Port	50Ω+1.3nH	Single-ended

Frequency Performance

TX to ANT



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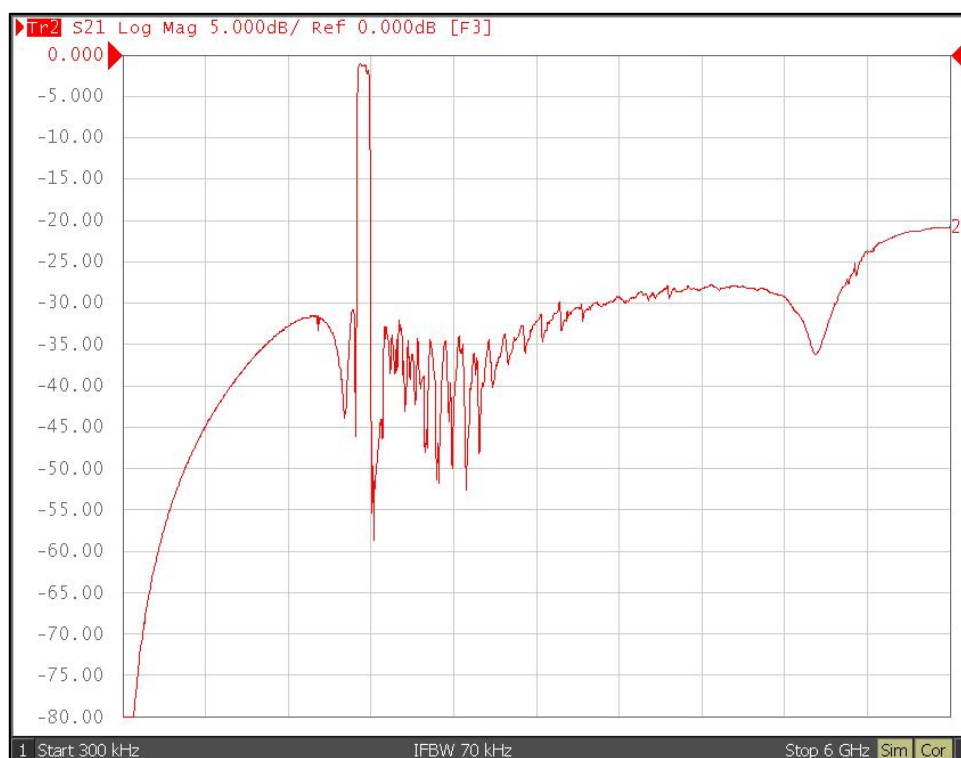
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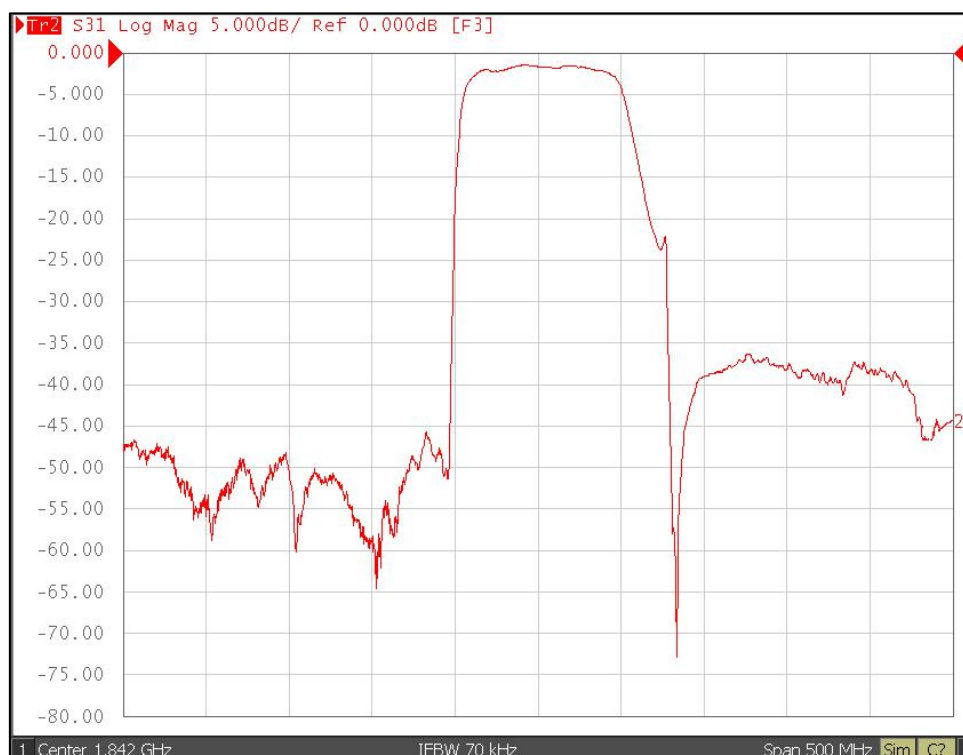
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ANT to RX



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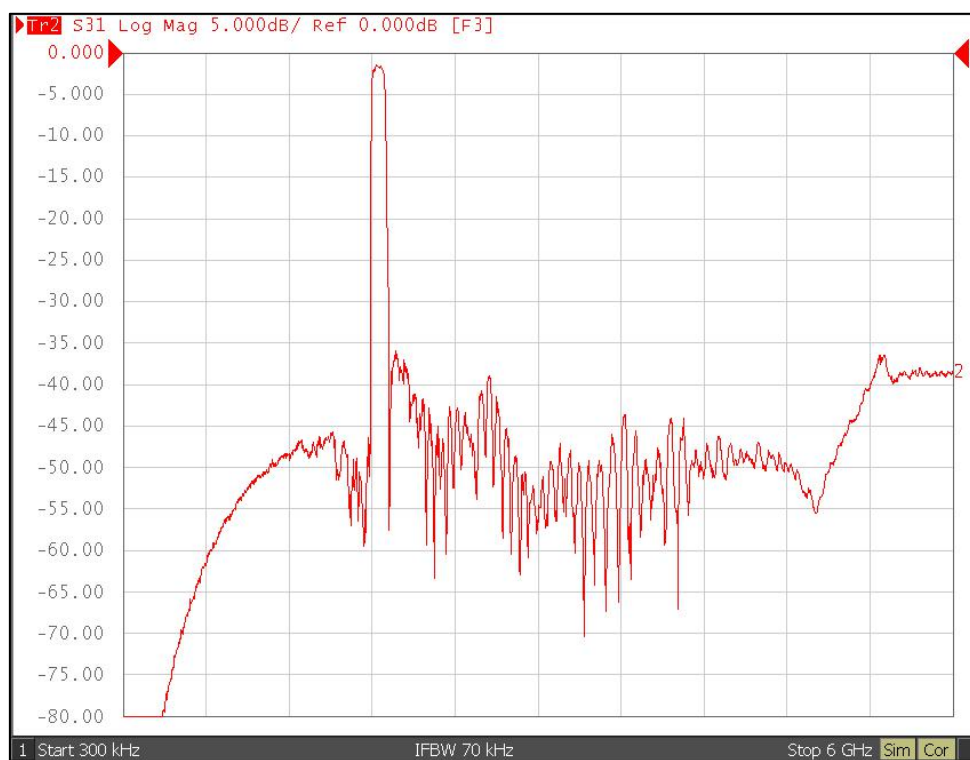
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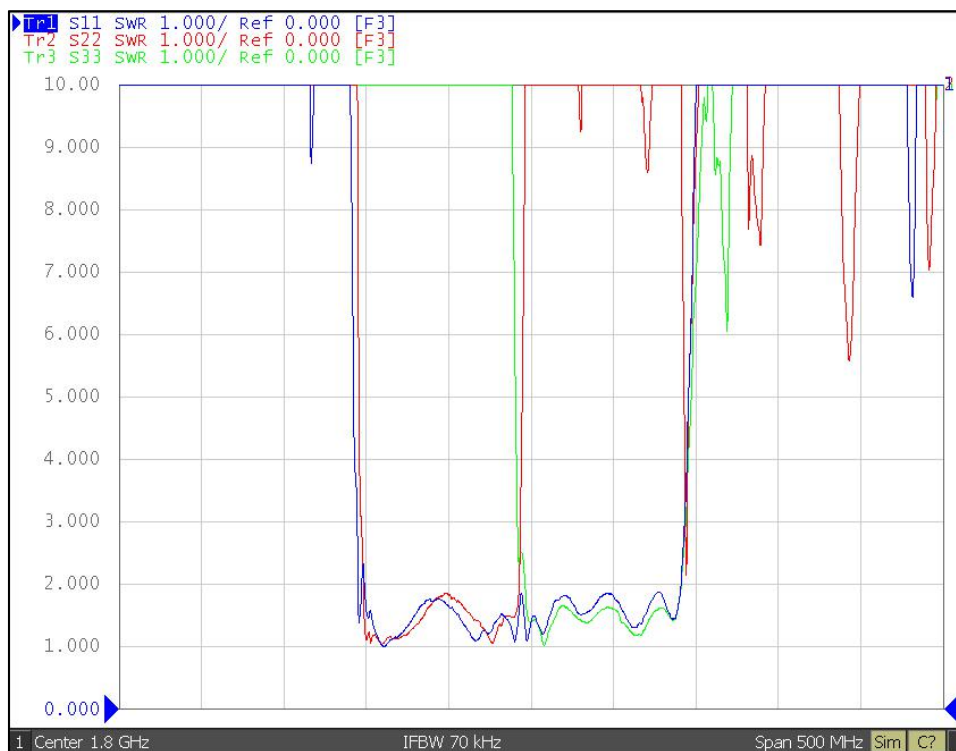
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VSWR



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Isolation



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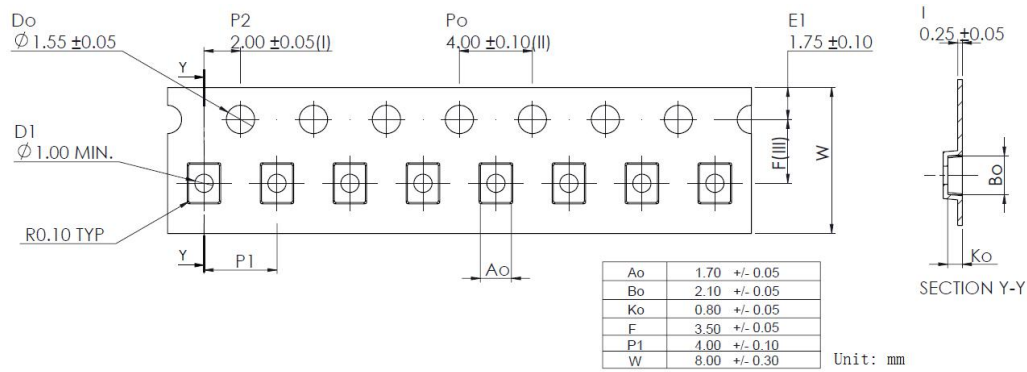
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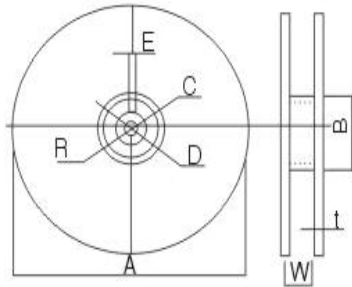
6 包装 Packaging

① 编带尺寸 Dimensions of Tape:



② 带轮尺寸 Dimensions of Reel

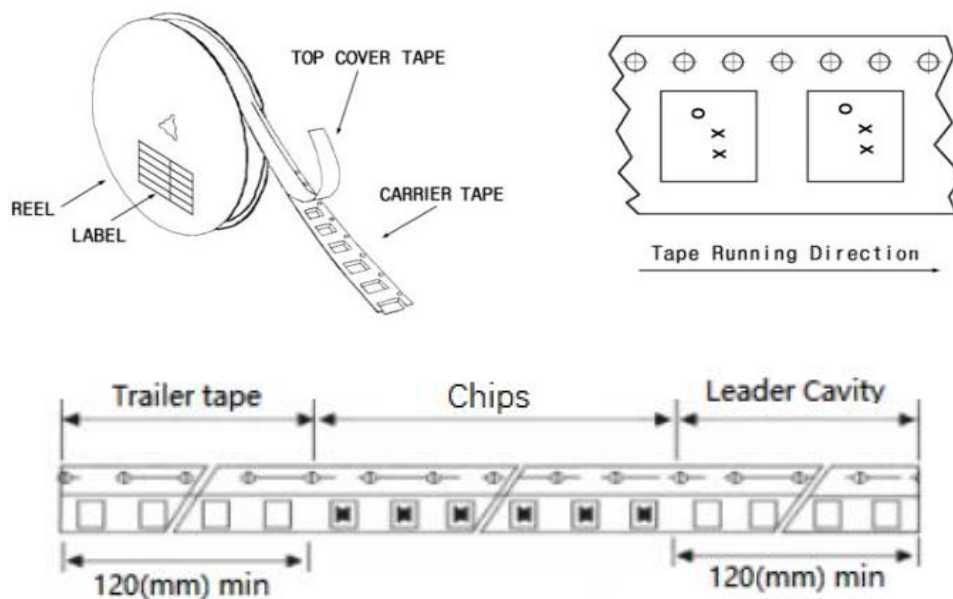
Unit: mm



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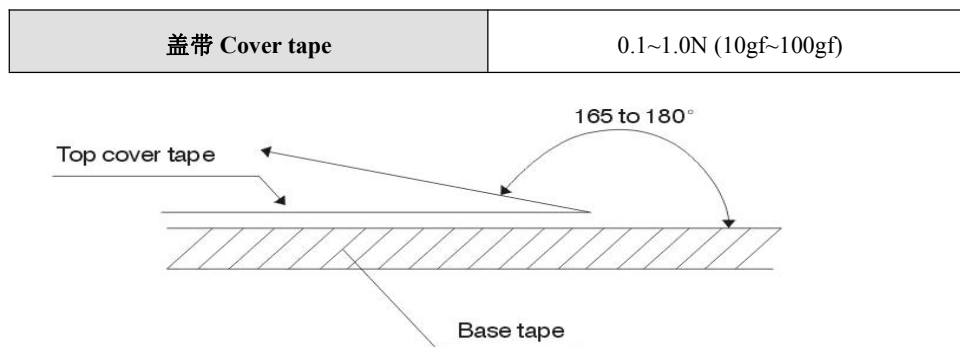
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④ 盖带的剥离强度 Peeling strength of cover tape:



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

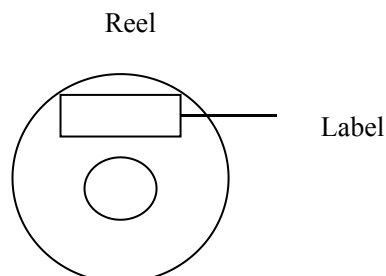
7 装箱清单及标志 Packing documents and marking

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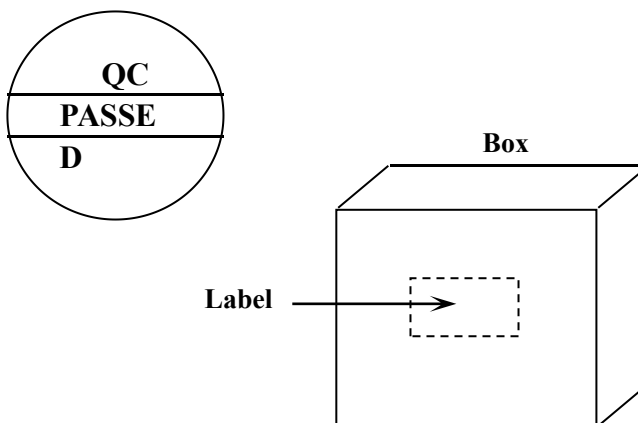
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检验合格后,检验员在标签上盖上合格章。合格章如下所示: The eligible reels will be pressed a mark onto the surface. The mark will be as following:



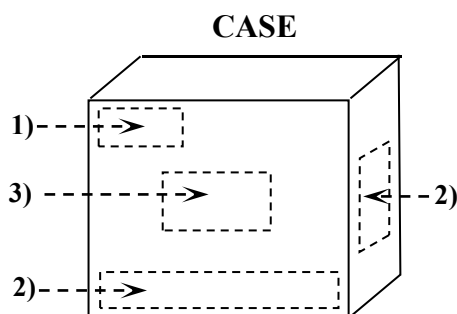
③ 内包装盒标记:Marking on inner box

- 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.