

客户 Customer: \_\_\_\_\_

日期 Date: \_\_\_\_\_

# 纳入仕様书 SPECIFICATION

产 品 名 称 PRODUCT NAME: 微波带通滤波器

Microwave Band-Pass Filter

贵 司 料 号 YOUR PART NO.: \_\_\_\_\_

敝 司 料 号 OUR PART NO.: MBPF18M5425P69-N106

版 本 号 VERSION.: V2.1

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

本纳入仕様书共 9 页

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## 纳入仕様书改定履历 MODIFY HISTORY OF SPECIFICATION

| Ver.. | DATE       | CONTENT                          | APPROVED |
|-------|------------|----------------------------------|----------|
| 1.0   | 2015.08.26 | 初稿 Constitute                    | 梁启新      |
| 2.0   | 2018.02.23 | 添加外观尺寸 Add Appearance Dimensions | 梁启新      |
| 2.1   | 2020.08.23 | 更新包装 Modify Packaging            | 付迎华      |

## 目录 CATALOG

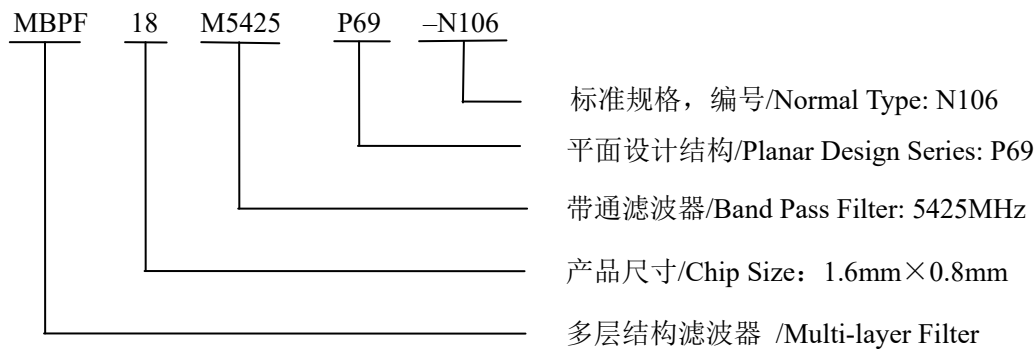
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## 1 适用范围 Scope

“麦捷”微波带通滤波器系列产品设计用于 5G、LTE、WIFI、Bluetooth、PDA 和无绳电话机中，具有低的插入损耗、高的衰减和小体积 SMD 片式设计，能减少复杂的调校工作，可以简化电路设计。

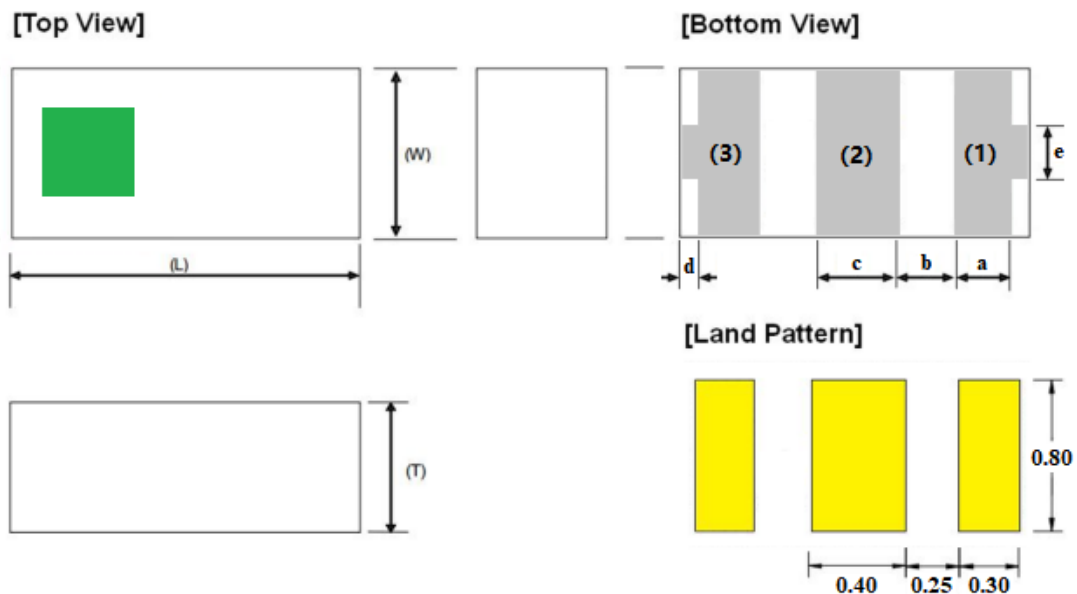
“Microgate” Microwave Band-Pass filter series are designed to be used in G、LTE、WIFI、Bluetooth、PDA & cordless phones with low insertion loss and high attenuation as well as small size SMD chip design , which can simplify your complex tuning and circuit design .

## 2 品名构成 Product Identification



## 3 形状、尺寸和材料 Appearance, Dimensions and Material

Unit: mm



### [Terminal Configuration]

|        |     |        |
|--------|-----|--------|
| (1)    | (2) | (3)    |
| IN/OUT | GND | IN/OUT |

### [Dimension]

| L       | W       | T       | a         | b         | c         | d         | e         |
|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|
| 1.6±0.1 | 0.8±0.1 | 0.6±0.1 | 0.25±0.05 | 0.25±0.05 | 0.40±0.05 | 0.10±0.05 | 0.25±0.05 |

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| Part Name 名称              | Structure and Material 结构及材料  |
|---------------------------|-------------------------------|
| Resonator 谐振体             | Dielectric Material LTCC 介质材料 |
| In/Output Terminals 输入/输出 | Ag 银                          |
| Ground Base 接地面           | Ag 银                          |

#### 4 测试条件 Testing Conditions

除非另有规定，否则在以下条件下测试 <Unless otherwise specified>

温度 Temperature : Ordinary Temperature (-40 to +85℃)

湿度 Humidity : Ordinary Humidity (25 to 85% RH)

大气压强 Atmospheric Pressure : 86 to 106 kPa

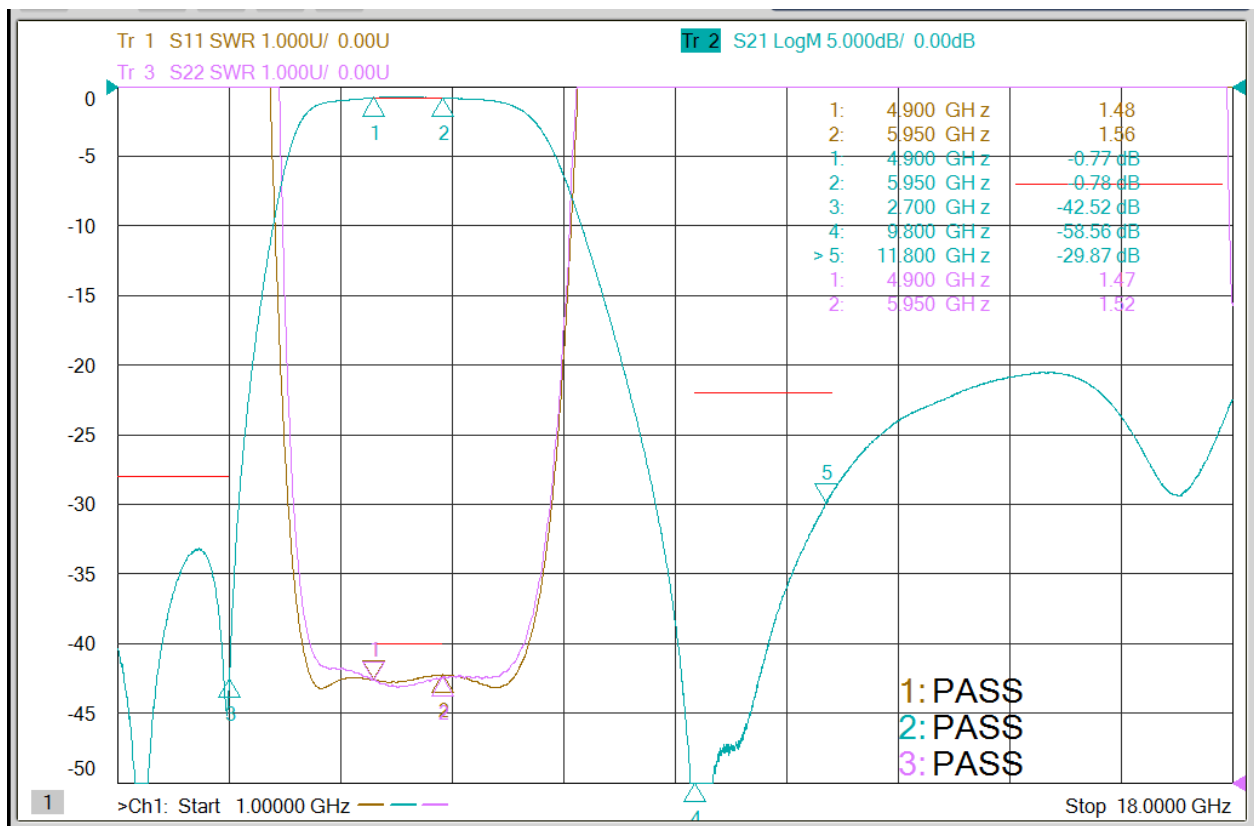
#### 5 电气性能 Electrical Characteristics

操作温度范围 Operating Temperature Range : -40 to +85℃

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

| No. | Item (项目)                   | Frequency (MHz) (频率) | Specifications (特性) |
|-----|-----------------------------|----------------------|---------------------|
| 5.1 | Insertion Loss 插入损耗         | 4900MHz~5950MHz      | 0.85dB Max          |
| 5.2 | Return Loss 回波损耗            | 4900MHz~5950MHz      | 10dB Min            |
| 5.3 | Attenuation 阻带衰耗            | 30.0MHz~2700MHz      | 28dB Min            |
|     |                             | 9800MHz~11900MHz     | 22dB Min            |
|     |                             | 14700MHz~17850MHz    | 7dB Min             |
| 5.4 | Max. Power 最大功率             |                      | 2 W                 |
| 5.5 | In/Output Impedance 输入/输出阻抗 |                      | 50 Ω                |

## 6 特性曲线 Characteristic Curve



## 7 焊接条件 Recommended Soldering Conditions

### 1、焊剂 Flux, Solder

① 使用松香助焊剂，禁止使用卤化物含量超过 0.2wt% 的强酸性助焊剂。

Use rosin-based flux. Don't use highly acidic flux with halide content exceeding 0.2wt% (chlorine conversion value).

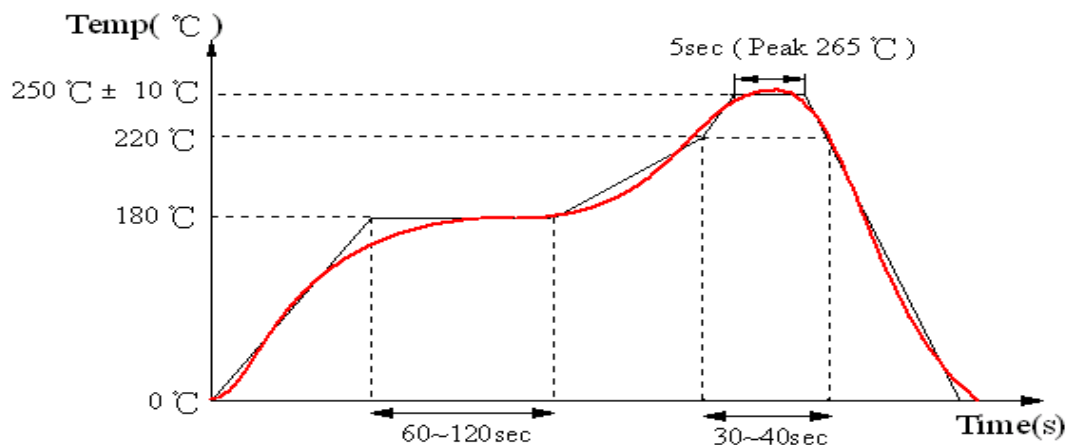
② 使用纯锡焊料 Use Sn solder.

### 2、回流焊条件 Reflow soldering conditions

● 预热时，产品表温与焊料温度的温差最大不允许超出 150℃，焊接完后冷却时，产品表温与溶剂温度之间的温差最大不允许超出 100℃。预热不足有可能引发产品表面裂纹，导致产品品质下降。

Pre-heating should be in such a way that the temperature difference between solder and product surface is limited to 150℃ max. Cooling into solvent after soldering also should be in such a way that temperature difference is limited to 100℃ max. Unwrought pre-heating may cause cracks on the product, resulting in the deterioration of products quality.

● 标准回流焊曲线 Standard soldering profile.



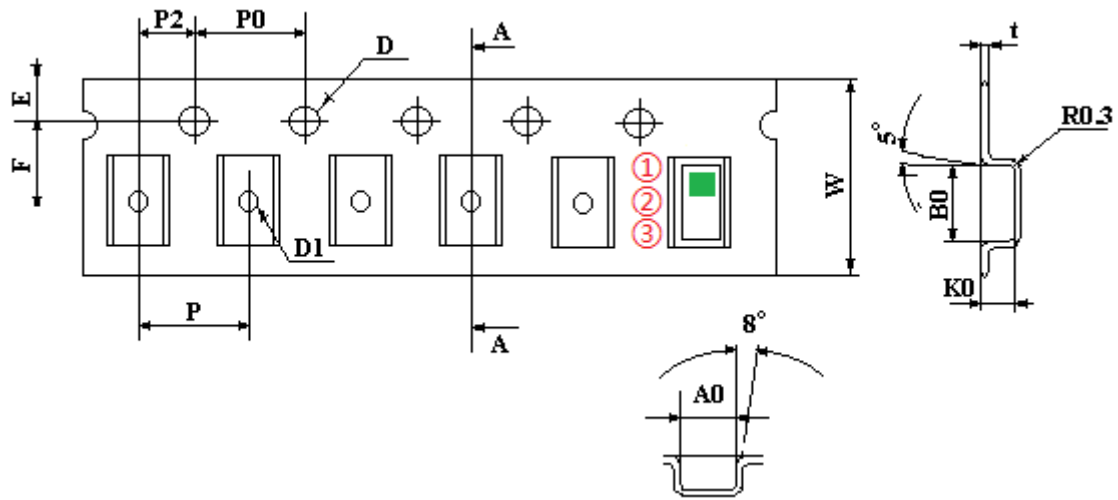
### 3、手工返工 Reworking with soldering iron

当使用电烙铁进行手工焊接时，以下条件必须严格遵守 The following conditions must be strictly followed when using a soldering iron.

|                                |                |
|--------------------------------|----------------|
| 预热 Pre-heating                 | 150℃, 1 minute |
| 尖端温度 Tip temperature           | 350℃ max       |
| 输出功率 Soldering iron output     | 80w max        |
| 电烙铁头尖端尺寸 End of soldering iron | φ3mm max       |
| 焊接时间 Soldering time            | 3 seconds max  |

## 8 包装 Packaging

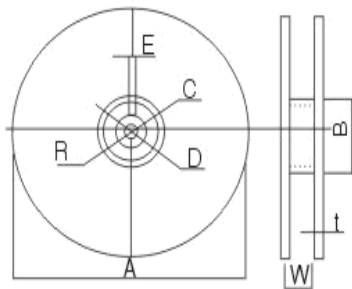
### ①编带尺寸 Dimensions of Tape:



| W               | P          | E         | F         | P2        | D               | D1                      |
|-----------------|------------|-----------|-----------|-----------|-----------------|-------------------------|
| 8.00+0.30/-0.10 | 4.00±0.10  | 1.75±0.10 | 3.50±0.05 | 2.00±0.05 | 1.50+0.10/-0.00 | 0.70+0.25/-0.10         |
| P0              | 10P0       | A0        | B0        | K0        | T               | Tape Material           |
| 4.00±0.10       | 40.00±0.20 | 0.95±0.10 | 1.82±0.10 | 0.75±0.10 | 0.22±0.05       | 塑带 plastic carrier tape |

### ②带轮尺寸 Dimensions of Reel

Unit: mm



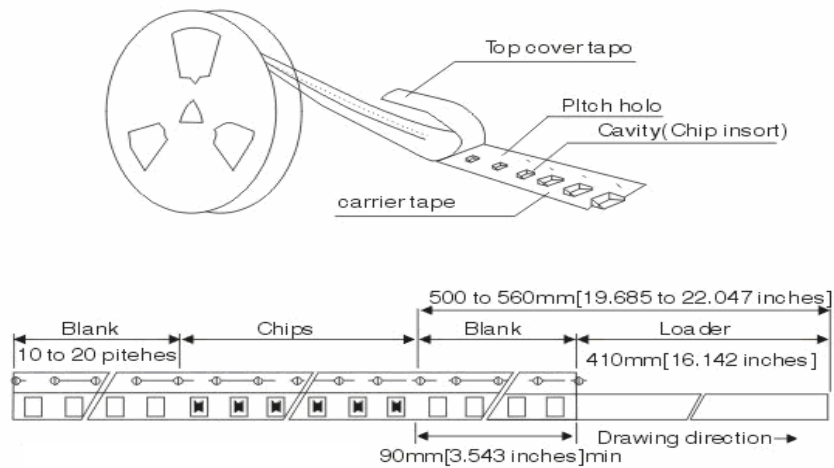
Reel material: PS (Polystyrene)

|   |          |
|---|----------|
| 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编带抗拉强度 Pulling strength of tapes:

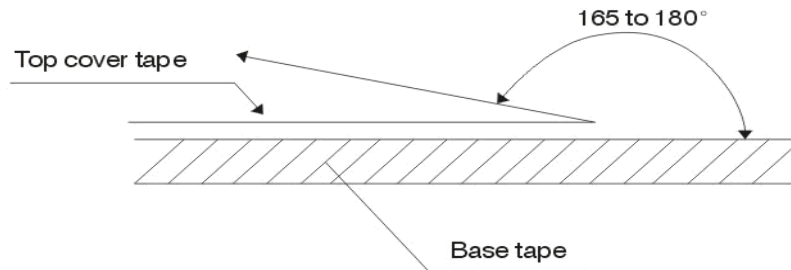
|                 |                            |
|-----------------|----------------------------|
| 载带 Carrier tape | 10N or more (1kgf or more) |
| 上盖带 Cover tape  | 5N or more (1kgf or more)  |

④编带简图及拉伸方向 Taping figure and drawing direction:



⑤盖带的剥离强度 Peeling strength of cover tape:

|               |                      |
|---------------|----------------------|
| 盖带 Cover tape | 0.3~0.7N (30gf~70gf) |
|---------------|----------------------|



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%.

⑥ 包装数量 Packaging quantities: 4000 PCS / Reel