客户　CUSTOMER:　　　　　　　　　　　日期　DATE:

纳入仕样书
SPECIFICATION

产 品 名 称 PRODUCT NAME:	Diplexer
贵 司 料 号 YOUR PART NO.:	
敝 司 料 号 OUR PART NO.:	MDPX21M0917P69-D25
版 本 号 VERSION.:	V1.1

接受 RECEPTION

THE SPECIFICATION HAS BEEN ACCEPTED.

该纳入仕样书已被我司接受

日期:
DATE:

公司:
COMPANY:

批准 CFMD	审核 CHKD	接收 RCVD

本纳入仕样书共 8 页

MANUFACTURING NAME

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
梁启新	付迎华	曾艳峰

纳入仕样书改定履历 MODIFY HISTORY OF SPECIFICATION

Ver.	DATE	CONTENT	APPROVED
1.0	2016.09.13	初稿 Constitute	梁启新
1.1	2019.10.18	更新电性曲线 Update Electrical Curve	付迎华

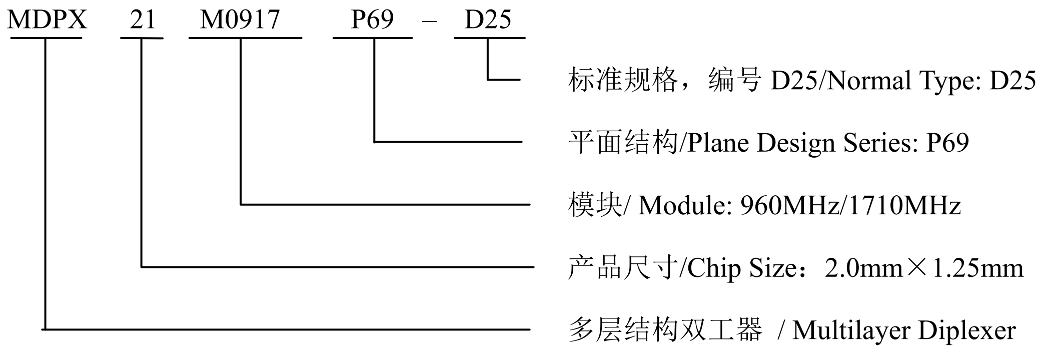
目录 CATALOG

1 适用范围 Scope

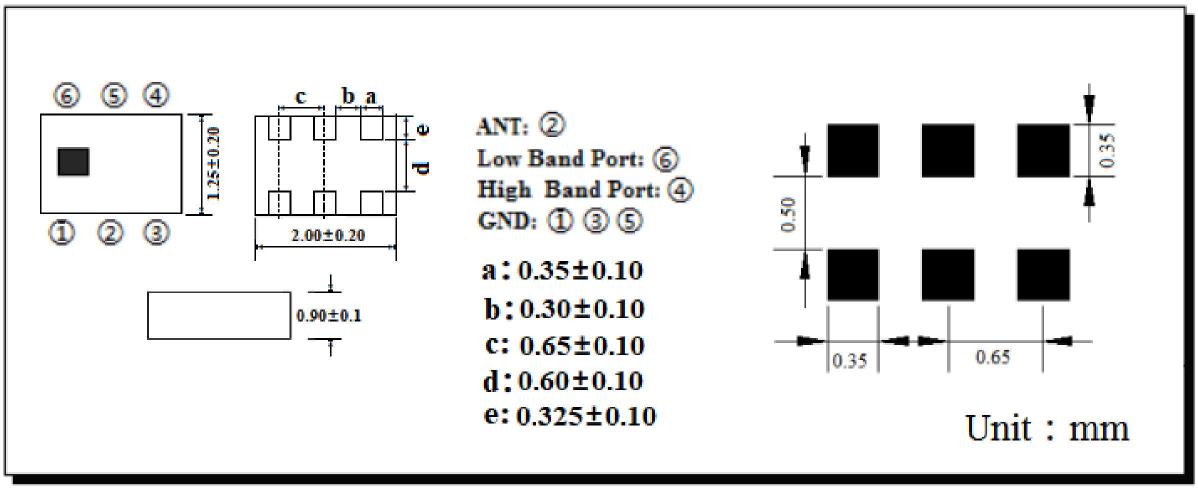
麦捷 Diplexer（MDPX 系列）产品设计用于 PHS、WLAN、GSM、Bluetooth、PDA 和无绳电话机中，具有低的插入损耗、高的衰减和小体积 SMD 片式设计，能减少复杂的调校工作，可以简化电路设计。

"Microgate" Microwave Diplexer series are designed to be used in PHS, WLAN, GSM, 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



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)

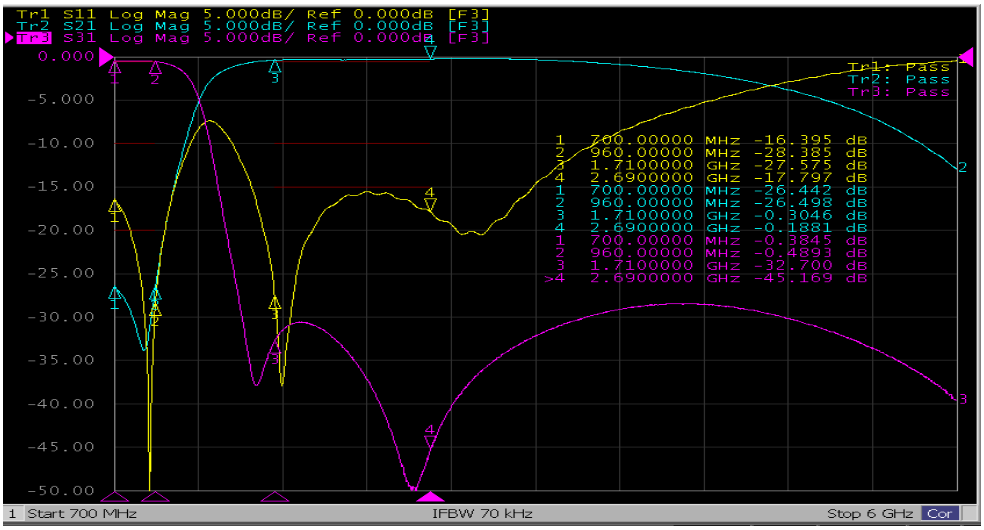
大气压强 Atmospheric Pressure : 86 to 106 kPa

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）	Specifications （特性）
5.1	Insertion Loss （in f1） 插入衰耗	698~960 MHz	≤0.55dB
5.2	Insertion Loss （in f2） 插入衰耗	1710~2690 MHz	≤0.65dB
5.3	V.S.W.R (in BW) 驻波比（in f1 & f2）	698~960 MHz 1710~2690 MHz	≤2.0
5.4	Attenuation 阻带衰耗 （in f1）	1710~2690MHz	≥13dB
5.5	Attenuation 阻带衰耗 （in f2）	698~960MHz	≥19 dB
5.6	Isolation 隔离度（in f1）	1710~2690MHz	≥13dB
5.7	Isolation 隔离度（in f2）	698~960MHz	≥19dB
5.8	In/Output Impedance 输入/输出阻抗		50 Ω
5.9	Power Capacity 功率容量		4W Max.



```
Tr1  S11  Log  Mag  5.000dB/  Ref  0.000dB  [F3]
Tr2  S21  Log  Mag  5.000dB/  Ref  0.000dB  [F3]
Tr3  S31  Log  Mag  5.000dB/  Ref  0.000dB  [F3]

Tr1:  Pass
Tr2:  Pass
Tr3:  Pass

 1   700.00000  MHz  -16.395  dB
 2   960.00000  MHz  -28.385  dB
 3   1.7100000  GHz  -27.575  dB
 4   2.6900000  GHz  -17.797  dB
 1   700.00000  MHz  -26.442  dB
 2   960.00000  MHz  -26.498  dB
 3   1.7100000  GHz  -0.3046  dB
 4   2.6900000  GHz  -0.1881  dB
 1   700.00000  MHz  -0.3845  dB
 2   960.00000  MHz  -0.4893  dB
 3   1.7100000  GHz  -32.700  dB
>4   2.6900000  GHz  -45.169  dB
```

6 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起过 0.2wt%的强酸性助焊剂。

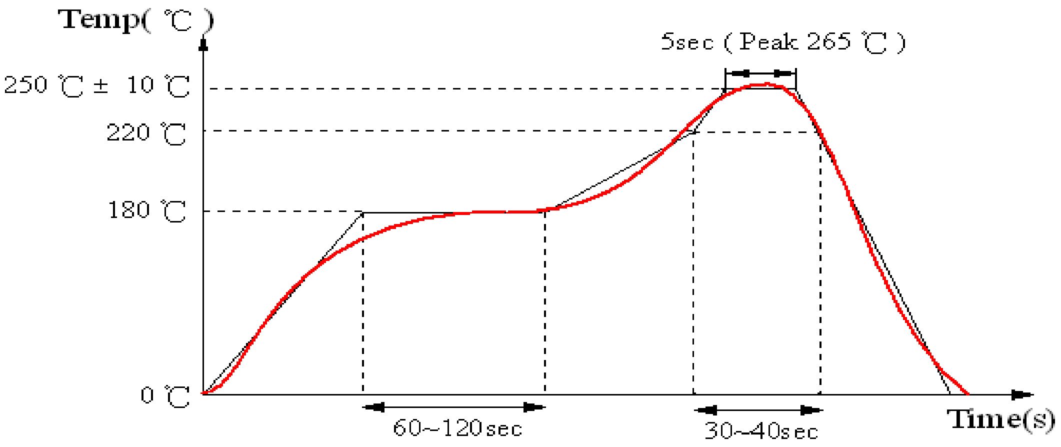
Use rosin-based flux. Don’t use highly acidic flux with halide content exceeding 0.2wt% (chlorine conversion value).

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.



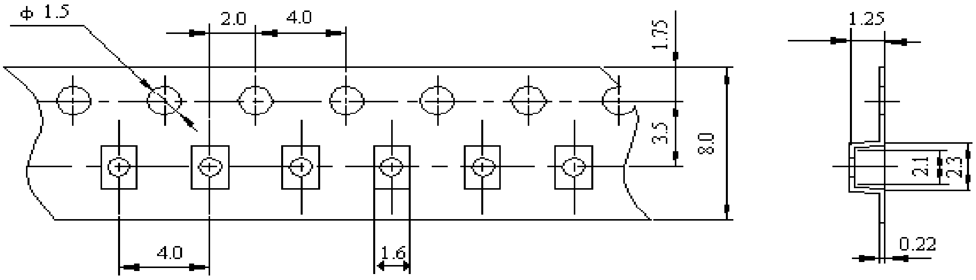
3、手工返工 Reworking with soldering iron

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.

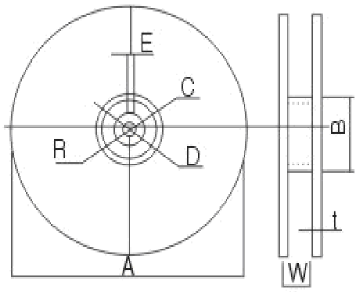
预热 Pre-heating	150℃, 1 minute
尖端温度 Tip temperature	350℃ max
输出功率 Soldering iron output	80w max
电烙铁头尖端尺寸 End of soldering iron	φ3mm max
焊接时间 Soldering time	3 seconds max

7 包装 Packaging

①编带尺寸 Dimensions of Tape:



②带轮尺寸 Dimensions of Reel



Reel material: PS (Polystyrene)

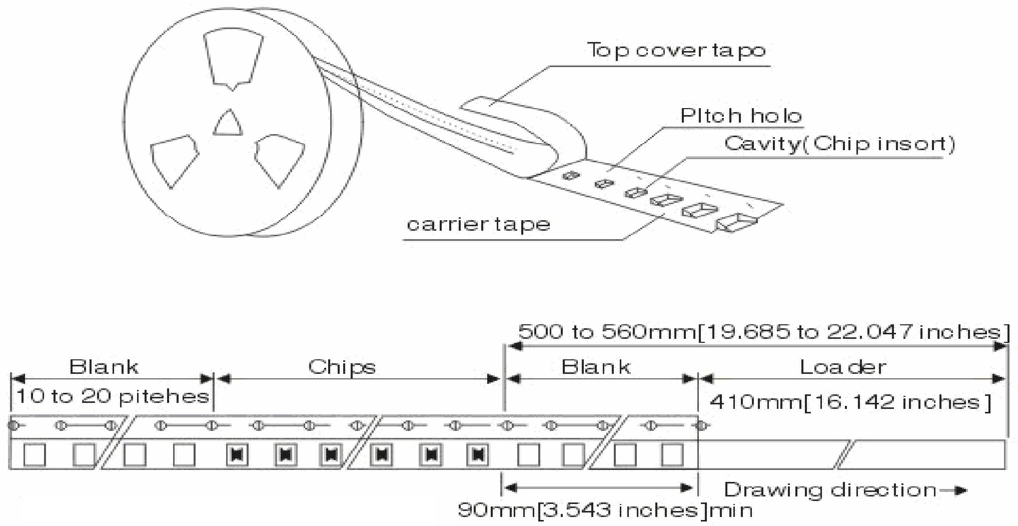
Unit: mm

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

③编带抗拉强度 Pulling strength of tapes:

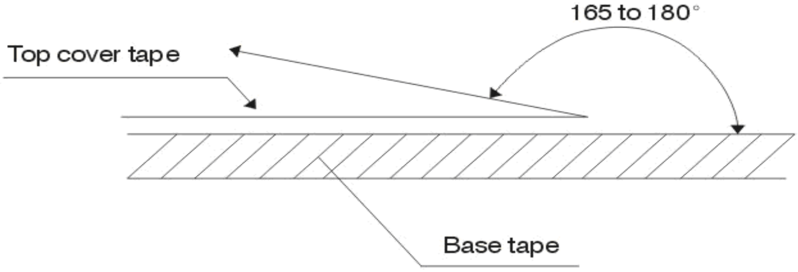
载带 Carrier tape	10N or more (1kgf or more)
上盖带 Cover tape	5N or more (1kgf or more)

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

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: 3000 PCS / Reel