

客户 CUSTOMER: \_\_\_\_\_

日期 DATE: \_\_\_\_\_

Preliminary

# 纳入仕様书 SPECIFICATION

产品名称 PRODUCT NAME: Triplexer

贵司料号 YOUR PART NO.:

敝司料号 OUR PART NO.: MTPX21H152450P69-T22

版本号 VERSION.: V1.0

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 13 页

## MANUFACTURING NAME

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

Ver.	DATE	CONTENT	APPROVED
1.0	2019.12.20	初稿 Constitute	梁启新

## 目录 CATALOG

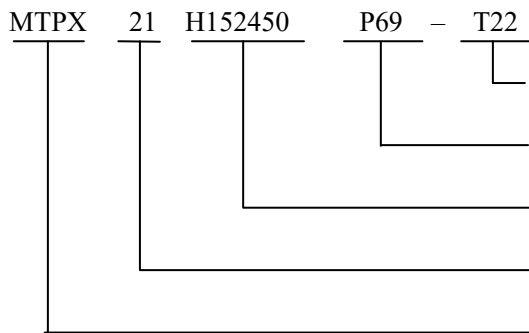
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## 1 适用范围 Scope

麦捷 Triplexer (MTPX 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 Triplexer 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



标准规格, 编号 T22/Normal Type: T22

平面结构/Plane Design Series: P69

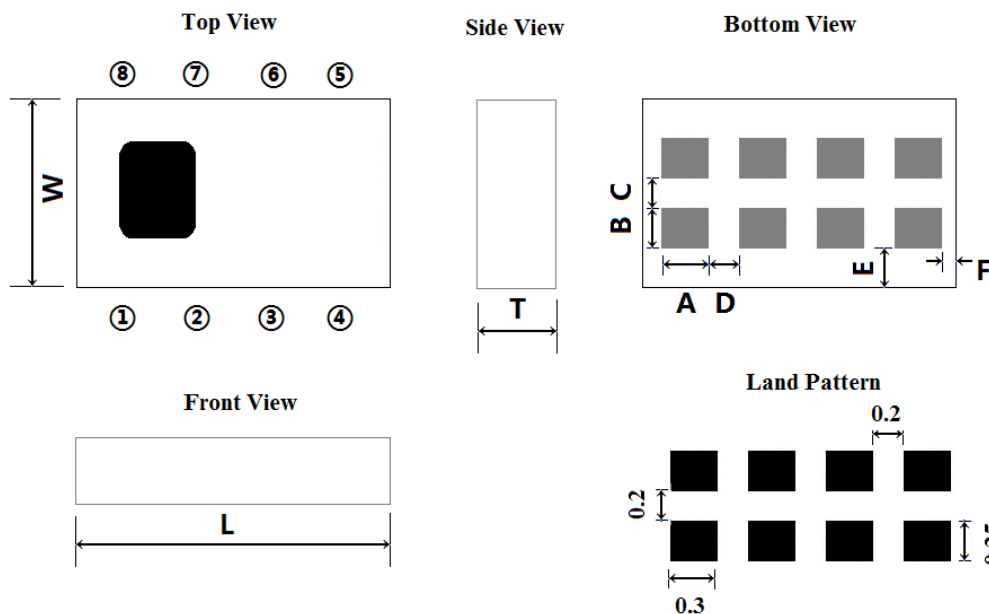
模块/ Module: 1575MHz/2450MHz/5.4GHz

产品尺寸/Chip Size: 2.0mm × 1.25mm

多层结构三工器 /Triplexer

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

Unit: mm



①	②	③	④	⑤	⑥	⑦	⑧
GND	Common Port	GND	Low band port	GND	Middle band port	GND	High band port

Symbol	L	W	T	A	B	C	D	E	F
Dimension	2.00±0.15	1.25±0.15	0.75 max.	0.30±0.10	0.25±0.10	0.20±0.10	0.20±0.10	0.275±0.075	0.1±0.055

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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/Ni 镍/Sn 锡
Ground Base 接地面	Ag 银/Ni 镍/Sn 锡

#### 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°C)

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°C

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

序号	Item (项目)		Specifications (特性)
1	Port Impedance	Low Band Port impedance	50 Ohm
2		Middle Band Port impedance	50 Ohm
3		High Band Port impedance	50 Ohm
4		ANT Port impedance	50 Ohm
5	Pass band Frequency Range	Low Band Port	1559~1606 MHz
6		Middle Band Port	2400~2500 MHz
7		High Band Port	4900~5950 MHz
8	Insertion Loss	Low Band Port	≤0.7 dB@+25°C
			≤0.9 dB@ -40 to +85°C
9		Middle Band Port	≤1.05 dB@+25°C
		≤1.25 dB@ -40 to +85°C	
10	High Band Port	4900~5100 MHz	≤0.9 dB@+25°C
		5150~5950 MHz	≤1.1 dB@ -40 to +85°C
			≤1.0 dB@+25°C
			≤1.2 dB@ -40 to +85°C
11	VSWR	All Port	≤2.0

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12	<b>Low Band Port (P4-P2)</b>			
13	<b>Attenuation</b>	1710~1980MHz		≥0.9 dB
14		2400~2500MHz		≥18 dB
15		4900~5950MHz		≥24 dB
16	<b>Middle Band Port (P6-P2)</b>			
17	<b>Attenuation</b>	1560 – 1606MHz		≥23 dB
18		4800 – 5000MHz		≥30 dB
19		7200 – 7500MHz		≥28 dB
20	<b>High Band Port (P8-P2)</b>			
21	<b>Attenuation</b>	1560 – 1606MHz		≥28 dB
22		10300~11700 MHz		≥20 dB
23		15300~16200MHz		≥16 dB
24	<b>Isolation</b>	Middle to Low	1560~1606 MHz	≥20 dB
			2400~2500 MHz	≥17 dB
25		Middle to High	2400~2500 MHz	≥30 dB
26			4900~5950 MHz	≥27 dB
27		High to Low	1560~1606 MHz	≥30 dB
28			4900~5950 MHz	≥25 dB
29	<b>Power Capacity</b>			2W max.

## 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).

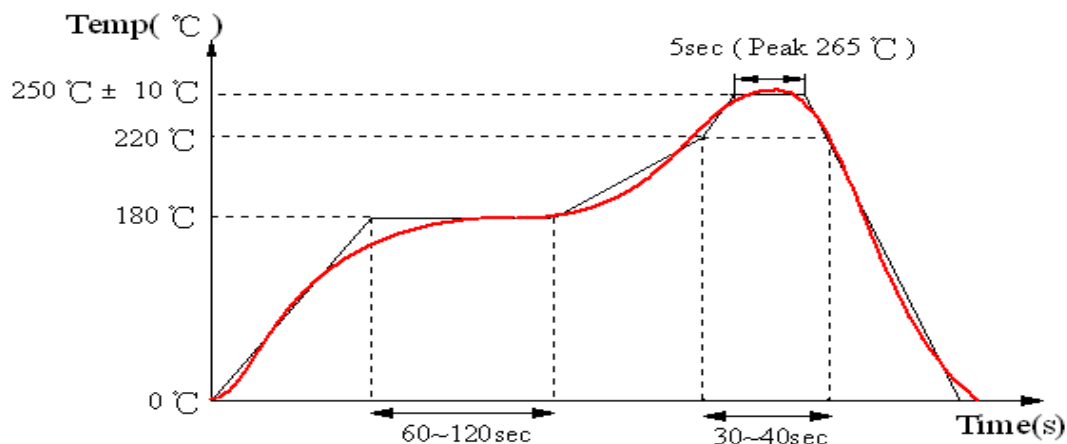
② 使用纯锡焊料 Use Sn solder.

### 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°C, 1 minute
尖端温度 Tip temperature	350°C 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