

客户 CUSTOMER:

日期 DATE:

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.: MTPX22M121544P69-T11 Preliminary

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

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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	2019.07.25	初稿 Constitute	梁启新

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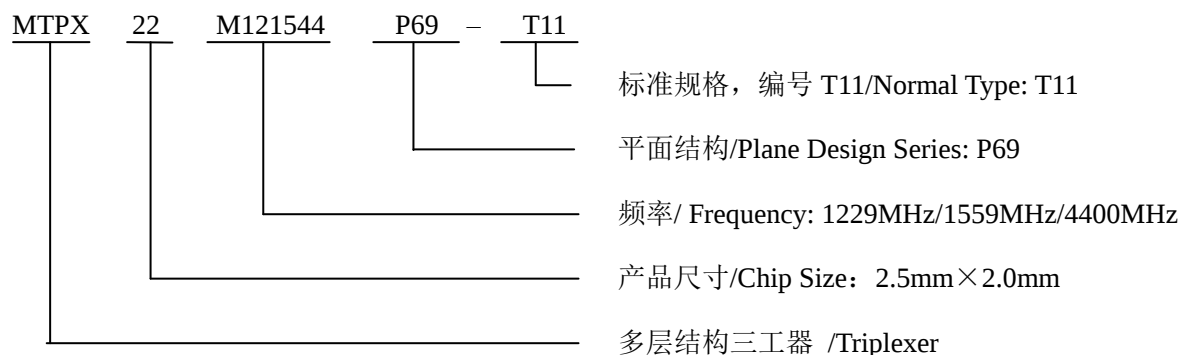
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1 适用范围 Scope

麦捷 Triplexer (MTPX 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。

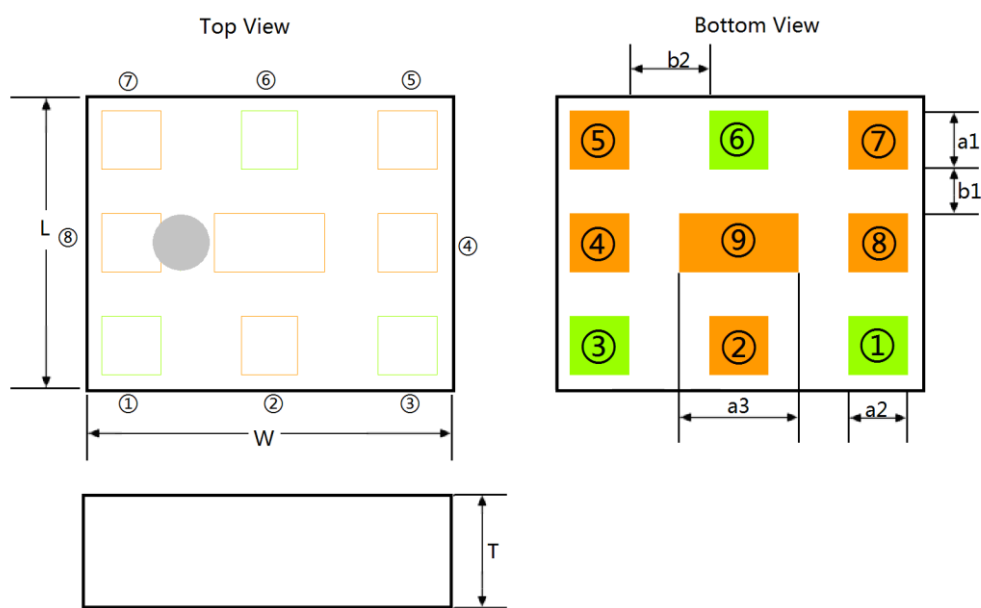
“Microgate” Microwave Triplexer series are designed to be used in 5G、LTE、WiFi、, Bluetooth、PDA & Cordless phones with low insertion loss and high attenuation as well as small size SMD chip design, which can simplify your complex tuning and circuit design.

2 品名构成 Product Identification



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

Unit: mm



Pin Configuration

①	②	③	④	⑤	⑥	⑦	⑧	⑨
High Band	GND	Middle Band	GND	Low Band	GND	Common	GND	GND

Dimension

W	L	T	a1	a2	a3	b1	b2
2.50±0.20	2.00±0.20	0.65 max	0.40±0.10	0.40±0.10	0.90±0.15	0.30±0.10	0.55±0.15

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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 (5 to 35℃)
湿度 Humidity : Ordinary Humidity (25 to 85% RH)

大气压强 Atmospheric Pressure : 86 to 106 kPa

当对测量结果有疑问时<In case of doubt>

温度 Temperature : 20±2℃
湿度 Humidity : 60 to 75% 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℃

LB:Low Band Port MB: Middle Band Port HB: High Band Port ANT: Common Port

Low Band Port

No.	Item		Specifications (dB)
1	Insertion Loss (ANT-LB)	1166.22 ~ 1186.68 MHz	0.57 typ.
2		1205.094 ~ 1209.186 MHz	0.63 typ.
3		1226.577 ~ 1228.623 MHz	0.69 typ.
4	Attenuation (ANT-LB)	638.00 ~ 960.00 MHz	0.5 typ.
5		1427.00 ~ 1463.00 MHz	7.6 typ.
6		1626.50 ~ 1660.50 MHz	21.1 typ.
7		1695.00 ~ 1785.00 MHz	21.3 typ.
8		1850.00 ~ 2025.00 MHz	25.6 typ.
9		2300.00 ~ 2400.00 MHz	22.3 typ.
10		2400.00 ~ 2483.00 MHz	21.3 typ.
11		2500.00 ~ 2690.00 MHz	20.3 typ.
12		3300.00 ~ 3800.00 MHz	40.7 typ.
13		3800.00 ~ 4200.00 MHz	40.4 typ.

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14		4400.00 ~ 4900.00 MHz	40.4 typ.
15		5150.00 ~ 5925.00 MHz	36.0 typ.
16	Return Loss (LB)	1166.00 ~ 1229.00 MHz	26.1 typ.

Middle Band Port

No.	Item		Specifications (dB)
1	Insertion Loss (ANT-MB)	1559.052 ~ 1563.144 MHz	0.73 typ.
2		1574.42 ~ 1576.42 MHz	0.68 typ.
3		1597.55 ~ 1605.89 MHz	0.62 typ.
4	Attenuation (ANT-MB)	638.00 ~ 698.00 MHz	14.5 typ.
5		698.00 ~ 748.00 MHz	14.5 typ.
6		777.00 ~ 798.00 MHz	14.6 typ.
7		807.00 ~ 915.00 MHz	14.6 typ.
8		1559.00 ~ 1606.00 MHz	0.60 typ.
9		3400.00 ~ 3800.00 MHz	29.9 typ.
10		4400.00 ~ 4900.00 MHz	27.1 typ.
11		5150.00 ~ 5925.00 MHz	29.3 typ.
12	Return Loss (MB)	1559.00 ~ 1606.00 MHz	21.7 typ.

High Band Port

No.	Item		Specifications (dB)
1	Insertion Loss (ANT-HB)	4400.00 ~ 5000.00 MHz	0.90 typ.
2	Attenuation (ANT-HB)	699.00 ~ 960.00 MHz	29.3 typ.
3		1427.00 ~ 1511.00 MHz	26.6 typ.
4		1695.00 ~ 2170.00 MHz	26.3 typ.
5		2300.00 ~ 2690.00 MHz	29.2 typ.
6		3300.00 ~ 3800.00 MHz	20.4 typ.
7		3800.00 ~ 4200.00 MHz	1.7 typ.
8		5150.00 ~ 5925.00 MHz	0.6 typ.
9		6800.00 ~ 7200.00 MHz	16.9 typ.
10		8800.00 ~ 10000.00 MHz	19.3 typ.
11		13200.00 ~ 15000.00 MHz	17.3 typ.
12	Return Loss (HB)	4400.00 ~ 5000.00 MHz	16.4 typ.
	Power handling (ANT-HB)	4400.00 ~ 5000.00 MHz	1W max

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Isolation

No.	Item			Specifications (dB)
1	Isolation	LB-MB	699.00 ~ 1229.00 MHz	13.7 typ.
2			1559.00 ~ 1606.00 MHz	20.4 typ.
3		LB-HB	777.00 ~ 798.00 MHz	29.7 typ.
4			1166.00 ~ 1249.00 MHz	27.9 typ.
5			4400.00 ~ 5000.00 MHz	43.2 typ.
6		MB-HB	777.00 ~ 798.00 MHz	45.2 typ.
7			814.00 ~ 915.00 MHz	45.2 typ.
8			1427.00 ~ 1463.00 MHz	26.5 typ.
9			1574.42 ~ 1606.00 MHz	26.1 typ.
10			1795.00 ~ 2170.00 MHz	27.1 typ.
11			2300.00 ~ 2370.00 MHz	31.5 typ.
12			2500.00 ~ 2690.00 MHz	33.9 typ.
13			4400.00 ~ 4900.00 MHz	26.1 typ.

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).

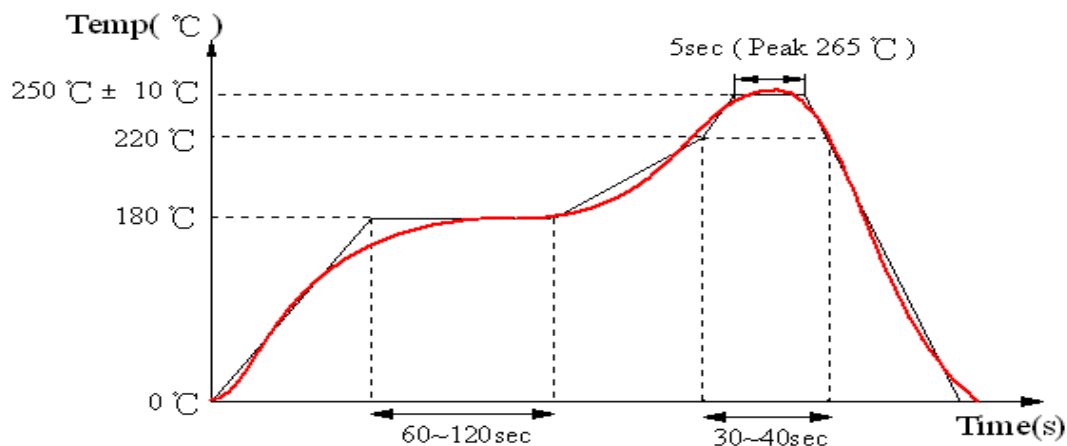
② 使用纯锡焊料 Use Sn solder.

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℃, 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