Product Specifications Approval Sheet

Product Name: Dielectric Filter 1223MHz SMD 6.6x6.05 mm (BW=50 MHz)

TST Parts No.: TR0020A

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____Hongpu Lin_____ *HongPu Lin*

Approved by:_____Andy Yu_____ *Andy Yu*

Date:_____2019/07/24_____

1. Customer signed back is required before TST can proceed with sample build and receive orders.

2. Orders received without customer signed back will be regarded as agreement on the specifications.

3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.

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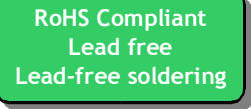
Dielectric filter 1223 MHz

MODEL NO.: TR0020A   REV. NO.:2

A. MAXIMUM RATING:

1. Input Power Level: 1 W
2. DC Voltage : 0 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature:-40°C to +85°C
5. Moisture Sensitivity Level: Level 2a(MSL 2a)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance (single ended) : Z_s = 50 Ω

Terminating load impedance (single ended) : Z_L = 50 Ω

NO.	Item	Unit	Spec		
			min.	typ.	max.
1	**Central Frequency**	MHz		1223	
2	**Band Width**	MHz		50	
3	**Pass Band Insertion Loss**	dB		1.2dB	2.0dB
4	**Pass Band Ripple**	dB		0.5dB	0.8dB
5	**Pass Band Return Loss**	dB	10dB	13dB	
6	Stop-Band Attenuation at 1087 MHz	dB	30dB	35dB	
Item NO.6 specifies the absolute value of attenuation.					

C. <u>OUTLINE DRAWING:</u>

斜線部分為filter 淨空區
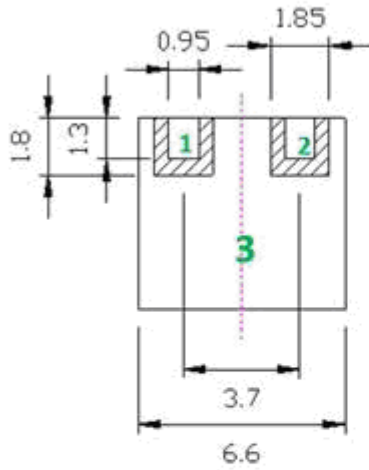
Pin	Name	Description
1	I/O 1	Input/Output
2	I/O 2	Input/Output
3	GND	Ground
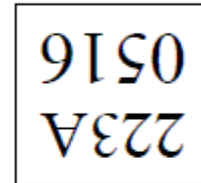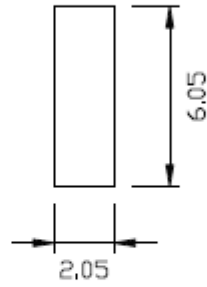
223A：product name（J1223）
05：month
16：year（2016）

Tolerance : ±0.25mm

D. PCB Footprint

Tolerance±0.20
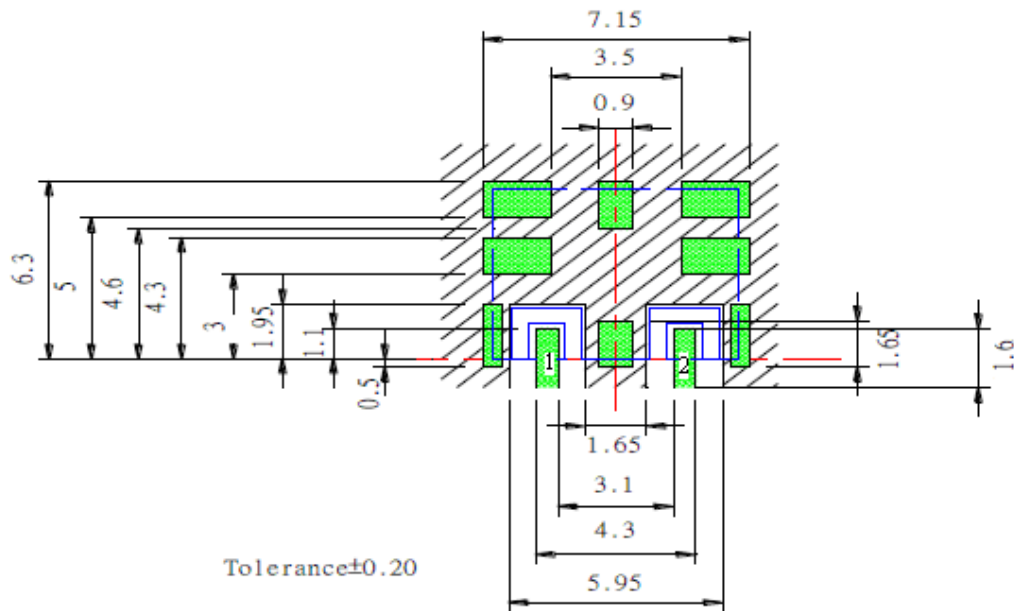
Conductive Material:
Ground, connected to
lower ground diameter of
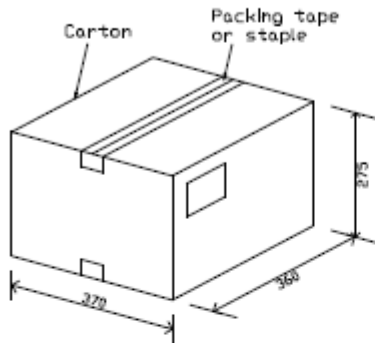0.3mm and max.distance
of 1.0mm.

I/O Pads and LAND,
I/O must be connected to lineswith
50Ω impedance.
in the application a
termination of 50Ω
must be realized.

Pin	Name	Description
1	I/O 1	Input/Output
2	I/O 2	Input/Output
Others		Ground

E. DELIVERY MODE:

1. REEL

帶寬	W
16mm	13.3±0.1mm

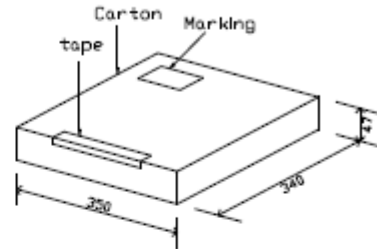| 帶寬	W1
16mm	16.9+1.0mm

2. TAPE

註：1. 未標示處 R=0.3
　　2. 材質為透明

3. PACKAGE STYLE
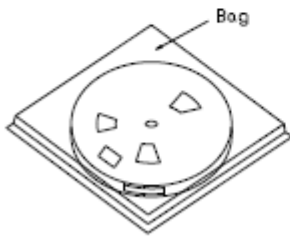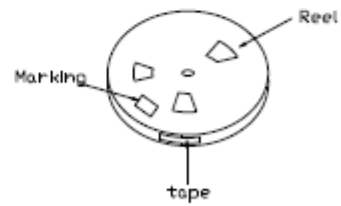
1. Outer Carton
   Quanyity:5000PCS

2. Inner Carton
   Quanyity:1000PCS

3. Bag
   Quanyity:1000PCS

4. Taping
   Quanyity:1000PCS

Unit:mm

F. **Frequency Characteristics :**

E5071C Network Analyzer

1 Active Ch/Trace   2 Response   3 Stimulus   4 Mkr/Analysis   5 Instr State

Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [F2]
Tr2 S21 Log Mag 10.00dB/ Ref 0.000dB [F2 Smo]

Tr1: Pass
Tr2: Pass
Ripl2: Pass B1 347.78 mdB

1	1.2230000 GHz	-19.906 dB
2	1.1980000 GHz	-15.783 dB
3	1.2480000 GHz	-14.625 dB
4	1.0870000 GHz	-0.2586 dB
1	1.2230000 GHz	-0.9818 dB
2	1.1980000 GHz	-1.3284 dB
3	1.2480000 GHz	-1.0280 dB
>4	1.0870000 GHz	-55.175 dB

1 Center 1.223 GHz   IFBW 10 kHz   Span 1 GHz Cor

G. Recommended Reflow Profile:

Phase	Profile features	Pb-Free Assembly (SnAgCu)
PREHEAT	-Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(ts) form (Tsmin to Tsmax)	150℃ 200℃ 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate (Tsmax to TP)	3℃/second(max)
REFLOW	-Temperature(TL) -Total Time above TL (t L)	217℃ 30-100 seconds
PEAK	-Temperature(TP) -Time(tp)	260℃ 3 second
RAMP-DOWN	Rate	6℃ / second max.
Time from 25℃ to Peak Temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu
Solder Paste Model		SHENMAO PF606-P26

Note：All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens
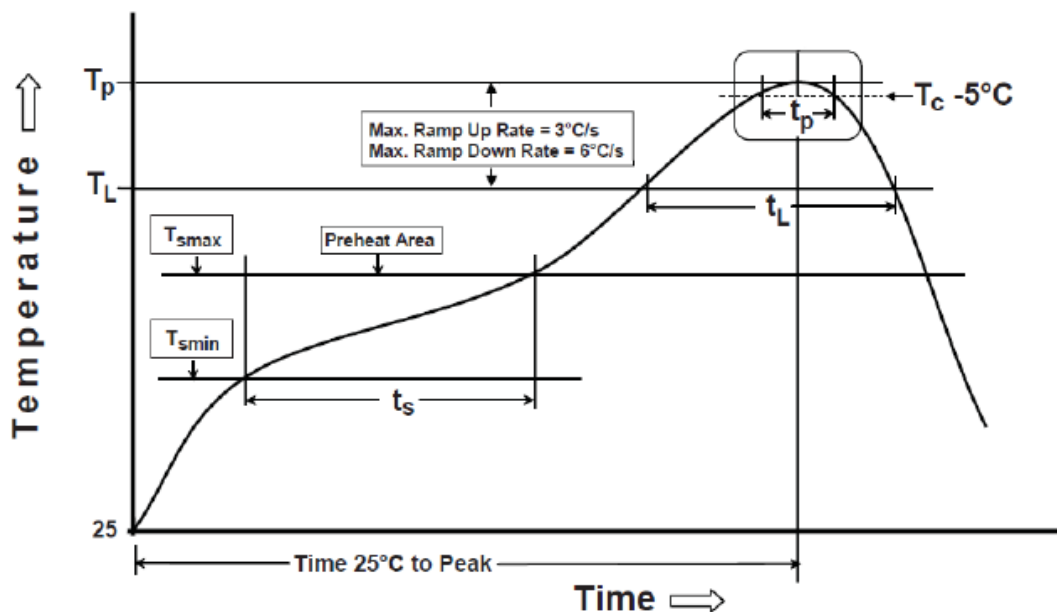
Soldering With Iron:

Soldering condition : Soldering iron temperature 270±10 ℃.

Apply preheating at 120℃ for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature 270±10 ℃ or 3 seconds, it will make component surface peeling or damage.
Soldering iron can not leakage of electricity.