

SAW Filter 37.80MHz
Part No: MP09205

Model: TB1045B
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating temperature range: -40°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V
5. Moisture Sensitivity Level: Level 1 (MSL1)

B. CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	37.8	-
Insertion Loss IL	dB	-	18.5	20.2
1dB Band Width	MHz	-	5.8	-
40dB Band Width	MHz	-	9.3	10.5
Amplitude Ripple Fc ±2.4MHz	dB	-	0.6	1.2
Attenuation (Reference level from typical Insertion loss)				
Fc ±10.5MHz ~ Fc ±14MHz	dB	40	45	
Fc ±14MHz ~ Fc ±20MHz	dB	45	50	
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

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C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 60MHz)

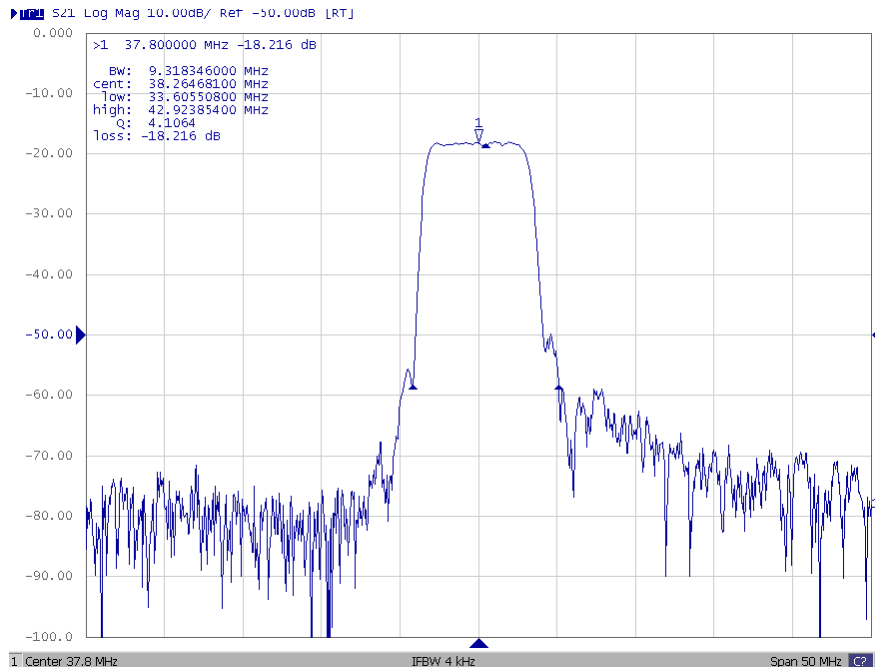


Fig. 1: Horizontal: 5MHz/Div, Vertical: 10dB/Div

2. Pass band Response and Group Time Delay response:

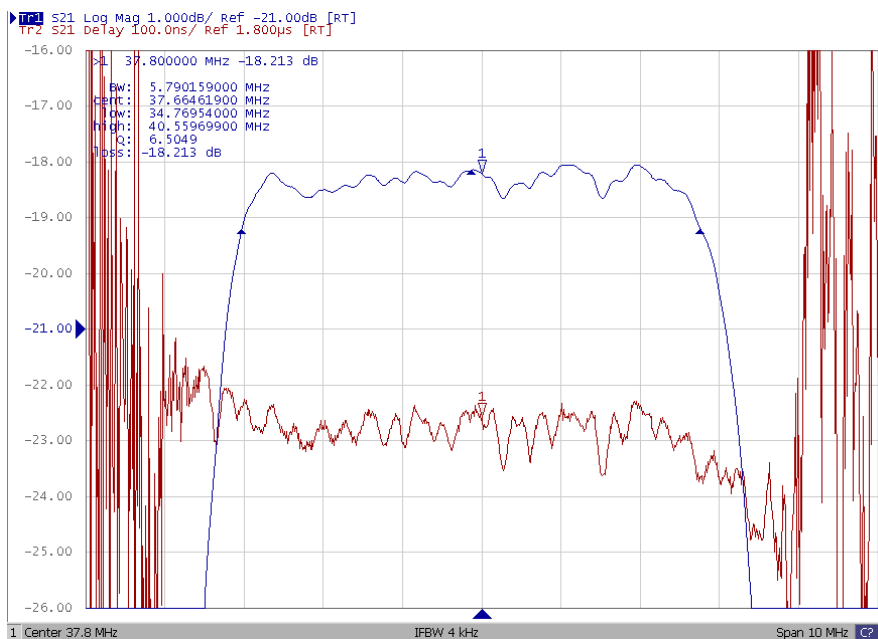
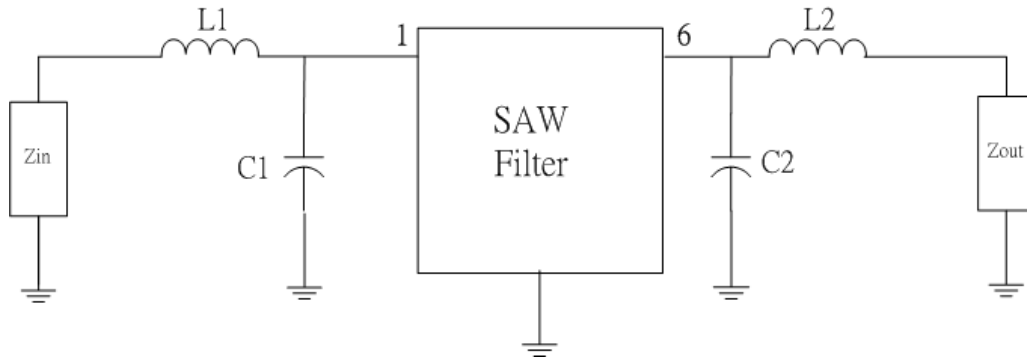


Fig. 2: Horizontal: 1.0MHz/Div, Vertical: 1dB/Div, Vertical: 100ns/Div

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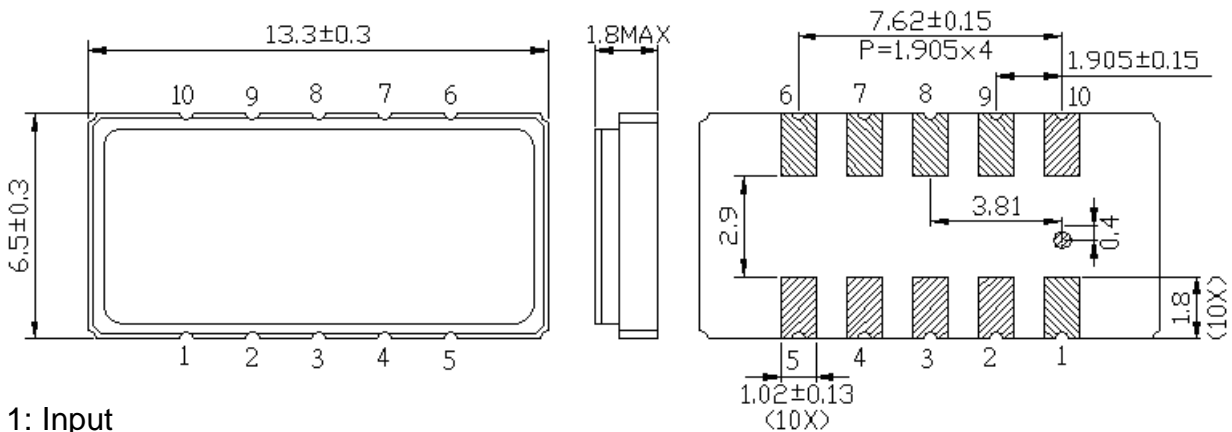
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D. MATCHING CIRCUIT:



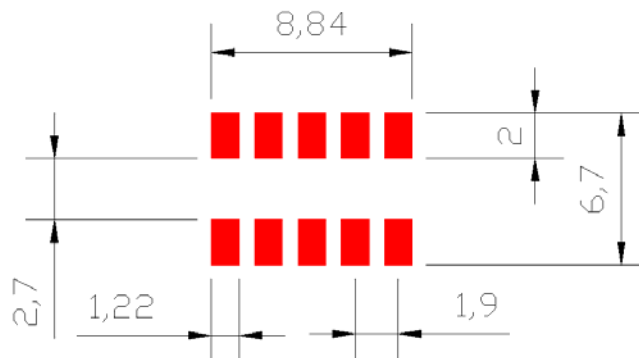
$L1 = 680\text{nH}$, $L2 = 82\text{nH}$, $C1 = 4.7\text{pF}$, $C2 = 4.7\text{pF}$

E. OUTLINE DRAWING:



- 1: Input
 - 10: Input Ground
 - 6: Output
 - 5: Output Ground
 - 2, 3, 4, 7, 8, 9: Ground
- Unit: mm

F. PCB FOOTPRINT:

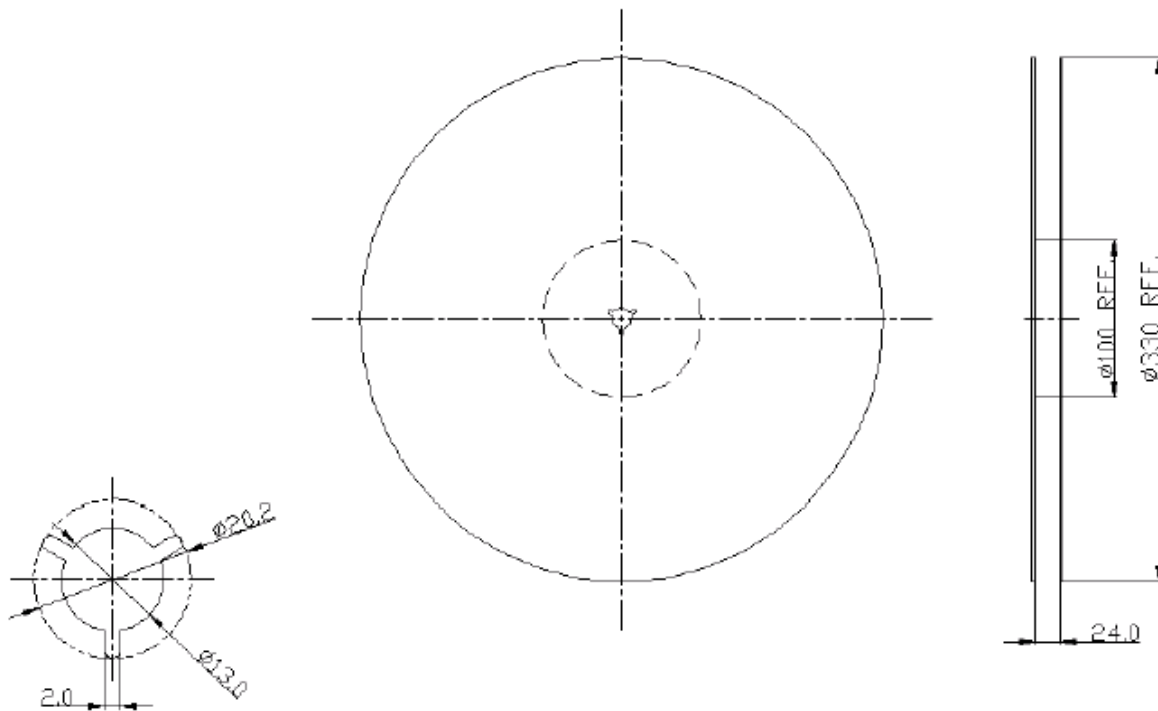


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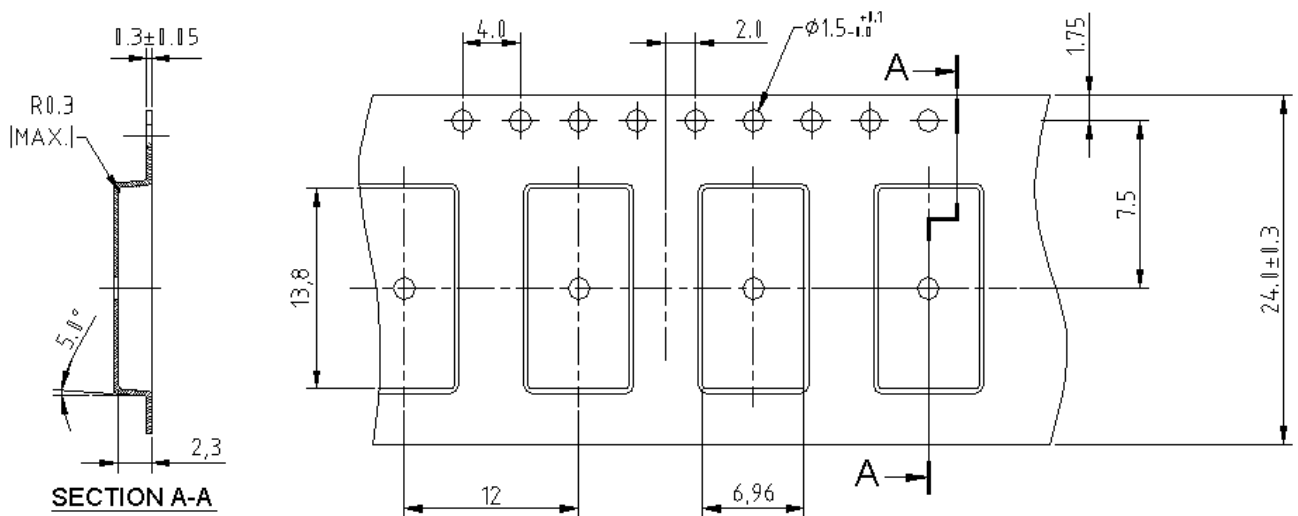
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G. PACKING:

1. Reel Dimension



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

