

**SAW Filter 37.8MHz**  
**Part No: MP05516**

**Model: TB1045A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Operating temperature range: -10°C to 60°C
2. Storage temperature range: -40°C to 80°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

**B. CHARACTERISTICS:**

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	37.8	-
Insertion Loss IL	dB	-	18.5	20.0
1dB Band Width	MHz	-	5.8	-
40dB Band Width	MHz	-	9.3	10.5
Amplitude Ripple Fc ± 2.5MHz	dB	-	0.6	1.0
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)**

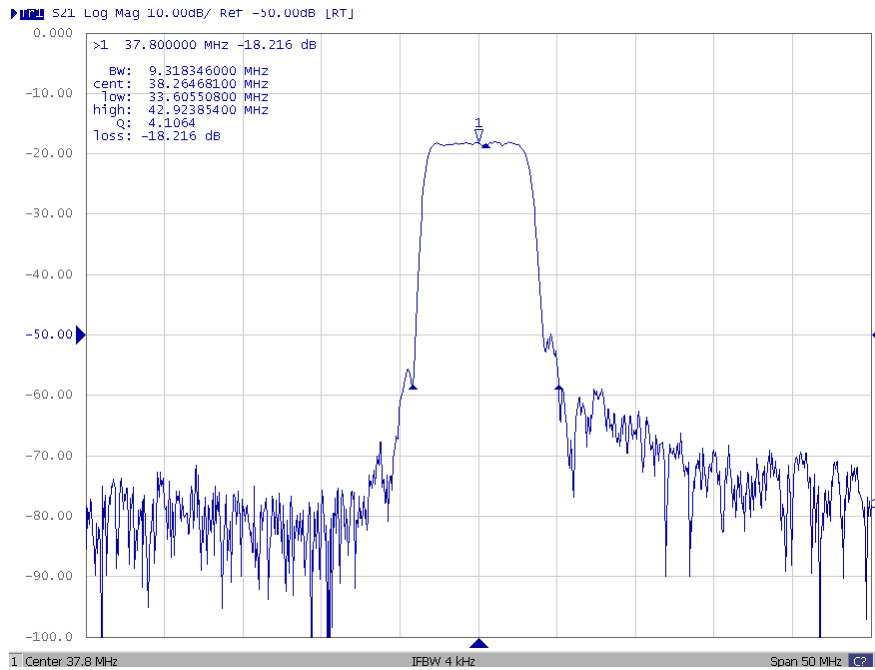


Fig. 1. Horizontal: 5MHz / Div, Vertical: 10dB / Div

**2. Pass band Response and Group Time Delay response:**

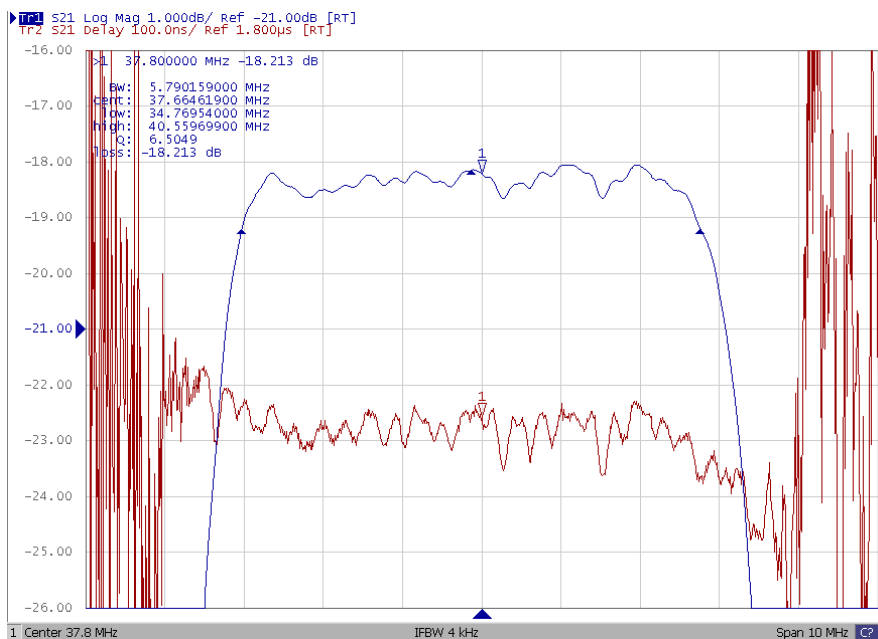
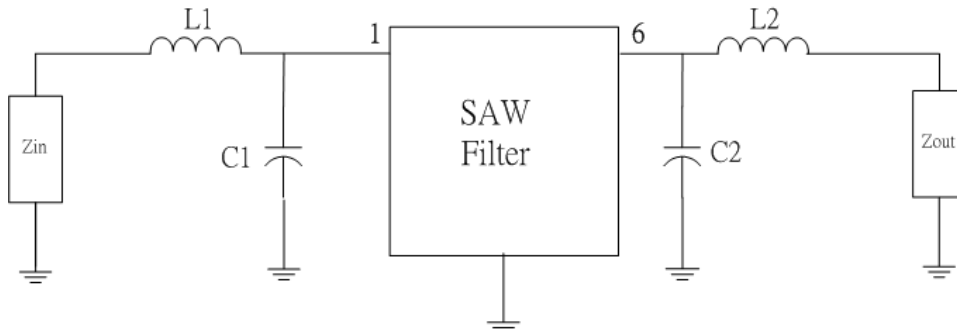


Fig. 2. Horizontal: 1.0MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

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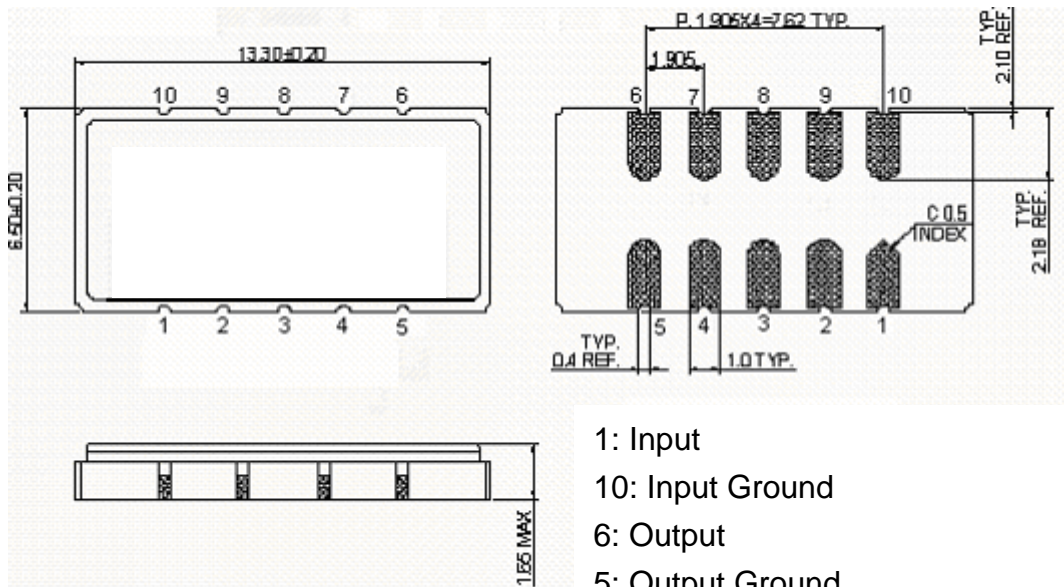
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**D. MATCHING CIRCUIT:**



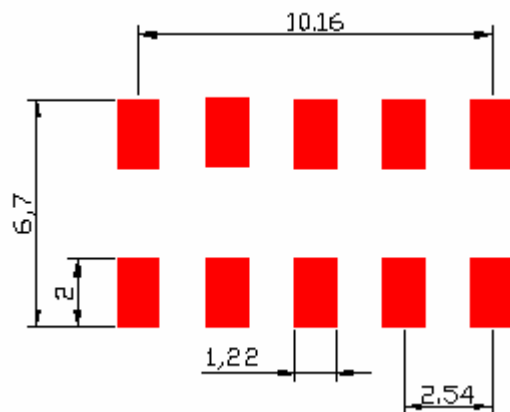
$L1 = 680\text{nH}$ ,  $L2 = 82\text{nH}$ ,  $C1 = 4.7\text{pF}$ ,  $C2 = 4.7\text{pF}$

**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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**H. RECOMMENDED REFLOW PROFILE:**

