

**SAW Filter 91.850MHz**  
**Part No: MP05503**

**Model: TB1107A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Operating temperature range: -30°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V

**B. CHARACTERISTICS:**

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	91.85	-
Insertion Loss IL	dB	-	23.5	26.0
1dB Bandwidth	MHz	50	57	-
40dB Bandwidth	MHz	-	65	75
Passband Ripple Fc ± 25MHz	dB	-	0.7	1.2
Absolute group Delay	us	-	0.8	-
Group Delay variation Fc ± 25MHz	ns	-	30	-
Attenuation (Reference level from minimum Insertion loss)				
DC ~ 51.5MHz	dB	35	40	-
131.5MHz ~ 170MHz	dB	35	40	-
170MHz ~ 380MHz	dB	25	35	-
380MHz ~ 550MHz	dB	45	57	-
550MHz ~ 1000MHz	dB	45	57	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

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**C. FREQUENCY CHARACTERISTICS:**

1. Narrow band Response:

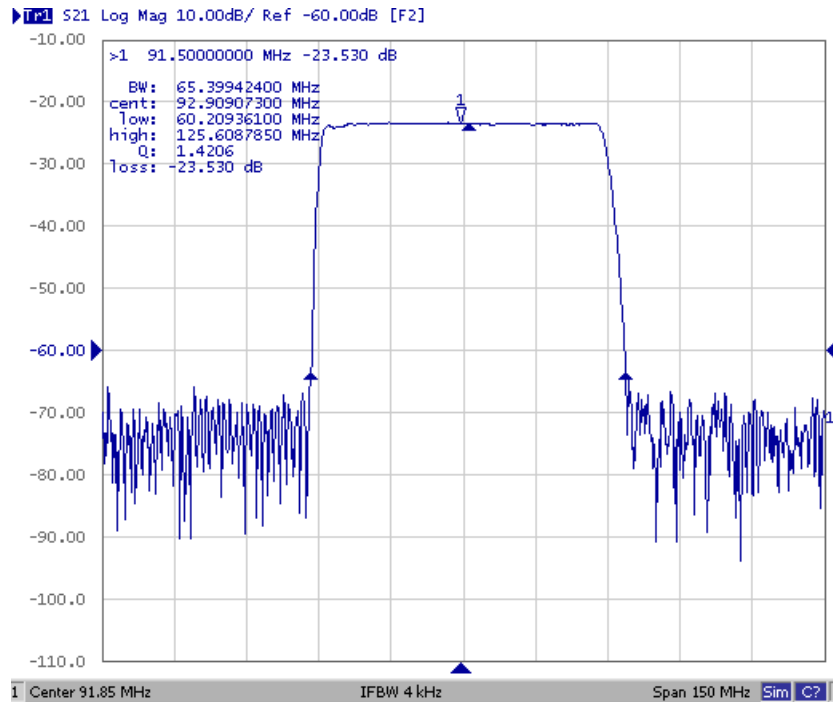


Fig. 1: Horizontal: 15MHz / Div, Vertical: 10Db / Div

2. Pass band Response and Group Delay Response:

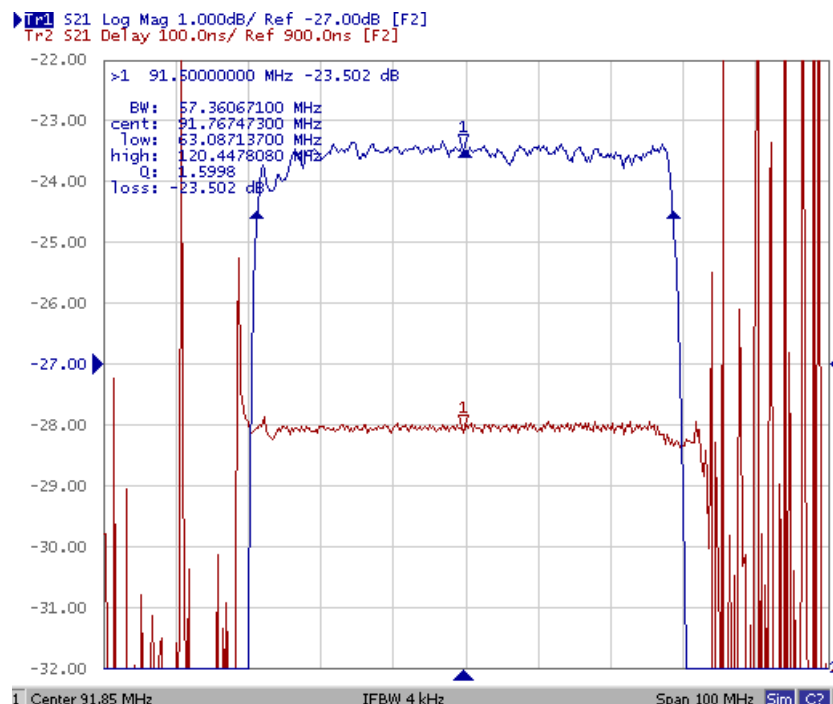


Fig. 2: Horizontal: 10MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

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### 3. Wide band Response:

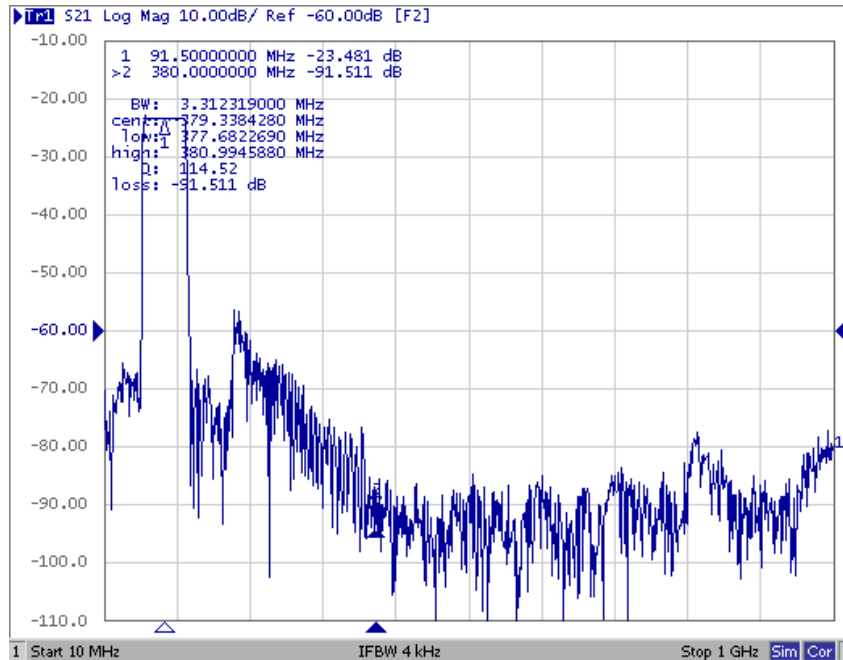
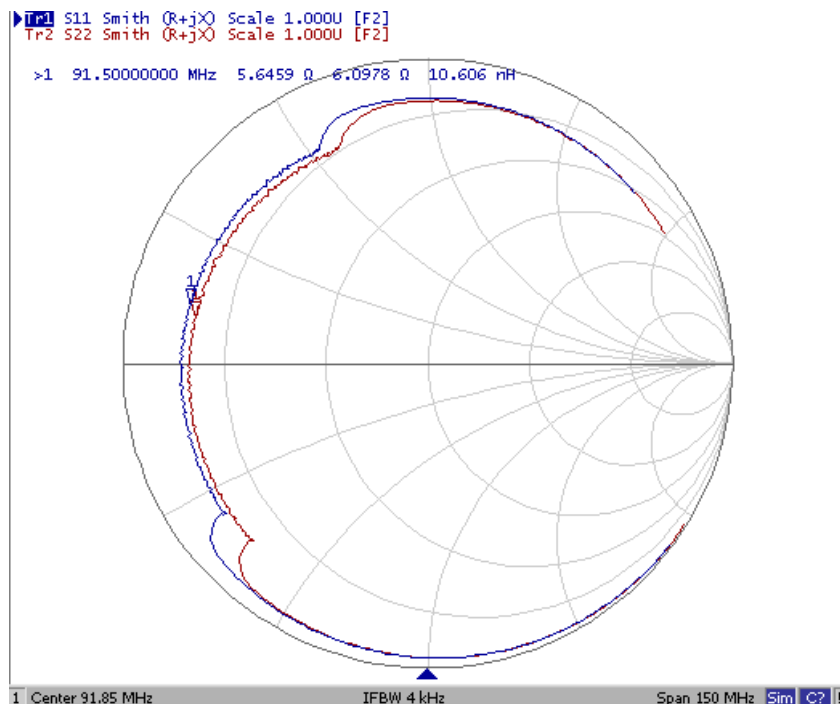


Fig 3: Horizontal: 100MHz / Div, Vertical: 10dB / Div

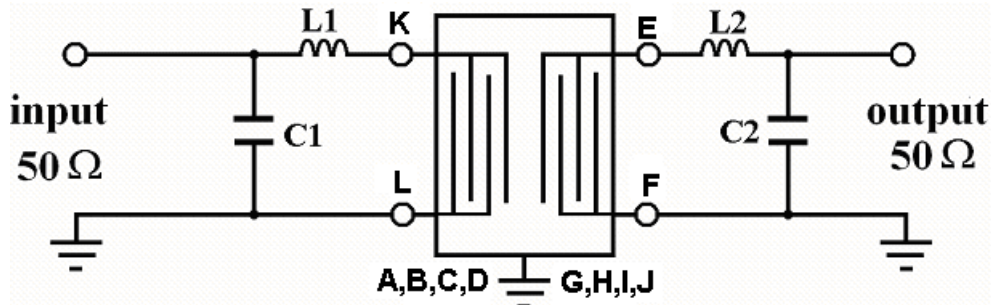
### 4. Smith Chart



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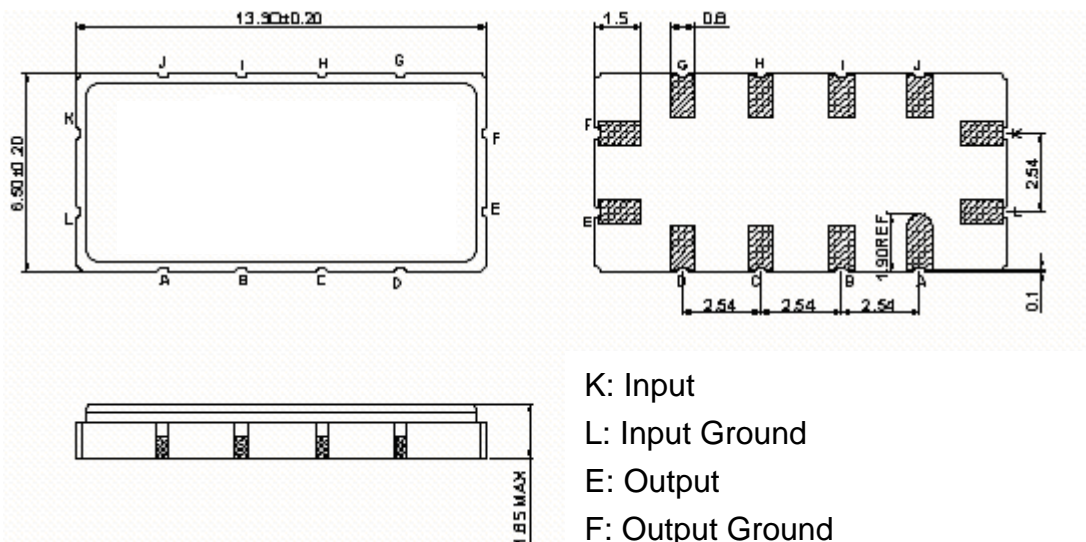
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**D. MATCHING CIRCUIT:**



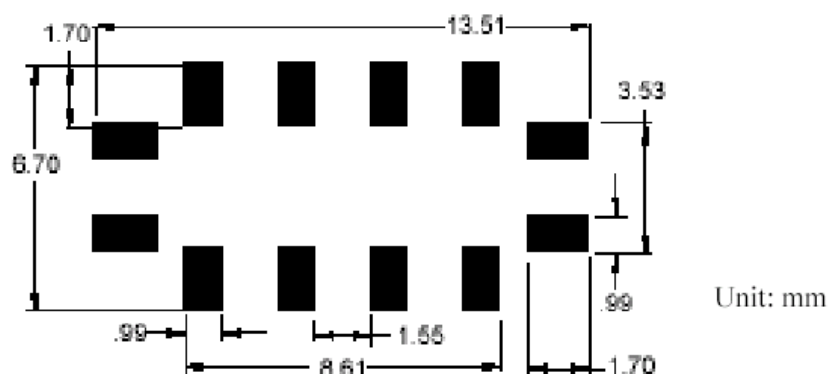
$L1 = 56\text{nH}$   $C1 = 9\text{pF}$   $L2 = 68\text{nH}$   $C2 = 9\text{pF}$

**E. OUTLINE DRAWING:**



K: Input  
 L: Input Ground  
 E: Output  
 F: Output Ground  
 A, B, C, D, G, H, I, J: Ground  
 Unit: mm

**F. PCB FOOTPRINT:**



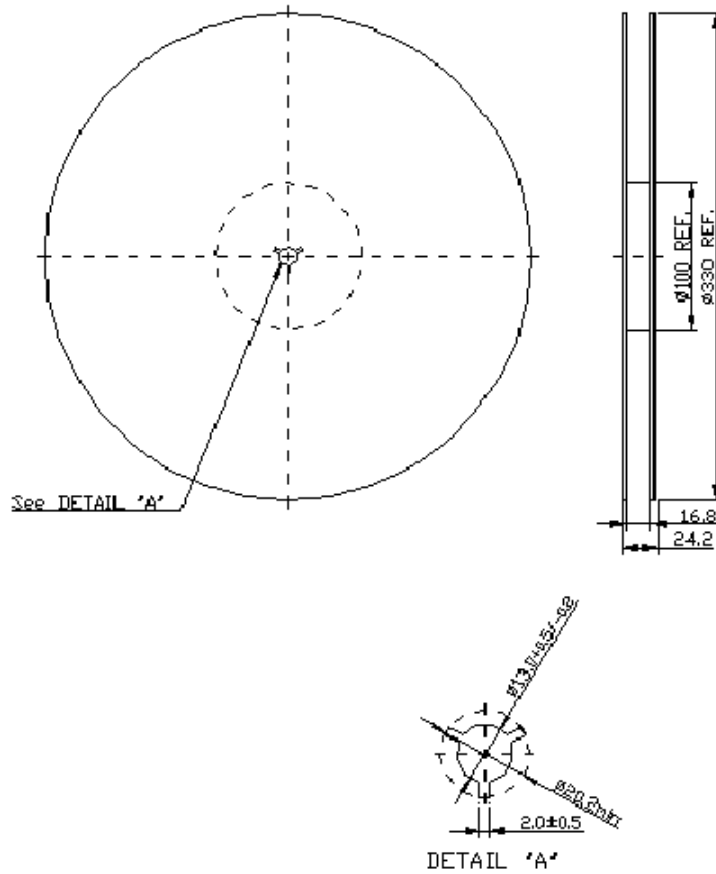
Unit: mm

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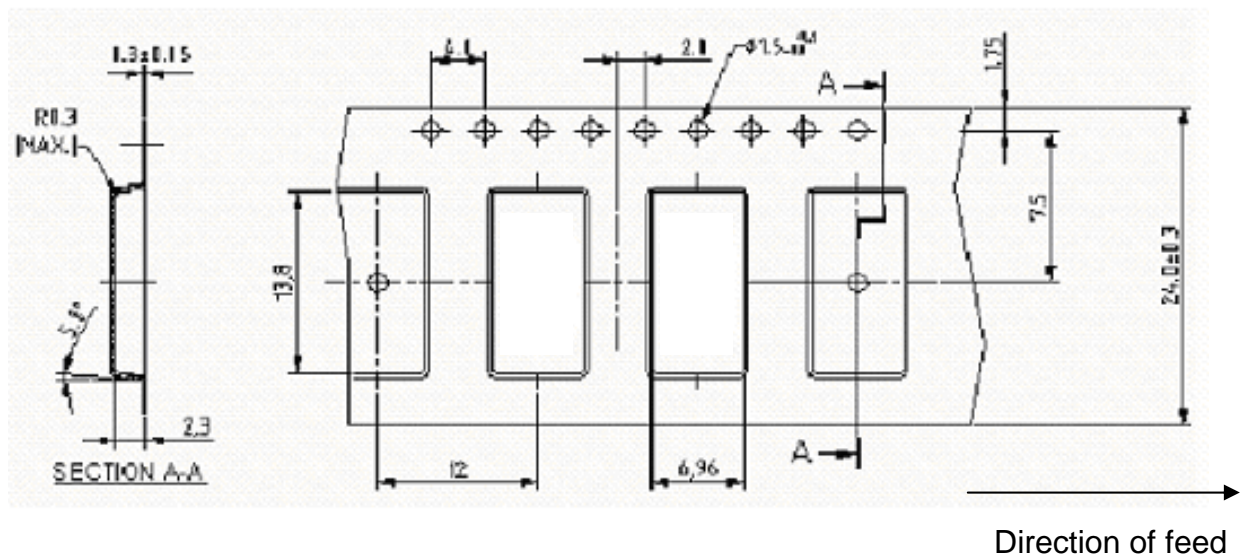
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**G. PACKING:**

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



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**H. RECOMMENDED REFLOW PROFILE:**

