

**SAW Filter 70.0MHz**  
**Part No: MP07281**

**Model: TB1190A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

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

**B. ELECTRICAL CHARACTERISTICS:**

Ambient Temperature: 25°C

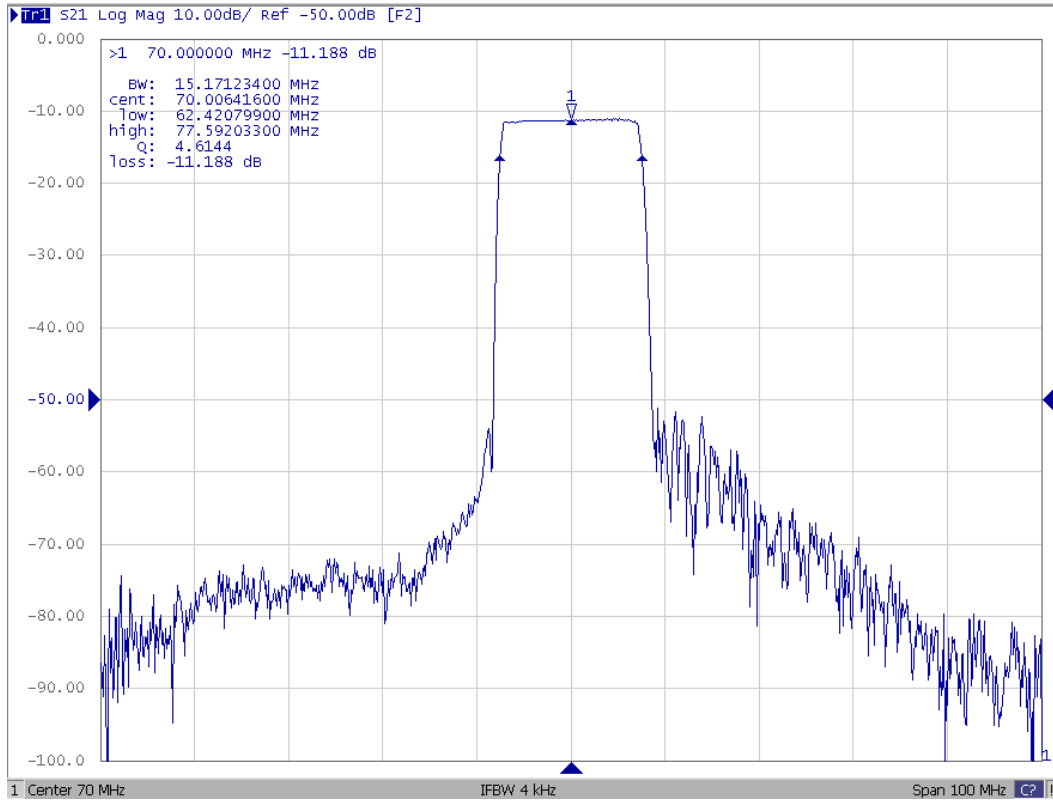
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	70	-
Insertion Loss IL	dB	-	11.2	14
-1dB bandwidth	MHz	14.2	14.38	-
-3dB bandwidth	MHz	-	14.87	-
-5dB bandwidth	MHz	-	15.17	15.3
-40dB bandwidth	MHz	-	16.90	-
Passband Ripple Fc ± 6.92MHz	dB	-	0.7	1.5
Group Delay variation Fc ± 6.92MHz	ns		100	100
Absolute Group Delay	us	-	1.58	-
Attenuation: (Reference level from Min IL)				
Ultimate Attenuation	dB	40	45	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

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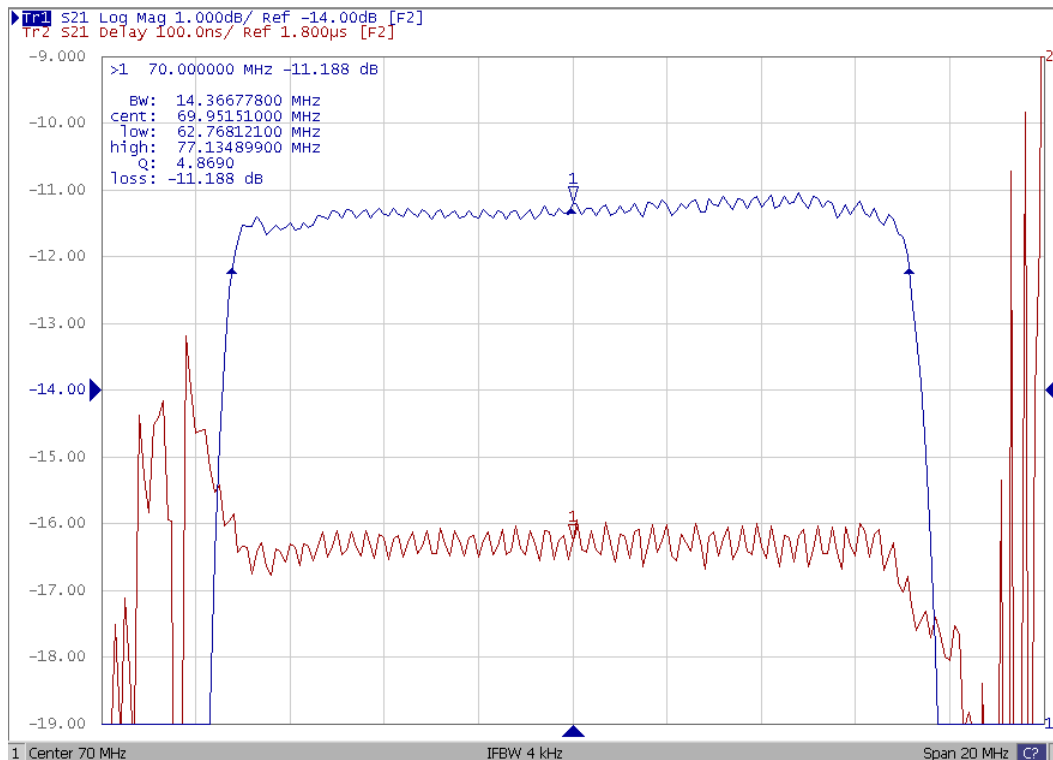
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**C. FREQUENCY CHARACTERISTICS:**

**1. Wide band Response:**



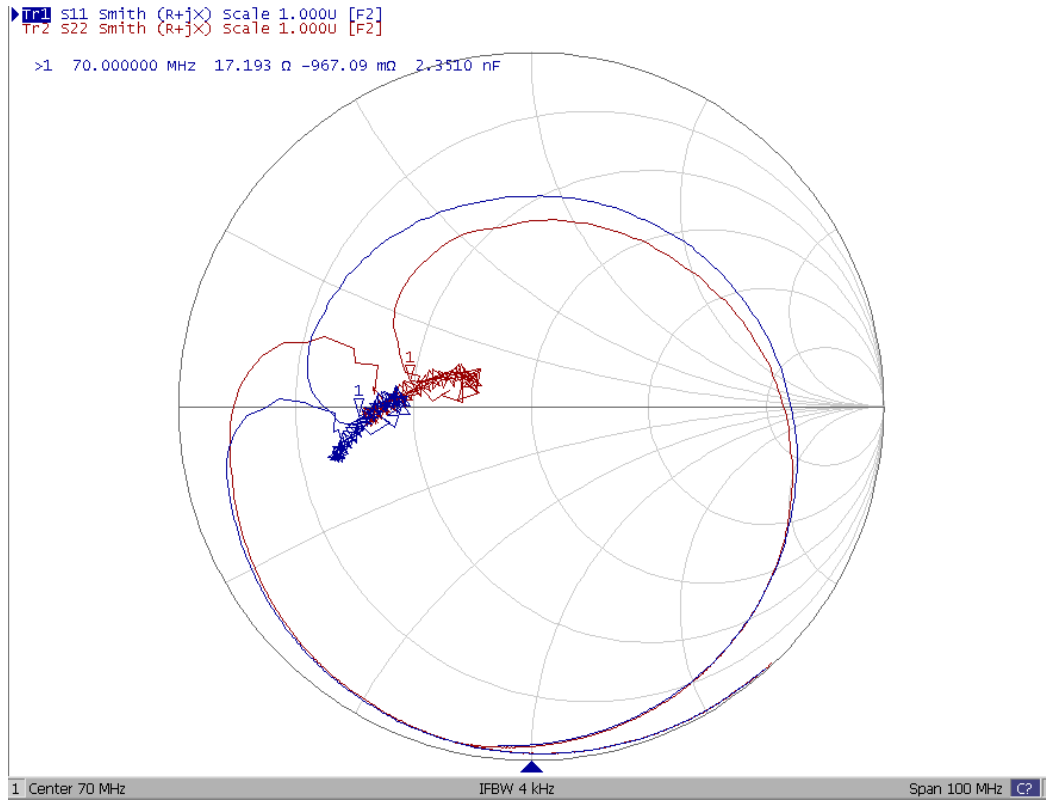
**2. Pass Band Response and Group Delay Response:**



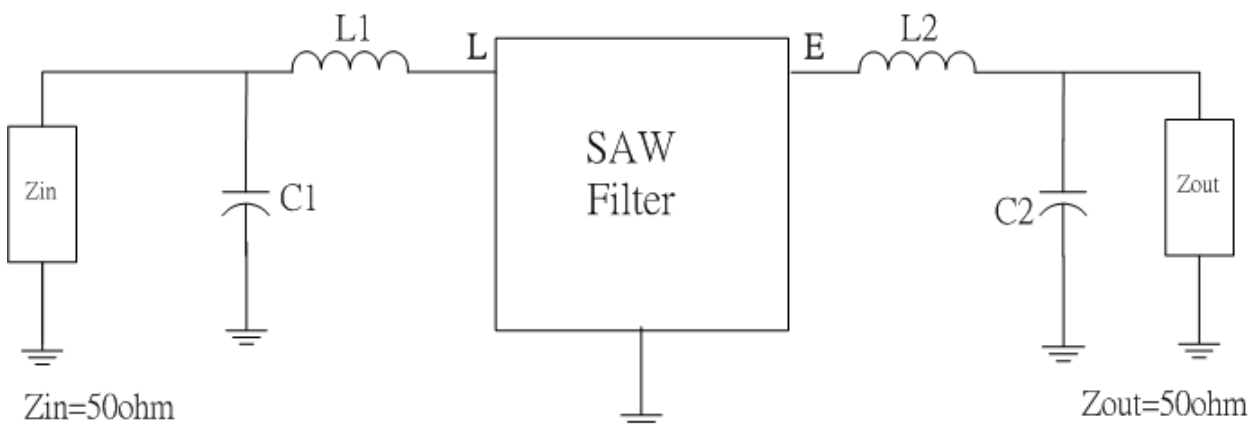
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3. Smith Chart:



**D. MATCHING CIRCUIT:**

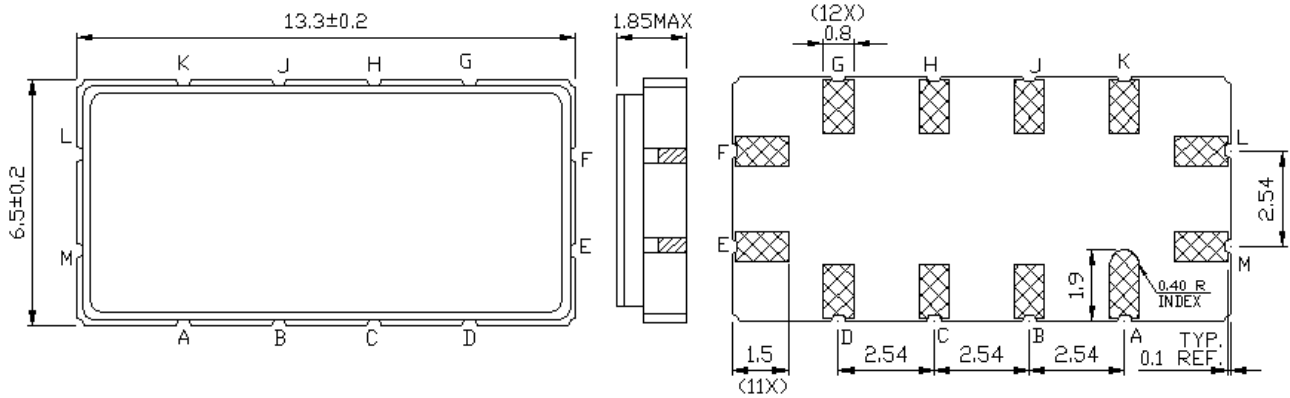


$L = 180\text{nH}$ ,  $L2 = 220\text{nH}$ ,  $C1 = 39\text{pF}$ ,  $C2 = 39\text{pF}$

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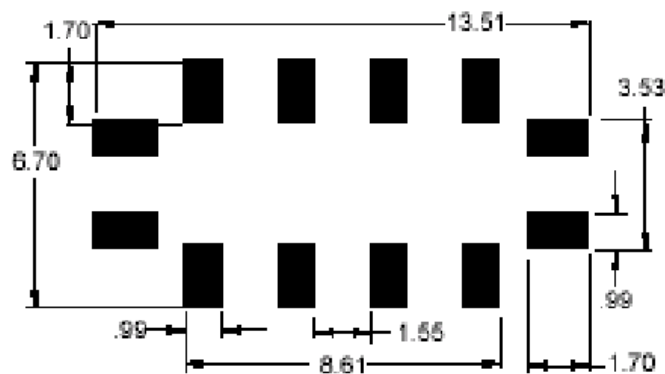
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**E. OUTLINE DRAWING:**



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

**F. PCB FOOTPRINT:**



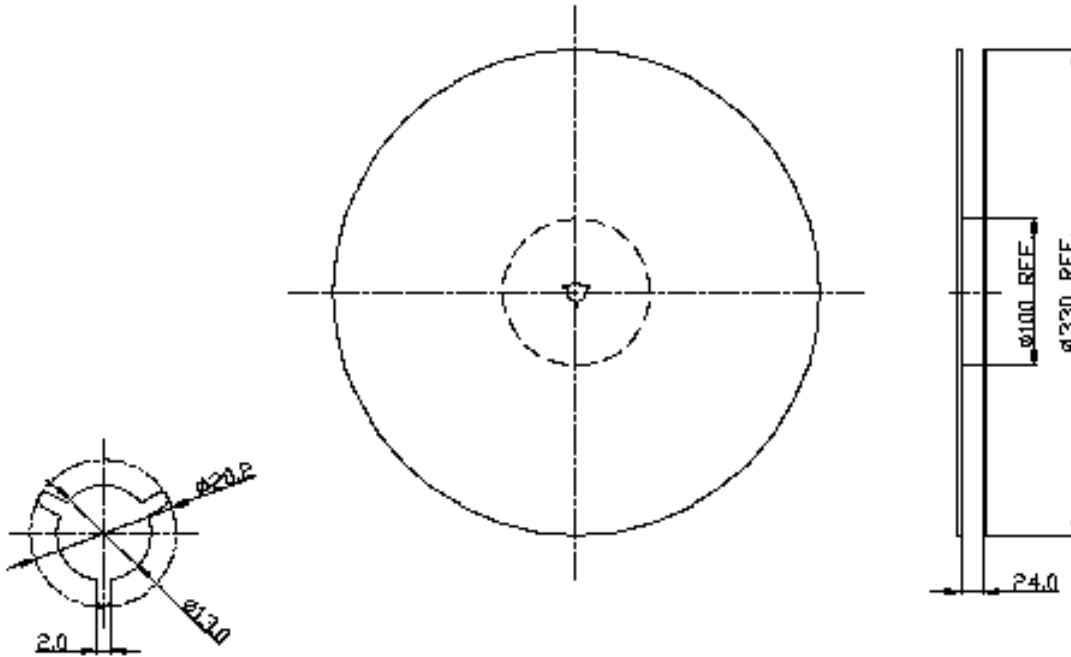
Unit: mm

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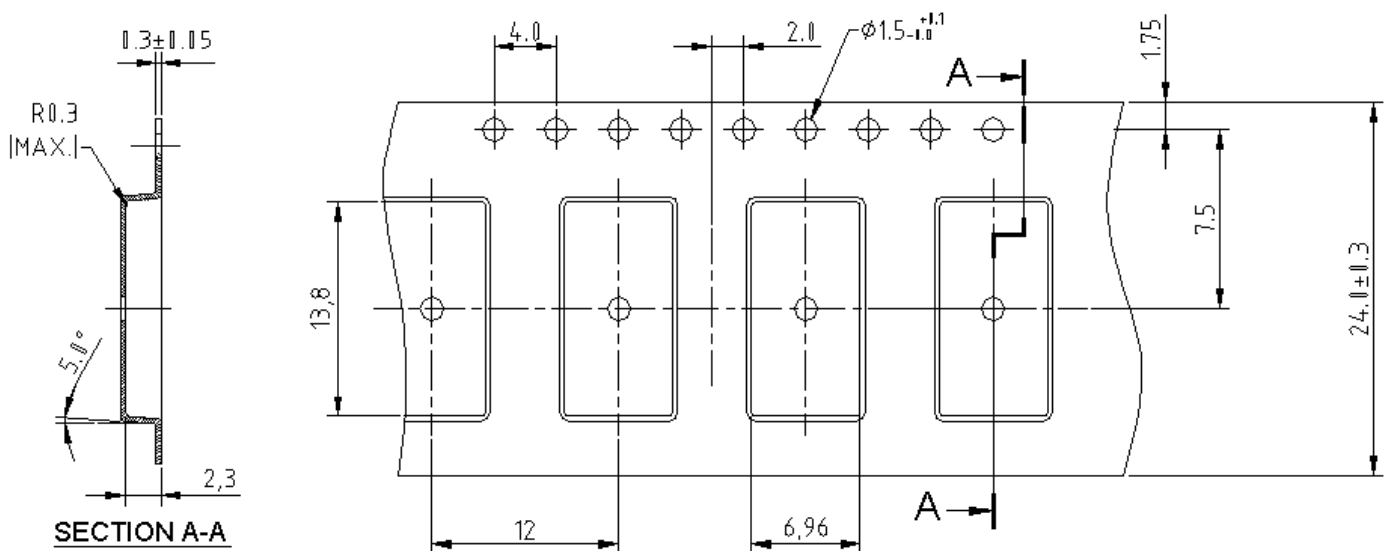
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**G. PACKING:**

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



2. Tape Dimension



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**H. RECOMMENDED REFLOW PROFILE:**

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 ~ 40sec).
4. Time: 2 times.

