

**SAW Filter 70.0MHz**  
**Part No: MP05705**

**Model: TB1109A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Operating Temperature: -30°C to 60°C
2. Storage Temperature: -40°C to 85°C
3. Input Power: 10dBm

**B. ELECTRICAL CHARACTERISTICS:**

Ambient Temperature: 25°C

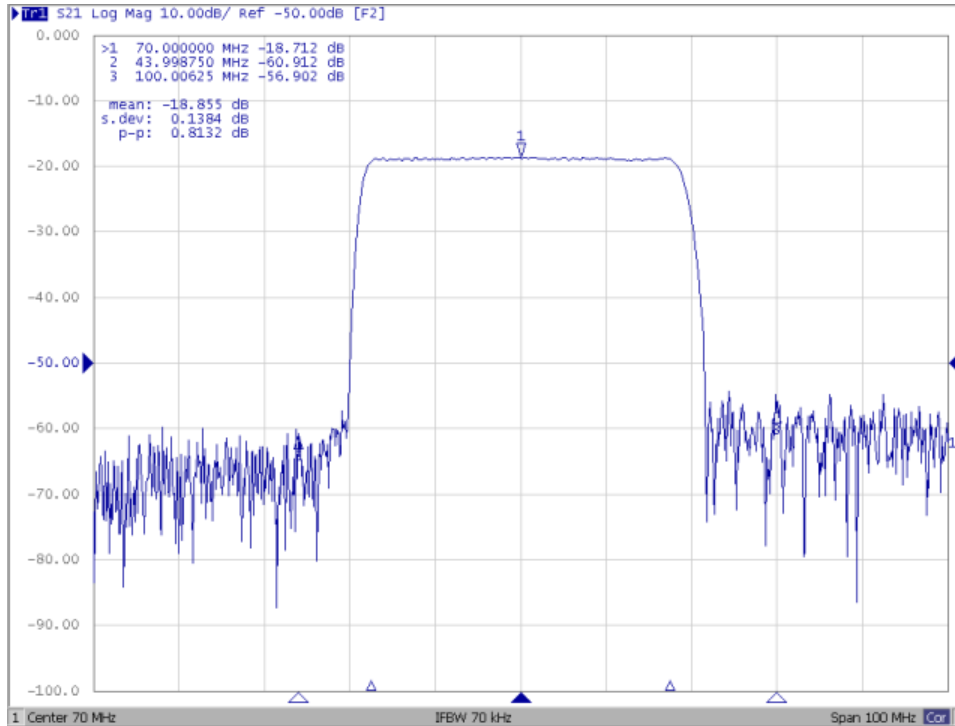
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	70	-
Insertion Loss IL	dB	-	18.4	20
Upper -1dB frequency	MHz	87.5	88.1	-
Lower -1dB frequency	MHz	-	52.2	52.5
Upper -45dB frequency	MHz	-	91.7	94
Lower -45dB frequency	MHz	47	49.1	-
Ultimate rejection				
1MHz ~ 45MHz	dB	40	43	
95MHz ~ 120MHz	dB	35	40	
Passband Ripple				
52.5 – 87.5MHz	dB	-	0.81	1.2
Absolute Group Time Delay	nsec	790	820	850
Temperature Coefficient	ppm/°C	-	-72	-
Source Impedance (Balanced)	Ohm	-	50	-
Load Impedance (Balanced)	Ohm	-	50	-

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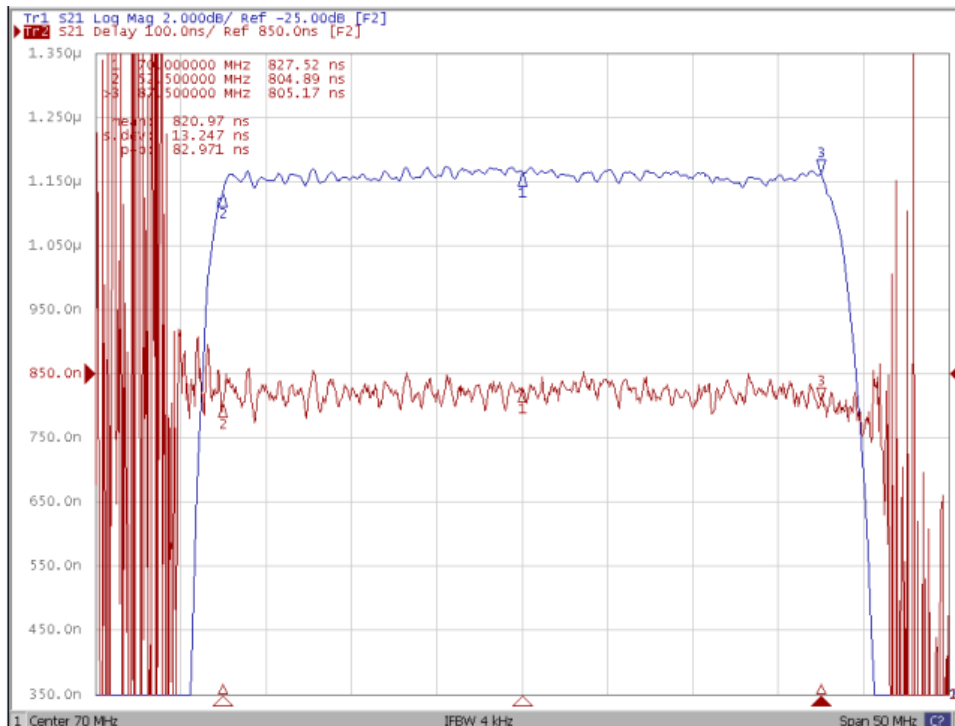
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**C. FREQUENCY CHARACTERISTICS:**

1. Wide band Response: (span 100MHz)



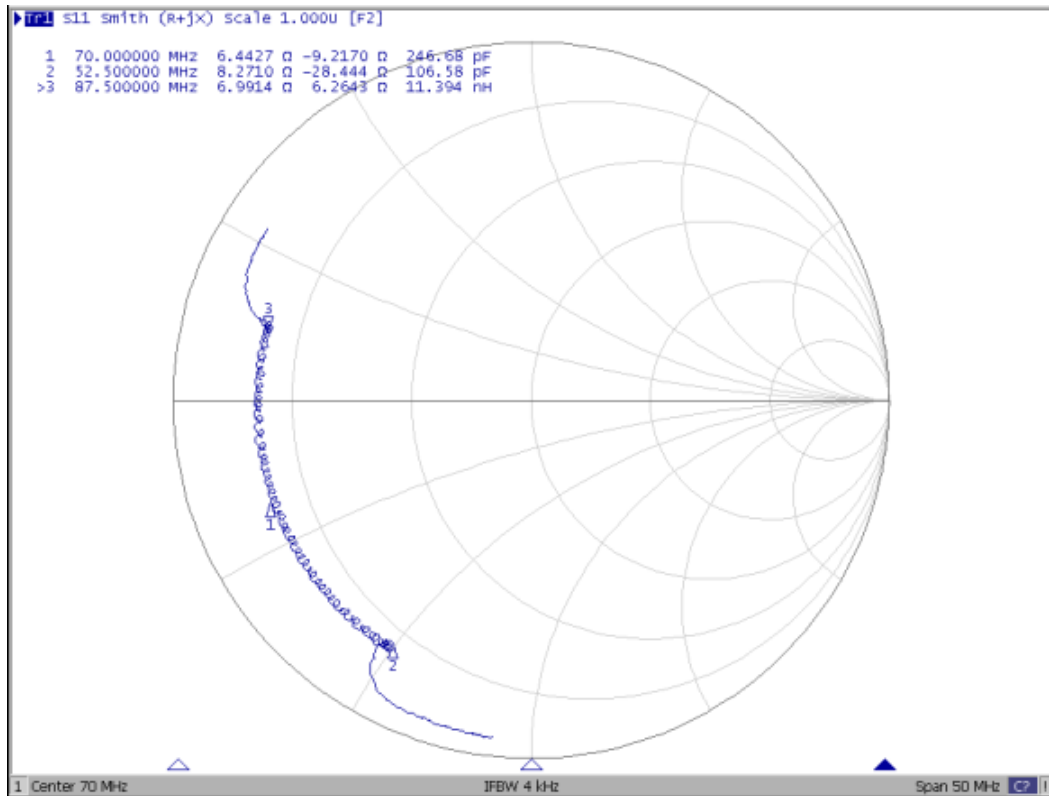
2. Pass band Response and Group Time Delay response: (span 50MHz)



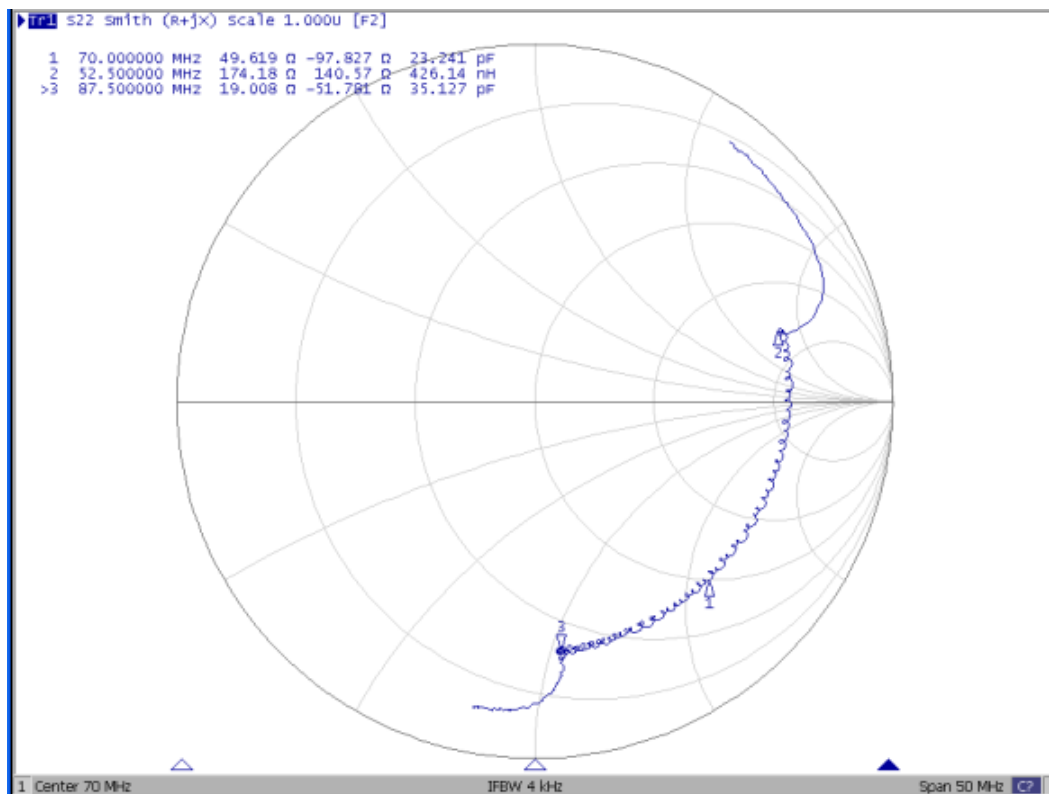
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3. S11 Smith-Chart: (span 50MHz)



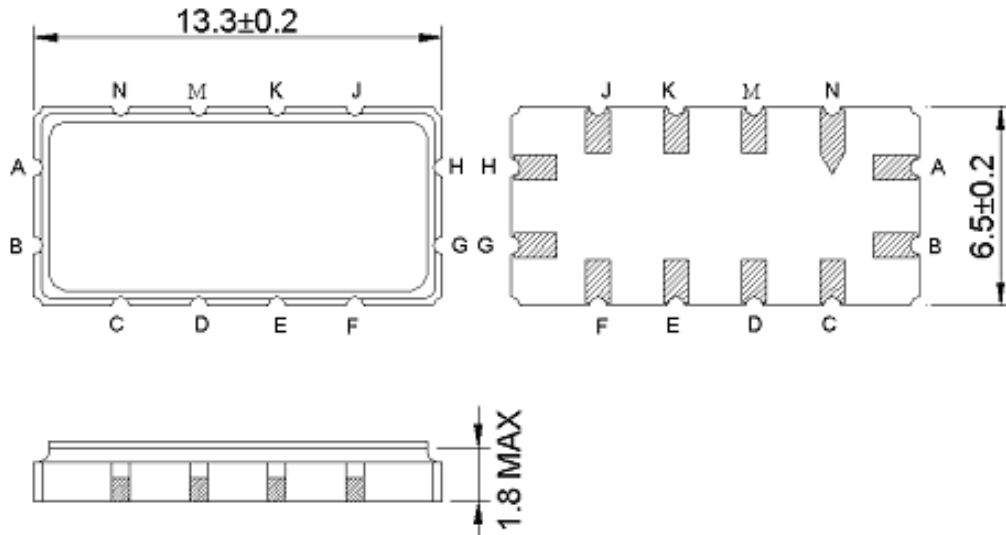
4. S22 Smith-Chart: (span 50MHz)



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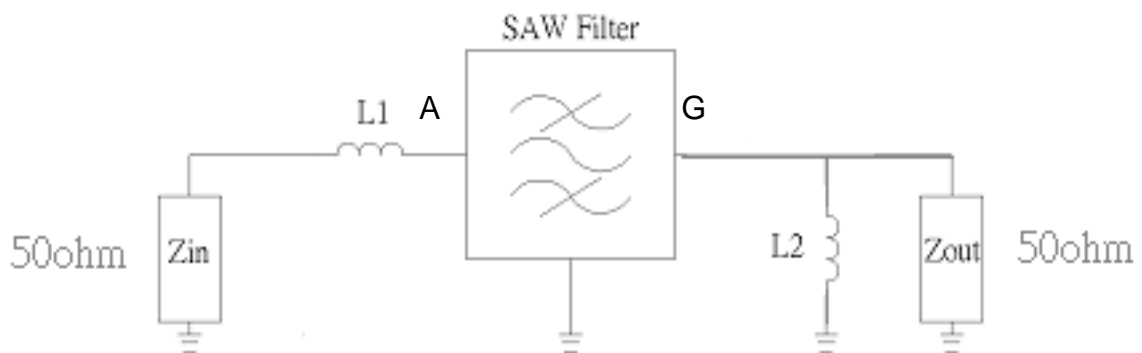
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**D. OUTLINE DRAWING:**



- A: RF input
  - B: RF Balanced input (Ground pin for single)
  - G: RF output
  - H: RF Balanced Output (Ground pin for single)
  - C, D, E, F, J, K, N, M: To be Ground
- Unit: mm

**E. MATCHING CIRCUIT:**



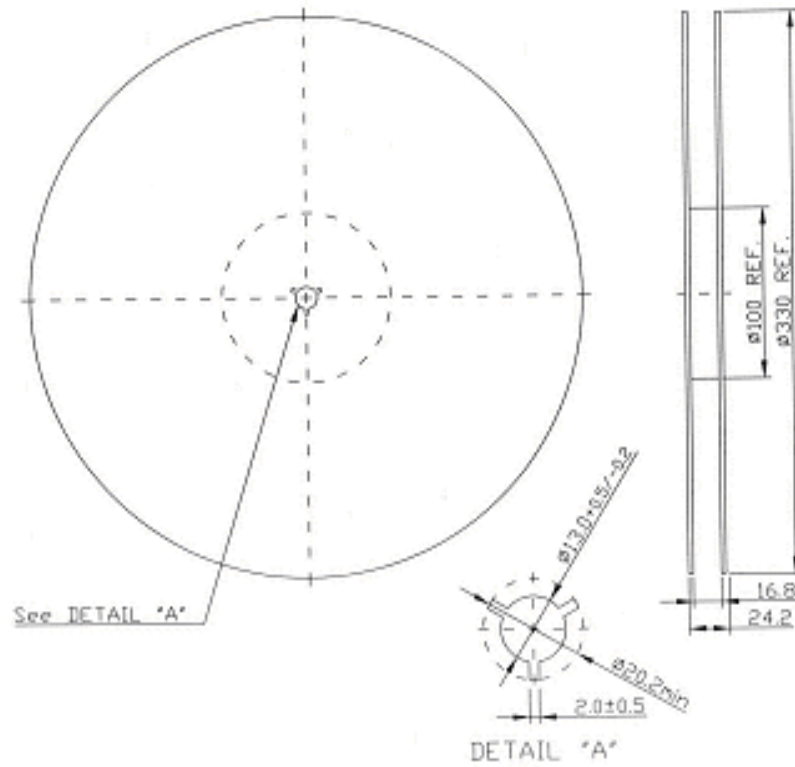
$L1 = 90\text{nH}; L2 = 110\text{nH}$

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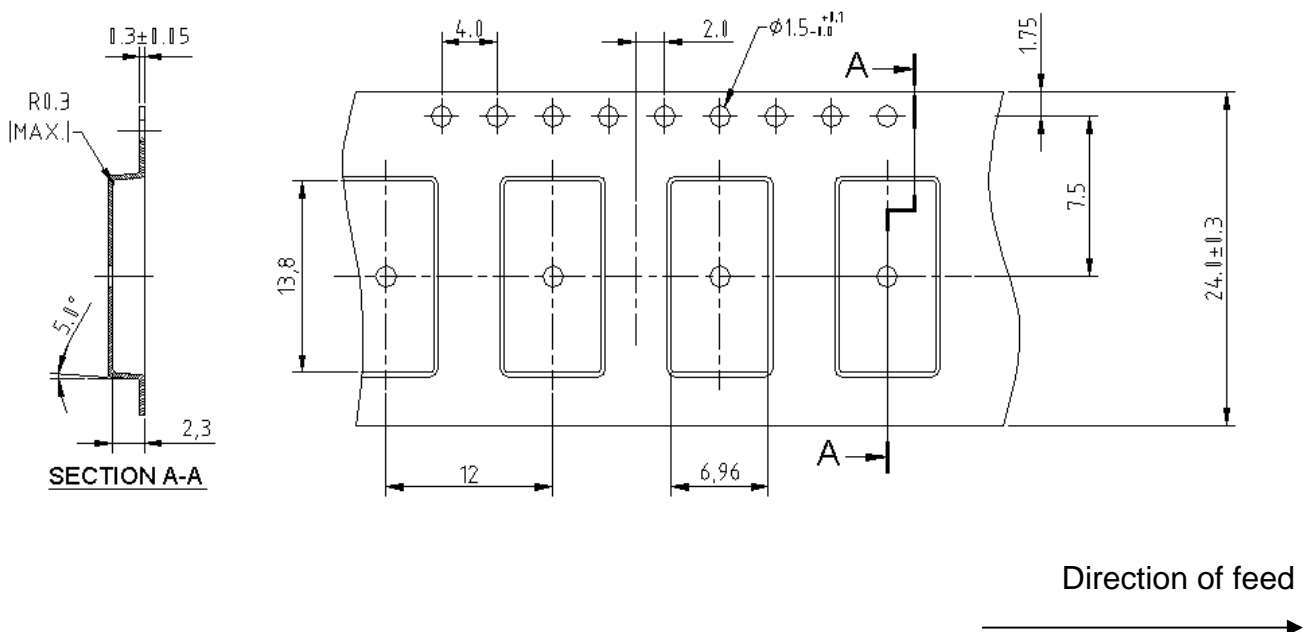
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**F. PACKING:**

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



2. Tape Dimension



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**G. RECOMMENDED REFLOW PROFILE:**

