

**SAW Filter 140.0MHz**  
**Part No: MP01651**

**Model: TB0559A**  
**Rev. No: 2**

**A. MAXIMUM RATING:**

1. Maximum Input Power: 10dBm
2. Operating Temperature: -40°C ~ +85°C
3. Storage Temperature: -40°C ~ +85°C

**B. CHARACTERISTICS:**

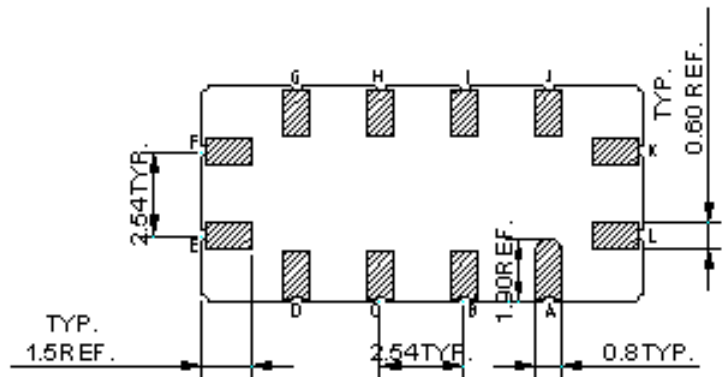
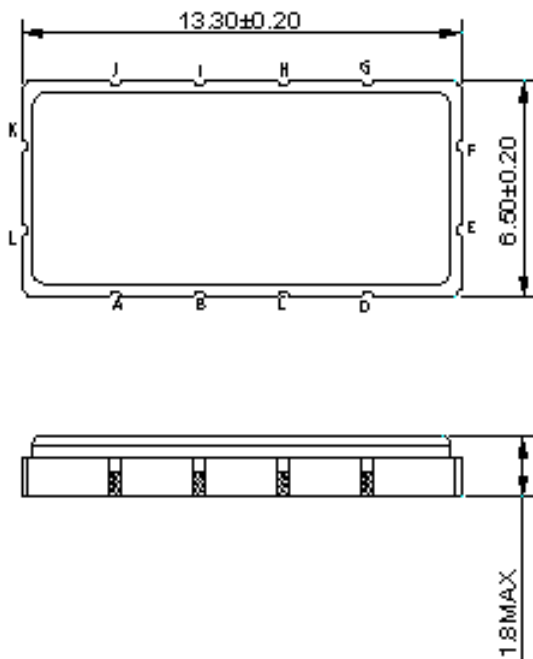
Ambient Temperature: 25°C

Characteristics	Min.	Typ.	Max.	Note
Center frequency Fc MHz	-	140.0	-	-
Maximum Insertion loss IL dB	-	9.2	10.5	-
1dB Bandwidth MHz	18.4	20.8	-	-
3dB Bandwidth MHz	20.0	21.8	-	-
35dB Bandwidth MHz	-	25.5	26.4	-
Passband Ripple (within 130.9 ~ 149.1MHz) dB	-	0.75	1.00	-
Group Delay Ripple (within 130.9 ~ 149.1MHz) nS	-	115	150	-
Absolute Group Delay uS	-	1.05	-	-
Input VSWR (within 130.9 ~ 149.1MHz) dB	-	2.0	2.5	-
Output VSWR (within 130.9 ~ 149.1MHz) dB	-	1.7	2.3	-
Temp Coefficient ppm/°C	-	-93	-	-
Attenuation: (Reference level from minimum insertion loss)				
10MHz ~ 90MHzdB	35	62	-	-
190MHz ~ 120MHz dB	40	54	-	-
120MHz ~ 126.8MHz dB	35	42	-	-
154.7MHz ~ 160MHz dB	35	45	-	-
160MHz ~ 190 MHz dB	40	43	-	-
190MHz ~ 800MHz dB	35	62	-	-

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**C. OUTLINE DRAWING:**



- K: RF Input
- L: RF Input ground
- E: RF Output
- F: RF Output ground
- A, B, C, D, G, H, I, J: To be ground

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**D. FREQUENCY CHARACTERISTICS:**

1. S21 Response

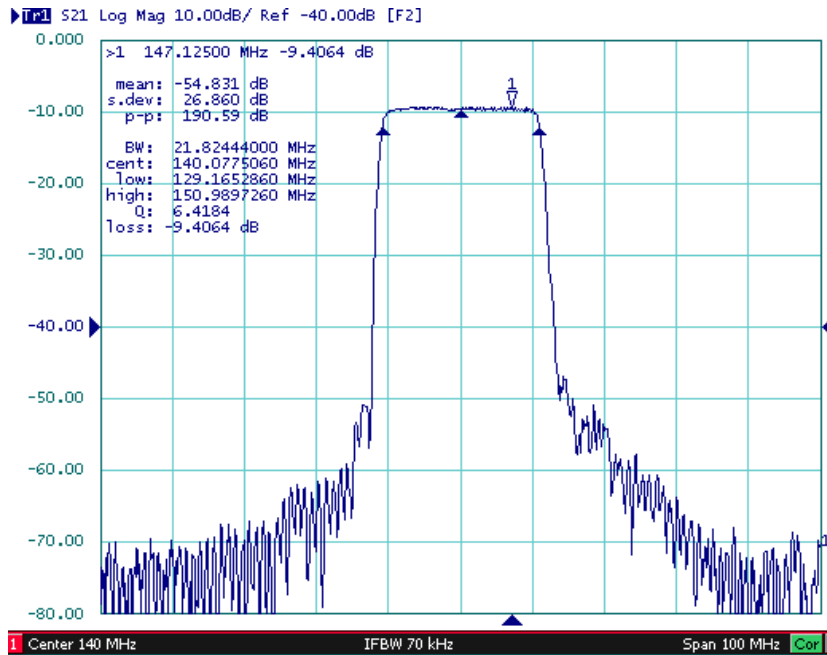


Fig. 1 S21 Response Horizontal: 10MHz / Div; Vertical: 10dB / Div

2. Pass band Ripple

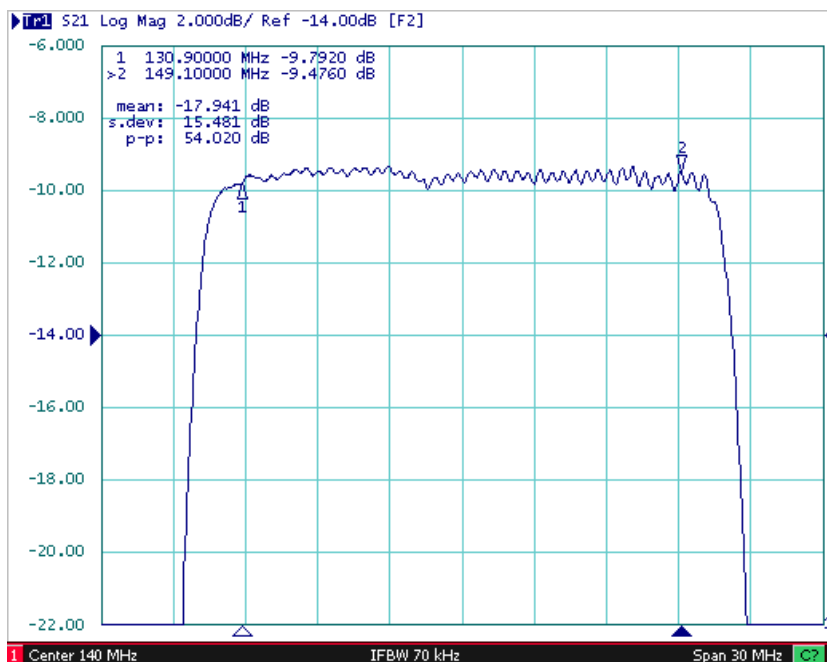


Fig. 2 Inband ripple Horizontal: 3MHz / Div; Vertical: 2dB / Div

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### 3. Group Delay Ripple

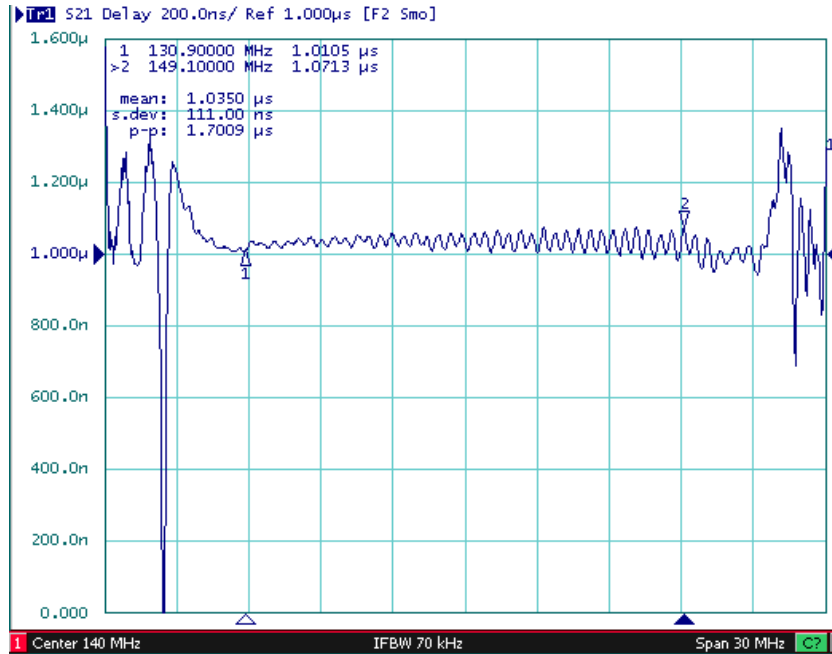


Fig. 3 Group Delay Horizontal: 3MHz / Div; Vertical: 200nS / Div

### 4. Wide band Response

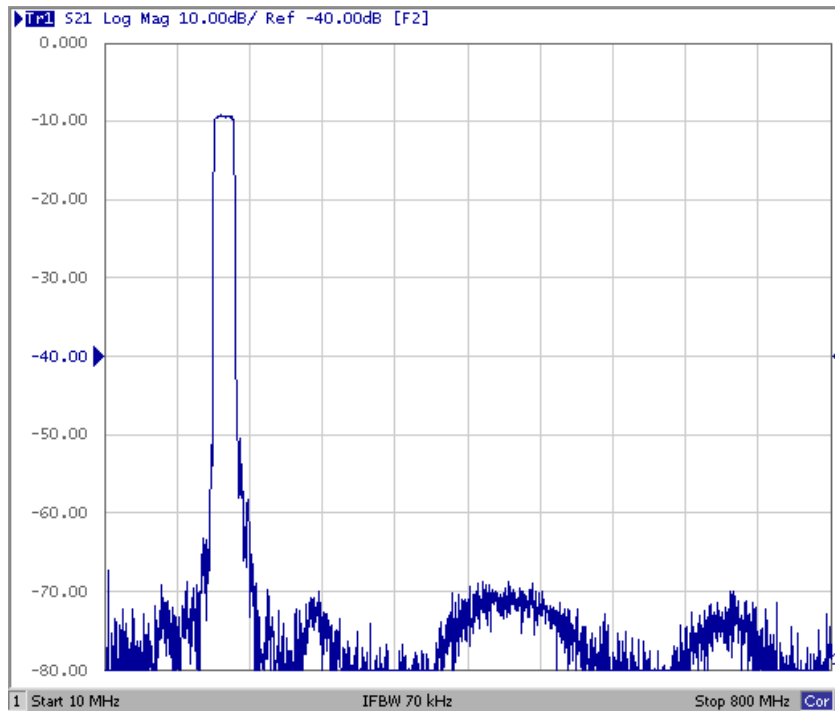
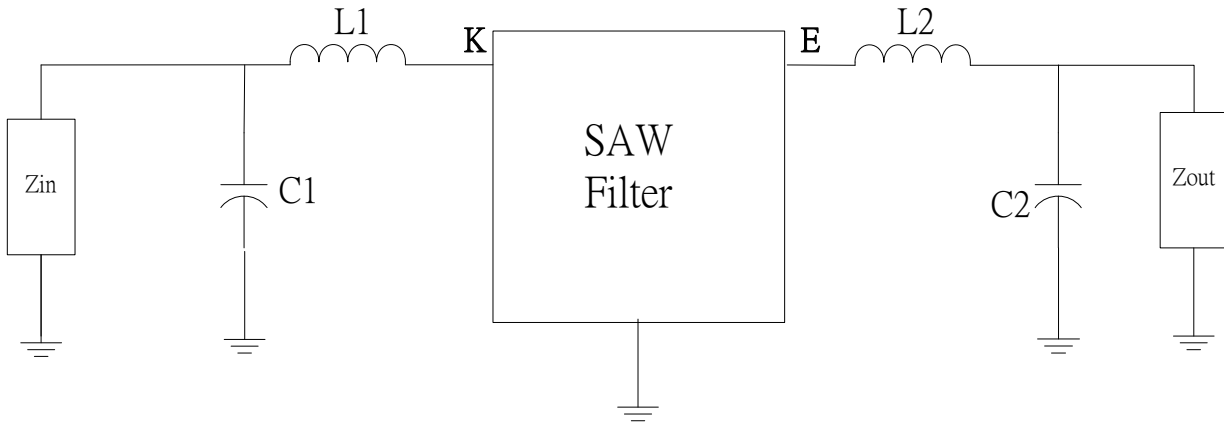


Fig. 4 Wide Band Horizontal: 10 ~ 800MHz; Vertical: 10dB / Div

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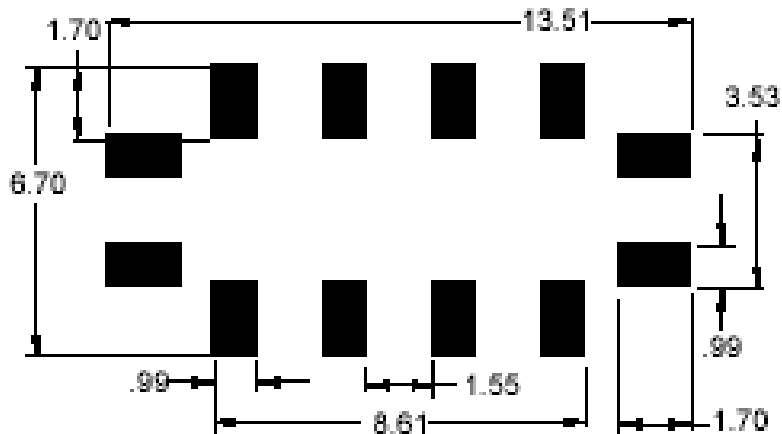
**E. MEASUREMENT CIRCUITS:**



$$Z_{IN} = Z_{OUT} = 50\Omega, L1 = 92\text{nH}, C1 = 22\text{pF}, L2 = 92\text{nH}, C2 = 33\text{pF}$$

Note: The matching structure will change according to different test fixture.

**F. PCB FOOTPRINT:**

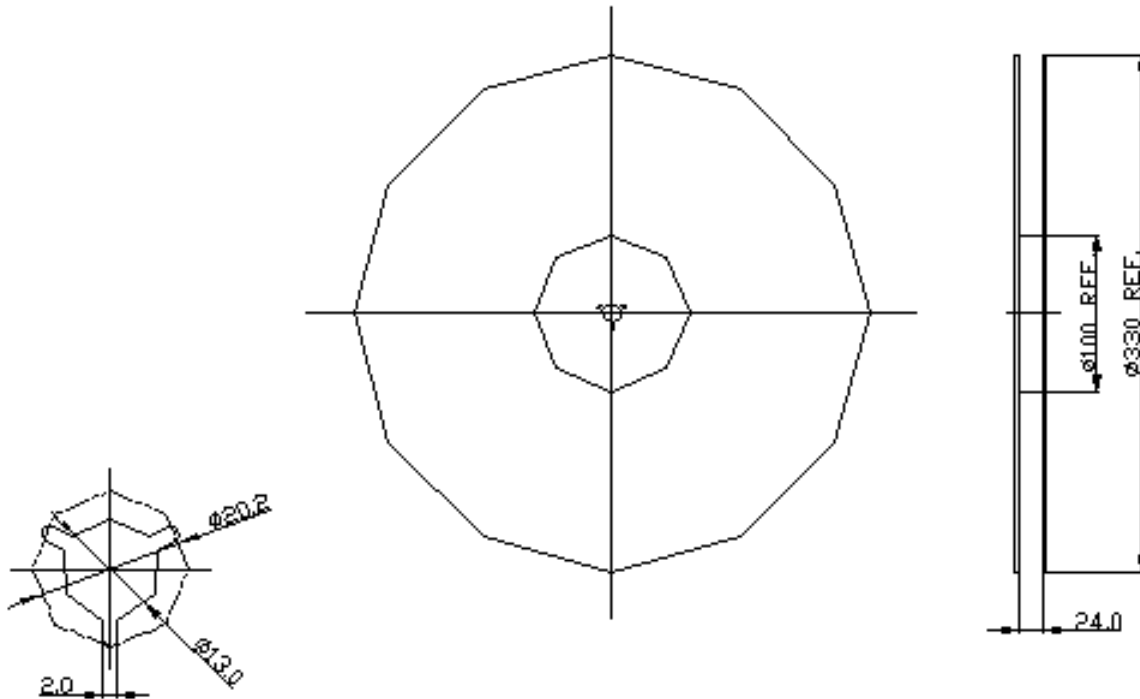


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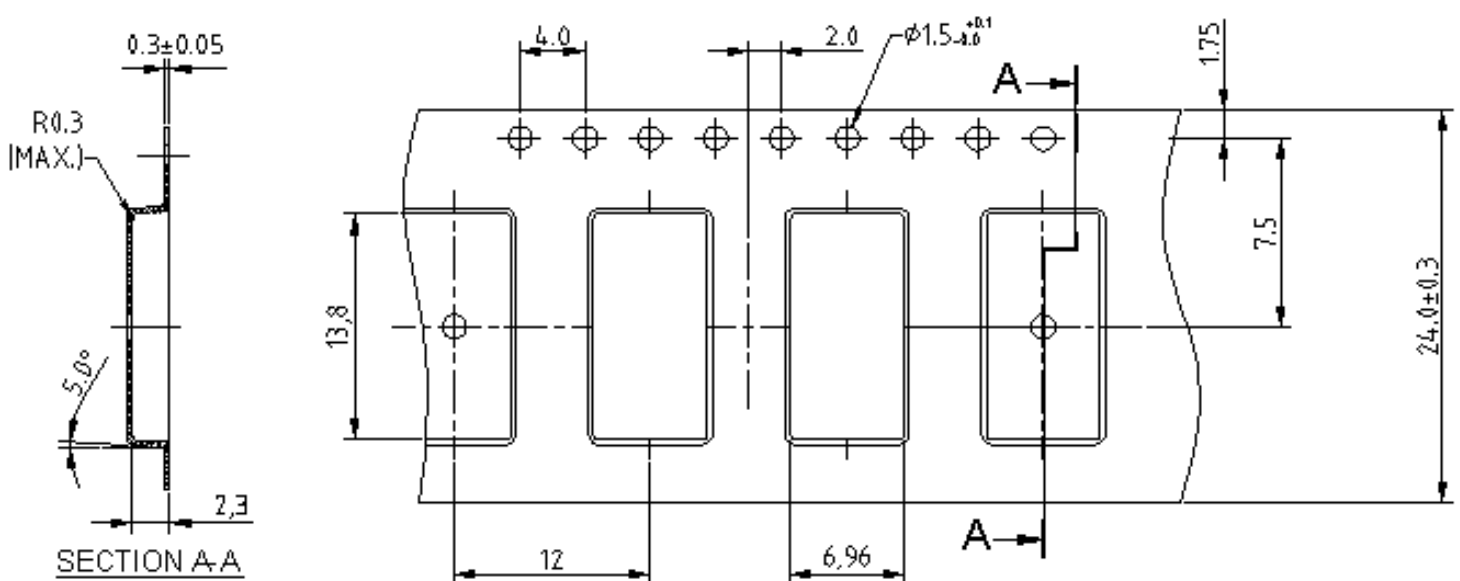
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**G. PACKAGE:**

1. Reel Dimension



2. Tape dimension



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**H. RECOMMENDED REFLOW PROFILE:**

