

SAW Filter 240.0MHz

Model: TB1181A

Part No: MP08556

Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device

1. Operating temperature range: -40°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:

Ambient Temperature: 25°C

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	239.75	240	240.25
Insertion Loss IL	dB	-	18.5	20.5
-1dB bandwidth	MHz	4.5	4.9	-
-30dB bandwidth	MHz	-	5.8	6.1
Passband Ripple Fc ±2.1MHz	dB	-	0.5	1.0
Group Delay variation Fc ±2.25MHz	ns		160	300
Attenuation: (Reference level from Min IL)				
10MHz ~ 230MHz	dB	38	42	-
230MHz ~ 236MHz	dB	34	37	-
Fc ±3.0MHz	dB	-	34	-
244MHz ~ 250MHz	dB	34	37	-
250MHz ~ 500MHz	dB	38	45	-
Temperature Coefficient	ppm/°C ²	-	-0.036	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

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C. FREQUENCY CHARACTERISTICS:

1. Narrow band Response:

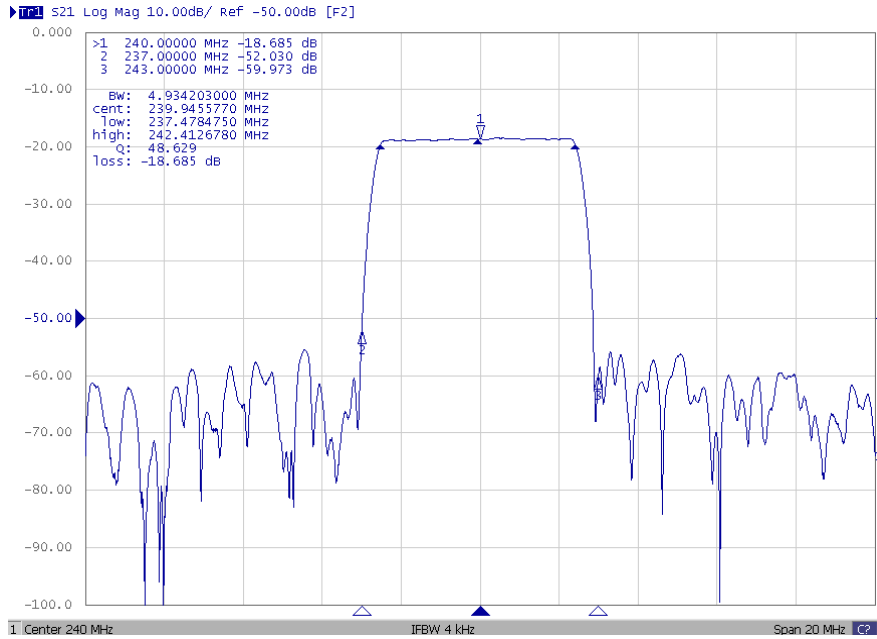


Fig. 1. Horizontal: 2MHz / Div, Vertical: 10dB / Div

2. Pass band Response and Group Delay Response:

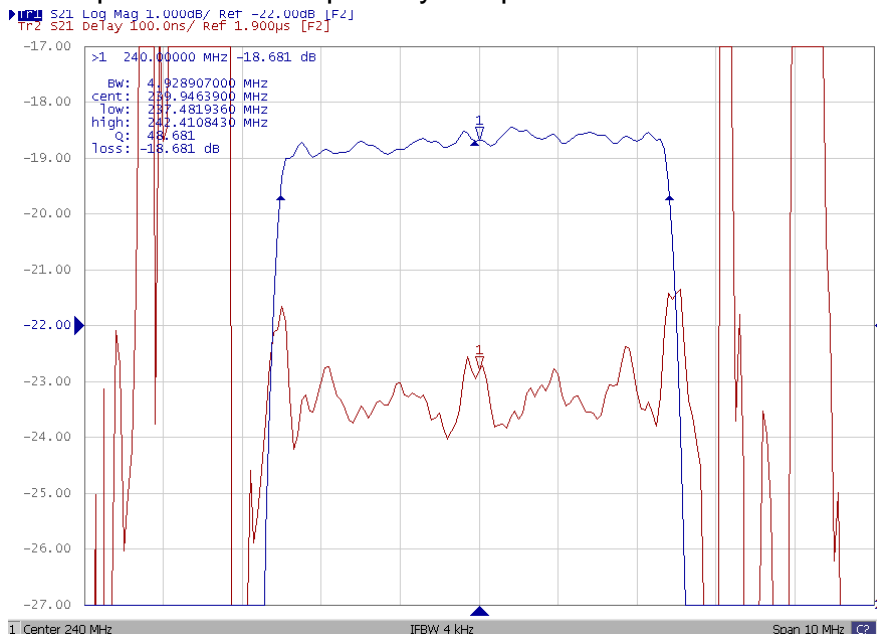
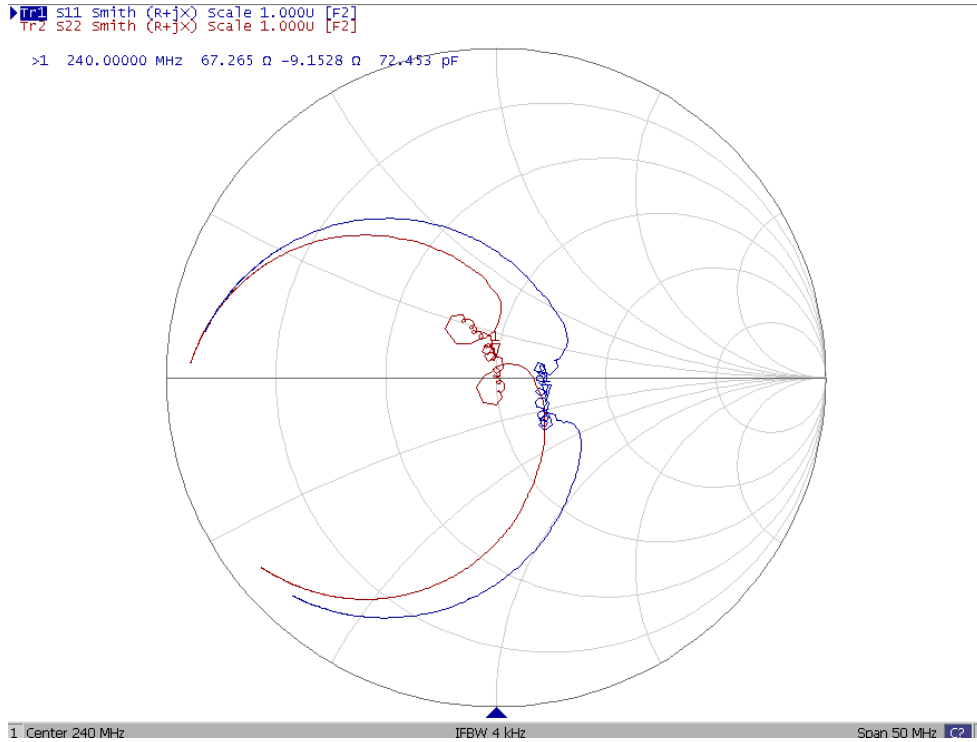


Fig. 2. Horizontal: 1MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

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3. Smith Chart:



4. Wide band Response:

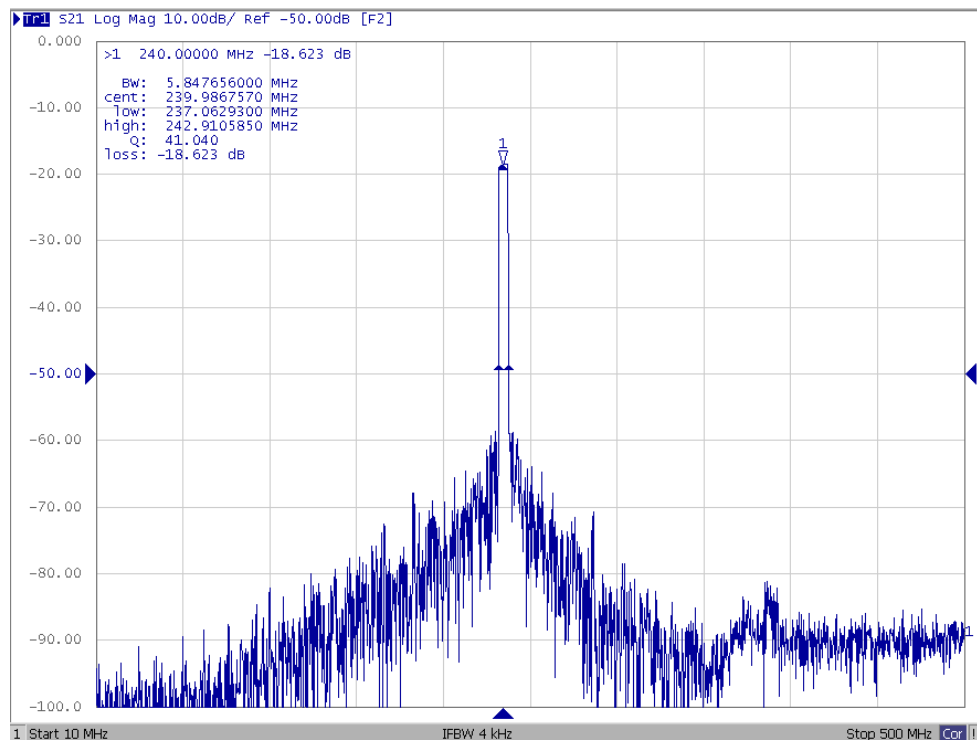
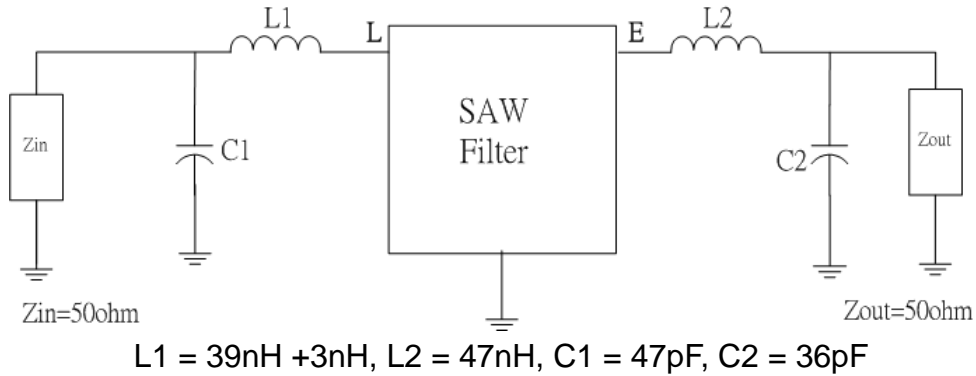


Fig. 4. Horizontal: 50MHz / Div, Vertical: 10dB / Div

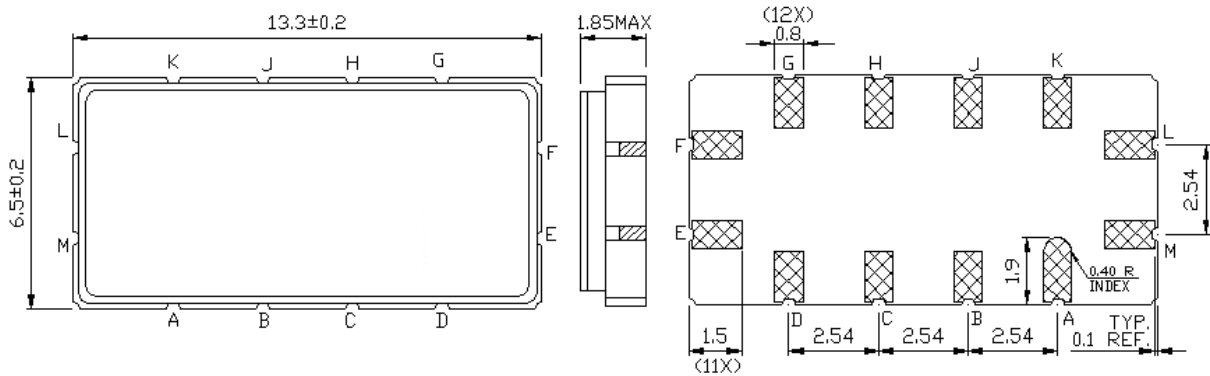
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D. MATCHING CIRCUIT:

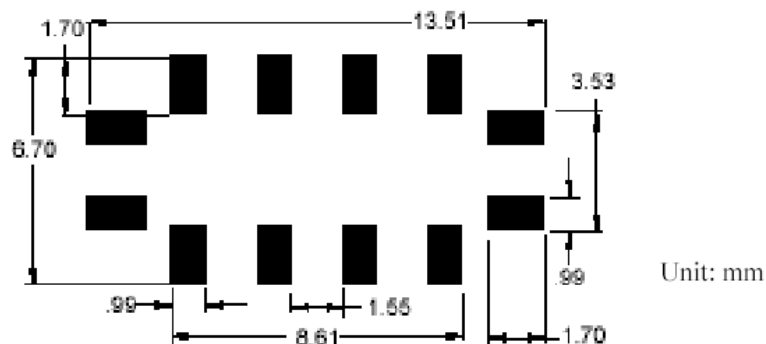


E. OUTLINE DRAWING:



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

F. PCB FOOTPRINT:

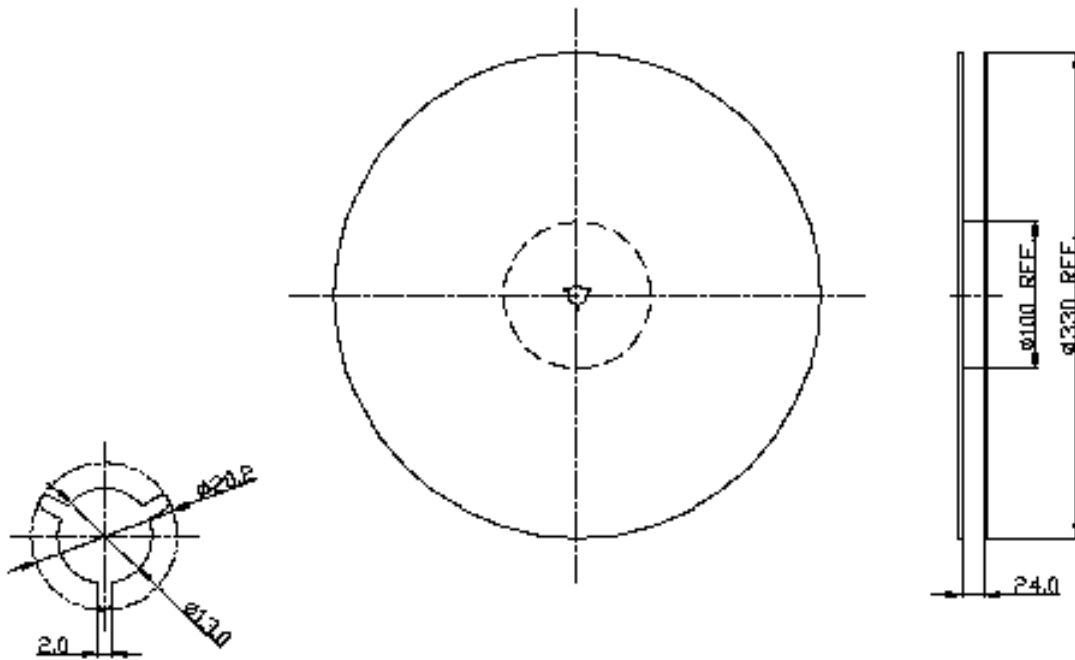


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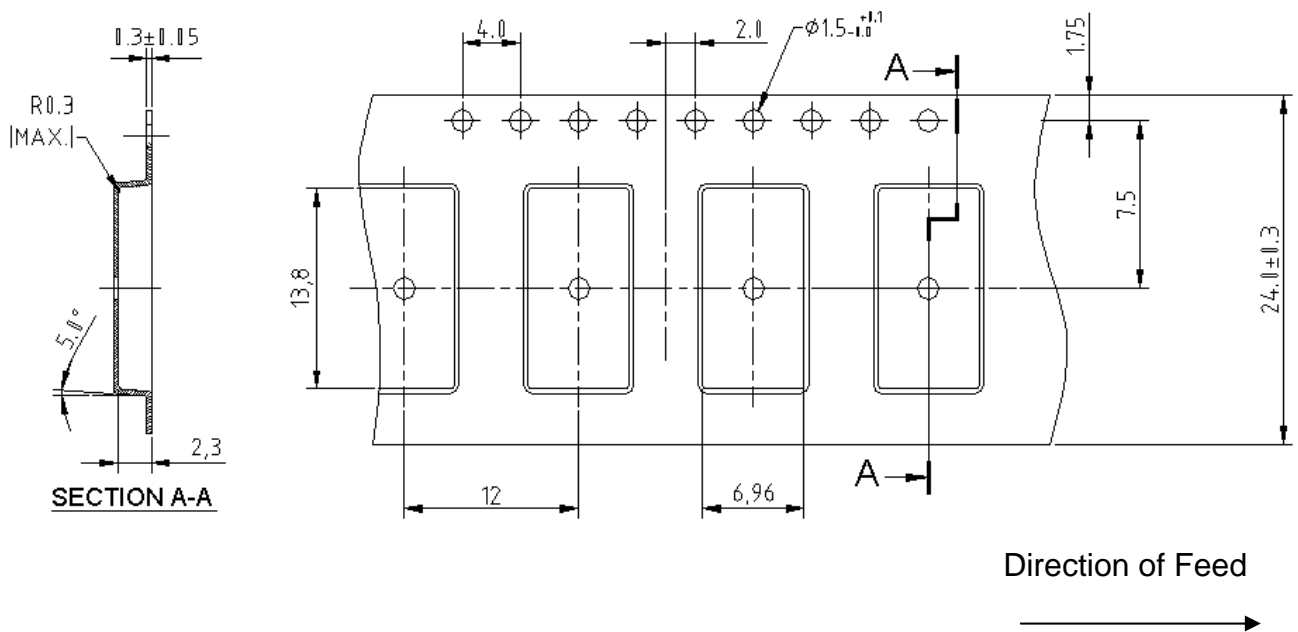
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G. PACKING:

1. Reel Dimension



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 245 ~ 260° peak (min. 10 sec).
4. Time: 2 times.

