

**SAW Filter 810.0MHz**

**Model: TB1118A**

**Part No: MP05959**

**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Operating temperature range: -43°C to 85°C
2. Storage temperature range: -45°C to 85°C
3. Input Power Level: 25dBm
4. Maximum DC Voltage: 10V

**B. CHARACTERISTICS:**

Ambient Temperature: 25°C

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	810	-
Insertion Loss IL	dB	-	5.0	9.0
-1dB bandwidth	kHz	-	395	-
-3dB bandwidth	MHz	-	0.57	-
-12dB bandwidth	MHz	-	0.92	1.10
-40dB bandwidth	MHz	-	1.86	2.00
Passband Ripple Fc ± 80kHz	dB	-	0.2	3.0
Attenuation: (Reference level from 0dB)				
DC ~ 808MHz	dB	40	45	
812MHz ~ 812.5MHz	dB	38	41	
812MHz ~ 1500MHz	dB	40	45	
Temperature Coefficient	ppm/°C <sup>2</sup>	-	-0.036	-
Source Impedance	Ohm	-	50	-
Load Impedance	Ohm	-	50	-

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**C. FREQUENCY CHARACTERISTICS:**

1. Wide band Response: (span 10MHz)

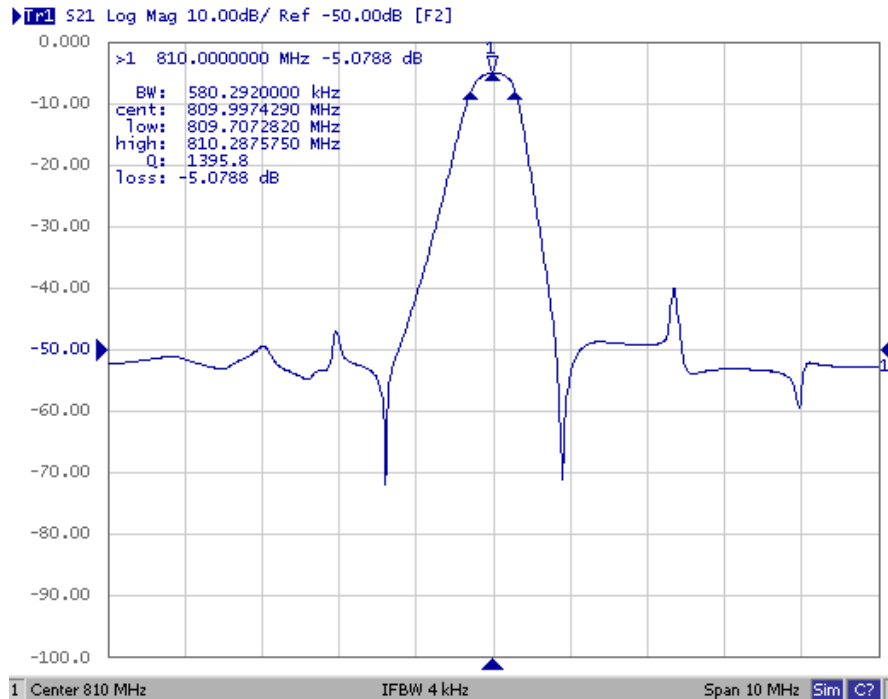


Fig.1: Horizontal: 1MHz / Div, Vertical: 10dB / Div

2. Pass band Response and Group Time Delay response:

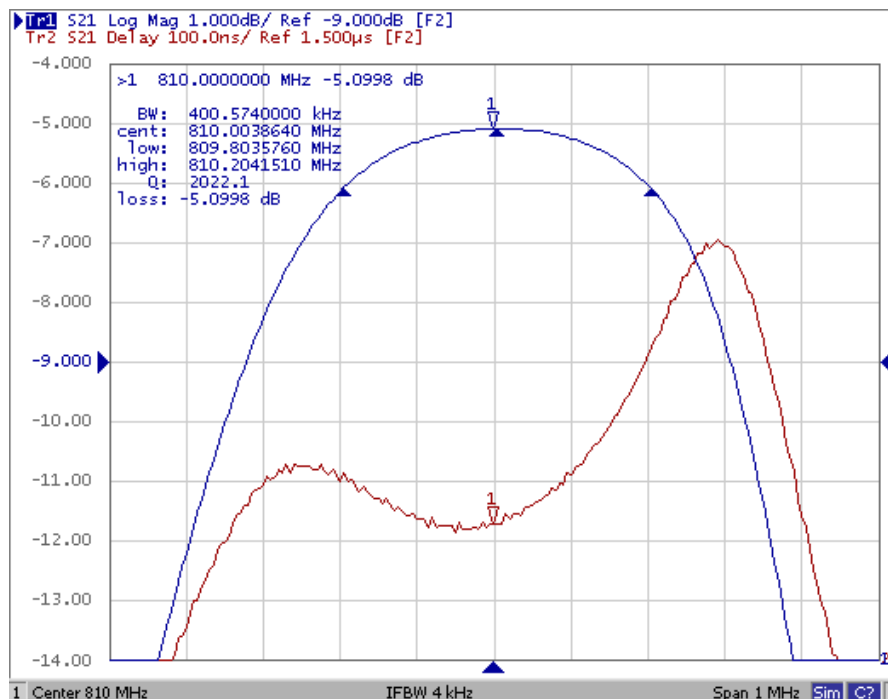
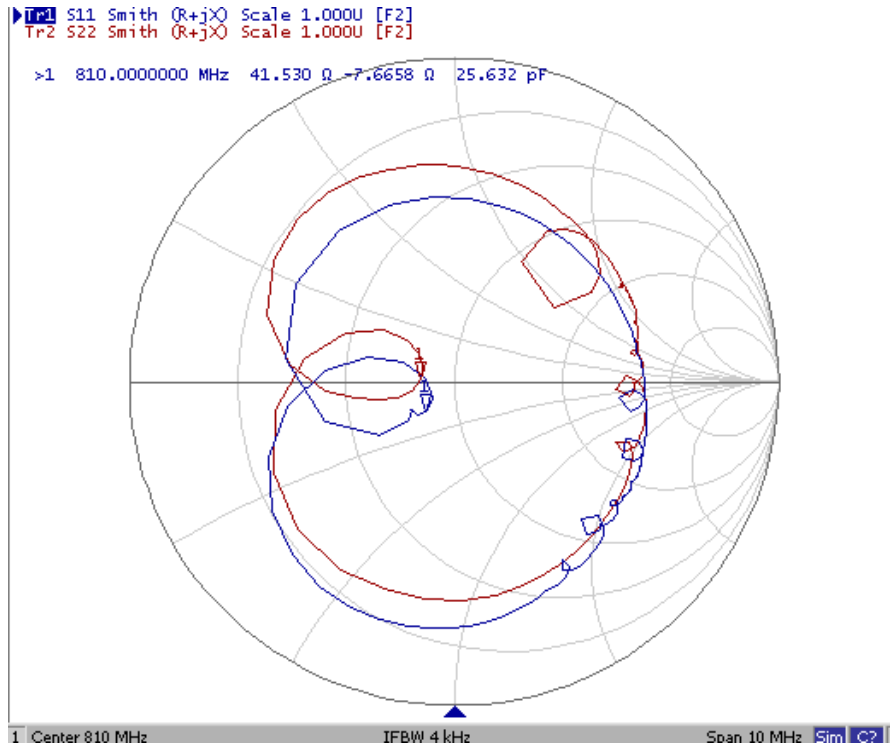


Fig 2: Horizontal: 0.1MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div

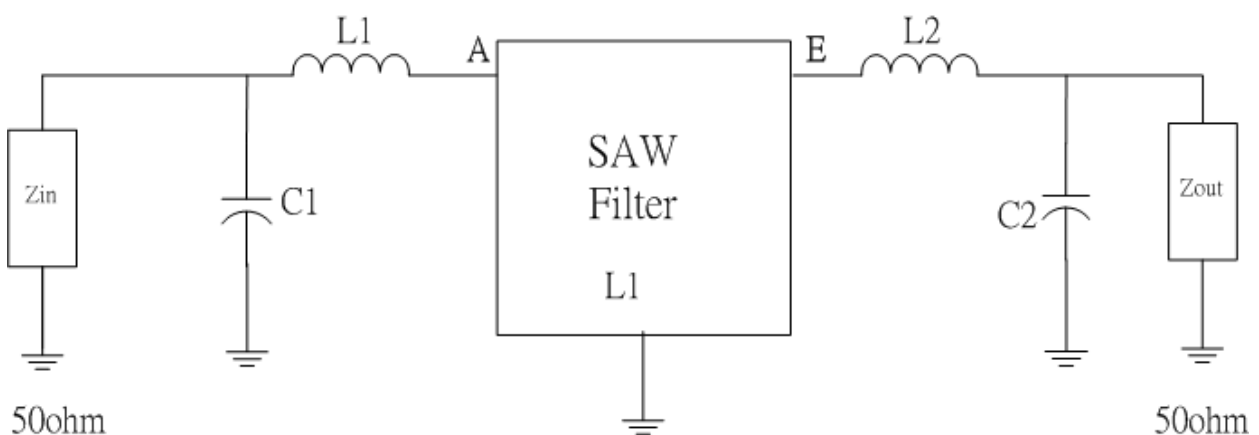
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3. Smith Chart:



**D. MATCHING CIRCUIT:**

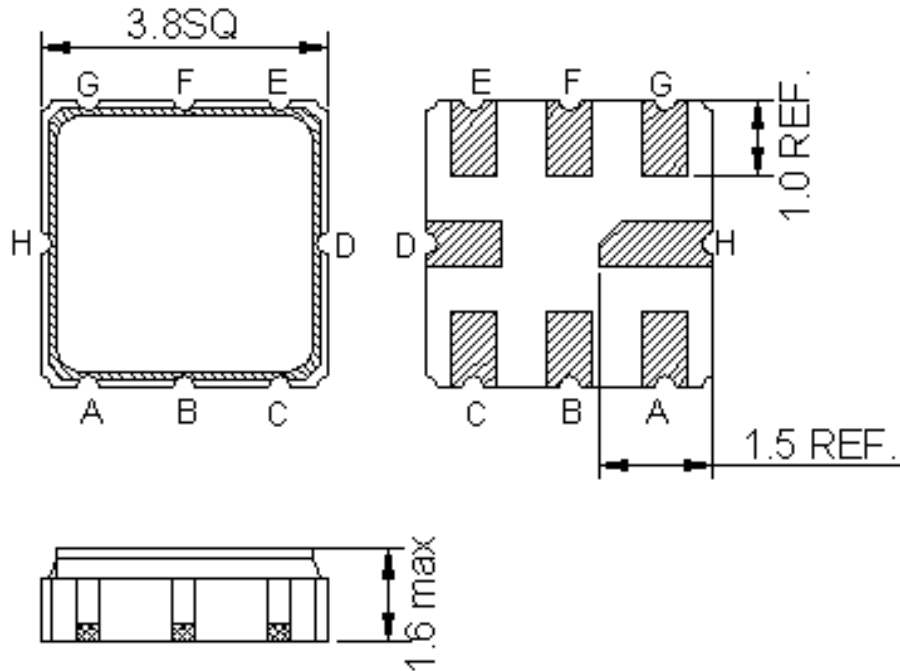


$L1 = 18\text{nH}$ ,  $L2 = 18\text{nH}$ ,  $C1 = 5.6\text{pF}$ ,  $C2 = 5.6\text{pF}$

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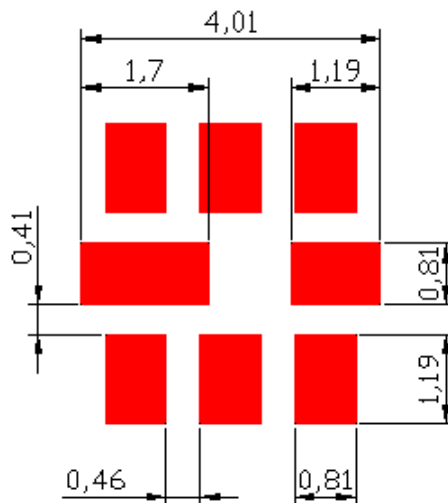
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**E. OUTLINE DRAWING:**



A: RF input  
 E: RF output  
 B, C, D, F, G, H: To Be Ground  
 Unit: mm

**F. PCB FOOTPRINT:**

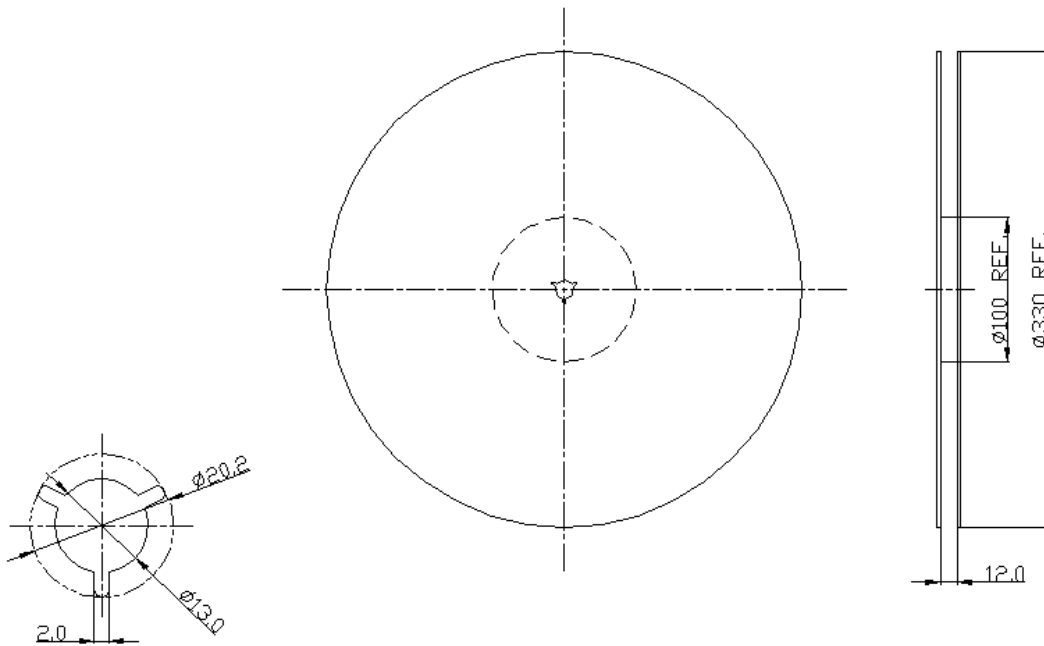


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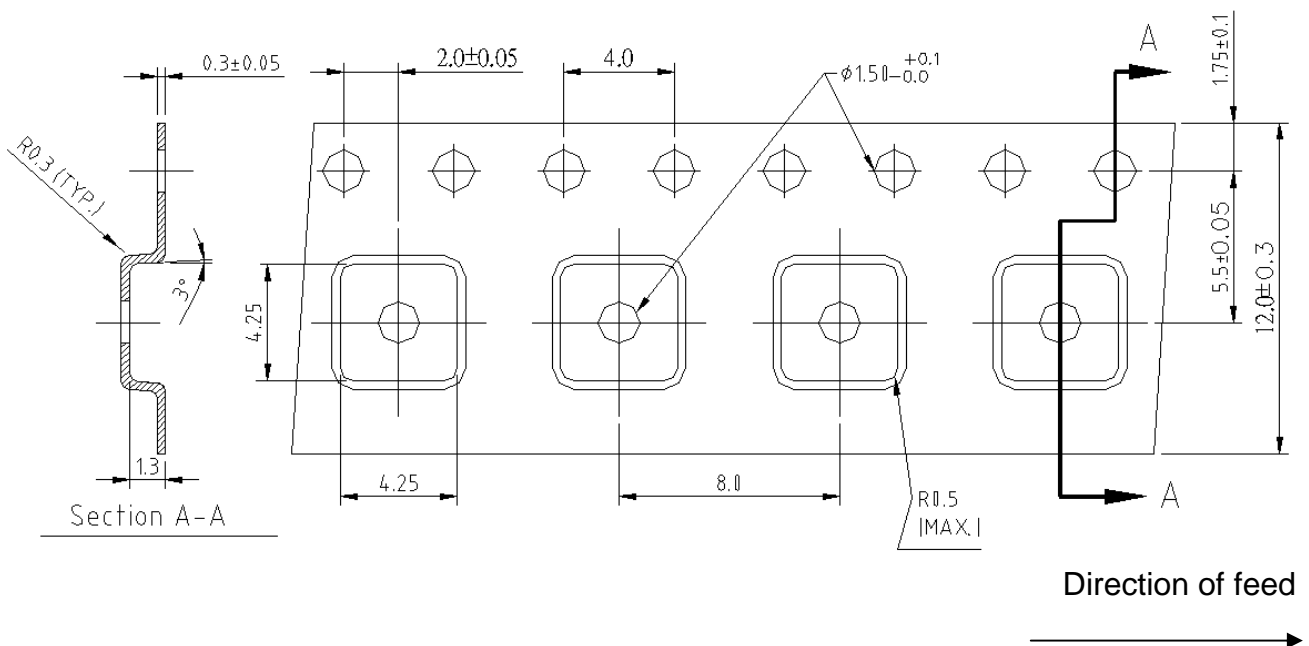
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**G. PACKING:**

1. Reel Dimension



2. Tape Dimension



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**H. RECOMMENDED REFLOW PROFILE:**

