

**SAW Filter 307.20MHz**  
**Part No: MP03821**

**Model: TB1031A**  
**Rev NO: 1**

**A. MAXIMUM RATING:**

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	-	307.2	-
Insertion Loss IL	dB	-	10.5	13.0
1.2dB Band Width	MHz	41.0	46.3	-
3dB Band Width	MHz	43.0	48.7	-
Amplitude Ripple Fc ± 20.5MHz	dB	-	0.3	1.0
Group Delay Ripple Fc ± 20.5MHz	ns	-	20	100
Absolute Group Delay at Fc	us	-	0.38	1.00
Attenuation (Reference level from minimum Insertion loss)				
100MHz ~ 210MHz	dB	40	58	-
210MHz ~ 274MHz	dB	38	46	-
340MHz ~ 400MHz	dB	38	46	-
400MHz ~ 600MHz	dB	40	50	-
600MHz ~ 1000MHz	dB	40	60	-
Temperature Coefficient	ppm/°C	-	-94	-
Source Impedance	Ω	-	50	-
Load Impedance	Ω	-	50	-

**SAW Filter 307.20MHz**  
**Part No: MP03821**

**Model: TB1031A**  
**Rev NO: 1**

**C. FREQUENCY CHARACTERISTICS:**

1. Wide band Response: (span 400MHz)

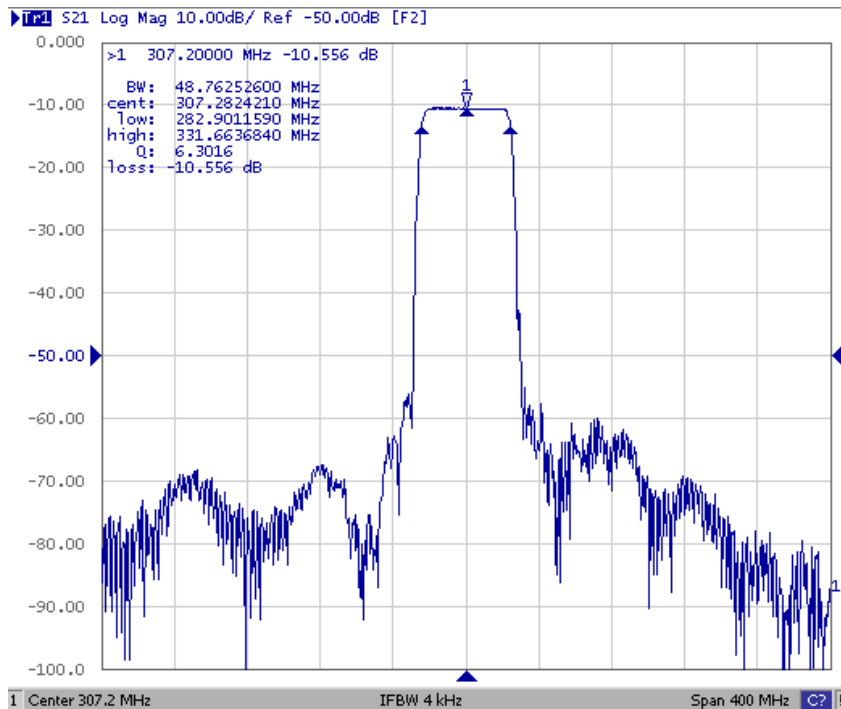


Fig. 1. Horizontal: 40MHz/Div, Vertical: 10dB/Div

2. Pass band Response and Group Time Delay response:

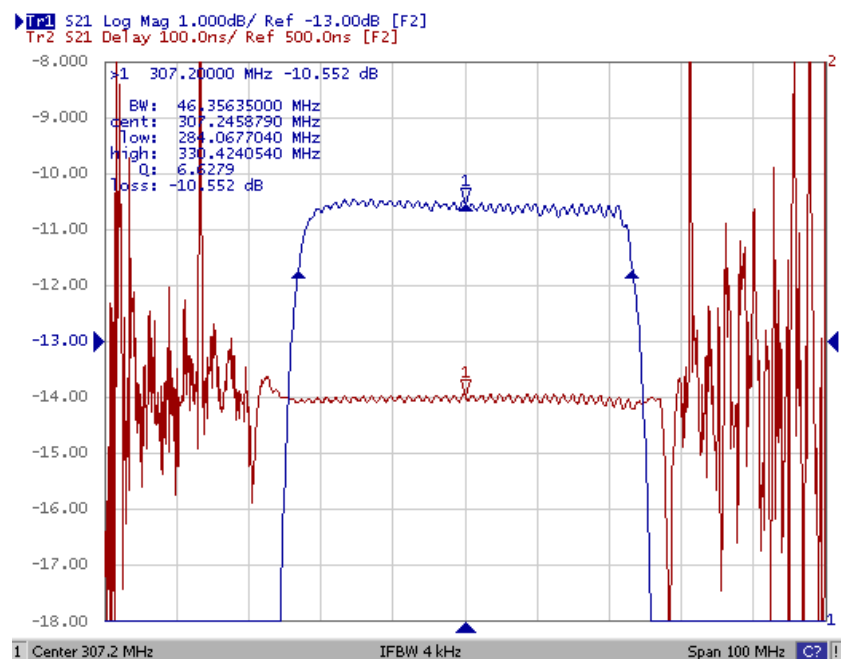


Fig. 2. Horizontal: 8MHz/Div, Vertical: 1dB/Div, Vertical: 100ns/Div

**SAW Filter 307.20MHz**  
**Part No: MP03821**

**Model: TB1031A**  
**Rev NO: 1**

3. Wide band Response:

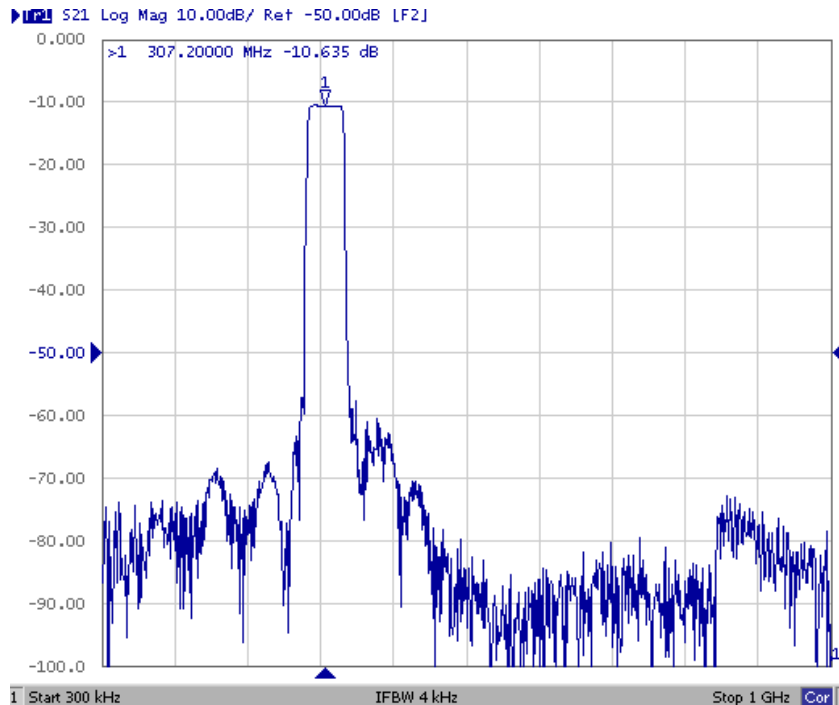
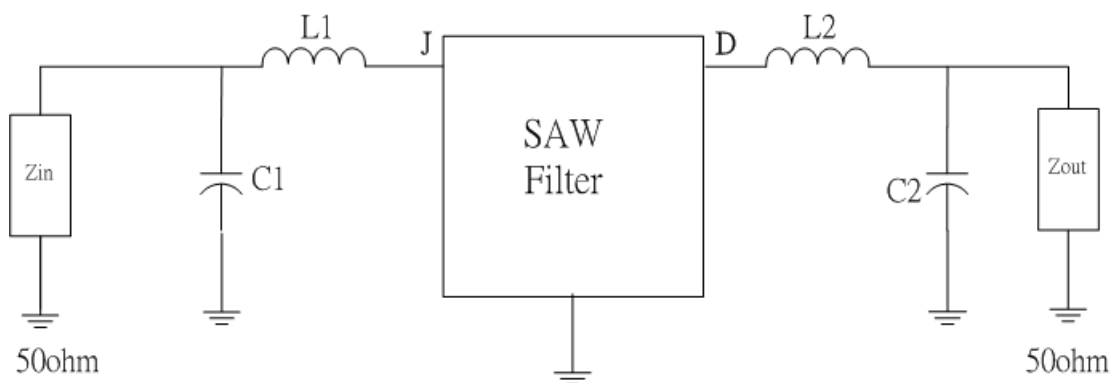


Fig. 3. Horizontal: 100MHz/Div, Vertical: 10dB/Div

**D. MATCHING CIRCUIT:**

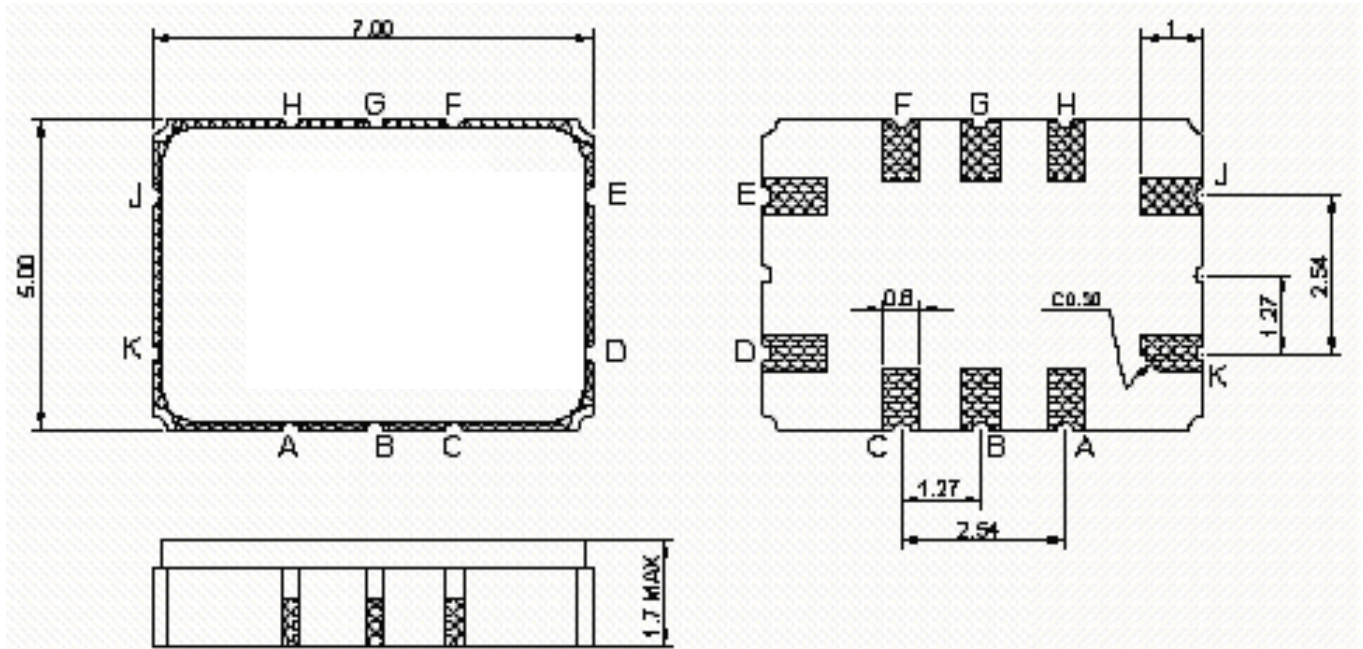


L1=36nH L2=27nH C1=10pF C2=12pF

**SAW Filter 307.20MHz**  
**Part No: MP03821**

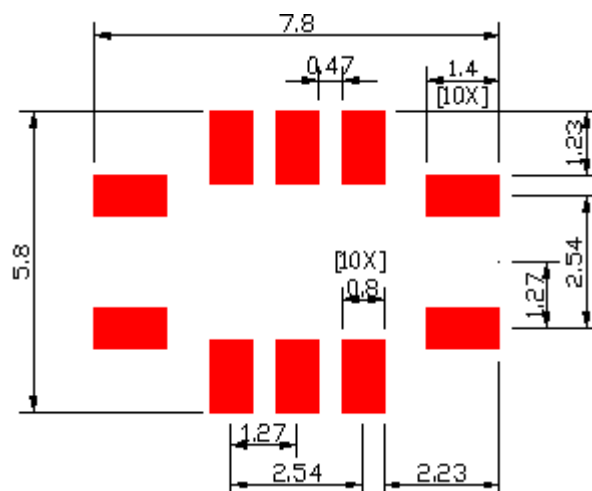
**Model: TB1031A**  
**Rev NO: 1**

**E. OUTLINE DRAWING:**



- J: RF input
  - K: RF input ground
  - D: RF output
  - E: RF output ground
  - A, B, C, F, G, H: Ground
- Unit: mm

**F. PCB FOOTPRINT:**

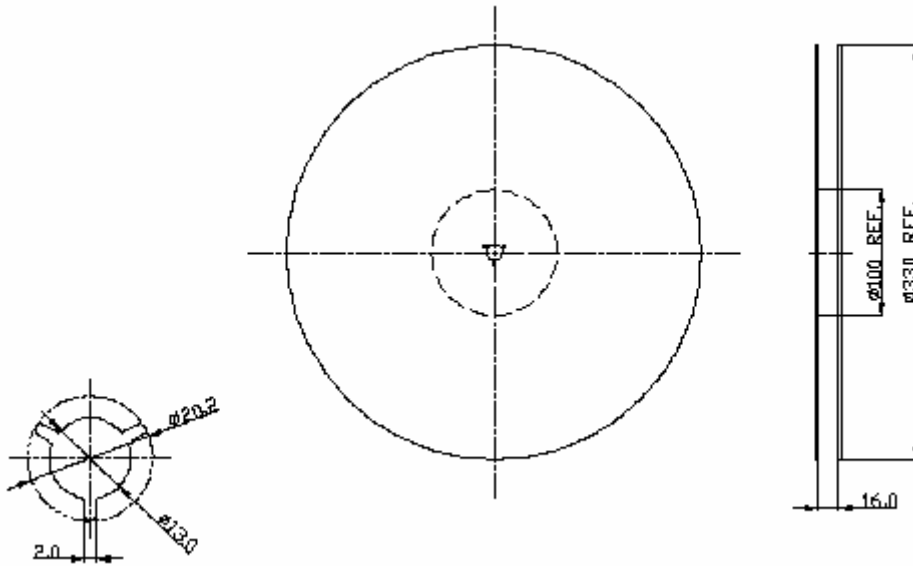


**SAW Filter 307.20MHz**  
**Part No: MP03821**

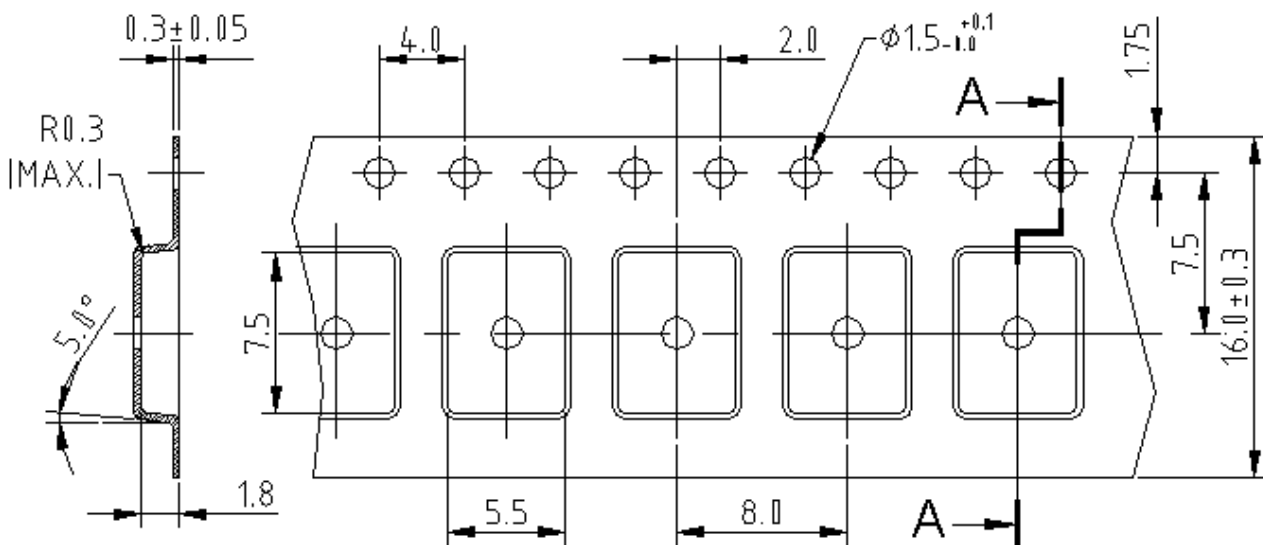
**Model: TB1031A**  
**Rev NO: 1**

**G. PACKING:**

**1. REEL DIMENSION**



**2. TAPE DIMENSION**



**SAW Filter 307.20MHz**  
**Part No: MP03821**

**Model: TB1031A**  
**Rev NO: 1**

**H. RECOMMENDED REFLOW PROFILE:**

