

**140.0MHz SAW Filter**

**Model: TB0438A**

**Part No: MA09815**

**REV NO.: 1**

**A. MAXIMUM RATING:**

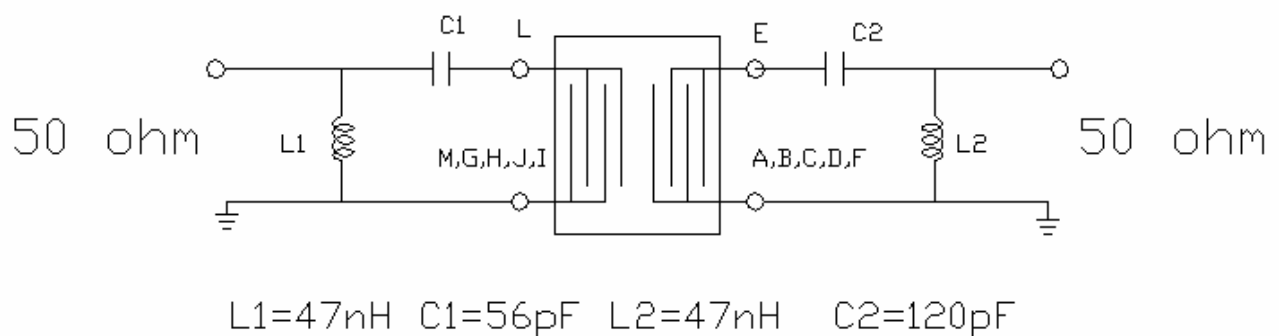
1. Operating Temperature: -5 °C ~ +85 °C
2. Storage Temperature: -55 °C ~ +80°C
3. Input Power Level: 10dBm

**B. CHARACTERISTICS:**

1. Ambient Temperature: 25°C

Characteristics	Value			Note.
	Min.	Typ.	Max.	
Center frequency $F_c$ MHz	-	140.0	-	-
Maximum Insertion loss I.L. dB	-	8.5	10.5	-
1dB Bandwidth MHz	9.6	12.4	-	-
3dB Bandwidth MHz	12.0	14.7	-	-
40dB Bandwidth MHz	-	25.5	40.0	-
Passband Ripple ( $F_c \pm 4.8\text{MHz}$ ) MHz	-	0.7	1.0	-
Group Delay Ripple ( $F_c \pm 4.8\text{MHz}$ ) nS	-	75	160	-
Temp Coefficient ppm/°C	-	-94	-	-

**C. TEST FIXTURE:**



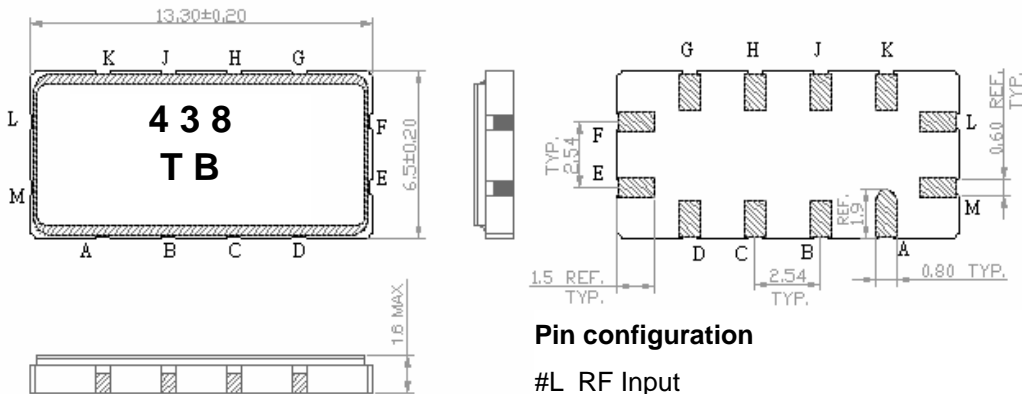
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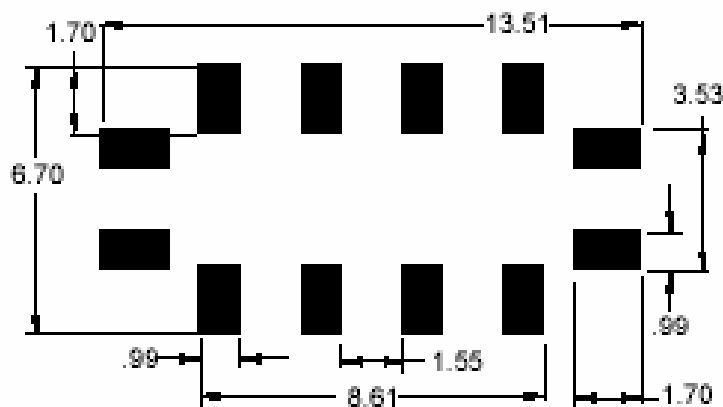
**C. OUTLINE DRAWING:**



**Pin configuration**

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

**D. PCB FOOTPRINT**



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**E. FREQUENCY CHARACTERISTICS:**

1. S21 Response

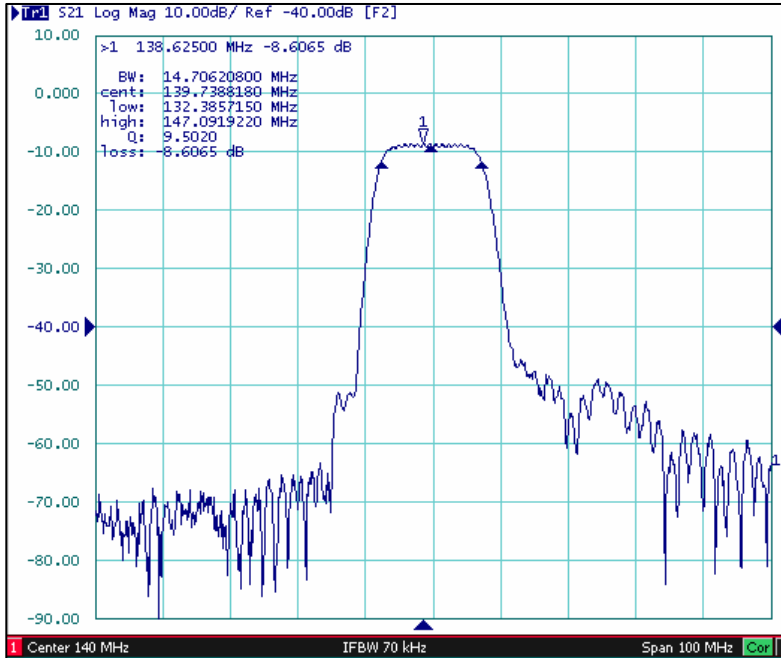


Fig1. Horizontal: 100MHz/Div Vertical: 10dB/Div

2. Pass band Ripple and Group Delay Ripple

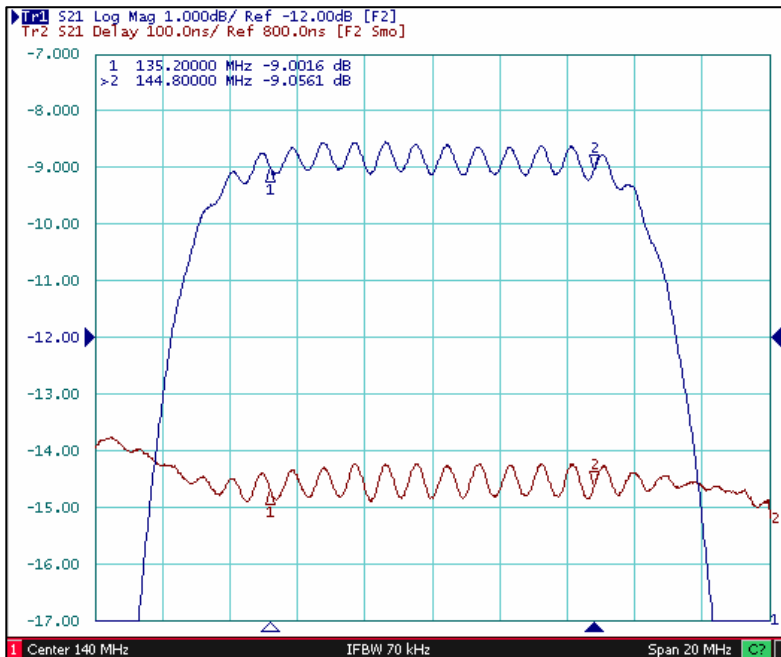


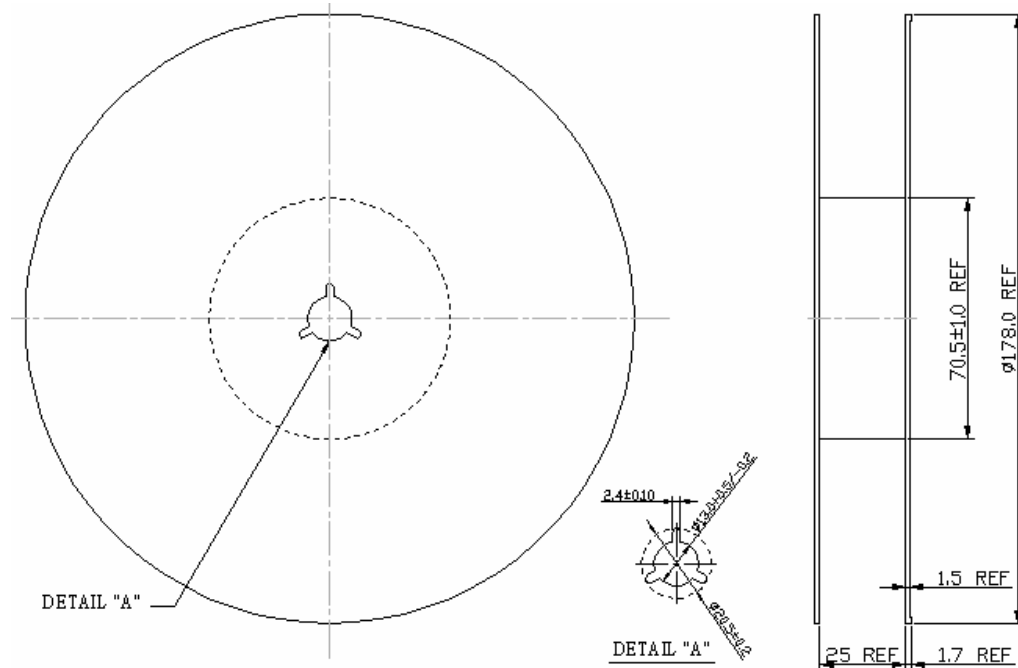
Fig2. Horizontal: 2MHz/Div; Vertical: 1dB/Div, Vertical: 100nS/Div,

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**G. PACKING:**

**1. REEL DIMENSION**



**2. TAPE DIMENSION**

