

**SAW Filter 456MHz**  
**Part No: MP02643**

**Model: TB0462A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

1. Operating Temperature: -20°C ~ +60°C
2. Storage Temperature: -40°C ~ +85°C
3. Input Power Level: 10dBm

**B. CHARACTERISTICS:**

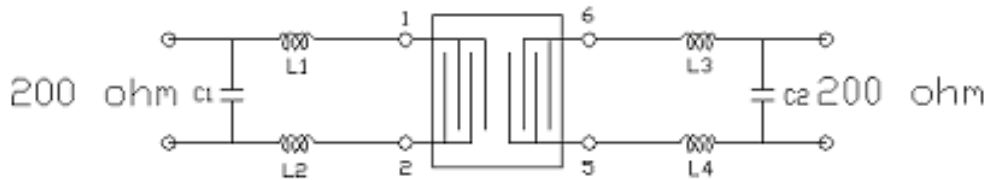
1. Ambient Temperature: 25°C
2. Optimal Source Impedance (Balanced): 200Ω
3. Optimal Load Impedance (Balanced): 200Ω

Characteristics	Value			Note
	Min.	Typ.	Max.	
Center Frequency Fc MHz	-	456	-	-
Minimum Insertion Loss (453.8 ~ 458.2MHz) dB		12.0	13.0	
Passband Ripple (453.8 ~ 458.2MHz) dB	-	0.50	1.00	-
30dB Bandwidth MHz		10.6	11.5	
Attenuation: (Reference level from minimum insertion loss) dB				
10MHz ~ 256MHz dB	30	70	-	-
256MHz ~ 360MHz dB	40	64	-	-
360MHz ~ 421MHz dB	40	55	-	-
421MHz ~ 449MHz dB	36	44	-	-
463MHz ~ 491MHz dB	36	44	-	-
491MHz ~ 552MHz dB	40	55	-	-
552MHz ~ 656MHz dB	40	66	-	-
656MHz ~ 946MHz dB	30	59	-	-
Absolute Group Delay at Fc uS	-	0.45	0.55	-
Group Delay Ripple (453.8 ~ 458.2MHz) dB	-	52	100	-
Input Return Loss (453.8 ~ 458.2MHz) dB	10	36	-	-
Output Return Loss (453.8 ~ 458.2MHz) dB	10	18	-	-
Temp Coefficient ppm/°C <sup>2</sup>	-0.036			

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**C. MEASUREMENT CIRCUIT:**



$L1 = L2 = 18\text{nH}$   $C1 = 12\text{pF}$   $L3 = L4 = 18\text{nH}$   $C2 = 10\text{pF}$

**D. FREQUENCY CHARACTERISTICS:**

S21 Response

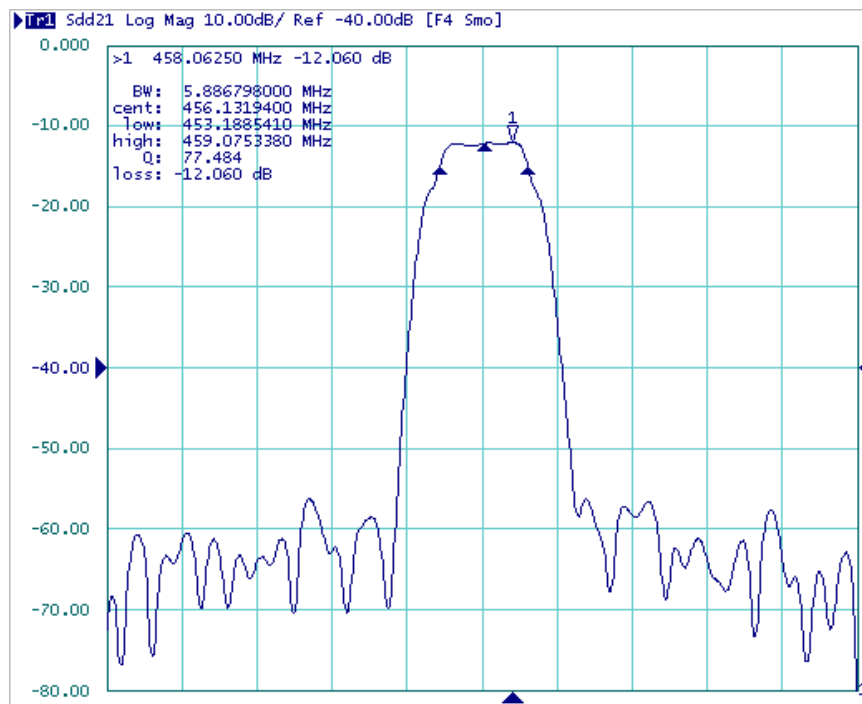


Fig.1. Horizontal: 5MHz/Div Vertical: 10dB/Div

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### Pass band Ripple

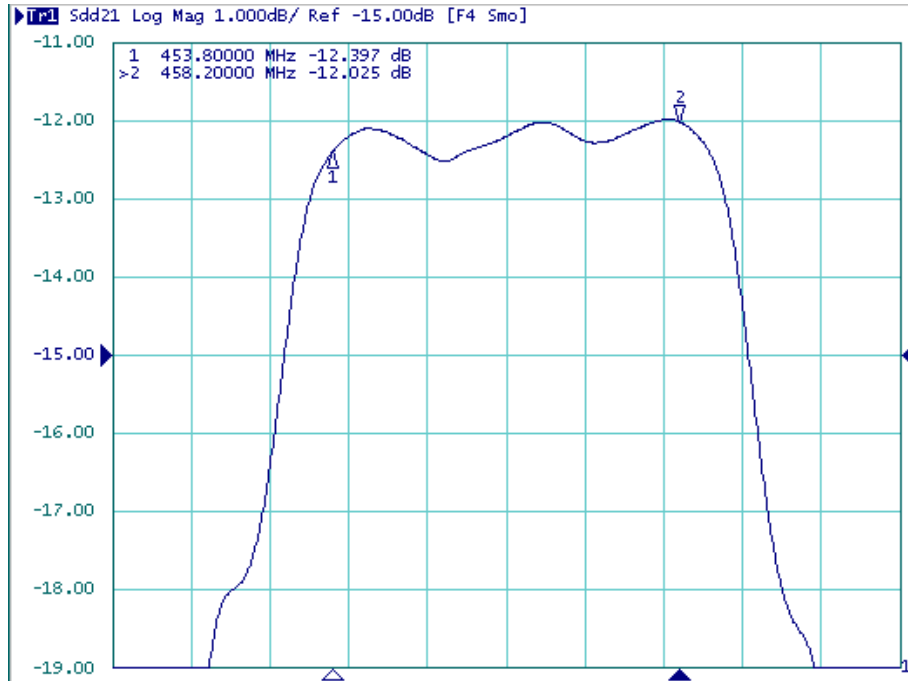


Fig.2. Horizontal: 1.5MHz/Div Vertical: 1dB/Div

### Group Delay Ripple



Fig.3. Horizontal: 1.5MHz/Div Vertical: 200nS/Div

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Wide band Response

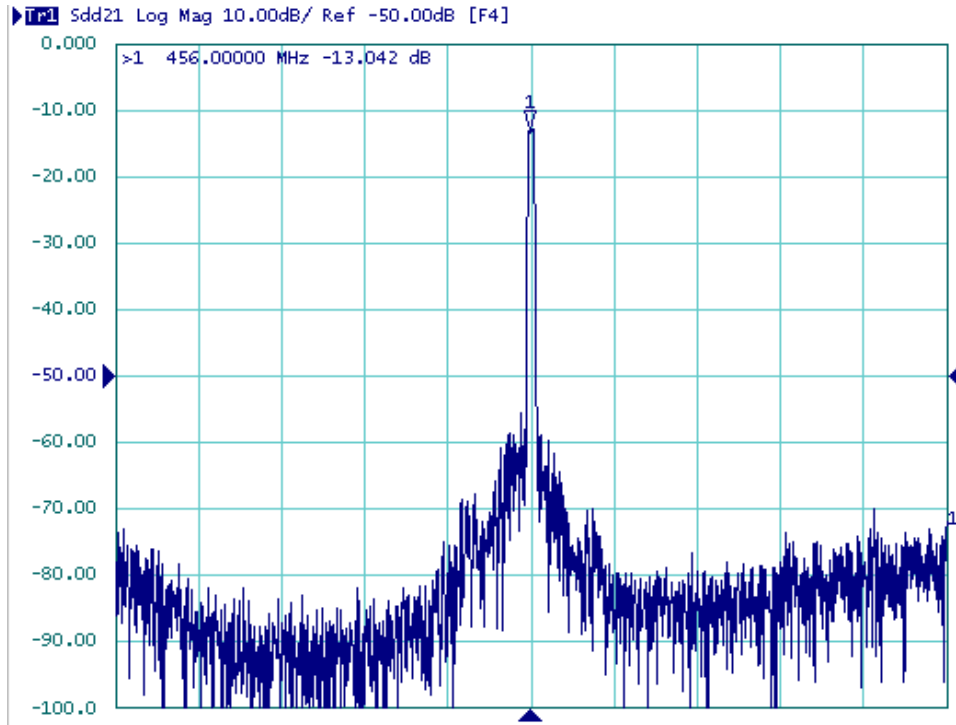
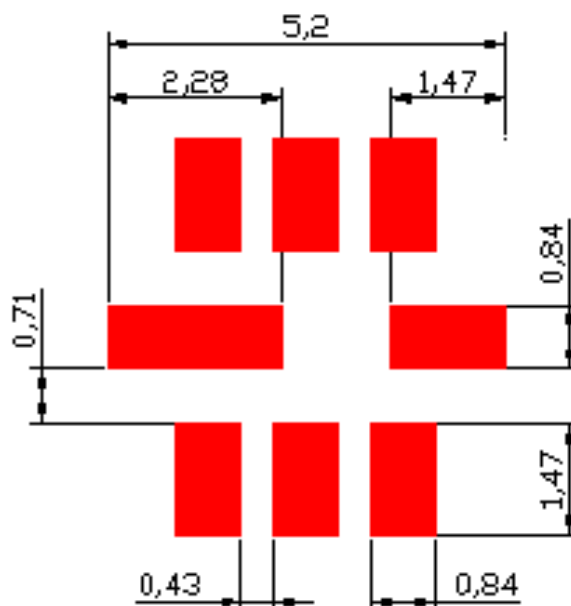


Fig4. Horizontal: 10MHz ~ 946MHz Vertical: 10dB/Div

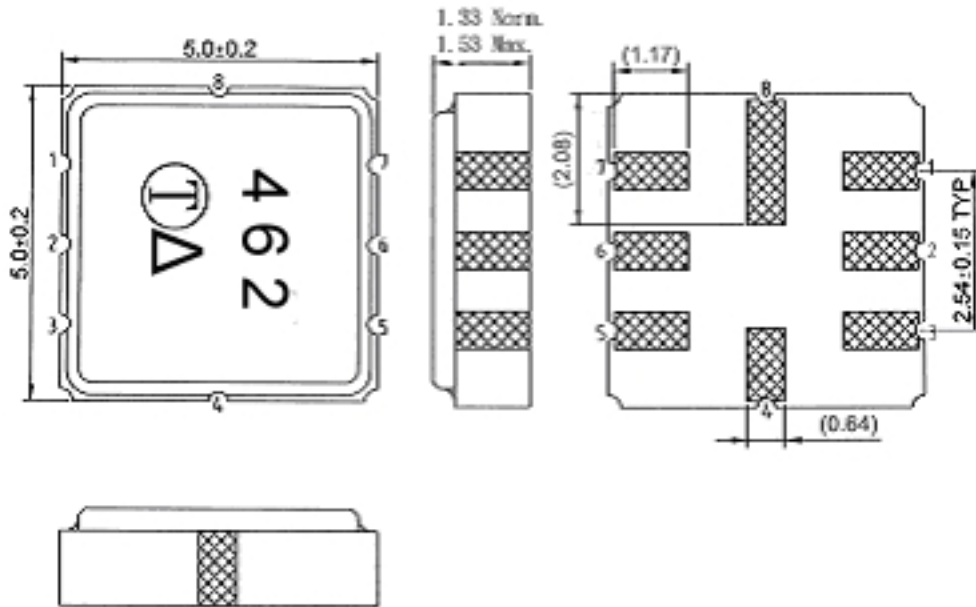
**E. PCB FOOTPRINT:**



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**F. OUTLINE DRAWING:**



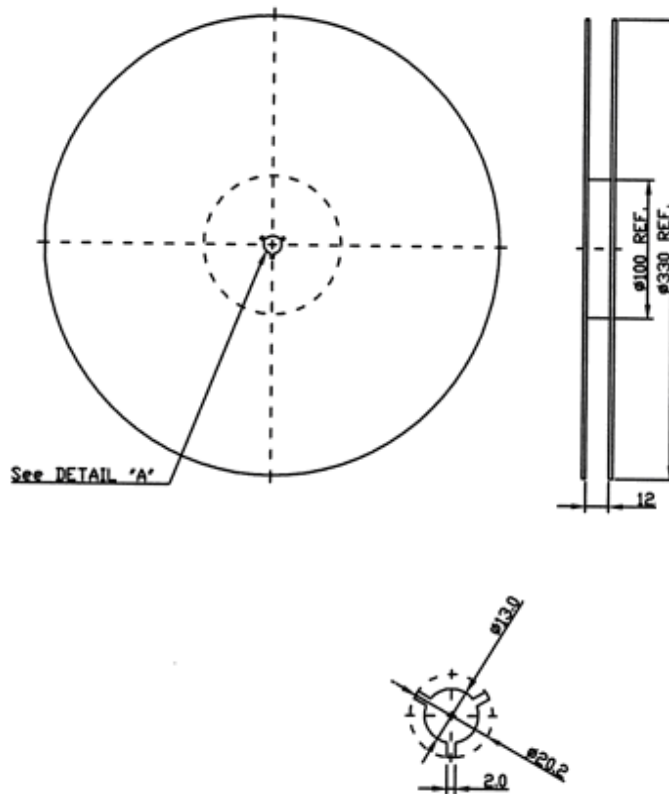
- 1, 2: Balanced Input
  - 5, 6: Balanced Output
  - 3, 4, 7, 8: To be Ground
- Unit: mm

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**G. PACKING:**

1. REEL DIMENSION



2. TAPE DIMENSION

