



TAI-SAW TECHNOLOGY CO., LTD.

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Approval Sheet For Product Specification

Issued Date:

Product Name: 456MHz 7.8MHz BW SMD5x5mm IF SAW Filter

TST Parts No.:TB0427A

Customer Parts No.:_____

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Andy Lee

Approval by:_____ Francis Chen

Date:_____ 2006/12/12



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456MHz 7.8MHz BW SMD5x5mm IF SAW Filter

MODEL NO.: TB0427A

REV. NO.2

A. MAXIMUM RATING:

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

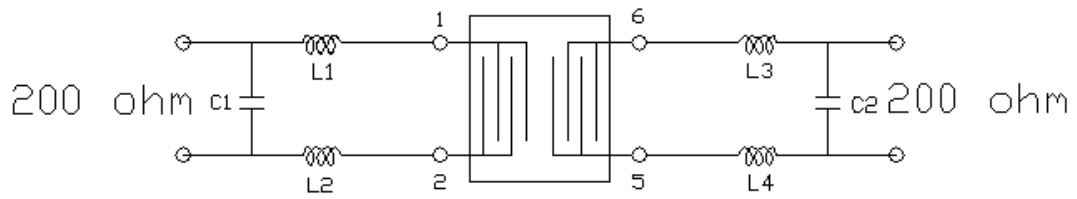
RoHS Compliant
Lead free
Lead-free soldering

B. Characteristics :

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

Characteristics	Value			Note
	Min.	Typ.	Max.	
Center Frequency F_C MHz	-	456	-	-
Minimum Insertion Loss (452.1~459.9MHz) dB		7.4	9	
Passband Ripple (452.1~459.9MHz) dB	-	0.7	1.25	-
30dB Bandwidth MHz		17.5	18.0	
Attenuation:(Reference level from minimum insertion loss)				dB
1) 10 MHz ~ 256 MHz dB	30	62	-	-
2) 256 MHz ~ 360 MHz dB	40	57	-	-
3) 360 MHz ~ 421 MHz dB	45	52	-	-
4) 421 MHz ~ 441 MHz dB	40	45	-	-
5) 441 MHz ~ 443.25 MHz dB	36	44	-	-
6) 471.55 MHz ~ 491 MHz dB	40	45	-	-
7) 491 MHz ~ 551 MHz dB	45	52	-	-
8) 552 MHz ~ 656 MHz dB	40	62	-	-
9) 656 MHz ~ 946 MHz dB	30	62	-	-
Absolute Group Delay at F_o nS	-	418	450	-
Group Delay Ripple (451.8~460.2MHz) dB	-	26	75	-
Input Return Loss(452.1~459.9MHz) dB	10	15	-	-
Output Return Loss (452.1~459.9MHz) dB	10	14	-	-
Temp Coefficient ppm/° C	-23			

C. Measurement Circuit:



$$C1=3.9\text{pF} \quad L1=L2=15\text{nH} \quad C2=4.7\text{pF} \quad L3=L4=18\text{nH}$$

D. Frequency Characteristics :

1. S21 Response

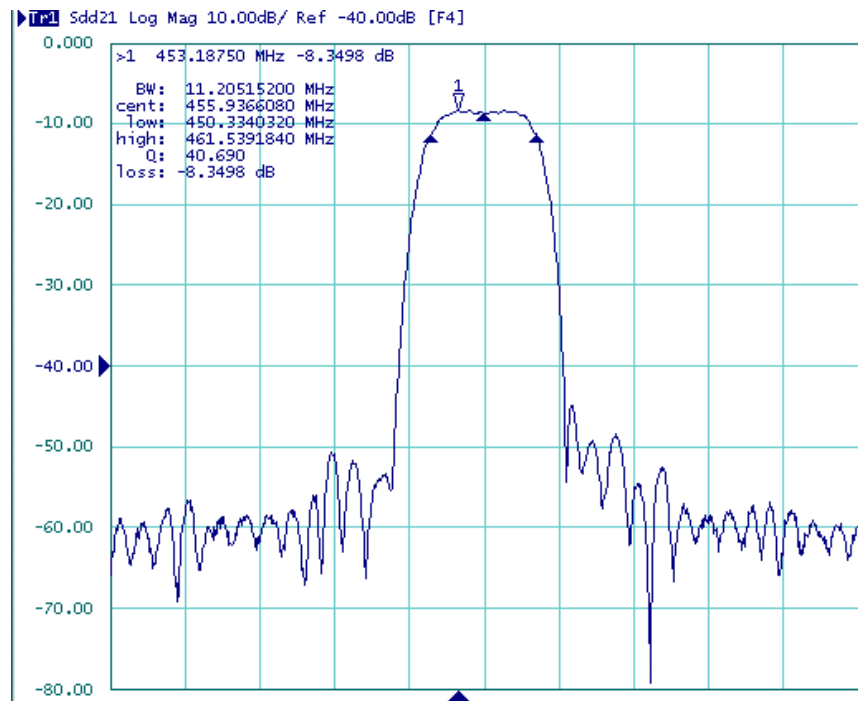


Fig1. Horizontal: 8MHz/Div Vertical: 10dB/Div

2. Pass band Ripple

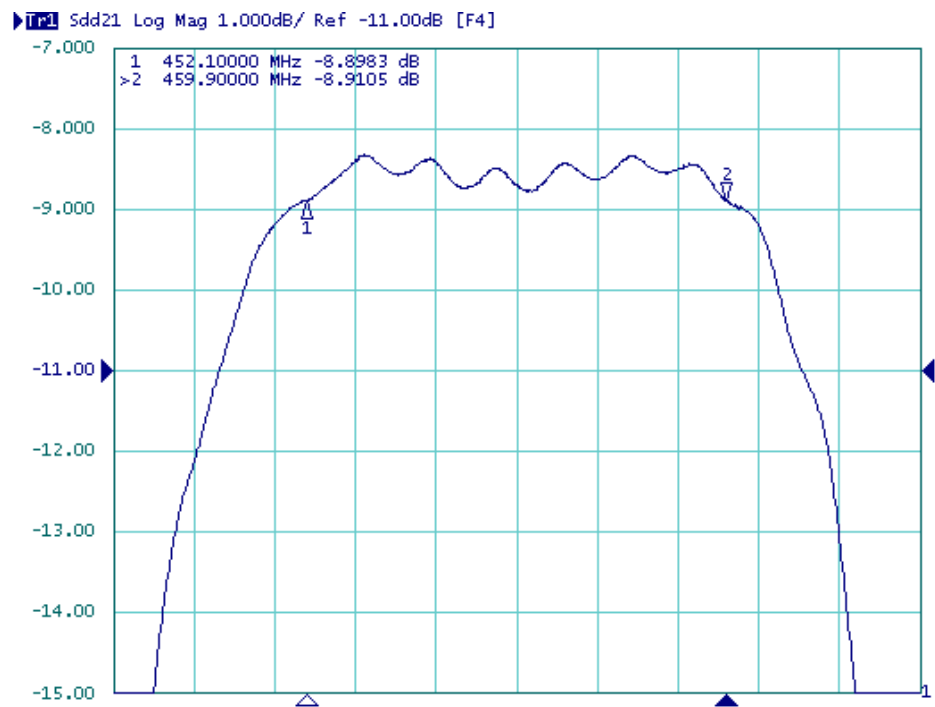


Fig2. Horizontal: 1.5MHz/Div Vertical: 1dB/Div

3. Group Delay Ripple

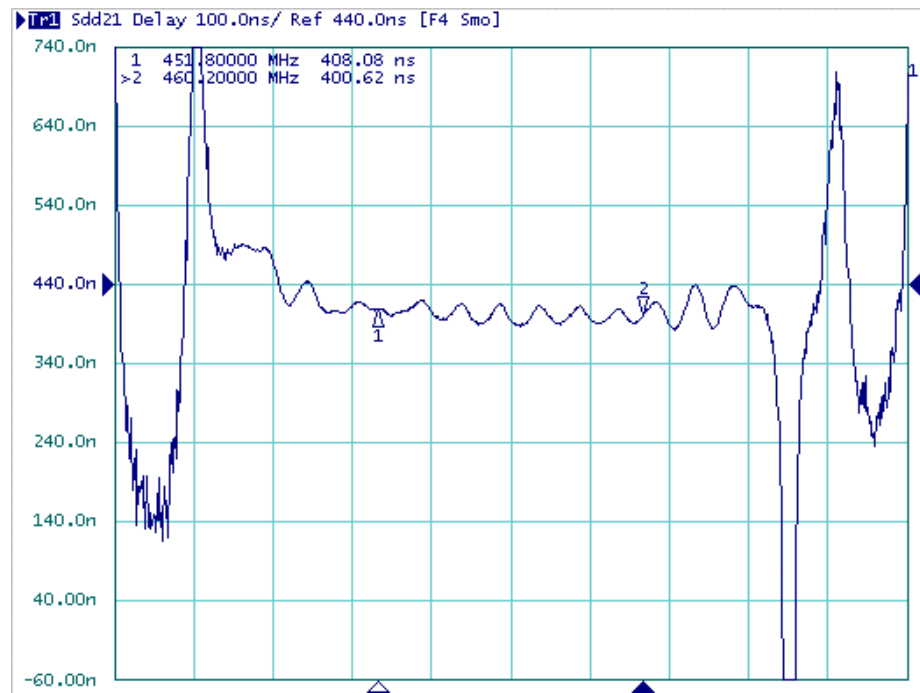


Fig3. Horizontal: 2.5MHz/Div Vertical: 100nS/Div

4. Wide band Response

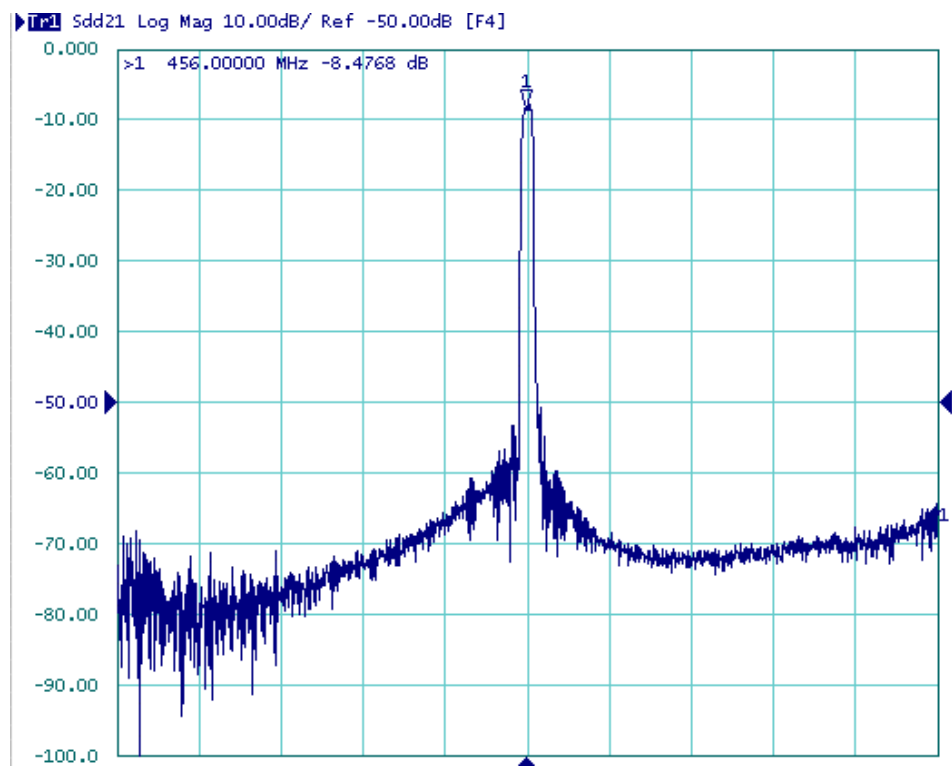
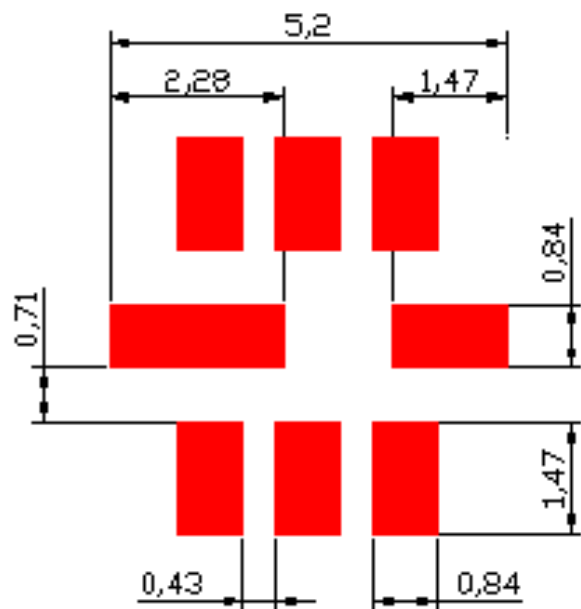
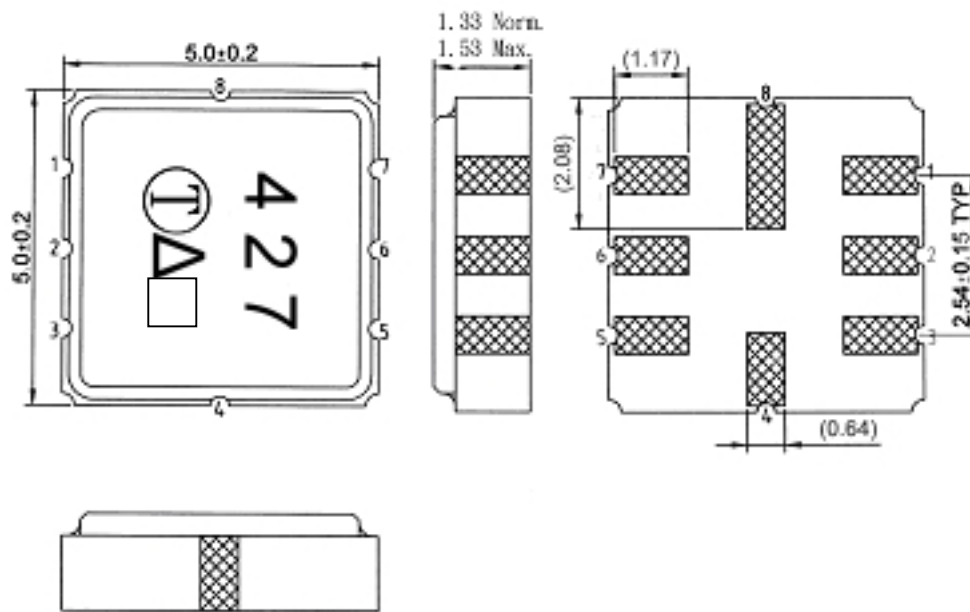


Fig4. Horizontal: 10MHz~946MHz Vertical: 10dB/Div

E. PCB Footprint



F. Outline Drawing:



Pin 1,2 : Balanced Input

Pin 5,6 : Balanced Output

Pin 3,4,7,8 : To be Ground

□ : Week Code (Follow the table from planner each year)

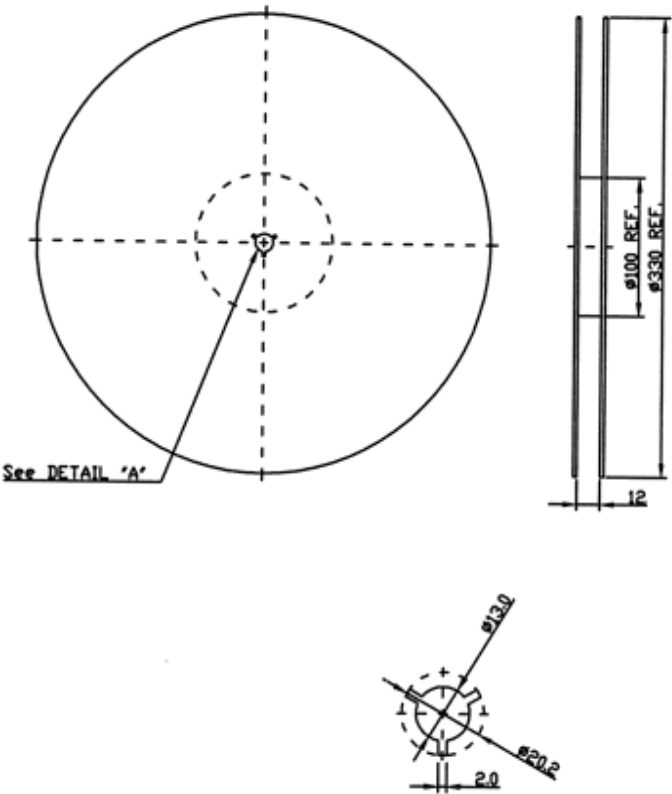
Unit : mm

△ : Product / Year Code

Year	2005 2009	2006 2010	2007 2011	2008 2012
Product Code	B	b	<u>B</u>	<u>b</u>

G. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION

