

# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District, Taoyuan, 324, Taiwan, R.O.C. TEL: 886-3-4690038 FAX: 886-3-4697532

E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

# **Product Specifications Approval Sheet**

Product Description: SAW Filter 400 MHz SMD 5.0X5.0 mm						
TST Part No.: TB0448A						
Customer Part No.:						
Customer signature required						
Company:						
Division:						
Approved by :						
Date:						
Checked by:	Bob Chau	_				
Approved by:	Bob Chau	_				
Date:	1, 16, 2014					

- 1. Customer signed back is required before TST can proceed with sample build and receive orders.
- 2. Orders received without customer signed back will be regarded as agreement on the specifications.
- 3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.



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# SAW Filter 400MHz

MODEL NO.:TB0448A REV. NO.:2

#### A. MAXIMUM RATING:

1. Input Power Level: 10 dBm

2. DC Voltage: 3V

3. Operating Temperature: -20°C to +75°C

4. Storage Temperature: -40°C to +85°C

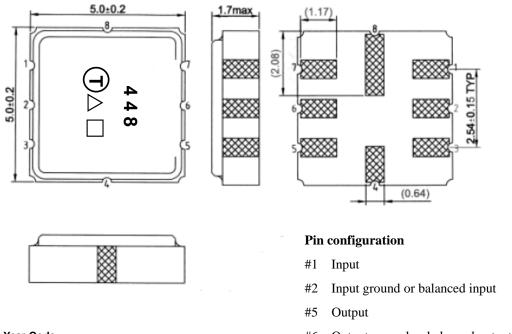
RoHS Compliant Lead free Lead-free soldering

Electrostatic Sensitive Device (ESD)

#### **B. ELECTRICAL CHARACTERISTICS:**

Item		Unit	Min.	Тур.	Max.	Note
Center frequency,	Fc	MHz	-	400	-	-
Max. Insertion loss ( <b>Fc</b> ± 75 kHz)	dB	_	4.2	6.0	_	
(excluding loss in matching elements)		GD	_	7.2	0.0	
Max. Insertion loss ( <b>Fc</b> ± 75 kHz)	IL	dB	-	5.2	7.5	-
(including loss in matching elements)		uD_				
Passband Ripple ( <b>Fc</b> ± 75 kHz)		dB	-	0.3	2	-
Group Delay Ripple ( <b>Fc</b> ± 75 kHz)		$\mu$ sec	-	0.6	2	-
Relative Attenuation (relative to IL)						
<b>Fc</b> - 100 to <b>Fc</b> - 1.5 MHz		dB	35	58	-	-
<b>Fc</b> - 1.5 to <b>Fc</b> - 0.8 MHz		dB	20	58	-	-
Fc - 0.8 to Fc - 0.6 MHz		dB	10	60	-	-
Fc - 0.6 to Fc - 0.4 MHz		dB	7	33	-	-
<b>Fc</b> + 0.4 to <b>Fc</b> + 0.6 MHz		dB	7	33	-	-
<b>Fc</b> + 0.6 to <b>Fc</b> + 0.8 MHz		dB	10	55	-	-
Fc + 0.8 to Fc + 1.5 MHz		dB	20	55	-	-
<b>Fc</b> + 1.5 to <b>Fc</b> + 100 MHz		dB	35	52	-	-
Temperature coefficient of frequen	су	TCf	-0.036 ppm/K^2			

#### **C.OUTLINE DRAWING:**

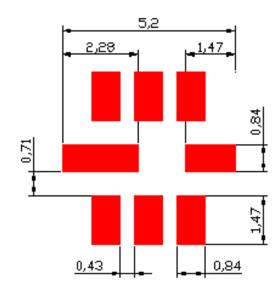


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Year	2009	2010	2011	2012
	2013	2014	2015	2016
Product Code	В	b	<u>B</u>	Ы

- #6 Output ground or balanced output
- #3,4,7,8 To be grounded
- Date code
- Unit mm

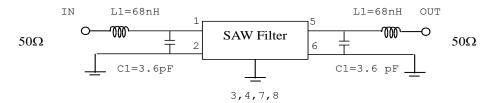
#### **D. PCB Footprint:**



#### **E. MEASUREMENT CIRCUIT:**

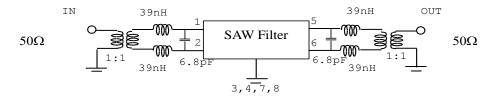
# 50 Ohm Test circuit ( single-ended / single-ended )

#### HP Network analyzer

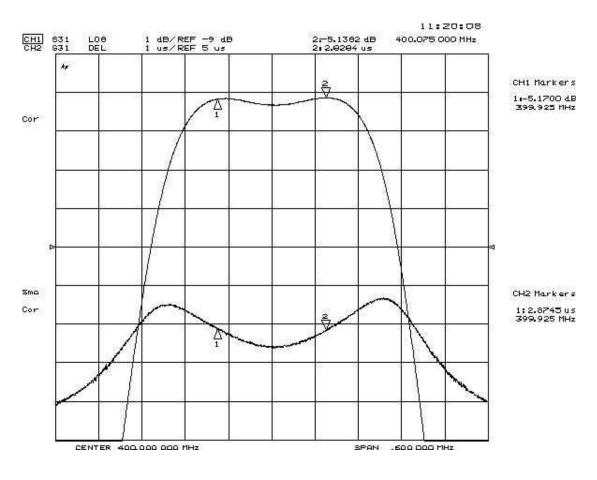


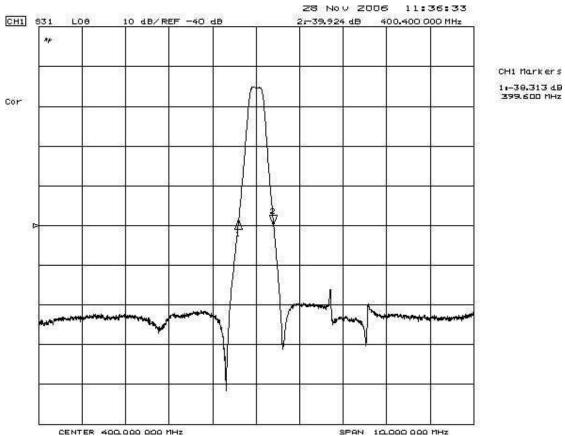
# 50 Ohm Test circuit ( balanced-ended / balanced-ended )

#### HP Network analyzer



# F. Frequency Characteristics:

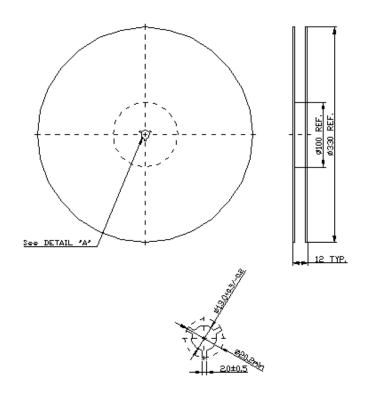




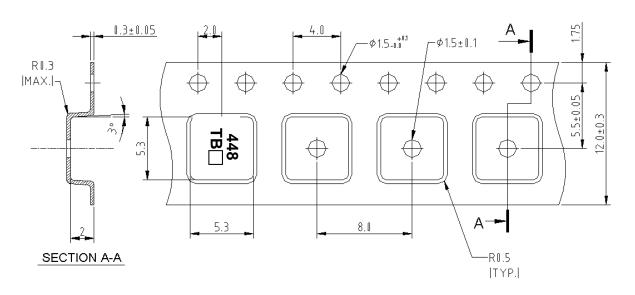
# G. PACKING:

# 1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity )



#### 2.TAPE DIMENSION



**Direction of Feed** 

#### H. RECOMMENDED REFLOW PROFILE:

- 1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
- 2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
- 3. Heating shall be fixed at 220°C for 50~80 seconds and at 245~260°C peak (min. 10sec).
- 4. Time: 2 times.

