



# 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

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## Product Specifications Approval Sheet

Product Name: SAW Filter 412.5 MHz BW 5MHz SMD 3.0X3.0 mm

TST Parts No.: TA2299A

Customer Parts No.: \_\_\_\_\_

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: \_\_\_\_\_ V.J Fanchian *V.J Fanchian*

Approval by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 09/15/2017

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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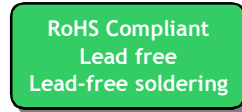
## SAW Filter 412.5 MHz BW 5MHz SMD 3.0X3.0 mm

MODEL NO.: TA2299A

REV. NO.:1.0

### A. MAXIMUM RATING:

1. Input Power Level: 20 dBm
2. DC Voltage : 3V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)

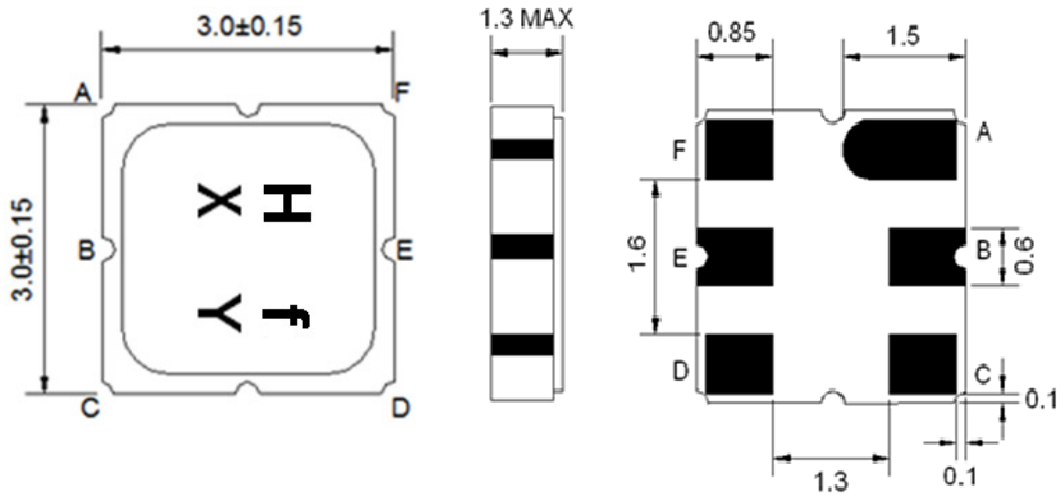


Electrostatic Sensitive Device (ESD)

### B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Type.	Max.	Note
Center frequency, <b>Fc</b>	MHz	-	412.5	-	
Insertion Loss(min)	dB	-	1.0	1.5	
Insertion Loss 410.00 - 415.00 MHz	dB		2.0	2.4	
VSWR 410.00 - 415.00 MHz	-	-	1.5	2.0	
Amplitude Ripple (p-p) 410.00 - 415.00 MHz	dB		0.6	1.0	
Group Delay 410.00 - 415.00 MHz	nS		50	100	
Attenuation:(Reference level from 0 dB)					
0.30 - 310.00 MHz	dB	25.0	30.0		
310.00 -400.00 MHz	dB	25.0	27.0		
420.00 -425.00 MHz	dB	42.0	47.0		
430.00 - 870.00 MHz	dB	20.0	32.0	-	
870.00 - 1500.00 MHz	dB	25.0	30.0		
1500.00 - 2000.00 MHz	dB	15.0	20.0		
Impedance at Fc:Input $Z_{IN} = R_{IN} // C_{IN}$ Output $Z_{out} = R_{IN} // C_{IN}$				50Ω // 0pF 50Ω // 0pF	

**C.OUTLINE DRAWING:**



Pin Description	
A, C, D, F	Ground
E	In
B	Out

Marking Descriptions	
H	CDMA450 Application
f	Series Number
X	Date Code(Year)
Y	Date Code(Month)

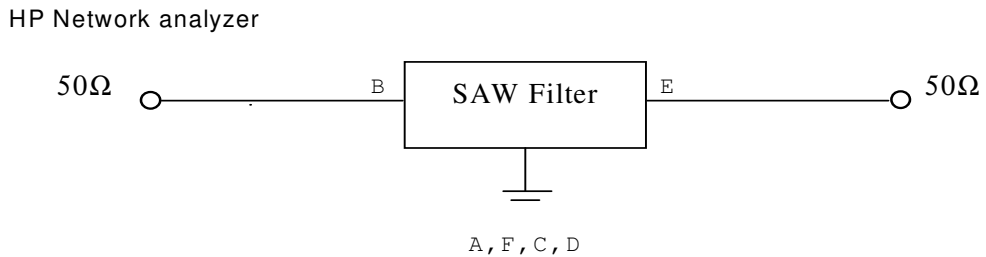
**X : Year code**

X	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
(Year)	E	F	G	H	J	K	L	M	N	P	Q	R

**Y : Month code**

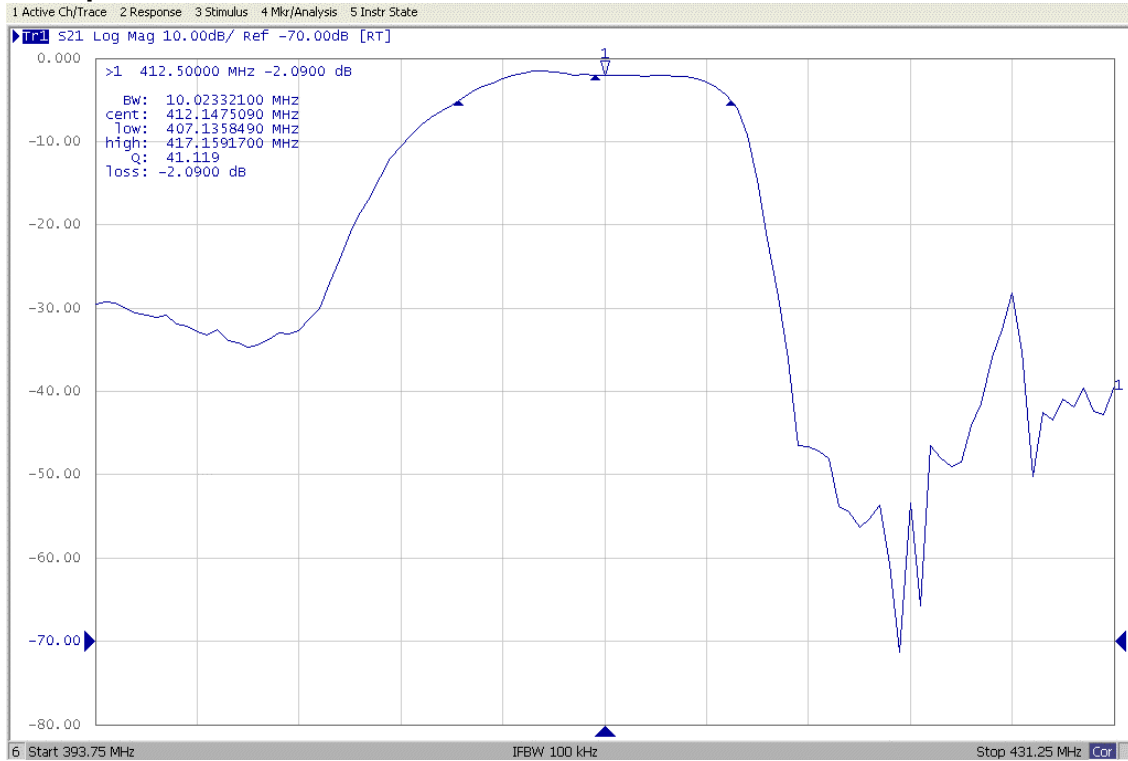
Y	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(Month)	1	2	3	4	5	6	7	8	9	A	B	C

**D. MEASUREMENT CIRCUIT:**

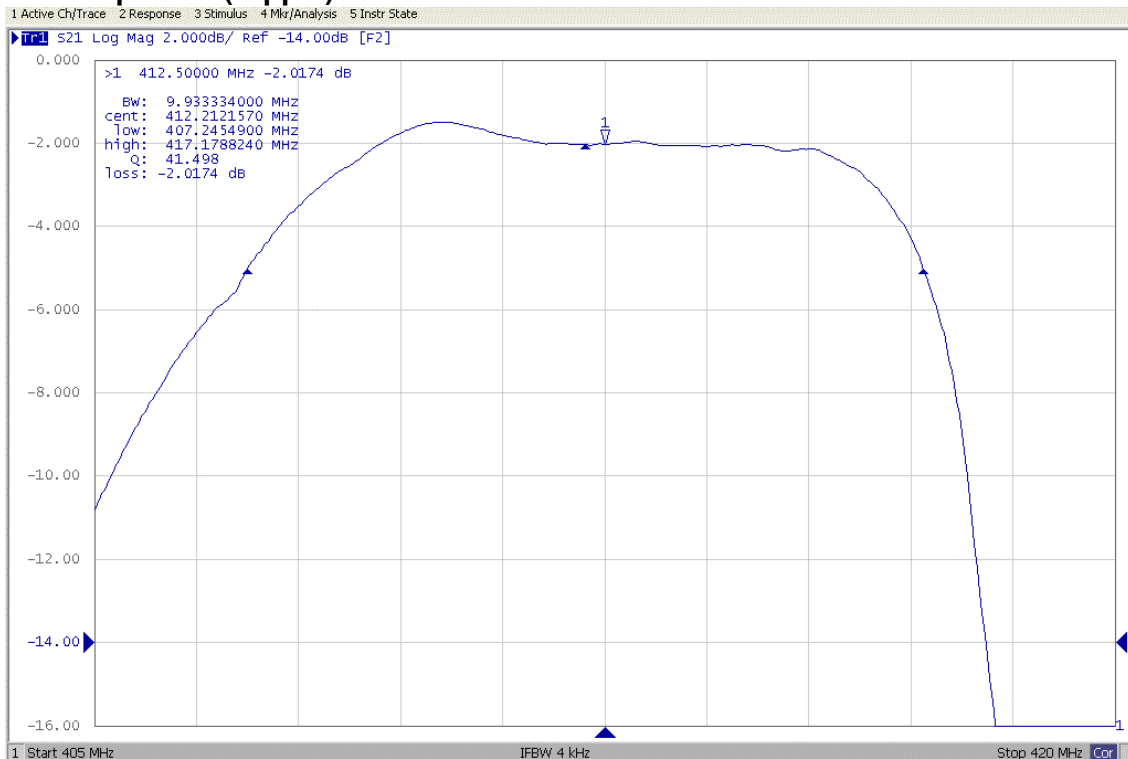


## E. FREQUENCY CHARACTERISTICS:

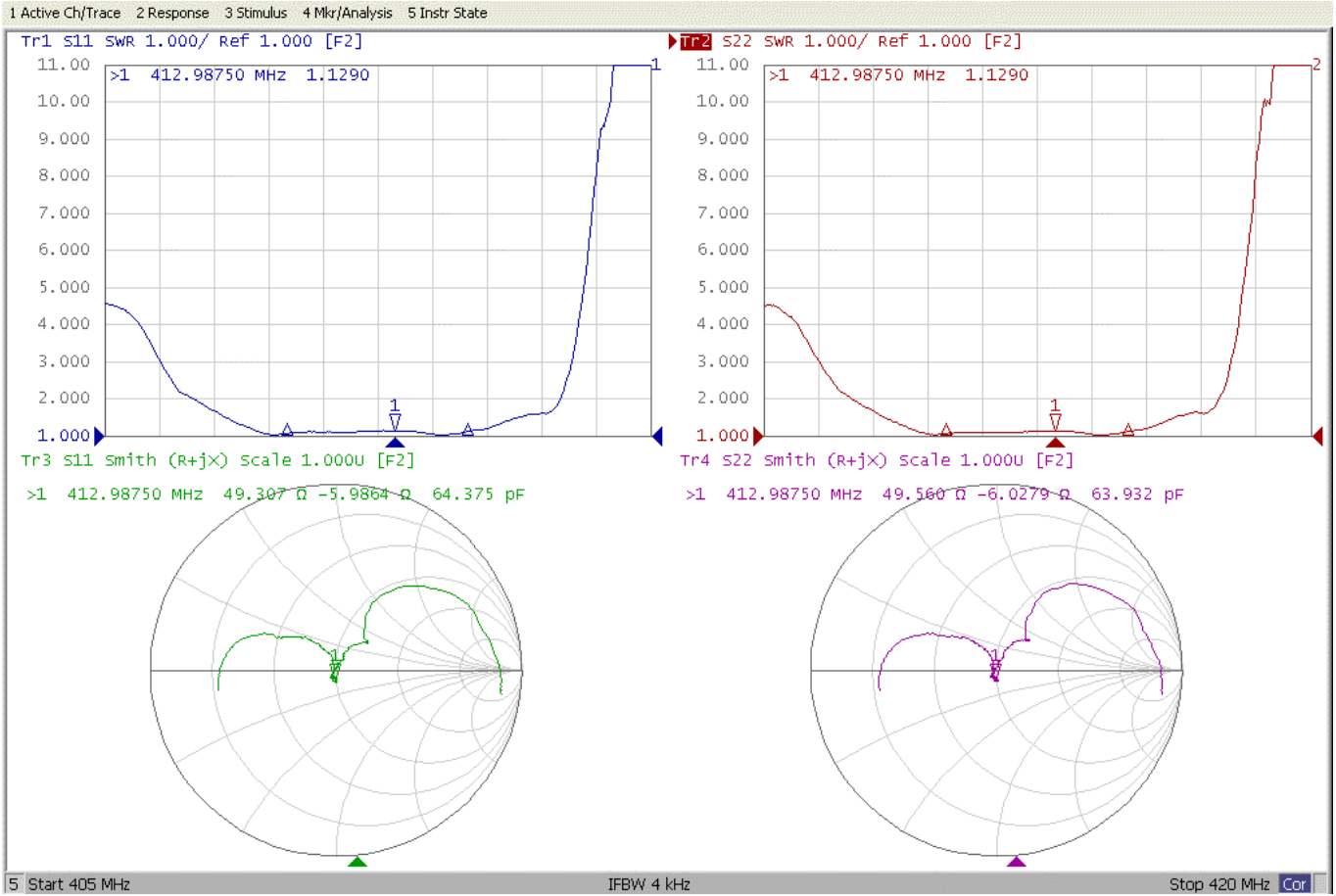
### S21 response:



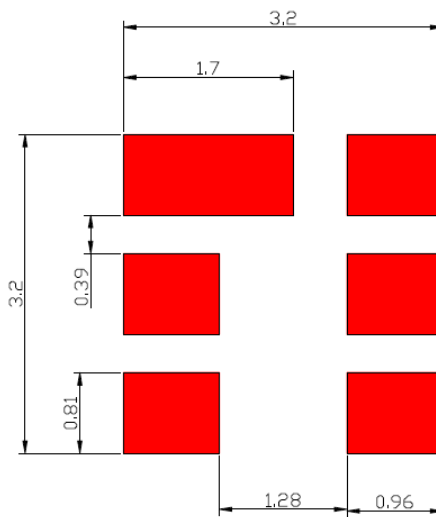
### S21 response: (Ripple):



## S11&S22 VSWR & Smith-Chart :



## F. PCB FootPrint





**H. RECOMMENDED REFLOW PROFILE :**

