



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: IF SAW Filter 50 MHz SMD 7.0x5.0 mm (BW=10 MHz)

TST Parts No.: TB1357A

Customer Parts No.: _____

Customer signature required
Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Hayley Chou *Hayley Chou*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/02/24

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 50 MHz

MODEL NO.: TB1357A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 30 dBm
2. DC voltage: 3 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)

RoHS Compliant

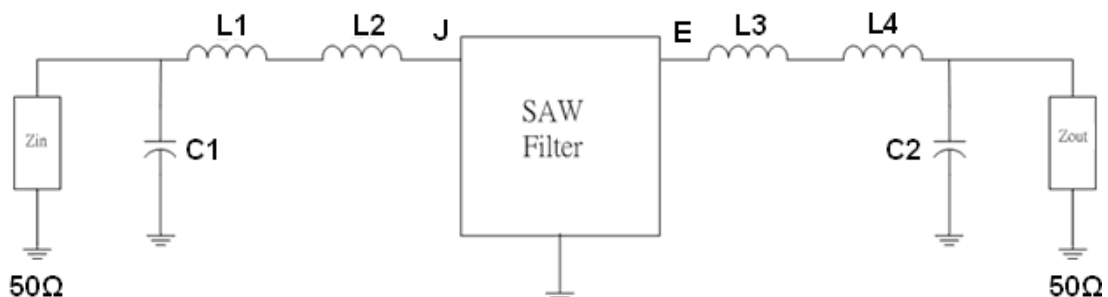
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	50	-
Minimum Insertion Loss IL_{min}	dB	-	10.1	12.0
1 dB Bandwidth	MHz	10.0	11.4	-
Amplitude Ripple (F_c±5 MHz)	dB	-	0.7	1.0
Group Delay Ripple (F_c±5 MHz)	nsec	-	80	140
Absolute Group Delay	µsec	-	0.69	-
Return Loss (F_c±5 MHz)	dB	4.0	6.5	-
Attenuation (Reference level from IL _{min})				
DC ~ 35 MHz	dB	45	50	-
35 ~ 40 MHz	dB	25	46	-
60 ~ 65 MHz	dB	25	39	-
65 ~ 1000 MHz	dB	40	46	-
Temperature Coefficient of Frequency	ppm/°C	-94		

C. MEASUREMENT CIRCUIT:

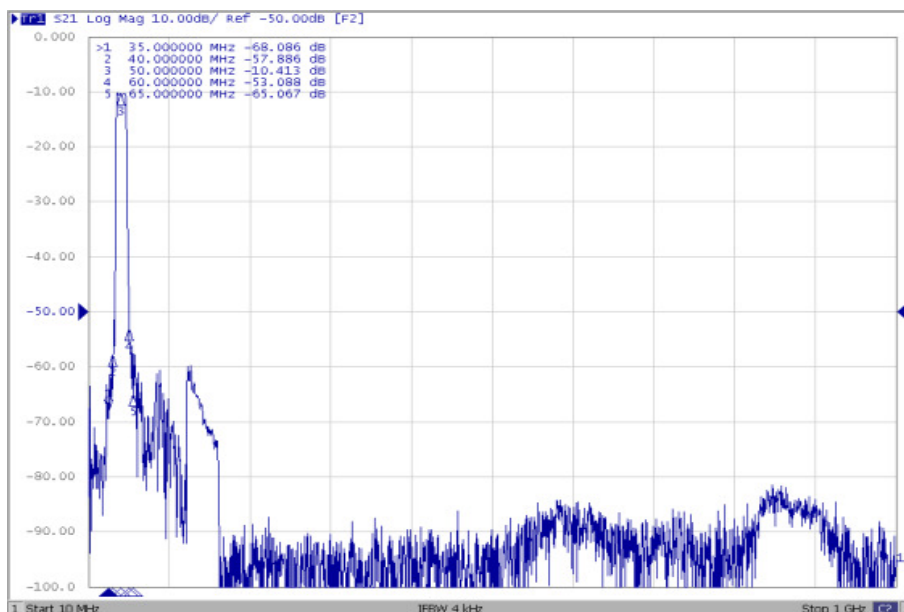
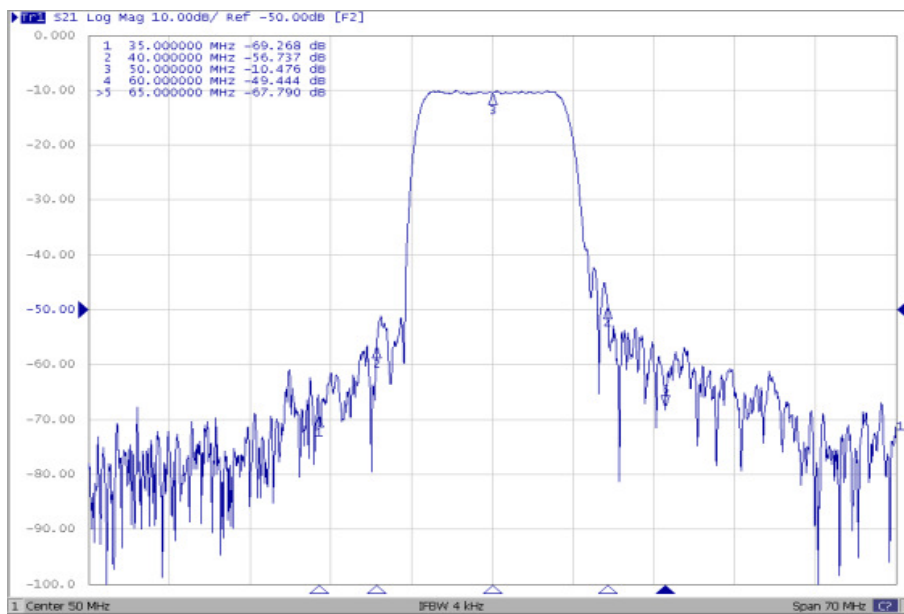
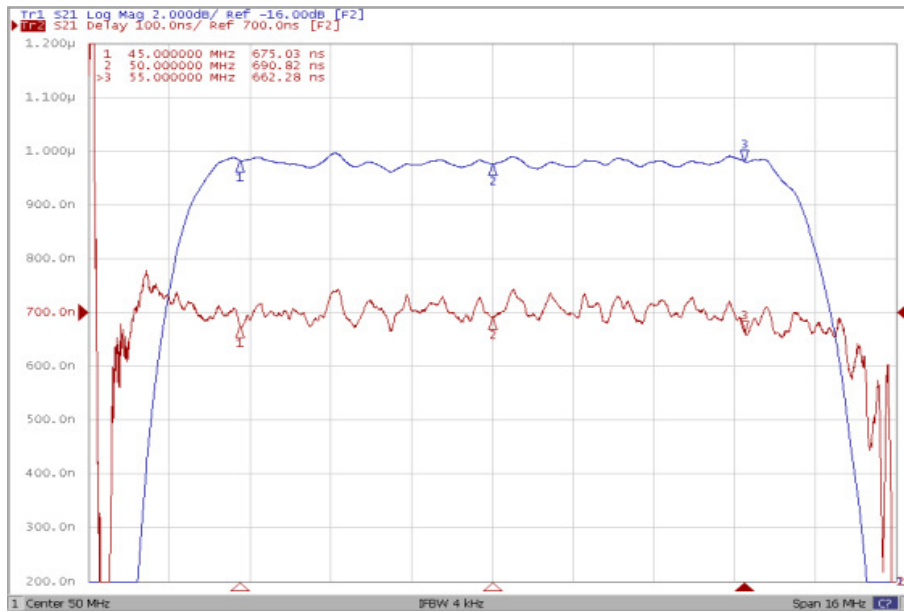


L1=270nH, L2=47nH, L3=330nH, L4=56nH, C1=47pF, C2=30pF

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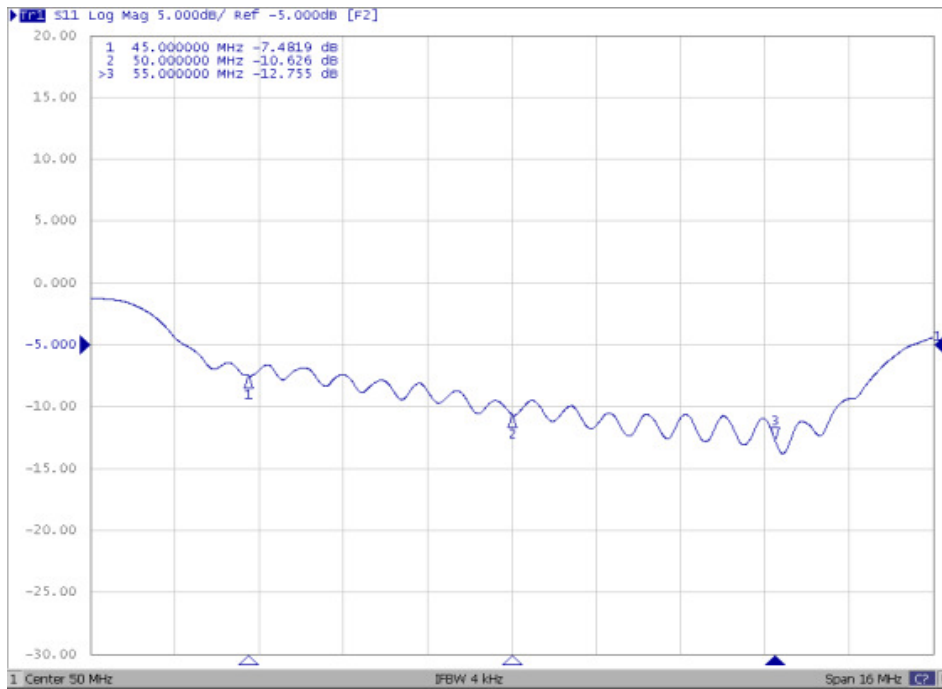
TST DCC
Release document

F. FREQUENCY CHARACTERISTIC:

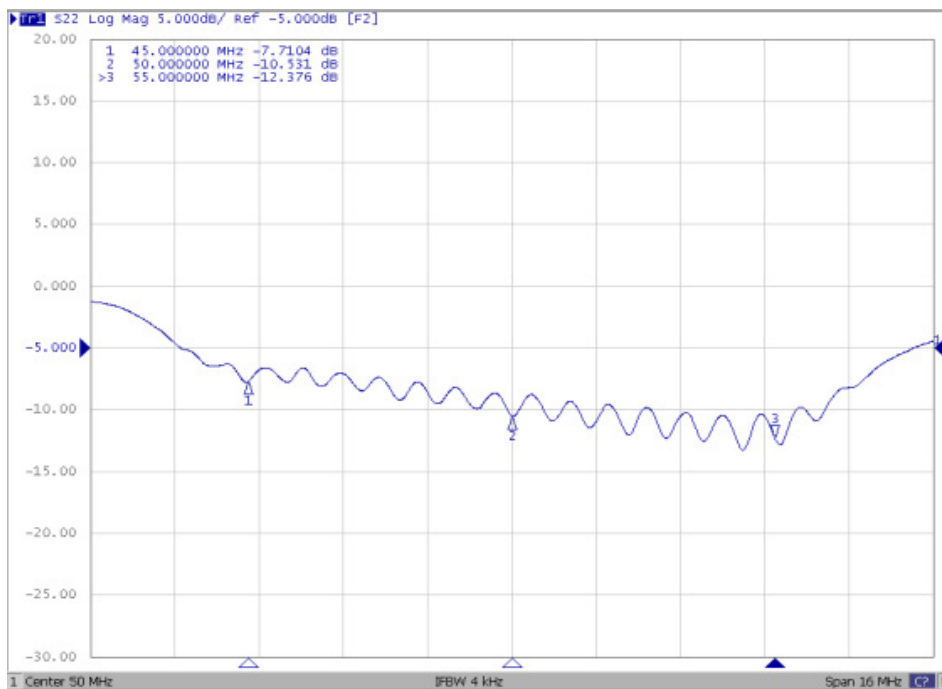


Reflection Functions:

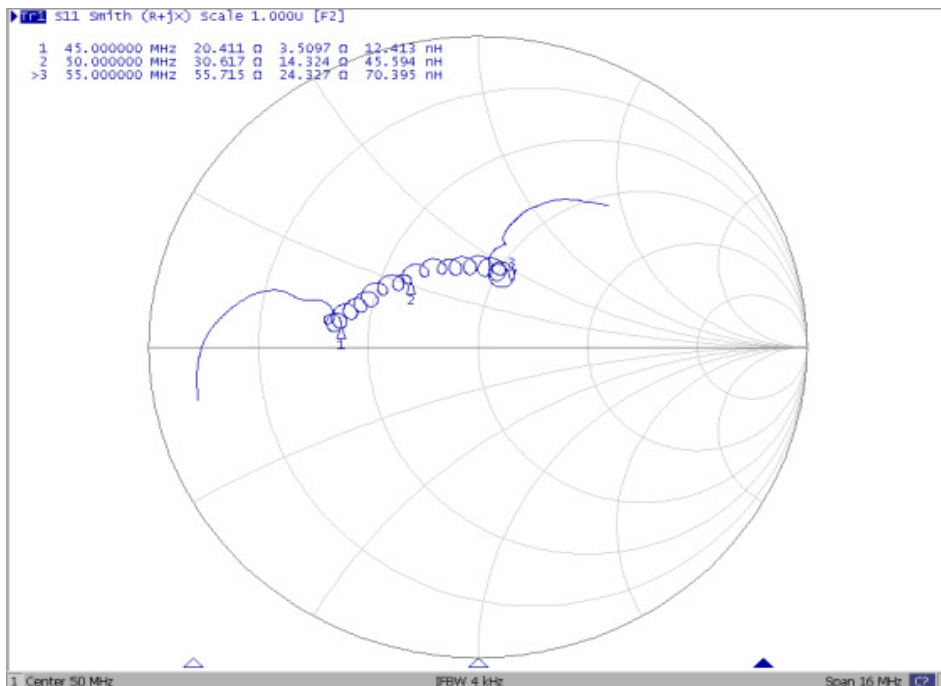
S11 Return Loss



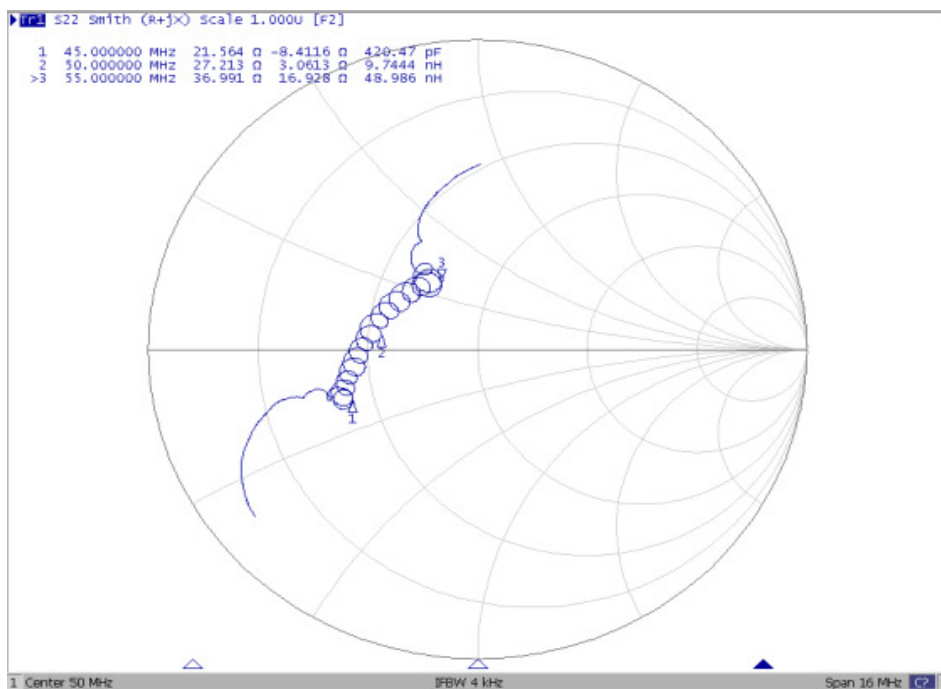
S22 Return Loss



S11 Smith Chart



S22 Smith Chart



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 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

