

Product Specifications Approval Sheet

Product Description: 70 MHz 3.77MHz BW SMD 13.3 x 6.5 mm SAW IF Filter

TST Part No.: TB1319A

Customer Part No.: _____

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

Checked by: _____ Kazuma Lee *Kazuma Lee*

Approval by: _____ Andy Yu *Andy Yu*

Date: _____ 11 / 02 / 2018

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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Low-Loss 70 MHz IF SAW Filter (SMD 13.3×6.5 mm)

Model No.: TB1319A

Rev. No.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage: 10V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -30°C to +85°C
5. Moisture Sensitivity Level: Level1 (MSL1)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device

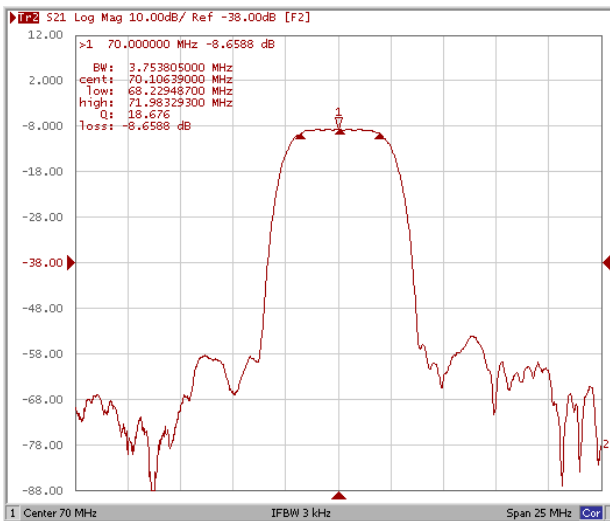
B. ELECTRICAL CHARACTERISTICS:

Reference Temperature Ta = 25°C

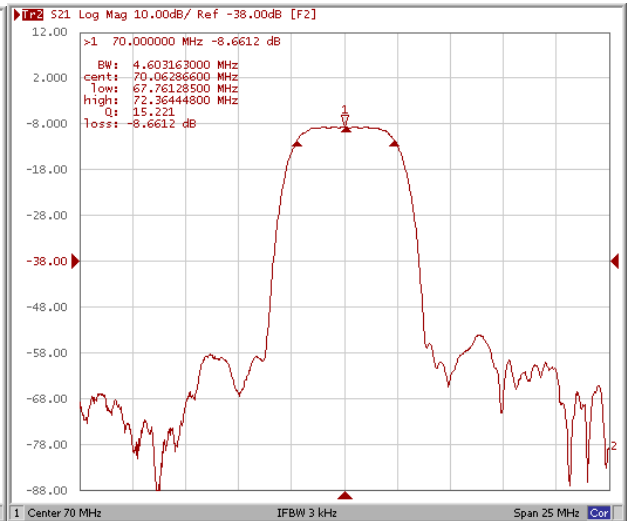
Parameters	Unit	Min.	Typical	Max.
Center frequency, Fc	MHz	-	70	-
Insertion Loss, IL	dB	-	8.6	10.5
1 dB Bandwidth	MHz	3.40	3.77	-
3 dB Bandwidth	MHz	-	4.60	-
40 dB Bandwidth	MHz	-	7.30	8.00
Amplitude ripple within Fc ± 1.5 MHz	dB	-	0.3	1.0
Group Delay ripple within Fc ± 1.5 MHz	nsec	-	65	150
Absolute Delay	µsec	-	0.97	-
Relative Attenuation:				
Ultimate Rejection	dB	38	43	-
Temperature Coefficient of frequency	ppm/ °C	-	-86	-

C.FREQUENCY CHARACTERISTICS:

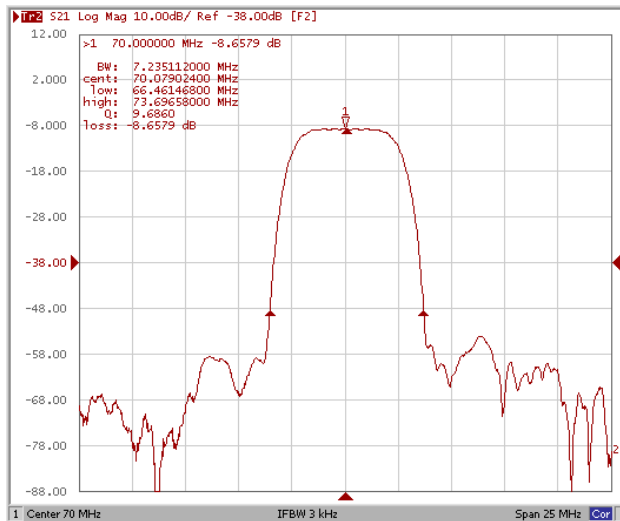
Bandwidth at -1.0 dB



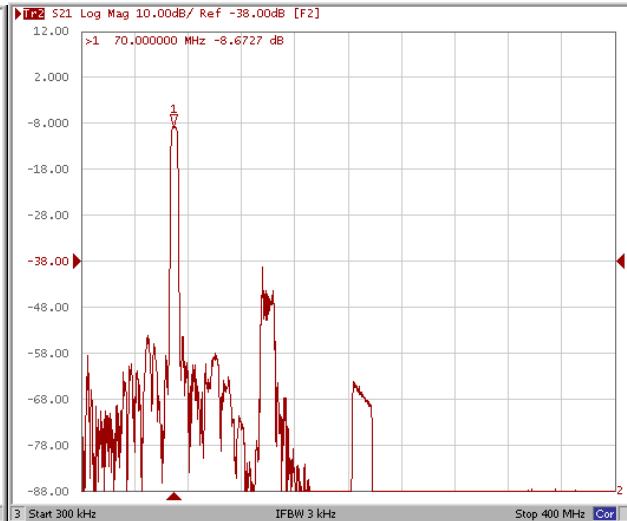
Bandwidth at -3.0 dB



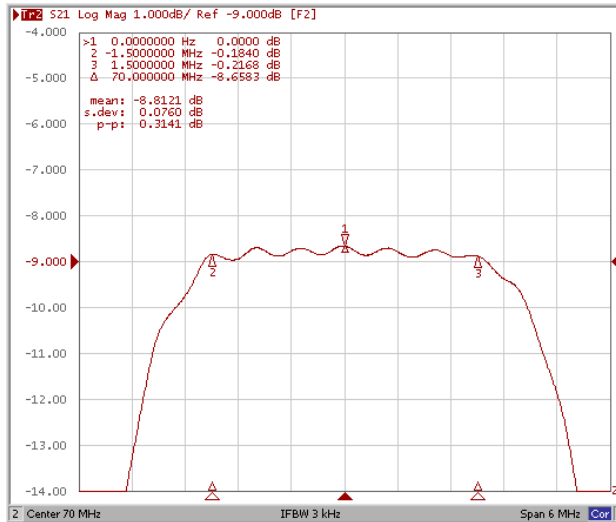
Bandwidth at -40 dB



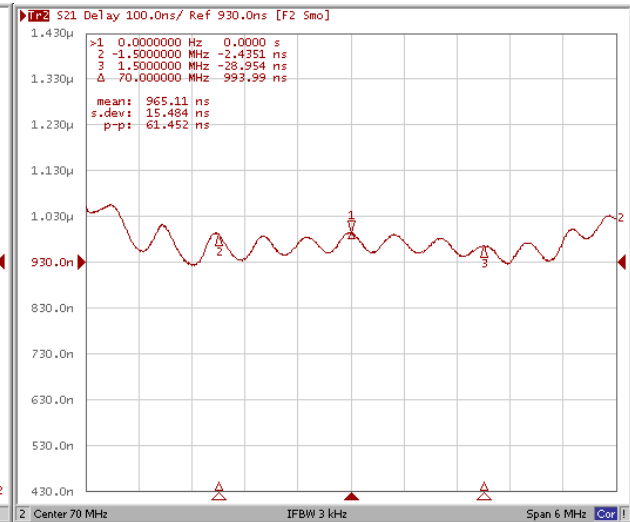
Wide Band



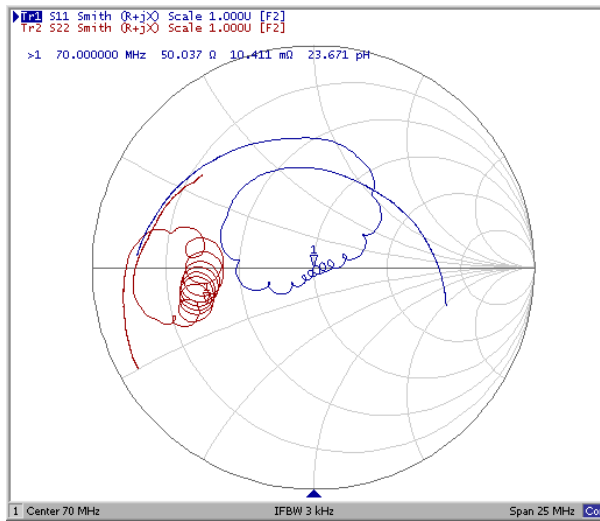
Ripple Variation Fo±1.5MHz



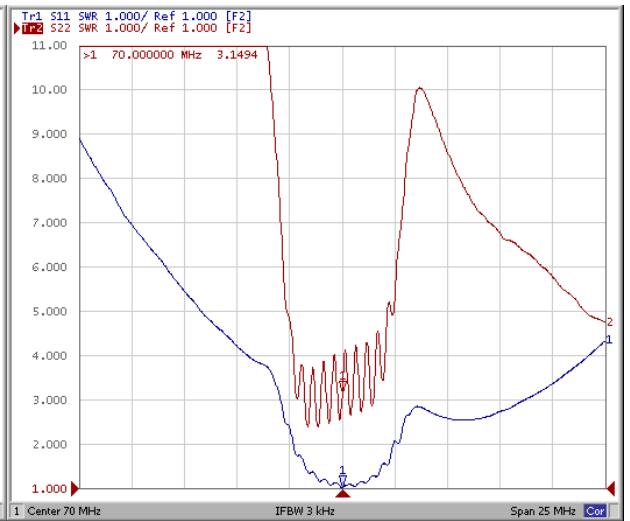
Group Delay Variation Fo±1.5MHz



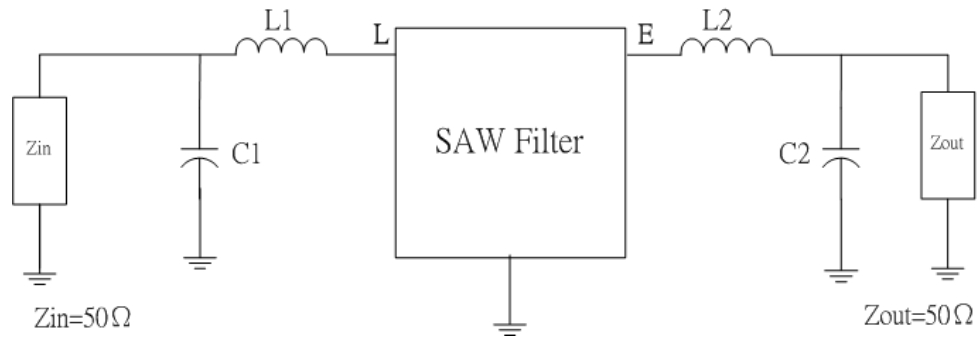
Smith Chart



VSWR

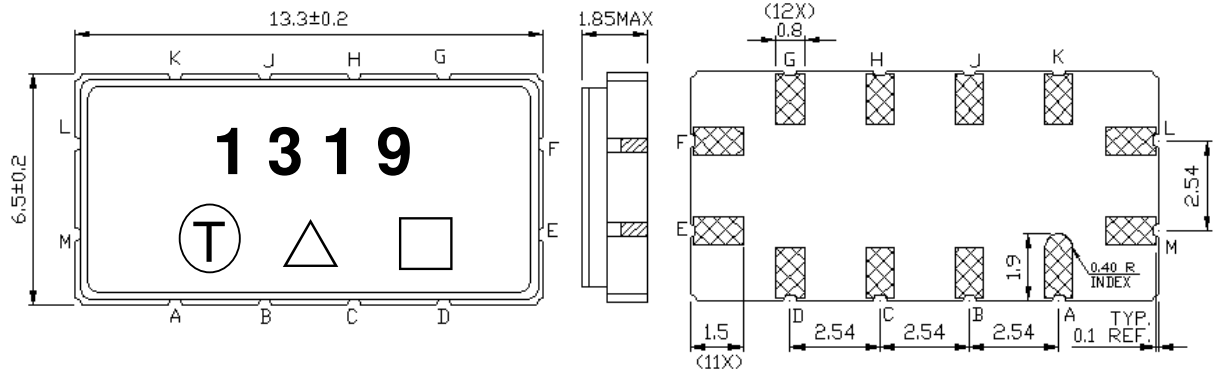


D. MEASUREMENT CIRCUIT:



$$L1=150\text{nH} \quad L2=100\text{nH} \quad C1=51\text{pF} \quad C2=47\text{pF}$$

E. OUTLINE DRAWING:



Pin L: RF Input

Pin E: RF Output

Others: To be Ground

□: Week Code

Unit: mm

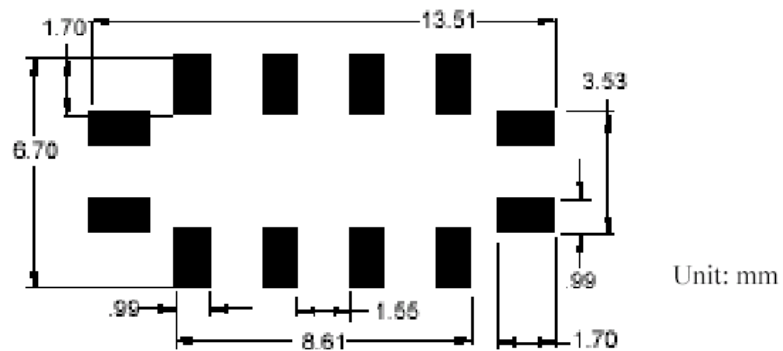
△ : Product / Year Code: Four-Year Cycle

Year	2017 2021	2018 2022	2019 2023	2020 2024
Product Code	B	b	<u>B</u>	<u>b</u>

Week Code Table

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

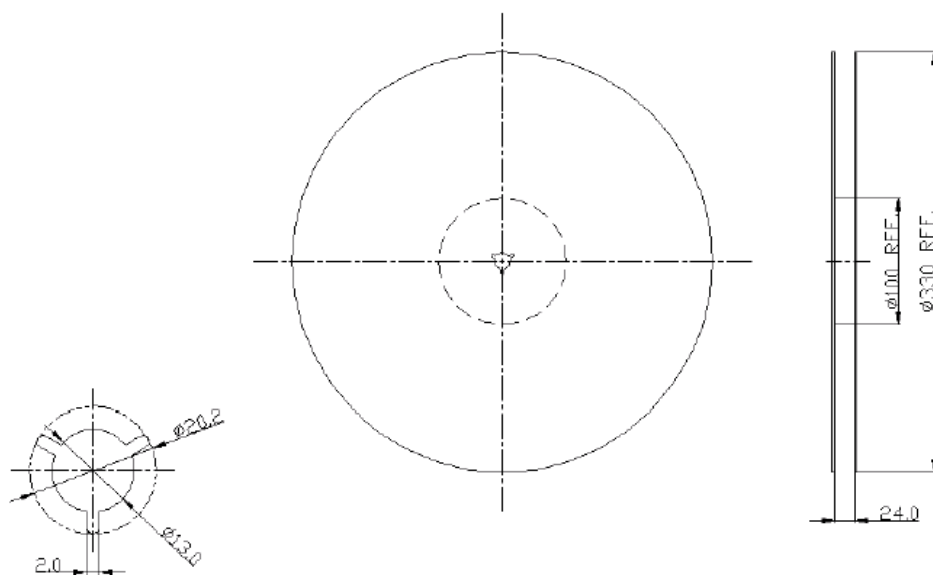
F. PCB FOOTPRINT:



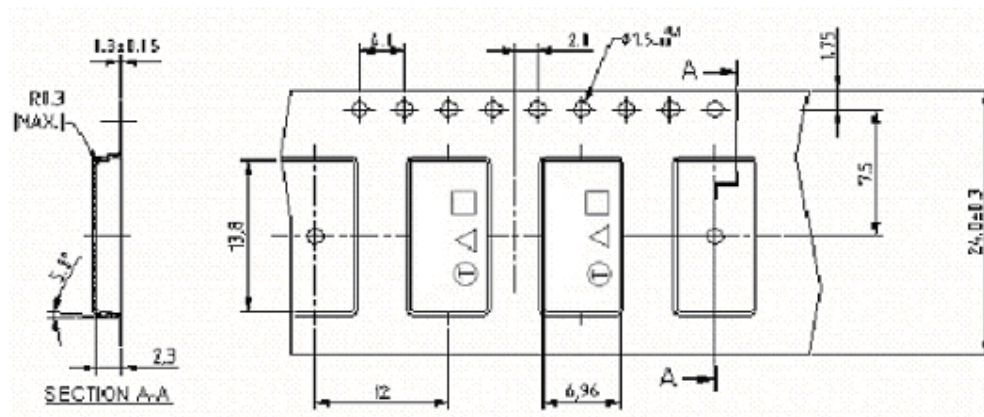
G. PACKING:

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity and FR-75M03 for MSL)



2. TAPE DIMENSION



Direction of feed

H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.

