



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Name: Dielectric Filter 3500MHz SMD 3.6x4.4 mm (BW=200 MHz)

TST Parts No.: TR0003A

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

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

Checked by: \_\_\_\_\_ Hongpu Lin *Hong Pu Lin*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2019/05/20

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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## Dielectric filter 3500 MHz

MODEL NO.: TR0003A

REV. NO.:2

### A. Maximum Rating:

1. Input Power Level: 1 W
2. Operating Temperature: -40 °C to +85 °C
3. Storage Temperature: -40 °C to +85 °C
4. Moisture Sensitive Level (MSL) : 2a

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

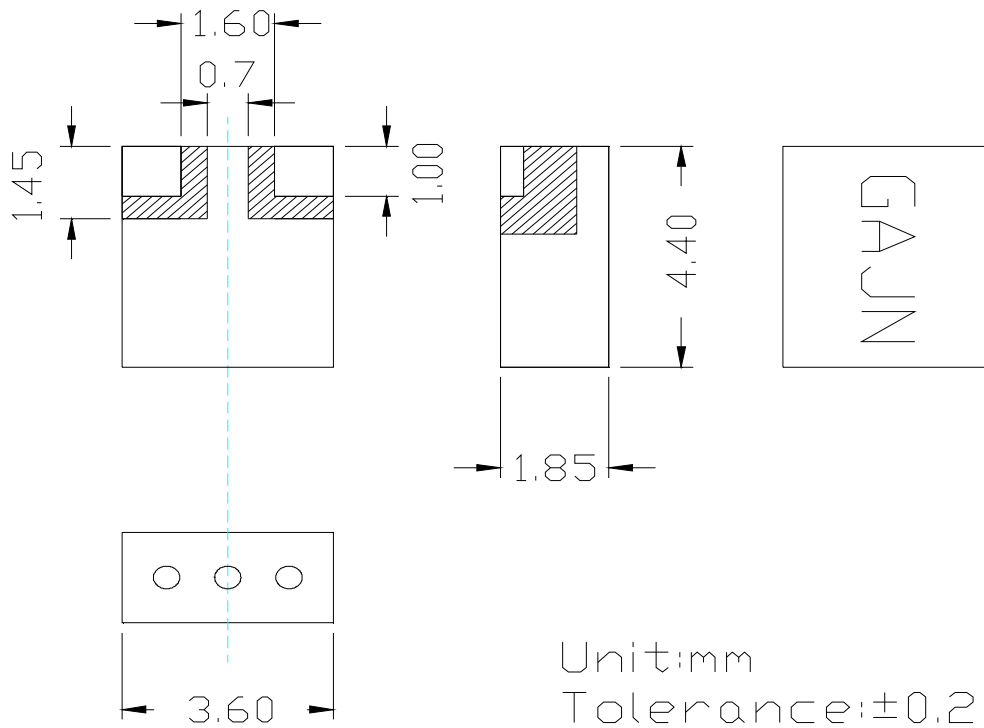
### B. Electrical Characteristics

Terminating source impedance (single ended) :  $Z_s = 50 \Omega$

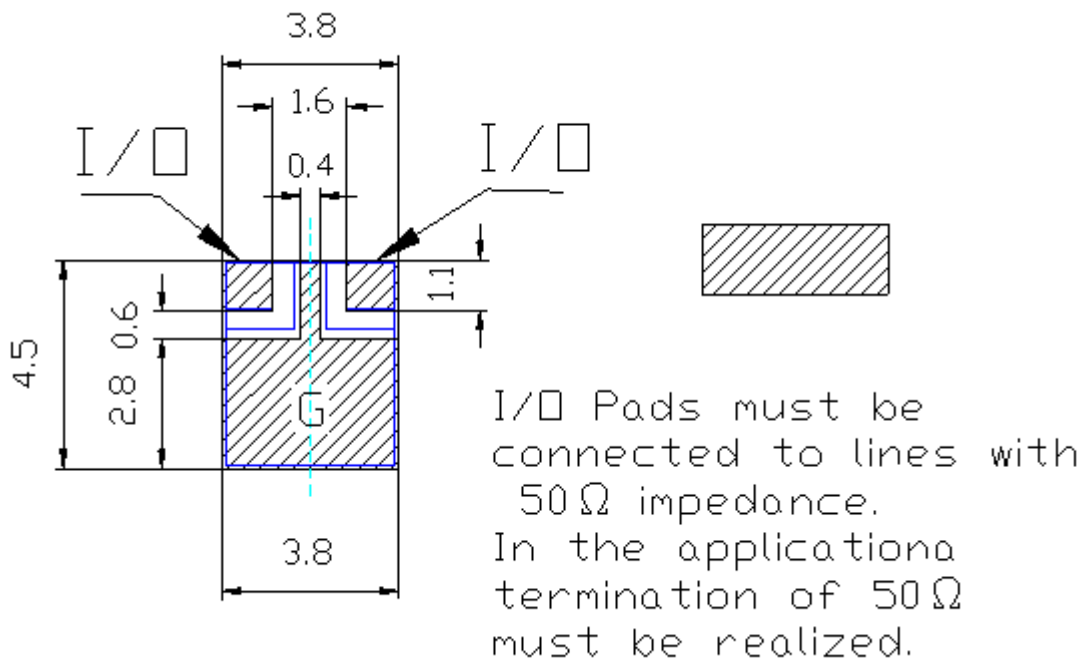
Terminating load impedance (single ended) :  $Z_L = 50 \Omega$

Item	Unit	Min	type	Max
<b>Central Frequency</b> <b>Fc</b>	MHz		3500	
<b>Pass Band Width</b>	MHz	200	200	
<b>Pass Band Insertion loss</b>	dB		2.0	2.5
<b>Pass Band Ripple</b> (fo±12MHz)	dB		0.8	1.0
<b>Pass Band Ripple</b> (fo±100MHz)	dB		1.2	1.5
<b>Pass Band Return loss</b>	dB	10	12	
<b>Attenuation</b> (Reference level from 0 dB)				
3320 MHz	dB	8		
3680 MHz	dB	8		

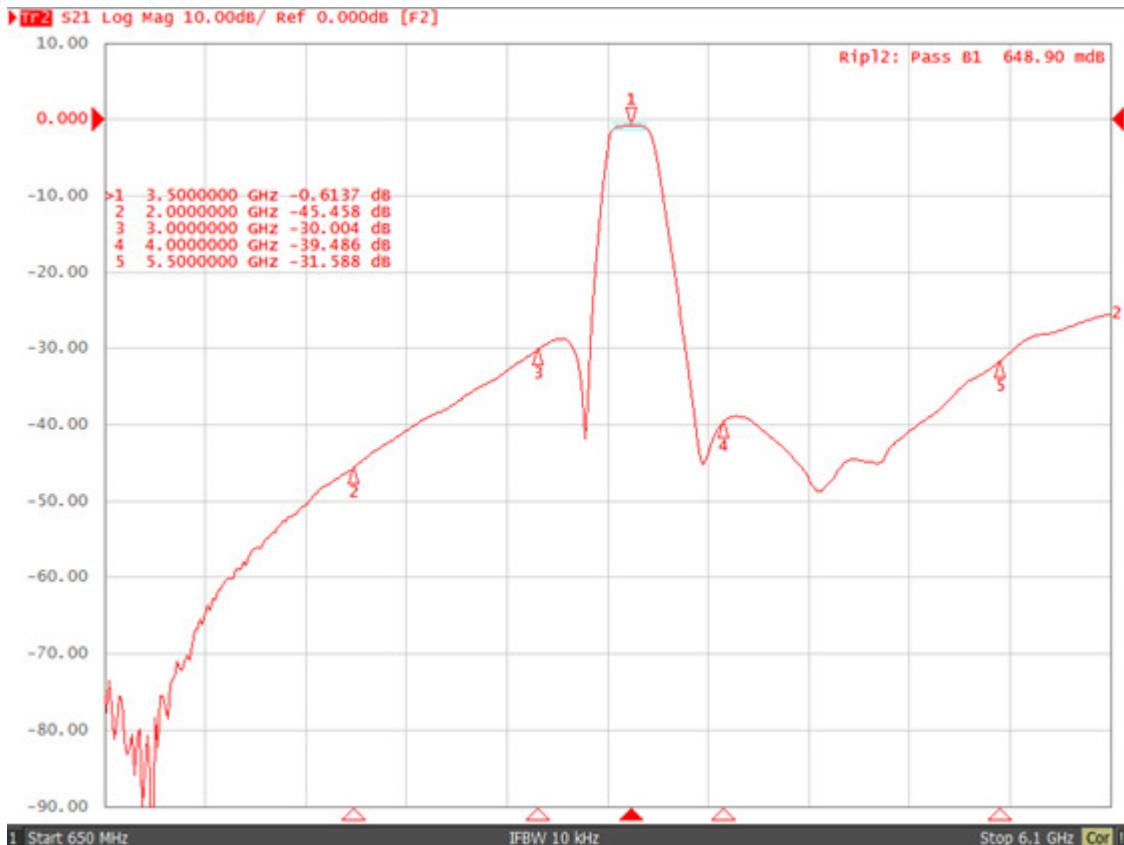
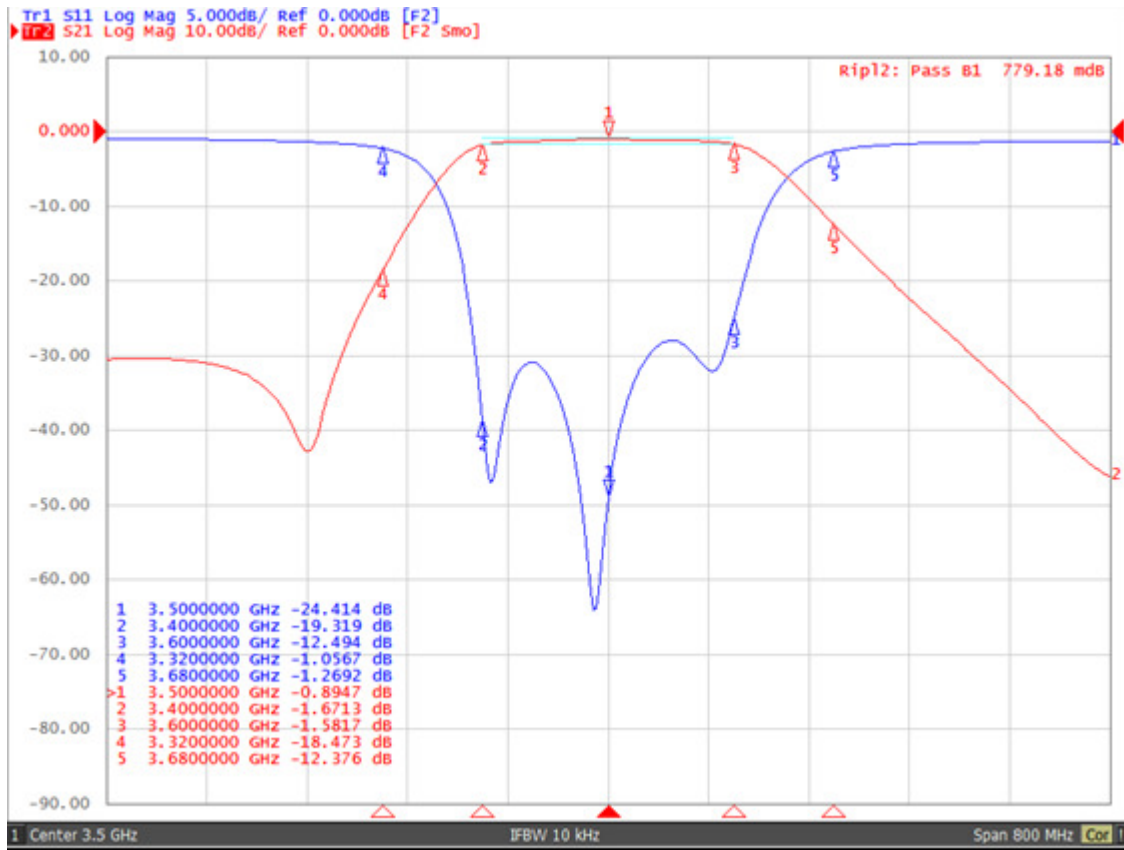
**C. Outline Drawing**



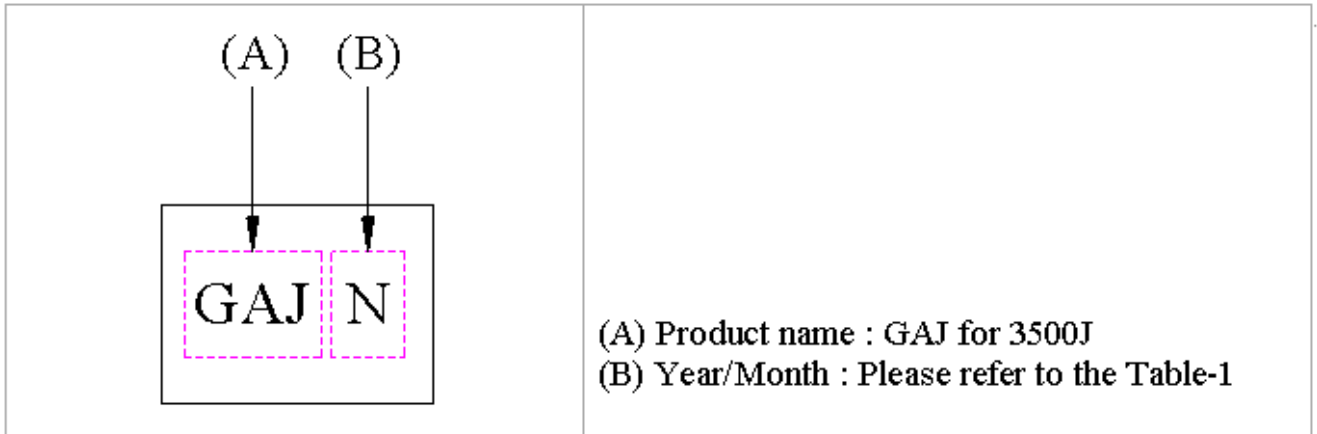
**D. PCB Footprint**



## E. Frequency Characteristics :



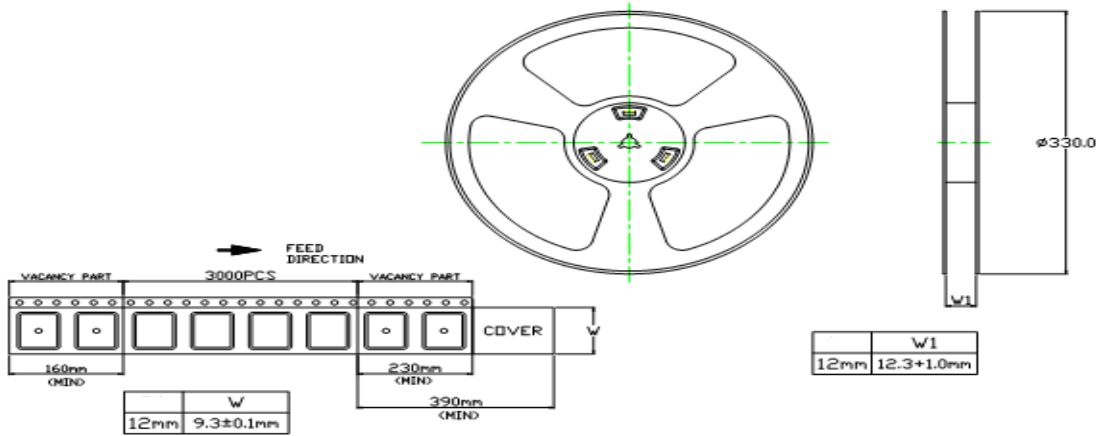
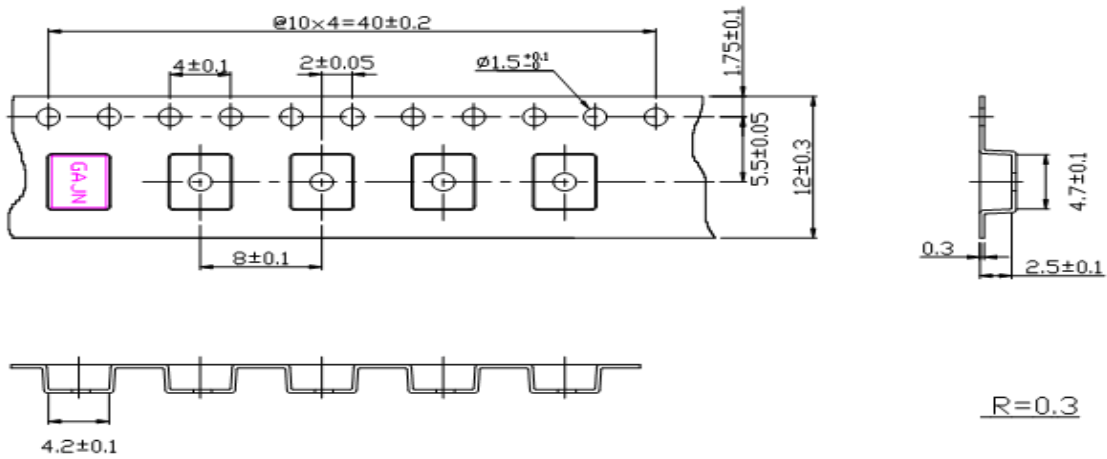
**F. Marking**



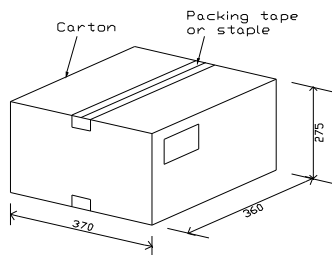
**( Table-1 )**

Year	Month	Code	Year	Month	Code	Year	Month	Code	Year	Month	Code
2012 2016 2020 2024	1	A	2013 2017 2021 2025	1	N	2014 2018 2022 2026	1	A.	2015 2019 2023 2027	1	N.
	2	B		2	P		2	B.		2	P.
	3	C		3	Q		3	C.		3	Q.
	4	D		4	R		4	D.		4	R.
	5	E		5	S		5	E.		5	S.
	6	F		6	T		6	F.		6	T.
	7	G		7	U		7	G.		7	U.
	8	H		8	V		8	H.		8	V.
	9	J		9	W		9	J.		9	W.
	10	K		10	X		10	K.		10	X.
	11	L		11	Y		11	L.		11	Y.
	12	M		12	Z		12	M.		12	Z.

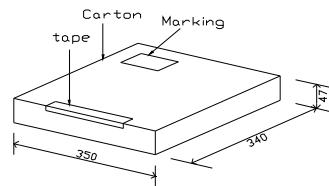
# G. Parking



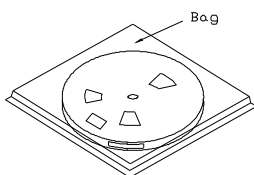
1. Outer Carton  
Quantity: 30000PCS



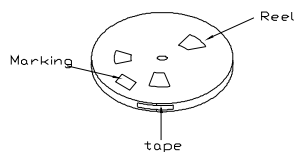
2. Inner Carton  
Quantity: 6000PCS



3. Bag  
Quantity: 3000PCS



4. Taping  
Quantity: 3000PCS



Unit:mm

## H. Recommended Reflow Profile:

Phase	Profile features	Pb-Free Assembly (SnAgCu)
PREHEAT	-Temperature Min( $T_{smin}$ ) -Temperature Max( $T_{smax}$ ) -Time(ts) form ( $T_{smin}$ to $T_{smax}$ )	150°C 200°C 60-120 seconds
RAMP-UP	Avg. Ramp-up Rate ( $T_{smax}$ to TP)	3°C/second(max)
REFLOW	-Temperature( $T_L$ ) -Total Time above $T_L$ ( $t_L$ )	217°C 30-100 seconds
PEAK	-Temperature( $T_P$ ) -Time( $t_p$ )	260°C 3 second
RAMP-DOWN	Rate	6°C / second max.
Time from 25°C to Peak Temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu
Solder Paste Model		SHENMAO PF606-P26

The graphic shows temperature profile for component assembly process in reflow ovens

