



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Description: STW Resonator 1000 MHz SMD 3.8X3.8 mm

TST Part No.: TD0129A

Customer Part No.: _____

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

Checked by: _____ Hongpu Lin *Hong Pu Lin*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2020/07/22

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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STW Resonator 1000 MHz

MODEL NO.: TD0129A

REV. NO.: 2.0

A. FEATURES:

1. Two-Port Resonator.

B. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC voltage: 12 V
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)

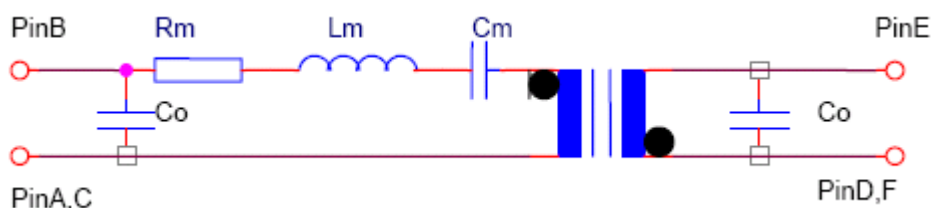
C. ELECTRICAL CHARACTERISTICS:

Reference Temperature $T_A=25^\circ\text{C}$

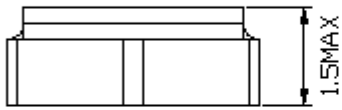
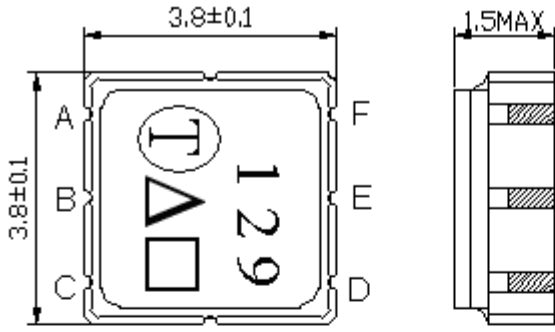
Characteristic	Units	Minimum	Typical	Maximum
Center frequency Fr	MHz	999.800	1000	1000.200
Insertion Loss IL	dB	-	6	8
Unloaded Quality factor		-	4700	-
Ageing of Fc	ppm	-	-	10/year
Rejection				
990 MHz ~ 999MHz		18	23	
1001 MHz ~ 1010MHz		18	23	
Motional capacitance C1	fF	-	0.36	-
Motional inductance L1	μH	-	70	-
Motional resistance R1	Ohm	-	127	-
Parallel capacitance Co	pF	-	2.3	-
Temp.coeff.	ppm/c*2	-	0.05	-
Turnover To	deg.C	10	25	40
Package size		SMD 3.8X3.8X1.5mm		

D. EQUIVALENT CIRCUIT:

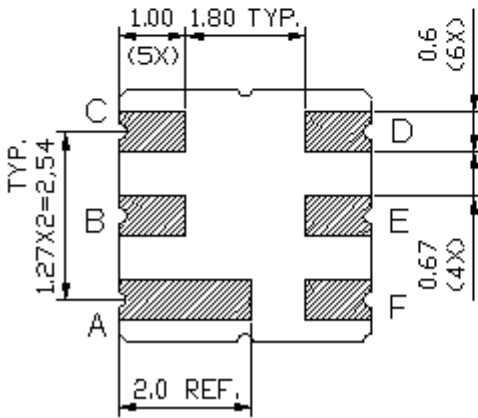
Two-Port Resonator:



E. OUTLINE DRAWING:



- #B : Input or Output
- #E : Output or Input
- #A、C、D、F : Ground
- △ : Year Code
- : Data Code



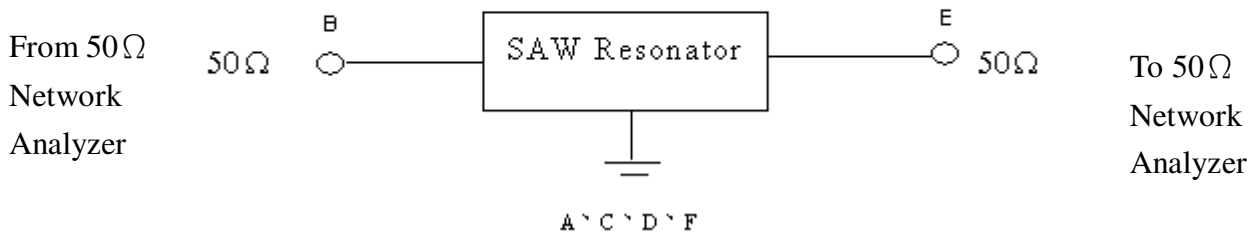
Year	2019	2020
	2021	2022
Year Code	D	d

Data Code Table

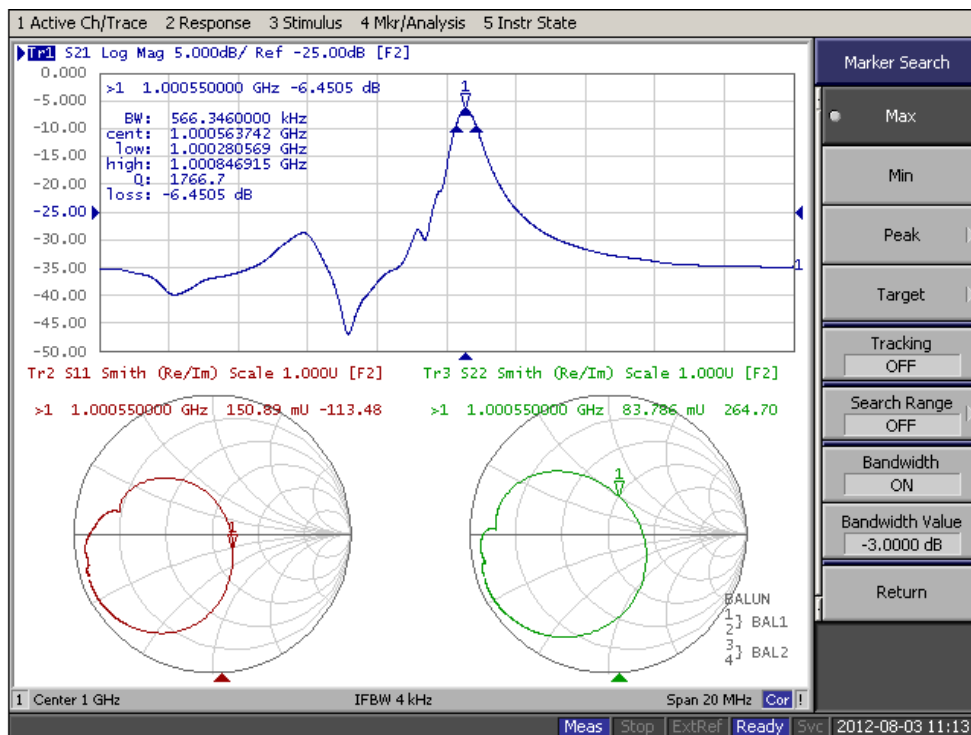
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

F. TEST CIRCUIT:

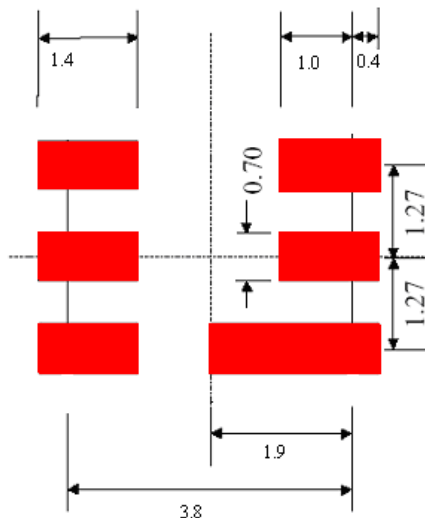
Network analyzer



G. FREQUENCY CHARACTERISTICS:

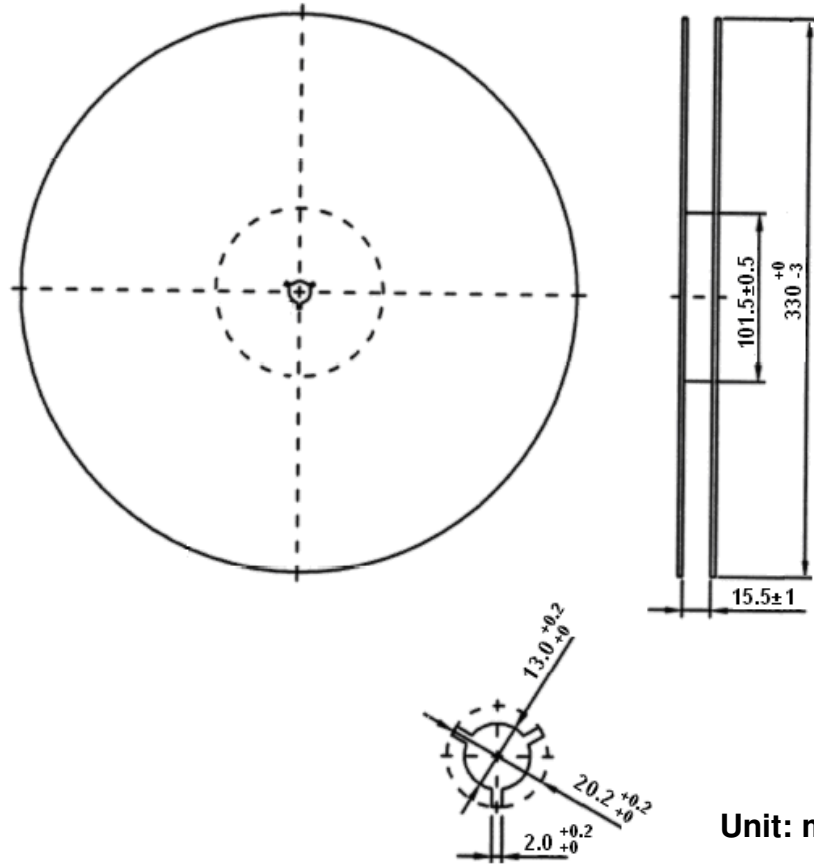


H. PCB FOOTPRINT



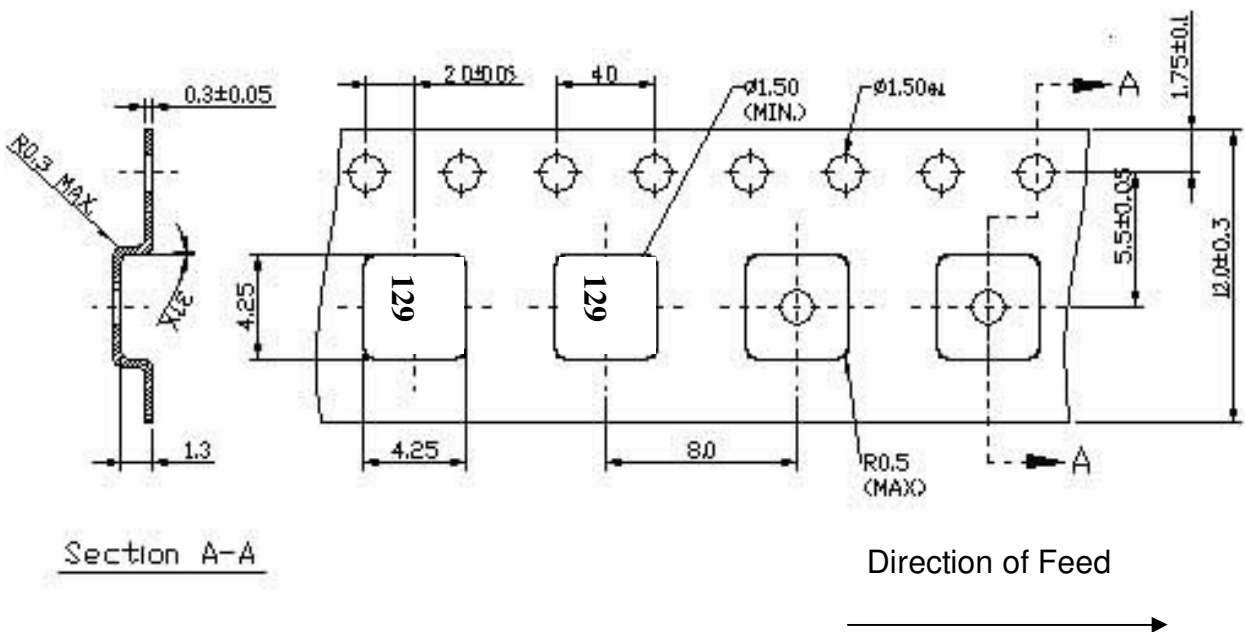
I. PACKING:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



Unit: mm

2. TAPE DIMENSION



Section A-A

Direction of Feed

J. 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.

