



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 Description: 457.5 / 915 MHz SAW Diplexer SMD 7.0×5.0 mm

TST Part No.: TE0129A

Customer Part No.: _____

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

Checked by: _____ David Chang *David* _____

Approved by: _____ Andy Yu *Andy Yu* _____

Date: _____ 2017/09/06 _____

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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457.5 / 915 MHz SAW Diplexer

MODEL NO.: TE0129A

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dB_m
2. DC voltage: 5 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C
5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Filter 1:

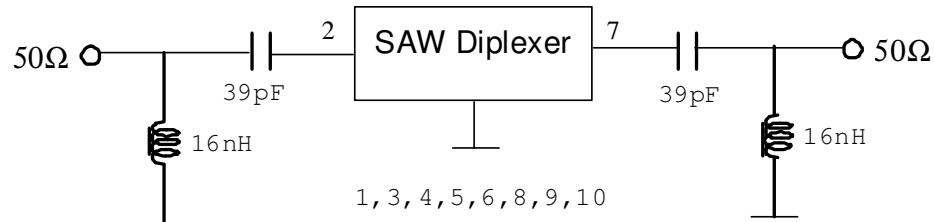
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	457.5	-
Insertion Loss (447.5~467.5 MHz) IL	dB	-	3.3	4.0
Amplitude Ripple (447.5~467.5 MHz)	dB	-	1.5	2.4
Return Loss (447.5~467.5 MHz)	dB	6.5	7.5	-
Attenuation (Reference level from 0 dB)				
DC ~ 380 MHz	dB	32	37	-
380 ~ 420 MHz	dB	31	36	-
500 ~ 520 MHz	dB	32	38	-
520 ~ 700 MHz	dB	35	40	-
Temperature coefficient of frequency	ppm/k	-	-36	-

Filter 2:

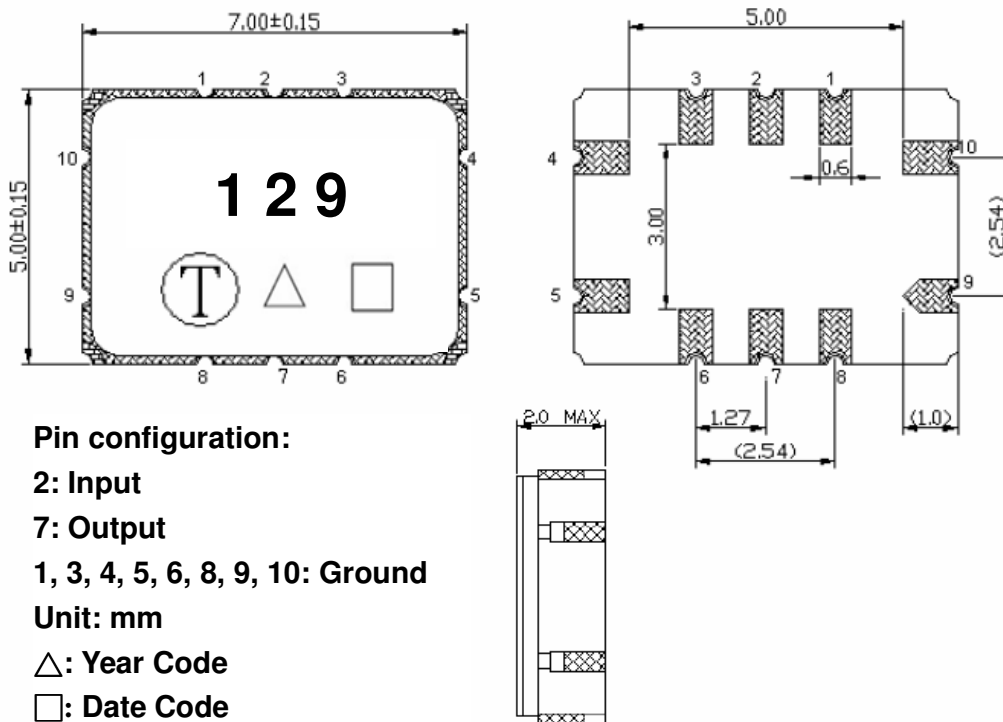
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	915	-
Insertion Loss (910~920 MHz) IL	dB	-	3.0	4.2
Amplitude Ripple (910~920 MHz)	dB	-	0.5	2.0
Return Loss (910~920 MHz)	dB	7.0	8.5	-
Attenuation (Reference level from 0 dB)				
880 ~ 890 MHz	dB	12	23	-
940 ~ 1000 MHz	dB	31	52	-
1000 ~ 1500 MHz	dB	36	41	-
Temperature coefficient of frequency	ppm/k	-	-36	-

C. MEASUREMENT CIRCUIT:

HP Network analyzer



D. OUTLINE DRAWING:



Pin configuration:

2: Input

7: Output

1, 3, 4, 5, 6, 8, 9, 10: Ground

Unit: mm

△: Year Code

□: Date Code

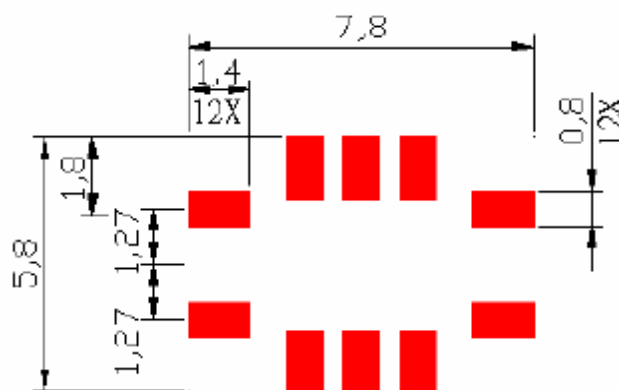
Product Year Code

Year	2013 2017	2014 2018	2015 2019	2016 2020
Product Code	E	e	<u>E</u>	<u>e</u>

Date Code Table:

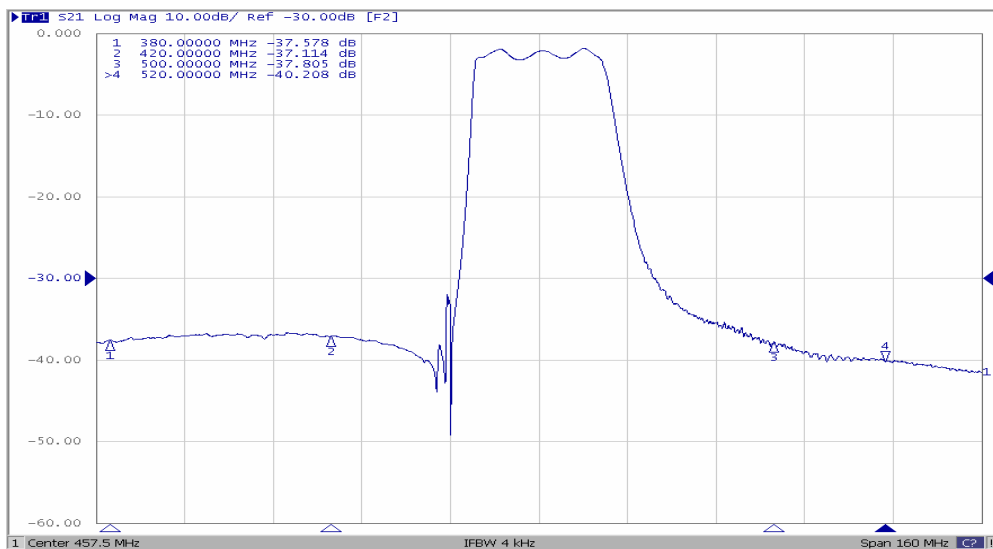
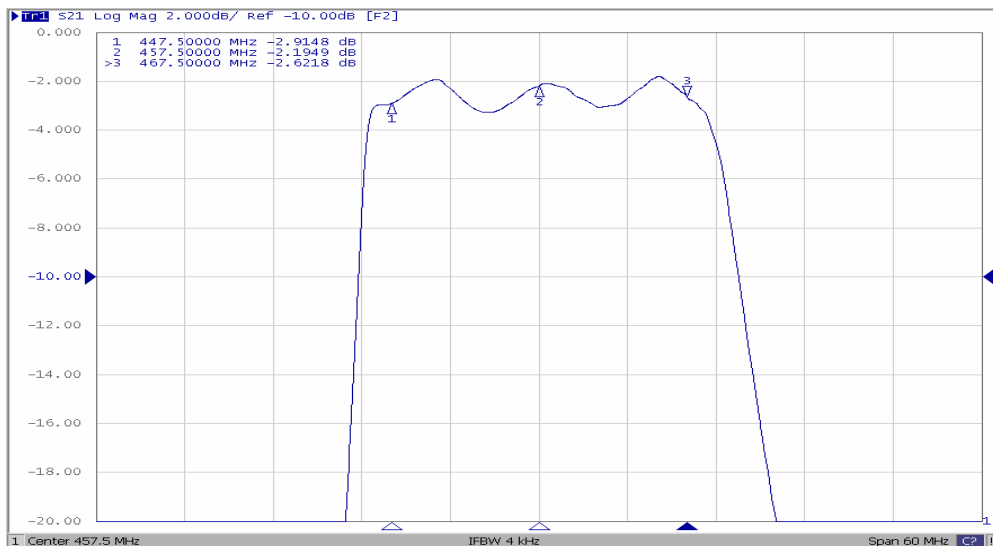
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

E. PCB Footprint:

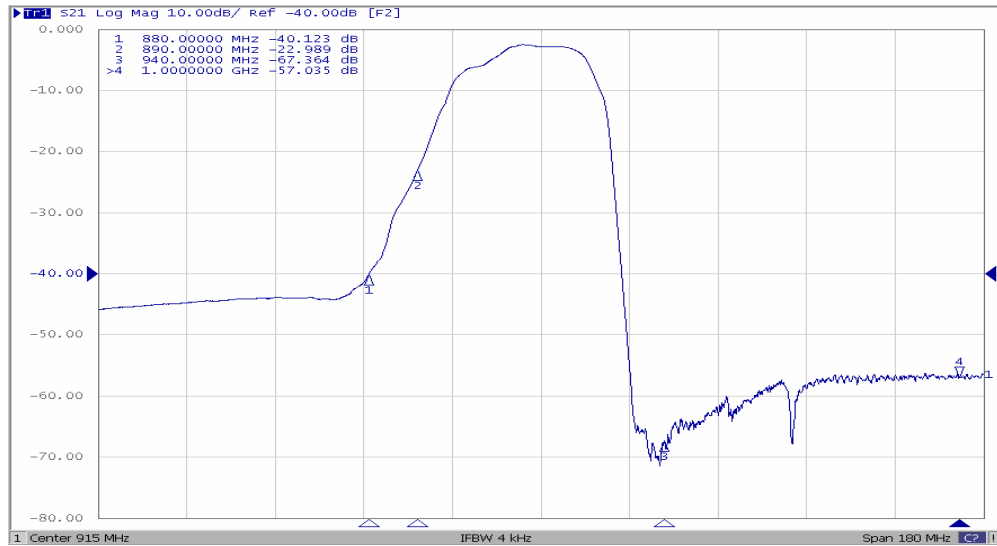
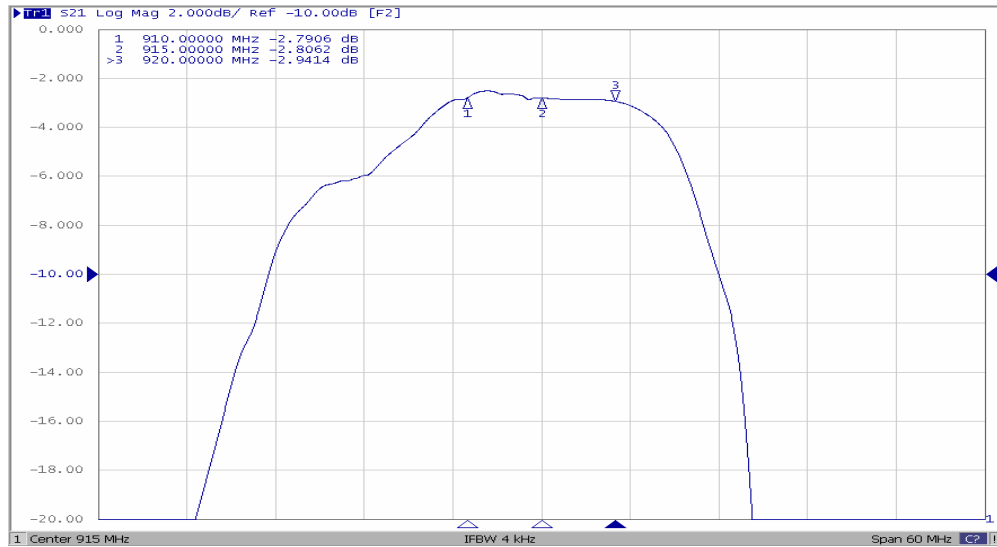


F. Frequency Characteristics:

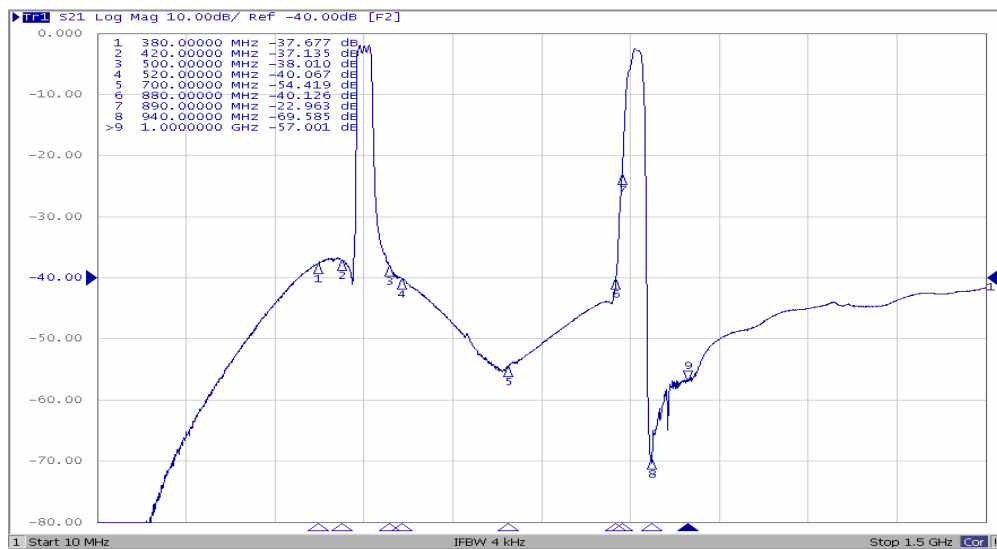
Filter 1



Filter 2

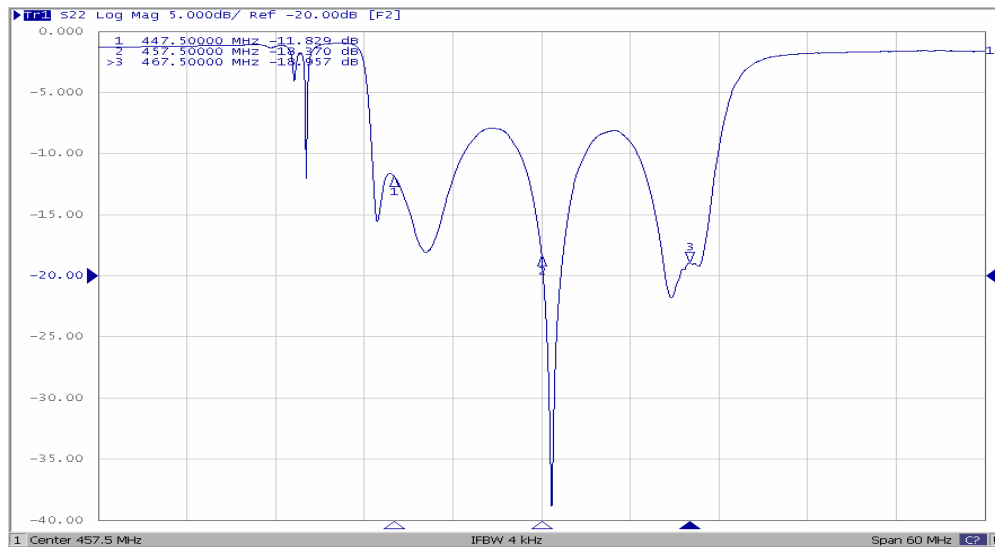


Wide-band

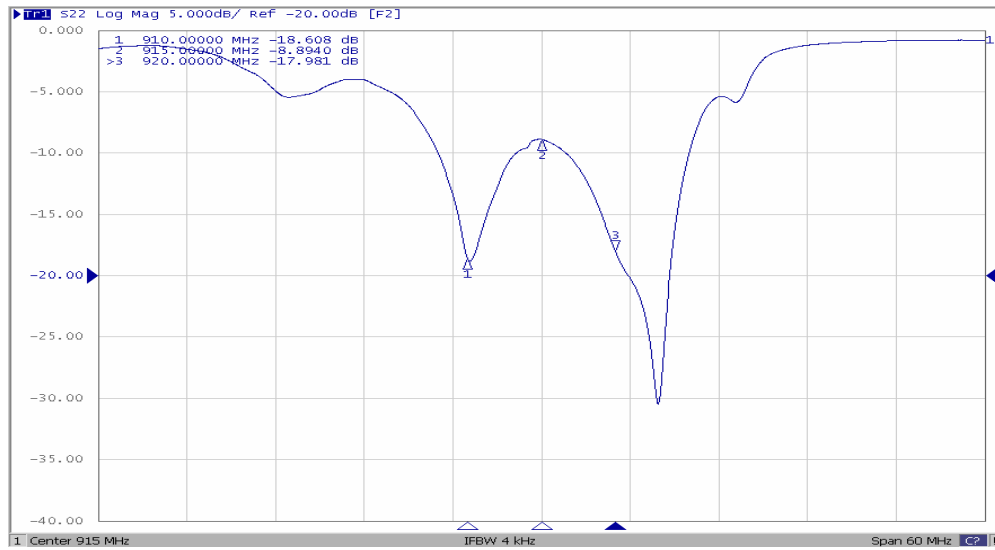


Reflection Functions:

Filter 1



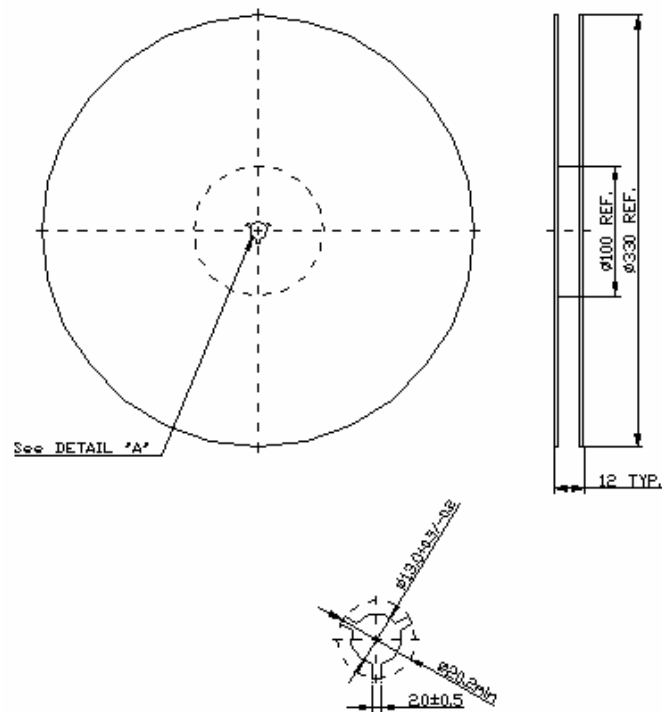
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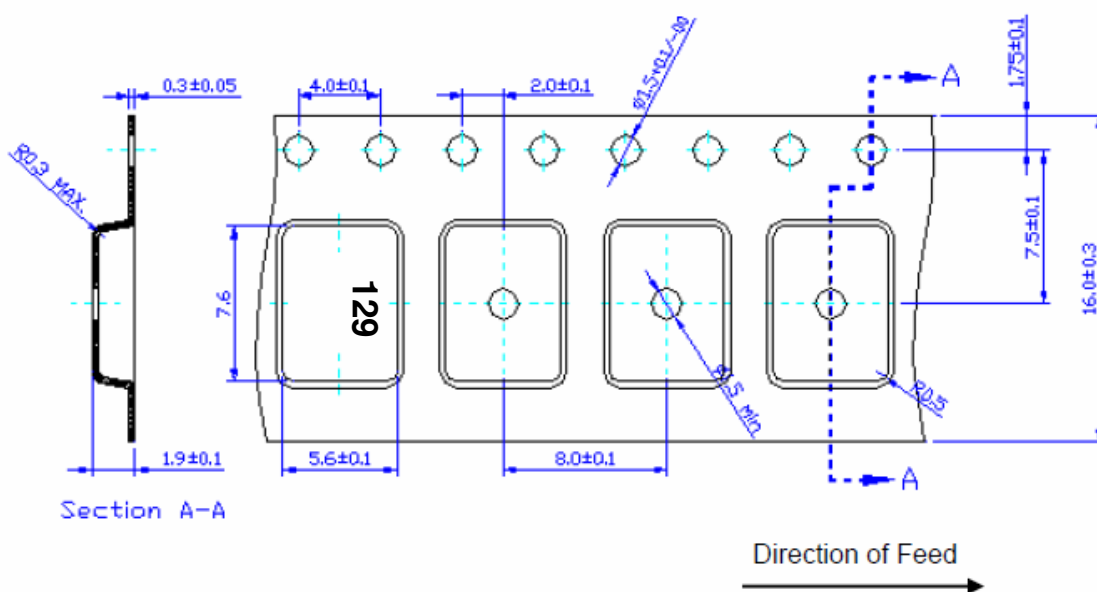
G. PACKING: (Ref. WI-75M03)

1. REEL DIMENSION

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



2. TAPE DIMENSION



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.

