



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: 1189/ 1582.5 MHz SAW Diplexer SMD 3.0x3.0 mm

TST Part No.: TE0133A

Customer Part No.: _____

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

Checked by: _____ David Chang *David*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2019/04/18

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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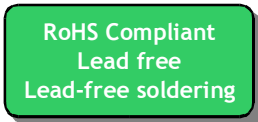
1189/ 1582.5 MHz SAW Diplexer

MODEL NO.: TE0133A

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dB_m
2. DC voltage: 6 V
3. Operating Temperature: -40°C to +95°C
4. Storage Temperature: -40°C to +95°C
5. Moisture Sensitivity Level: Level 1(MSL1)



Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

(L5_1189 MHz)

Item	Unit	Min.	Typ.	Max.	
Center frequency	Fc	MHz	-	1189	-
Insertion Loss (1164~1214 MHz)	IL	dB	-	3.8	4.5
Amplitude Ripple (1164~1214 MHz)		dB	-	1.4	2.2
Group Delay Ripple (1164~1214 MHz)		ns	-	10	35
Attenuation (Reference level from 0 dB)					
658 ~ 703 MHz		dB	30	53	-
703 ~ 915 MHz		dB	30	47	-
1427.9 ~ 1462.9 MHz		dB	30	39	-
1695 ~ 1710 MHz		dB	30	37	-
1710 ~ 1785 MHz		dB	32	39	-
1850 ~ 2690 MHz		dB	22	29	-
3400 ~ 3800 MHz		dB	34	39	-
5150 ~ 5925 MHz		dB	30	60	-

(L1_1582.5 MHz)

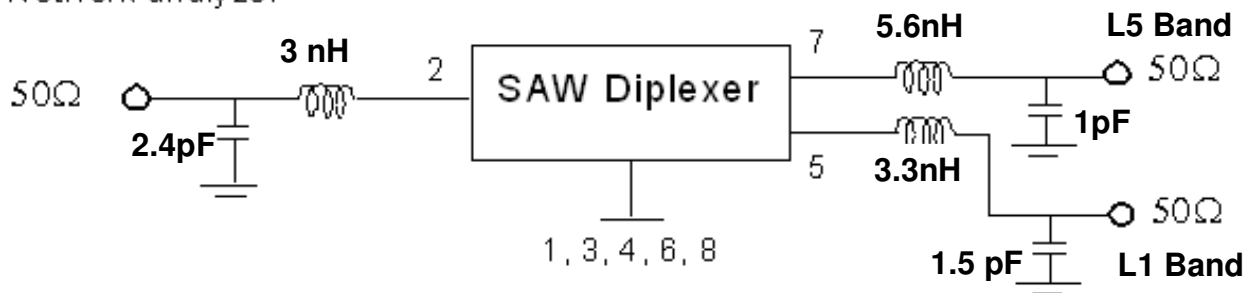
Item	Unit	Min.	Typ.	Max.	
Center frequency	Fc	MHz	-	1582.5	-
Insertion Loss (1559~1606 MHz)	IL	dB	-	5	5.8
Amplitude Ripple (1559~1606 MHz)		dB	-	1.2	2.2
Group Delay Ripple (1559~1606 MHz)		ns	-	8	30
Attenuation (Reference level from 0 dB)					
658 ~ 703 MHz		dB	30	41	-
703 ~ 915 MHz		dB	30	41	-
1427.9 ~ 1462.9 MHz		dB	30	42	-
1695 ~ 3800 MHz		dB	30	41	-
5150 ~ 5925 MHz		dB	30	74	-

(L1 – L5)

Item	Unit	Min.	Typ.	Max.
Isolation 1164~1214 MHz	dB	30	37	-
Isolation 1559~1606 MHz	dB	30	39	-

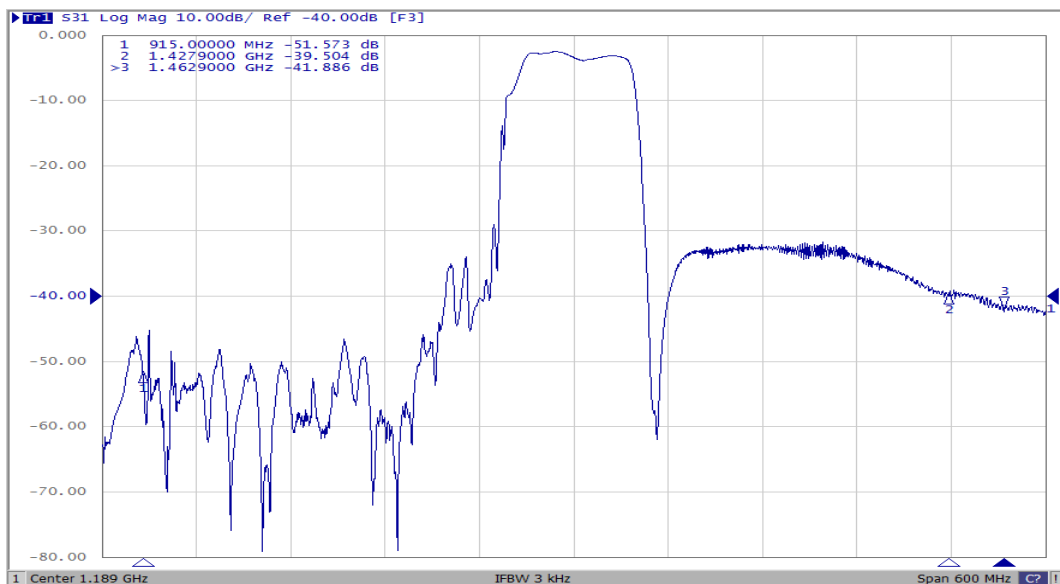
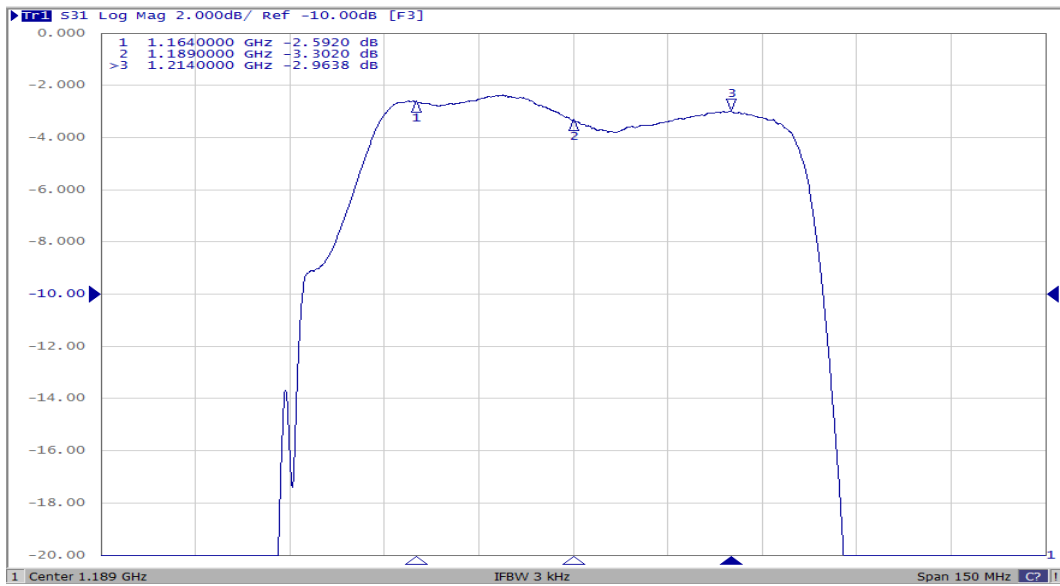
C. MEASUREMENT CIRCUIT:

HP Network analyzer

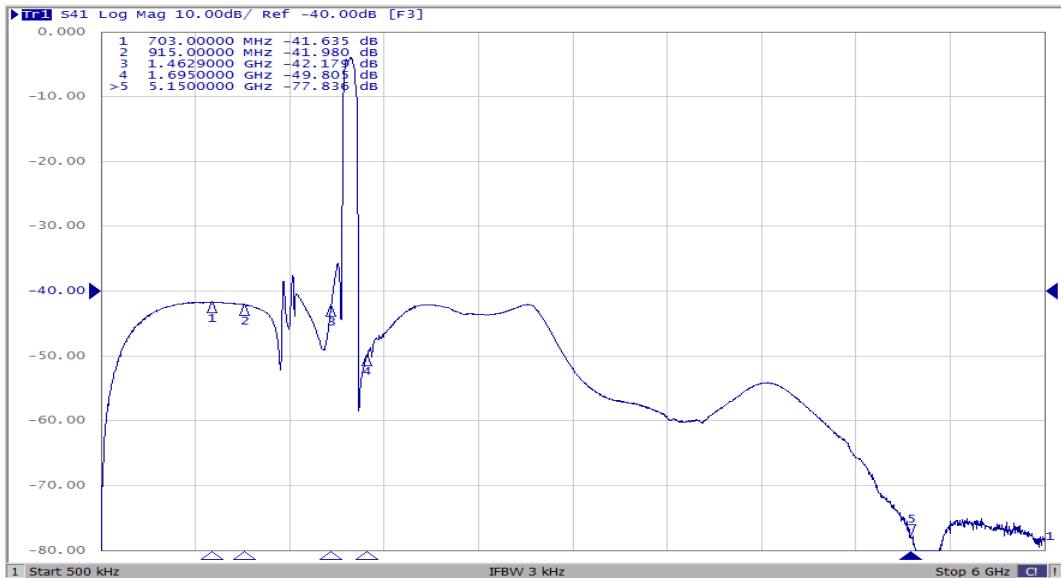
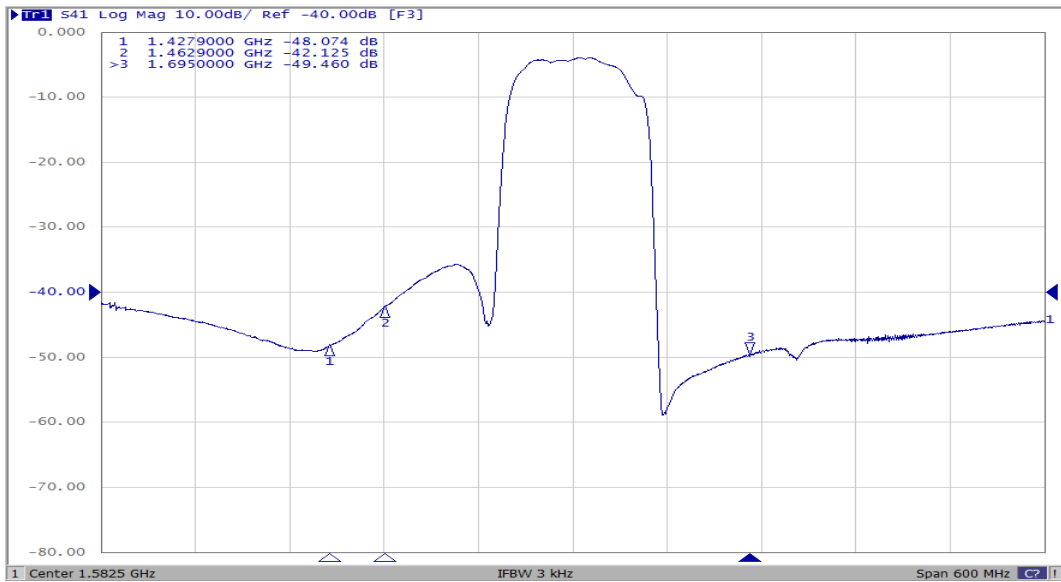
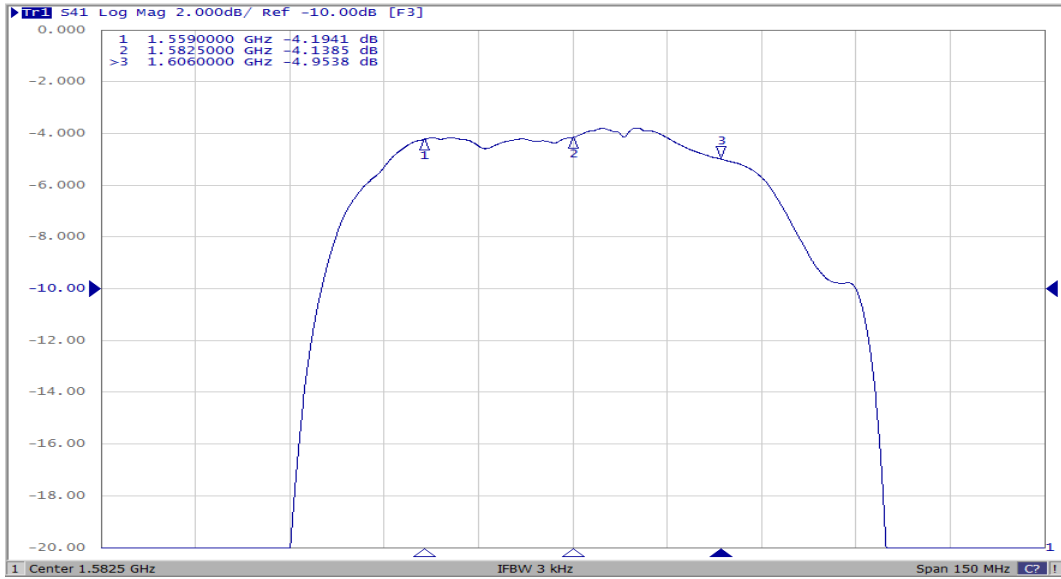


D. Frequency Characteristics:

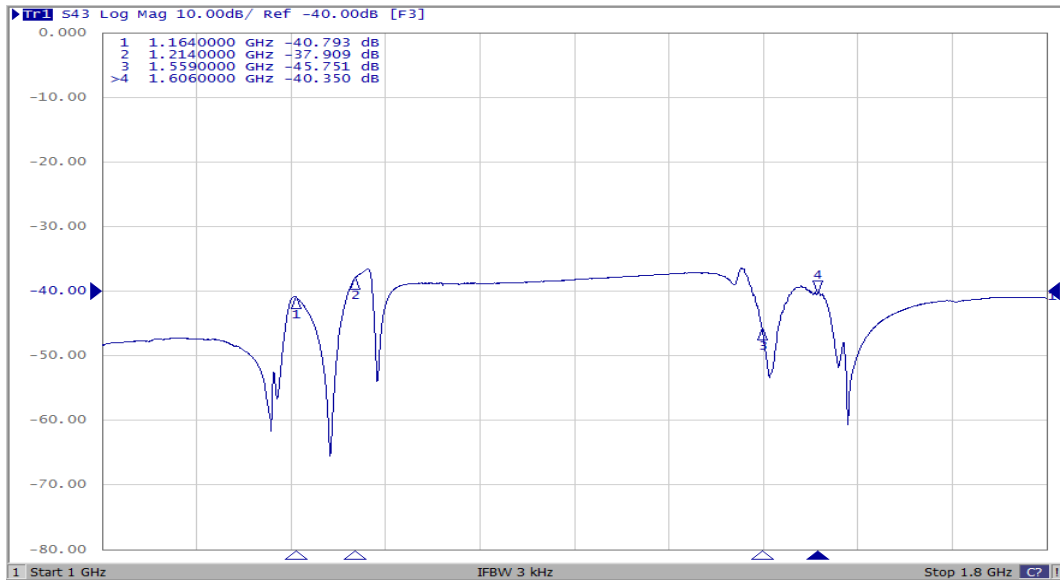
L5_Characteristics



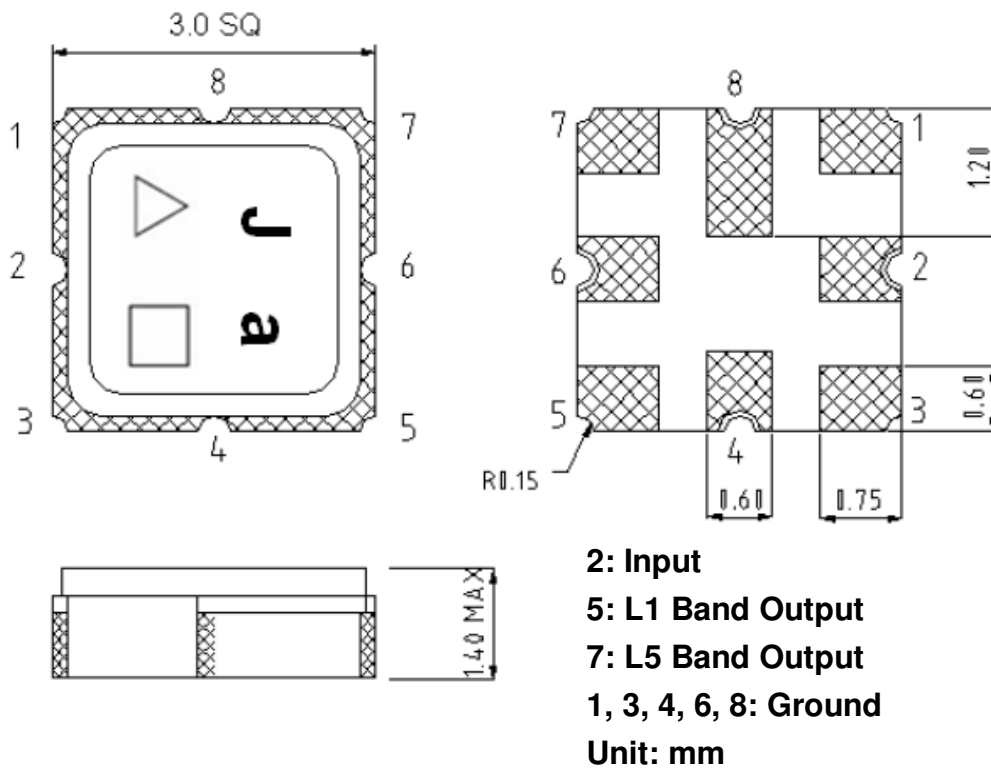
L1_Characteristics



L1 – L5_Isolation



E. OUTLINE DRAWING:



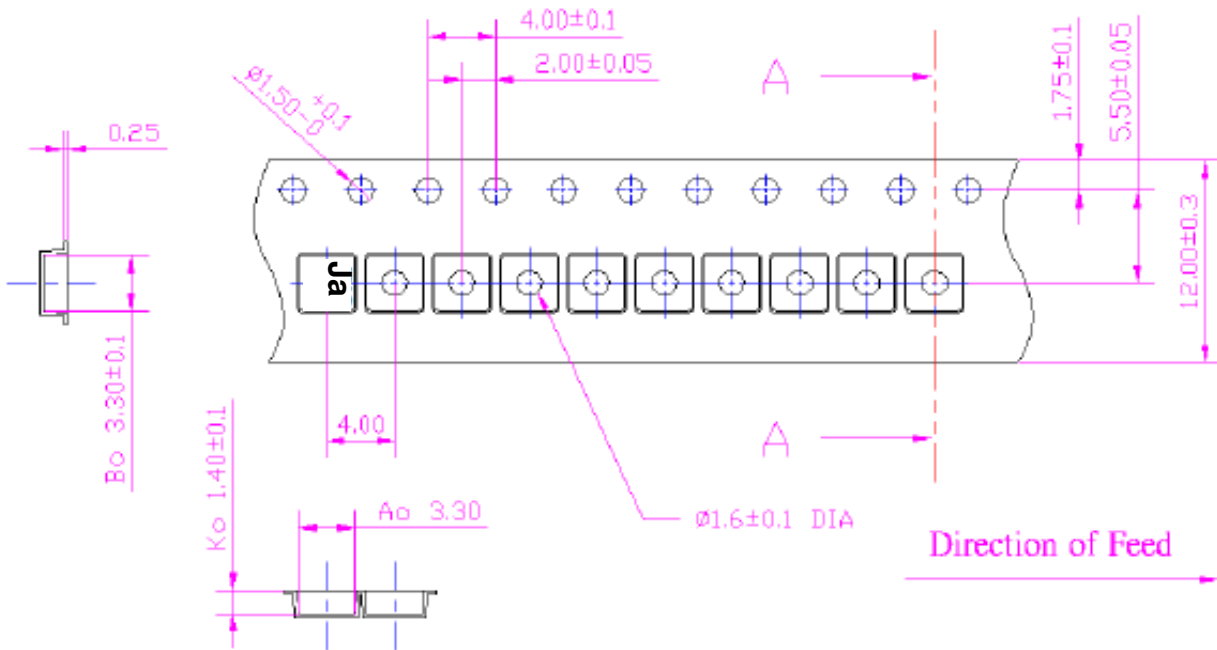
△ : Year Code (2011->1, 2012->2, ..., 2019->9, 2020->0)

□ : Date Code

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

2. TAPE DIMENSION



H. Recommended Reflow Profile:

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ 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 $260^\circ\text{C} +0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

