



TAI-SAW TECHNOLOGY CO., LTD.

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

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

TST Part No.: TE0133B (This part is compliant with AEC-Q200)

Customer Part No.: _____

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

Checked by: _____ David Chang *David*

Approved by: _____ Andy Yu *Andy Yu*

Date: _____ 2018/06/13

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.: TE0133B

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dB_m
2. DC voltage: 6 V
3. Operating Temperature: -40°C to +105°C
4. Storage Temperature: -40°C to +105°C
5. Moisture Sensitivity Level: Level 1(MSL1)

RoHS Compliant
Lead free
Lead-free soldering

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	-	3.9	5.0
Amplitude Ripple (1164~1214 MHz)		dB	-	1.3	2.5
Group delay ripple (1164~1214 MHz)		ns	-	10	45
Attenuation (Reference level from 0 dB)					
658 ~ 703	MHz	dB	30	55	-
703 ~ 915	MHz	dB	30	45	-
1427.9 ~ 1462.9	MHz	dB	30	37	-
1695 ~ 1710	MHz	dB	30	36	-
1710 ~ 1785	MHz	dB	32	37	-
1850 ~ 2690	MHz	dB	22	28	-
3400 ~ 3800	MHz	dB	34	40	-
5150 ~ 5925	MHz	dB	30	52	-

(L1_1582.5 MHz)

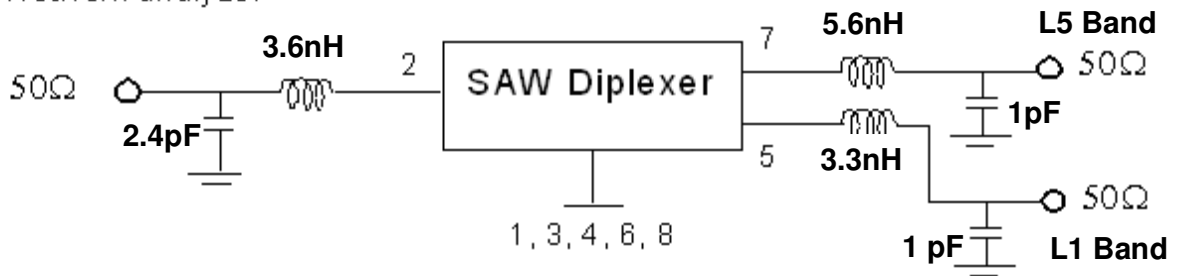
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	1582.5	-
Insertion Loss (1559~1606 MHz) IL	dB	-	5.2	7.2
Amplitude Ripple (1559~1606 MHz)	dB	-	1.3	3.4
Group delay ripple (1559~1606 MHz)	ns	-	6	30
Attenuation (Reference level from 0 dB)				
658 ~ 703 MHz	dB	30	37	-
703 ~ 915 MHz	dB	30	37	-
1427.9 ~ 1462.9 MHz	dB	30	42	-
1695 ~ 3800 MHz	dB	30	38	-
5150 ~ 5925 MHz	dB	30	67	-

(L1 – L5)

Item	Unit	Min.	Typ.	Max.
Isolation 1164~1214 MHz	dB	30	36	-
Isolation 1559~1606 MHz	dB	30	36	-

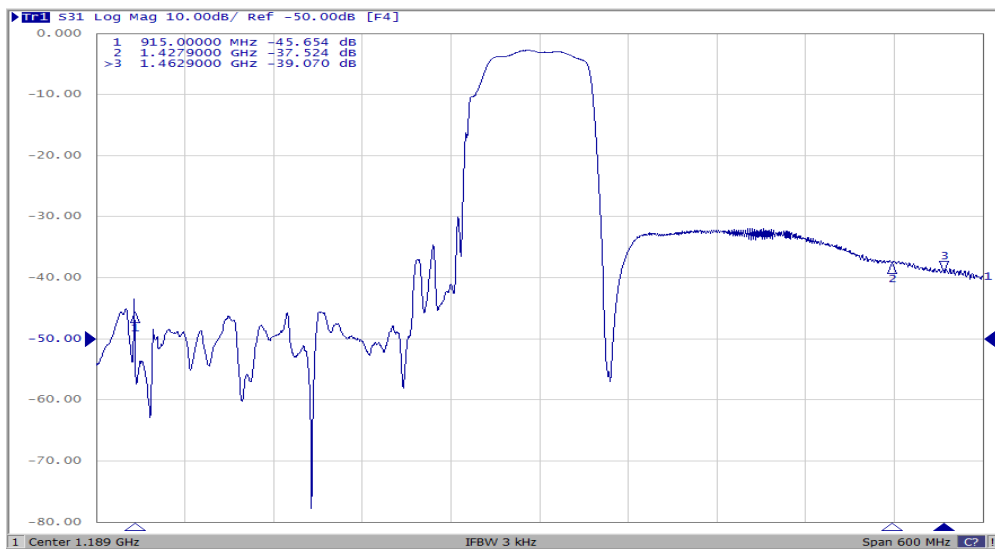
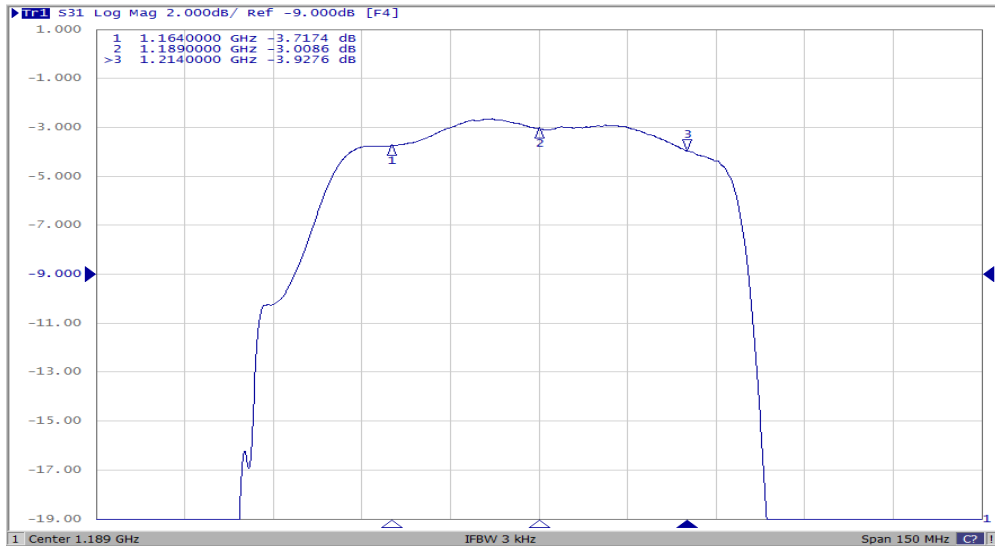
C. MEASUREMENT CIRCUIT:

HP Network analyzer

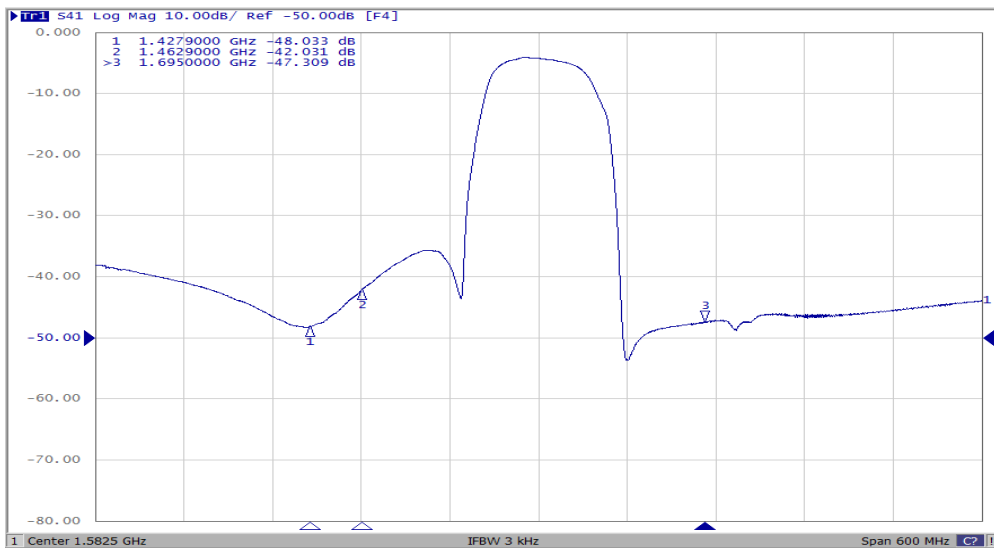
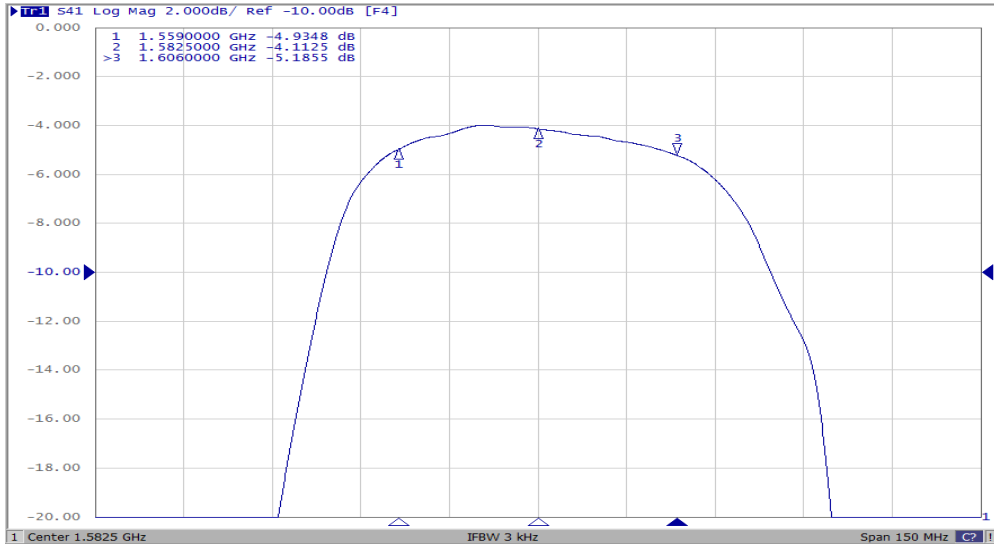


D. Frequency Characteristics:

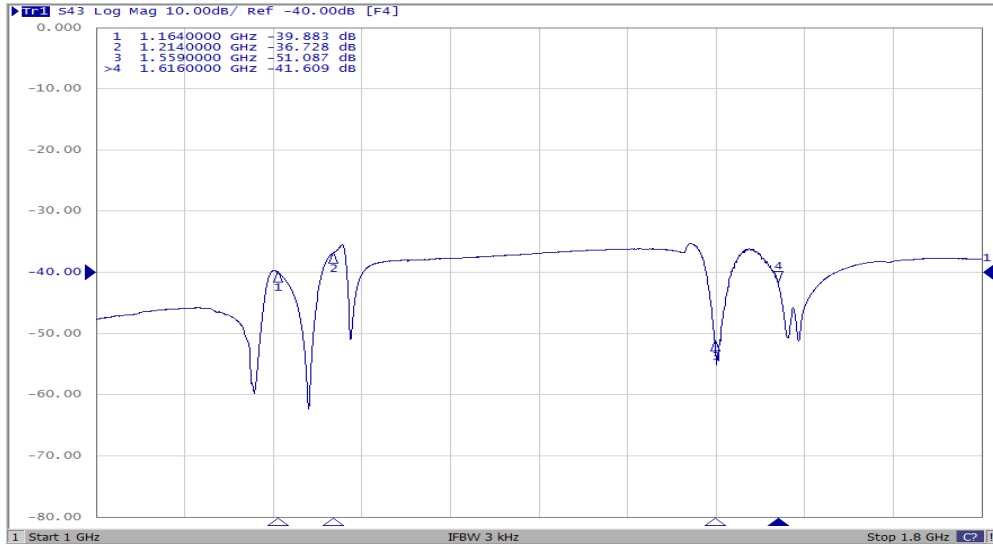
L5_Characteristics



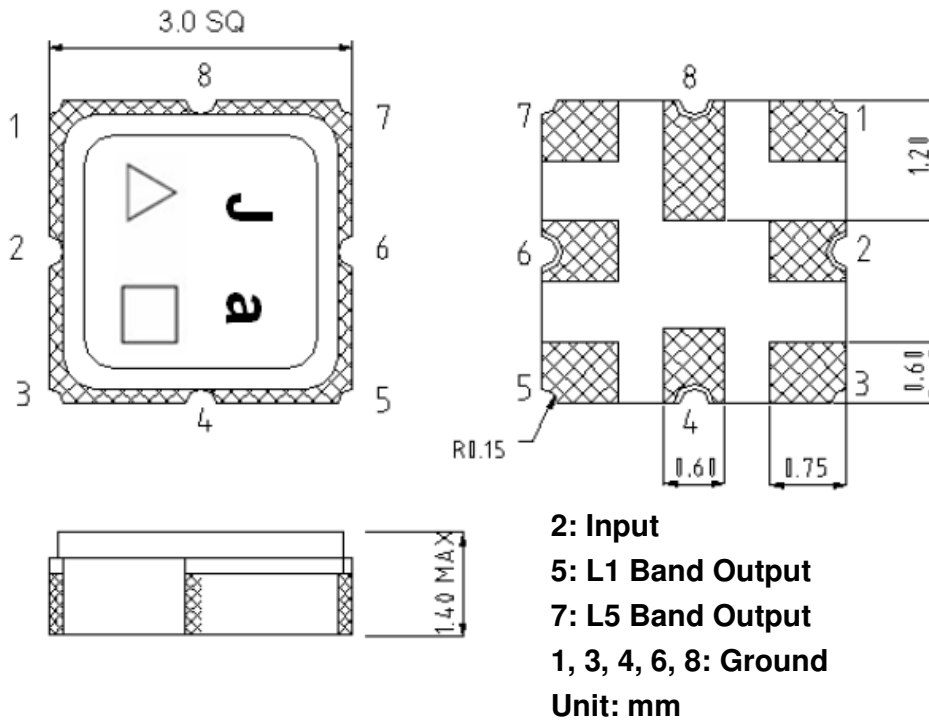
L1_Characteristics



L1 – L5_Isolation



E. OUTLINE DRAWING:



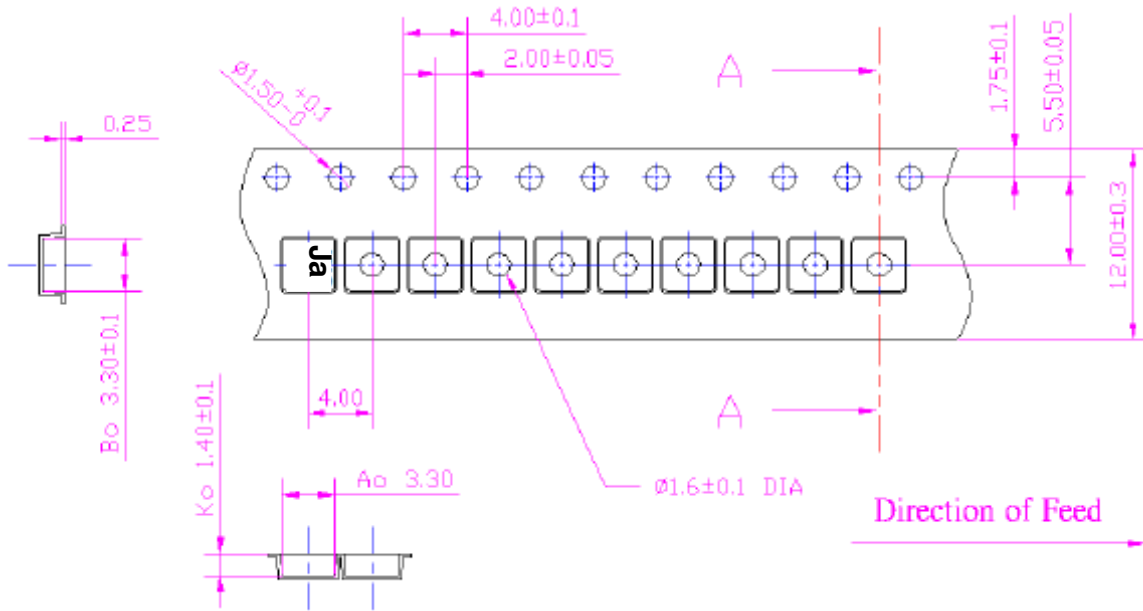
△ : Year Code (2011->1, 2012->2, ..., 2019->9, 2020->0)

□ : 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 $260^\circ\text{C} \pm 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

