



# 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: Duplexer 707/737MHz 18MHz BW SMD 3.8x3.8 mm

TST Parts No.: TF0076A

Customer Part No.: \_\_\_\_\_

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

Checked by: \_\_\_\_\_ Andy Yu *Andy Yu*

Approved by: \_\_\_\_\_ Bob Chau *Bob Chau*

Date: \_\_\_\_\_ 2013, 11, 25

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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## SAW Duplexer 707/737MHz 18MHz BW SMD 3.8x3.8 mm

MODEL NO.: TF0076A

REV. No.: 1.0

### A. MAXIMUM RATING:

1. Maximum Input Power: 30 dBm
2. DC voltage: 0 V
3. Operating Temperature: 0°C to +50°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant  
Lead-free soldering

### B. ELECTRICAL CHARACTERISTICS:

Tx(707.0MHz) → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	698.0 ~ 716.0	dB	-	1.9	3.0
Amplitude Ripple	698.0 ~ 716.0	dB <sub>pp</sub>	-	0.9	1.5
VSWR <sup>1</sup>	698.0 ~ 716.0 <sup>1</sup>	-	-	1.8	2.2
Absolute Attenuation	728.0 ~ 746.0	dB	40	48	-

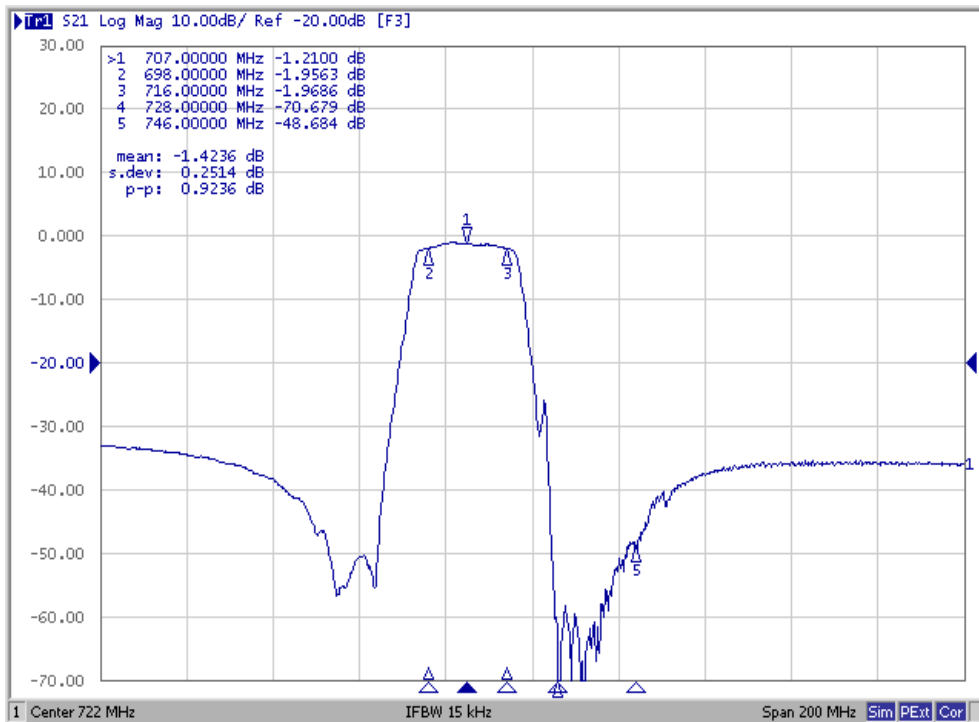
Ant → Rx(737.0MHz)		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	728.0 ~ 746.0	dB	-	1.9	3.0
Amplitude Ripple	728.0 ~ 746.0	dB <sub>pp</sub>	-	1.0	1.5
VSWR <sup>1</sup>	728.0 ~ 746.0 <sup>1</sup>	-	-	1.7	2.2
Absolute Attenuation	698.0 ~ 716.0	dB	35	38	-

Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	698.0 ~ 716.0	dB	35	38	-
	716.0 ~ 728.0	dB	20	27	-
	728.0 ~ 746.0	dB	40	50	-

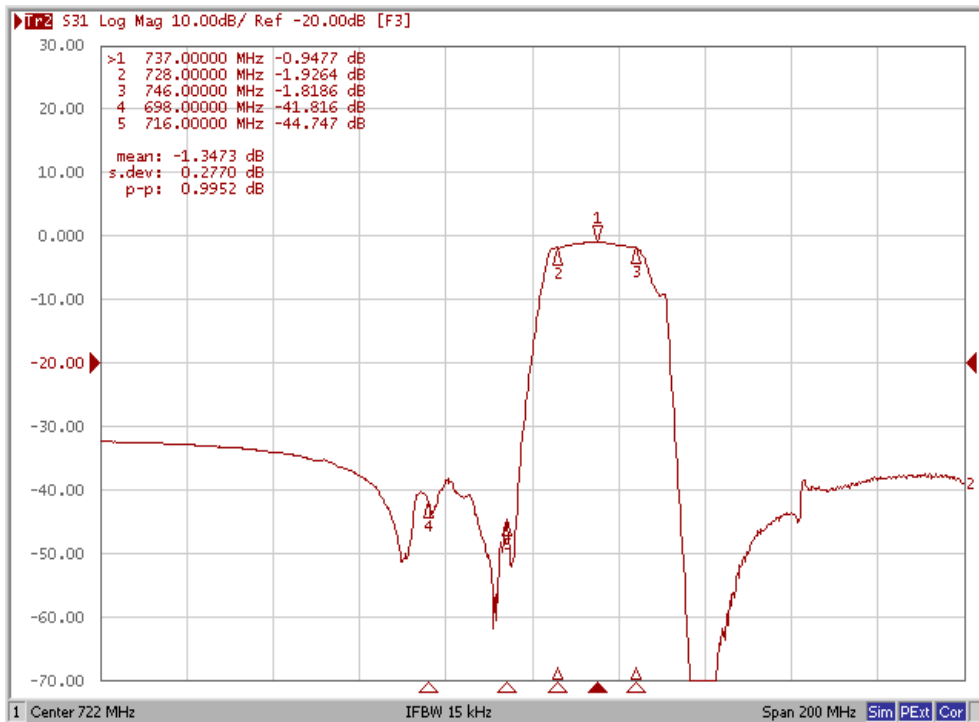
**Notes** : (1) With Matching Network .

## C. Frequency Characteristics :

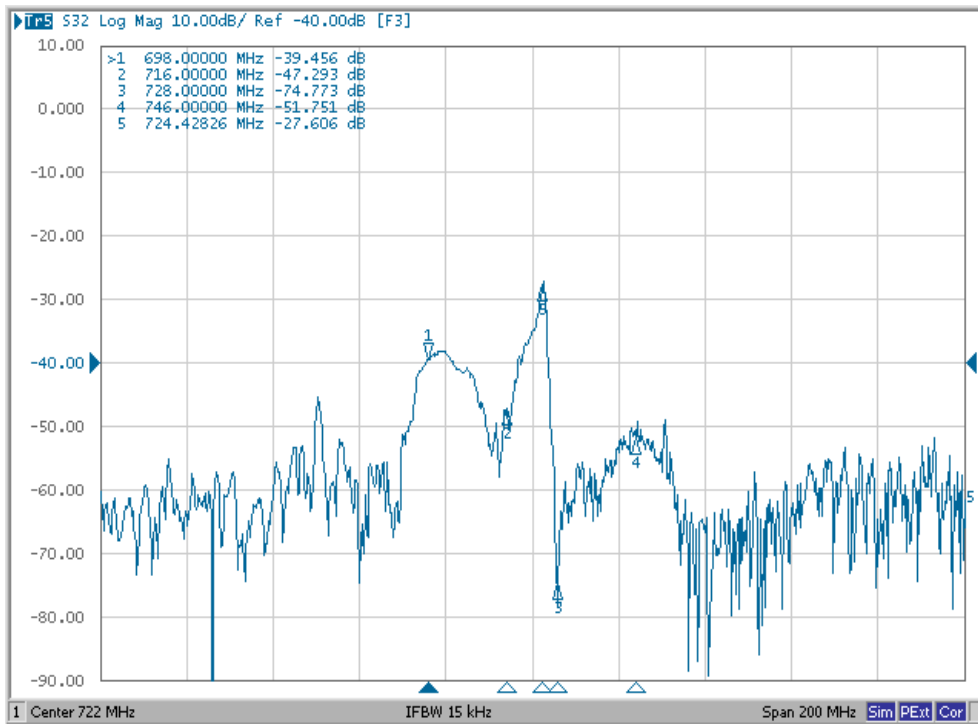
### Tx Characteristic



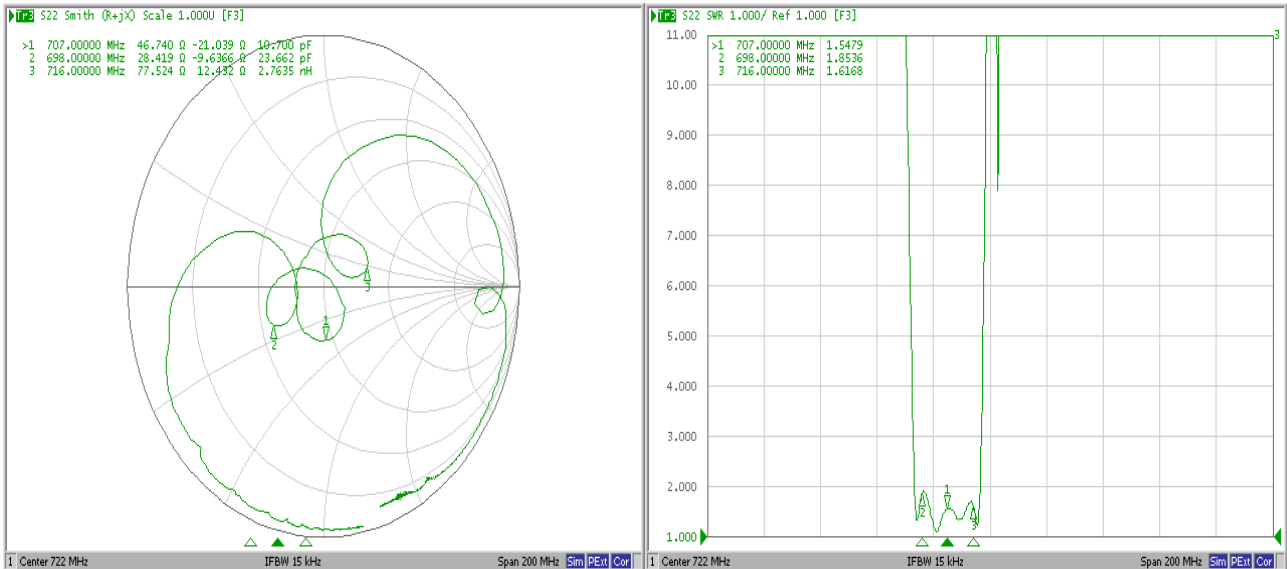
### Rx Characteristic



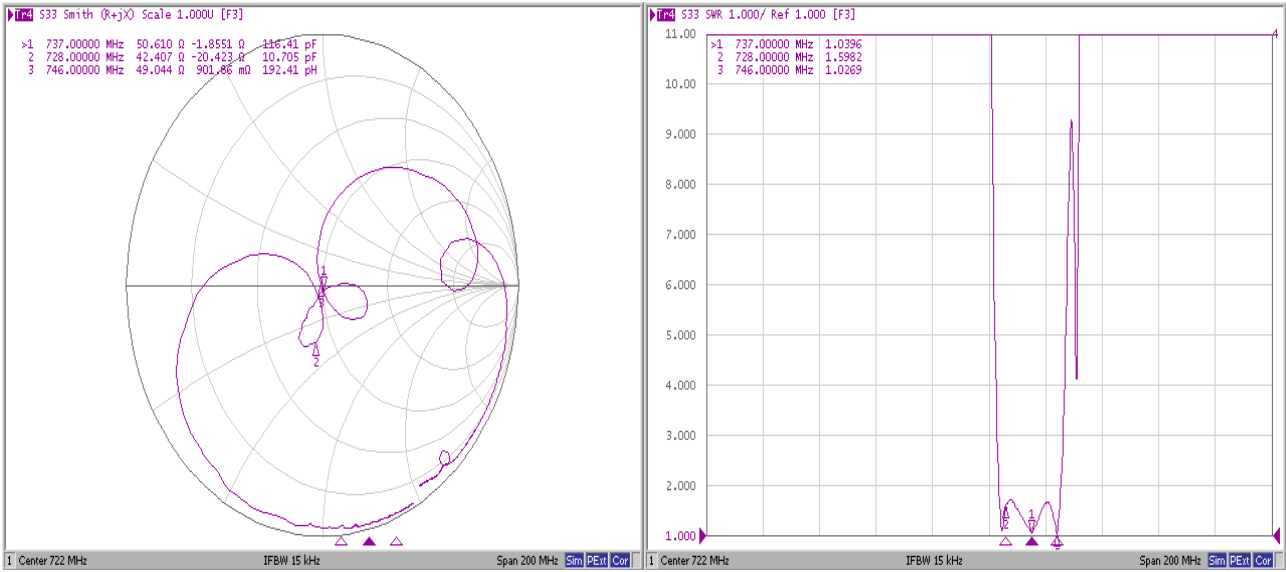
## Isolation Characteristic



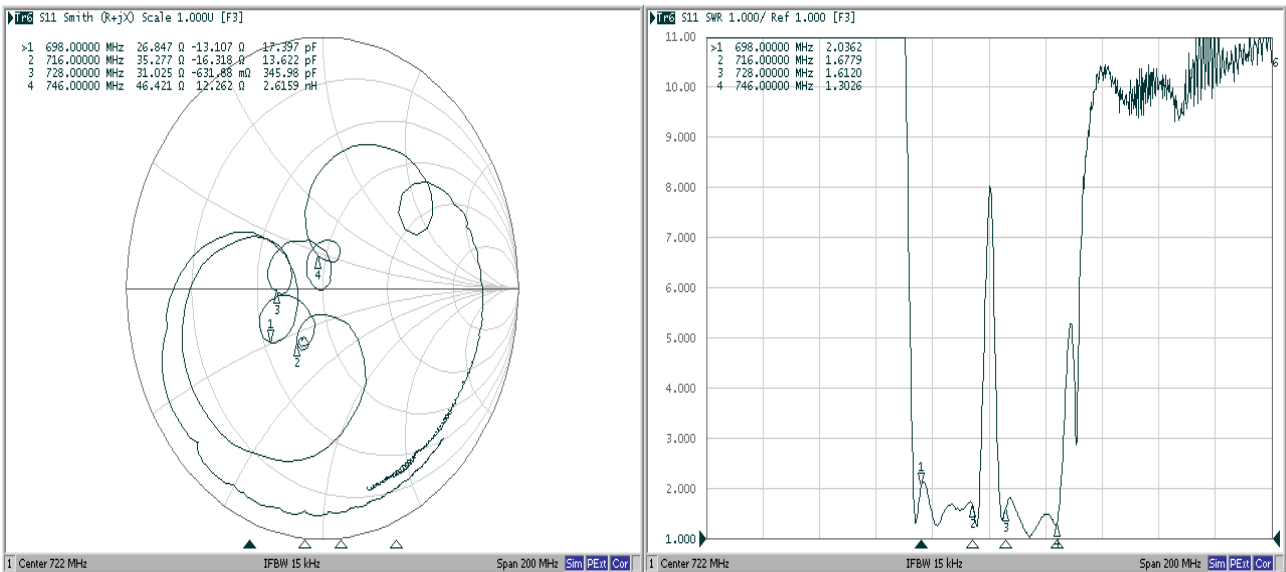
## VSWR & Smith Chart



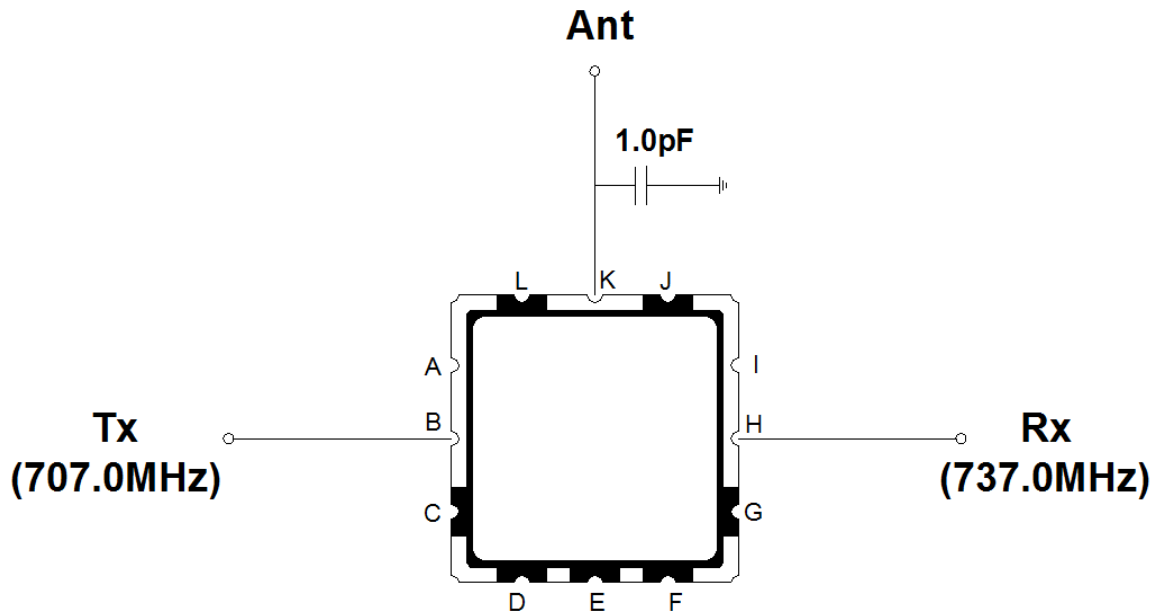
## Rx Part



## Antenna

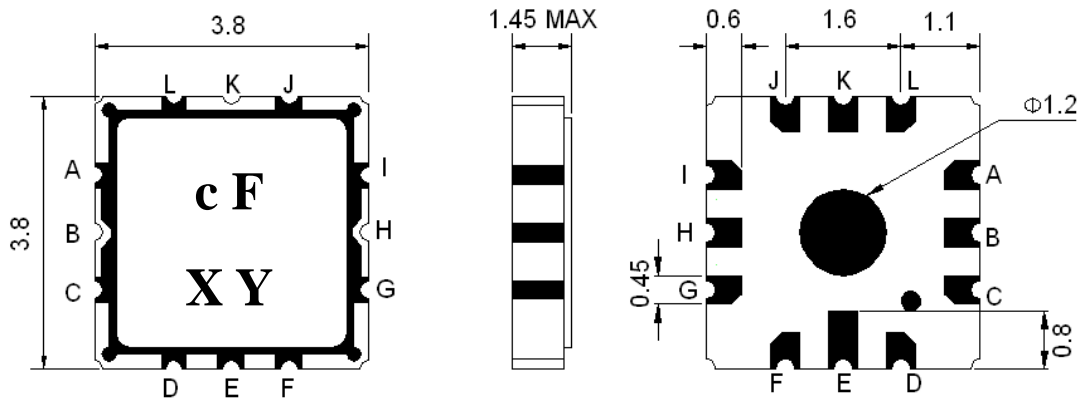


**D. MEASUREMENT CIRCUIT:**



**E. OUTLINE DRAWING:**

Unit: mm

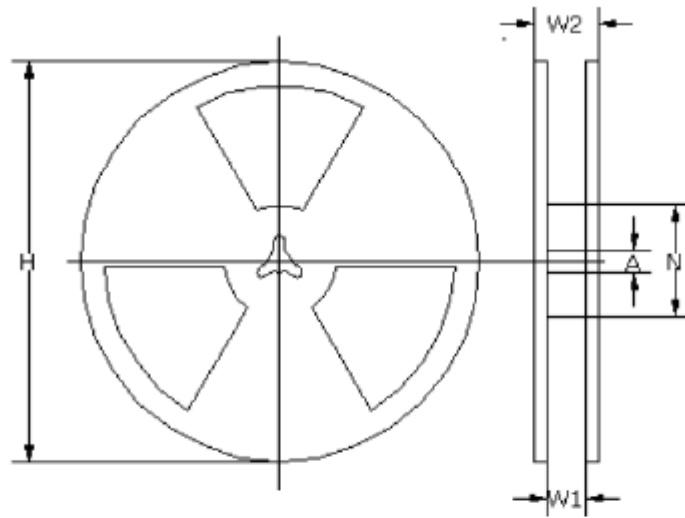


Marking Descriptions	
c	Wireless Application
F	Series Number
X	Date Code(Year)
Y	Date Code(Month)

Pin Description	
A, C, D, E, F, G, I, J, L	Ground
K	Ant
B	Rx (737.0MHz)
H	Tx (707.0 MHz)

## E. PACKING:

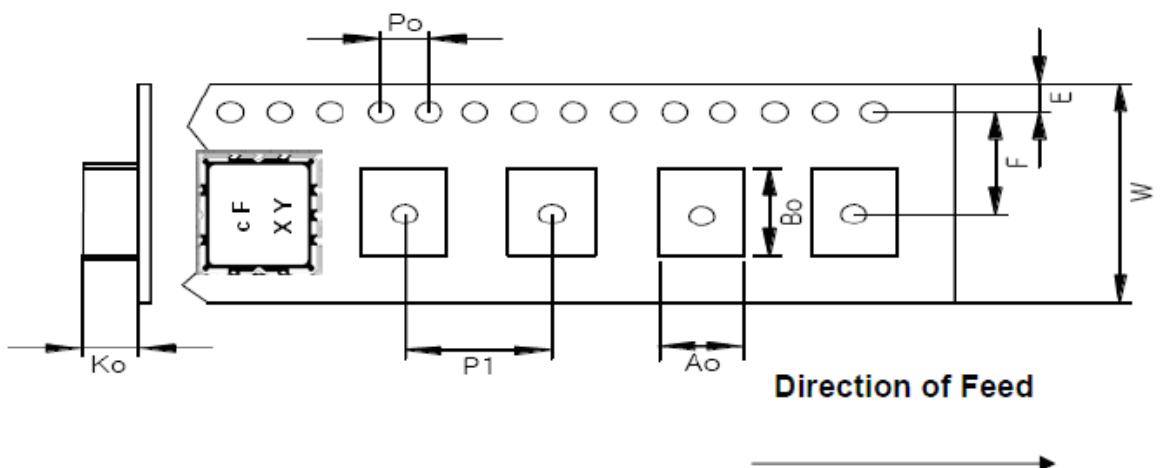
### 1. REEL DIMENSION



(Unit : mm)

A	N	H	W1	W2
$\Phi 13 \pm 0.5$	$\Phi 62 \pm 1.0$	$\Phi 330.0 \pm 1.0$	$12.0 \pm 1.0$	$16.0 \pm 1.0$

### 2. TAPE DIMENSION



A	B	K0	W	E	F	P0	P1
$3.4 \pm 0.1$	$3.4 \pm 0.1$	$1.4 \pm 0.1$	$12.0 \pm 0.3$	$1.75 \pm 0.1$	$5.5 \pm 0.1$	$4.0 \pm 0.1$	$8.0 \pm 0.1$

**F. RECOMMENDED REFLOW PROFILE :**

