



TAI-SAW TECHNOLOGY CO., LTD.

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

Product Name: SAW Dual Filter 772/860.5 MHz SMD 1.8X1.4 mm

TST Parts No.: TE0144A

Customer Parts No.: _____

Company: _____
Division: _____
Approved by : _____
Date: _____

Checked by: _____ Bob Chau 

Approval by: _____ Andy Yu 

Date: _____ 7, 29, 2019

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 Dual Filter 772/860.5MHz SMD 1.8x1.4mm

MODEL NO.:TE0144A

REV. NO.:1.0

A. MAXIMUM RATING:

1. Input Power Level: 15 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. ESD Machine Mode : 100V
6. ESD Human Body Mode : 200V
7. Moisture Sensitive Level (MSL): Level 3

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

Temperature range for specification : Tspec = -30 °C to +85 °C

Terminating source impedance : Zs = 50 Ω

Terminating load impedance : ZL = 50 Ω

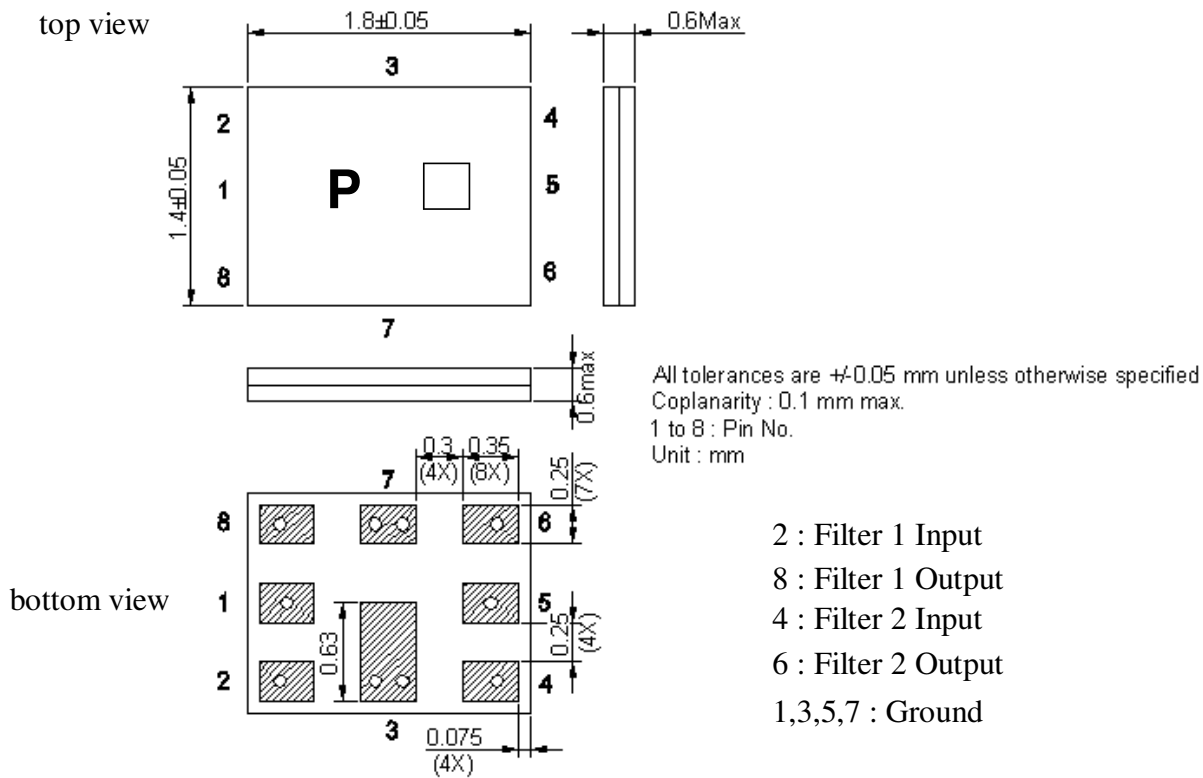
(Channel 1_772 MHz)

Item	Unit	Min	Typ	Max
Center frequency Fc	MHz	-	772	-
Insertion Loss (769.0~775.0 MHz) IL	dB	-	1.4	3
Ripple (769.0~775.0 MHz)	dB	-	0.1	1.5
Return Loss (769.0~775.0 MHz)	dB	9	17	-
Attenuation (Reference level from 0 dB)				
100 – 628 MHz	dB	45	55	-
628 – 700 MHz	dB	30	51	-
700 – 752 MHz	dB	20	35	-
788 – 820 MHz	dB	12	23	-
820 – 910 MHz	dB	30	52	-
910 – 1500 MHz	dB	35	41	-
Group Delay Ripple (769.0~775.0 MHz)	ns	-	10	50
Impedance	Ohm	50		

(Channel 2_860.5 MHz)

Item	Unit	Min	Typ	Max
Center frequency Fc	MHz	-	860.5	
Insertion Loss (851.0~870.0 MHz) IL	dB	-	2	2.5
Ripple (851.0~870.0 MHz)	dB	-	0.65	1.2
Return Loss (851.0~870.0 MHz)	dB	10	12	-
Attenuation (Reference level from 0 dB)				
DC – 688 MHz	dB	40	57	-
688 – 705 MHz	dB	40	55	-
769 – 788 MHz	dB	35	49	-
806 – 825 MHz	dB	25	43	-
896 – 902MHz	dB	25	35	-
932 – 953 MHz	dB	42	53	-
996 – 1036MHz	dB	40	50	-
1702 – 3000 MHz	dB	25	33	-
Group Delay Ripple (851.0~870.0 MHz)	ns	-	10	50
Impedance	Ohm	50		

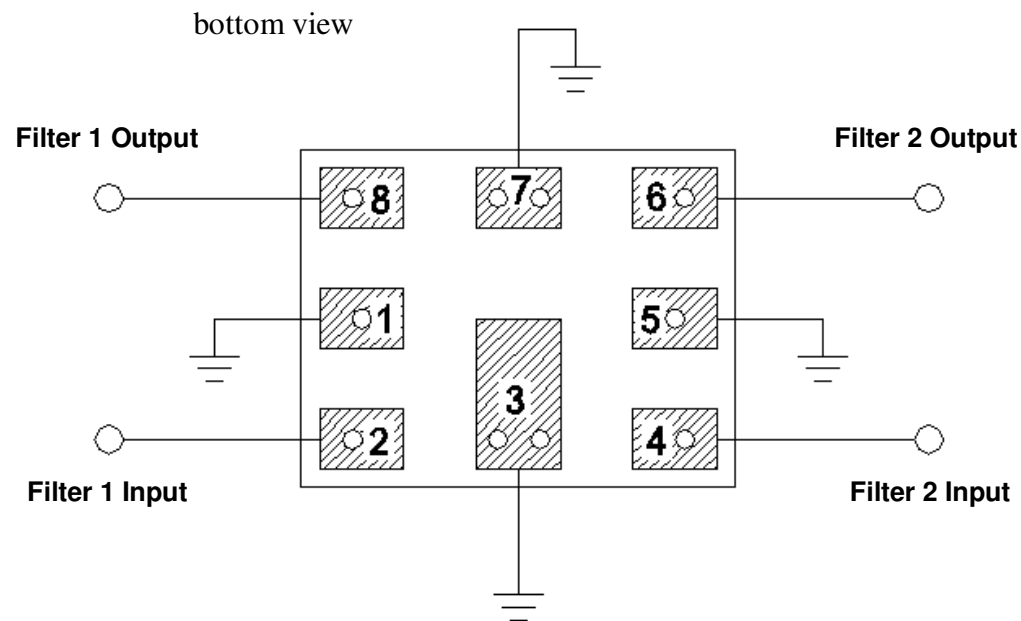
C.OUTLINE DRAWING:



□ : Year/Month Code (Follow the table)

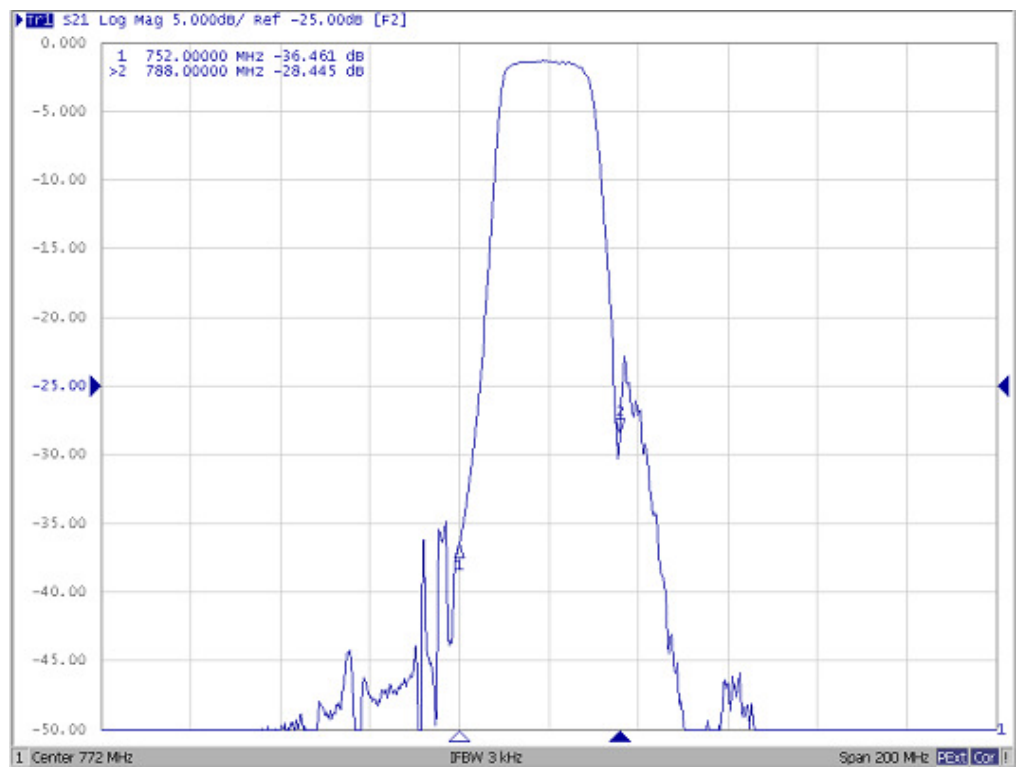
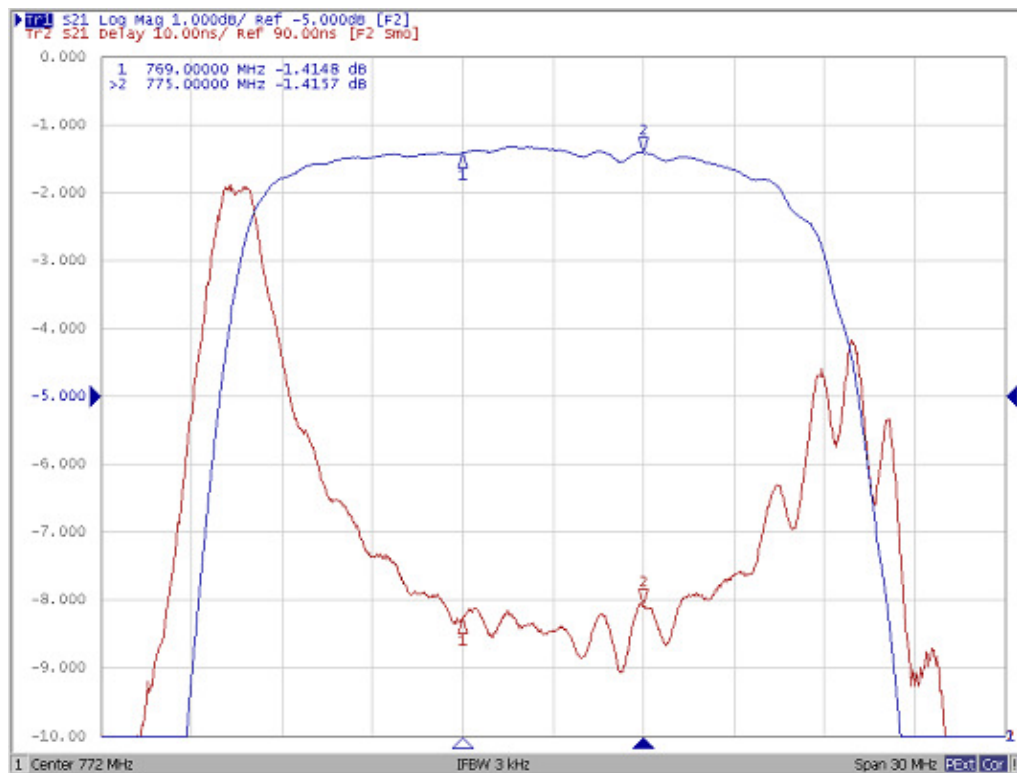
YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>S</u>	<u>T</u>	<u>U</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
2019	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>	<u>f</u>	<u>g</u>	<u>h</u>	<u>i</u>	<u>k</u>	<u>l</u>	<u>m</u>
2020	<u>n</u>	<u>p</u>	<u>q</u>	<u>r</u>	<u>s</u>	<u>t</u>	<u>u</u>	<u>v</u>	<u>w</u>	<u>x</u>	<u>y</u>	<u>z</u>

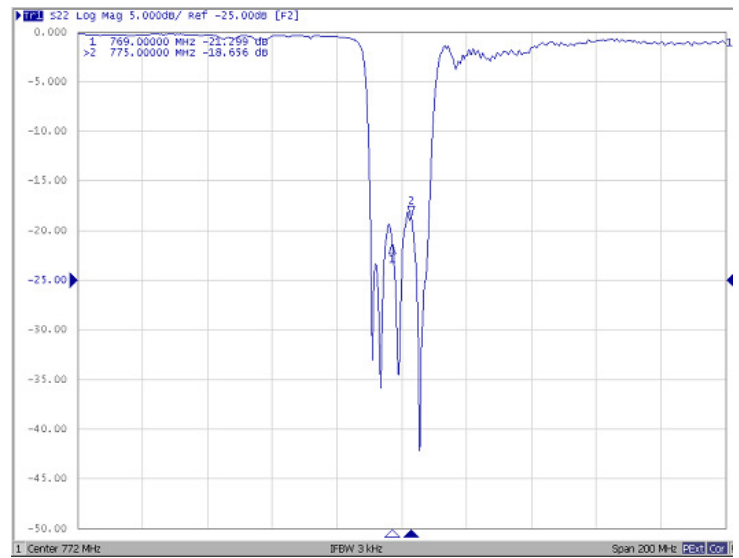
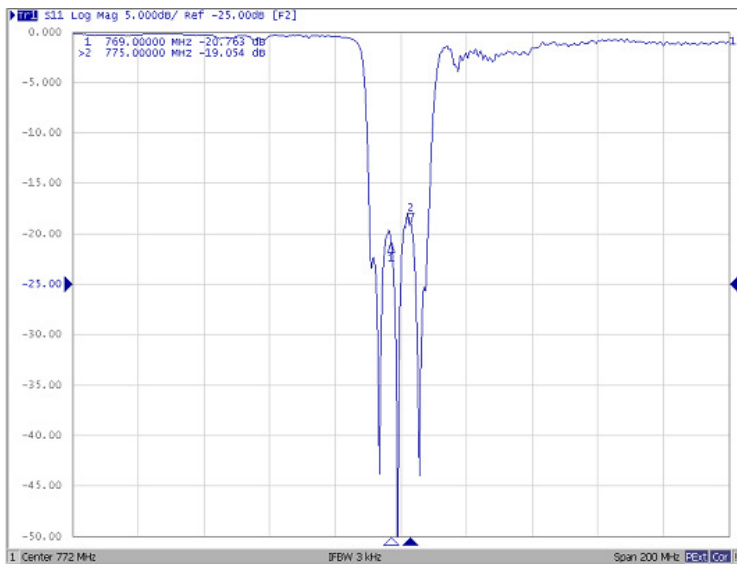
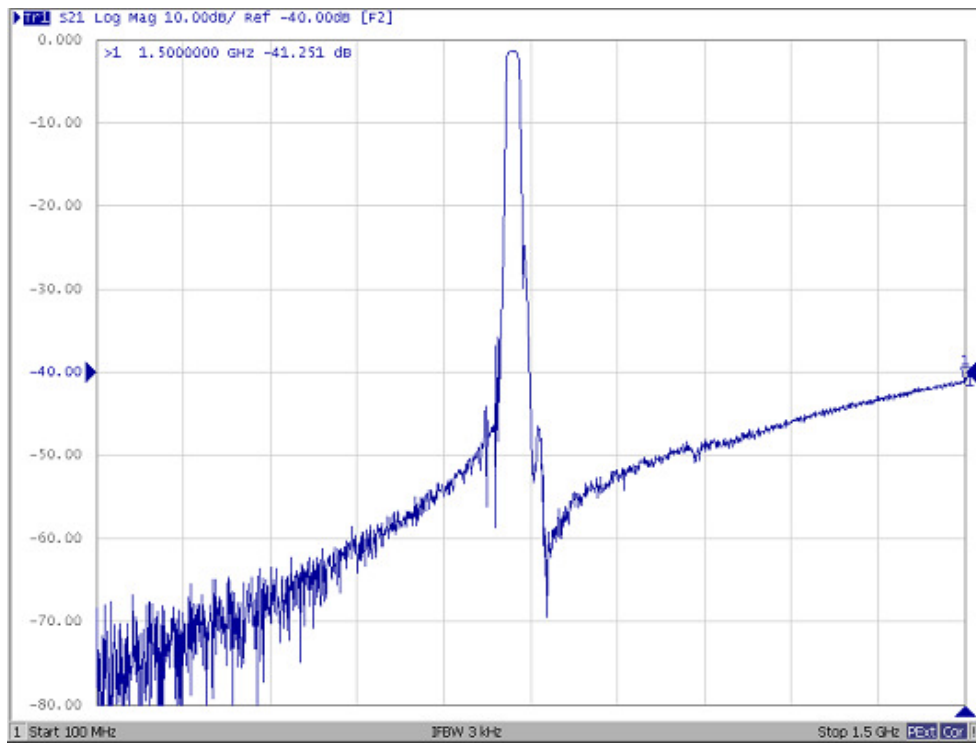
D. MEASUREMENT CIRCUIT:



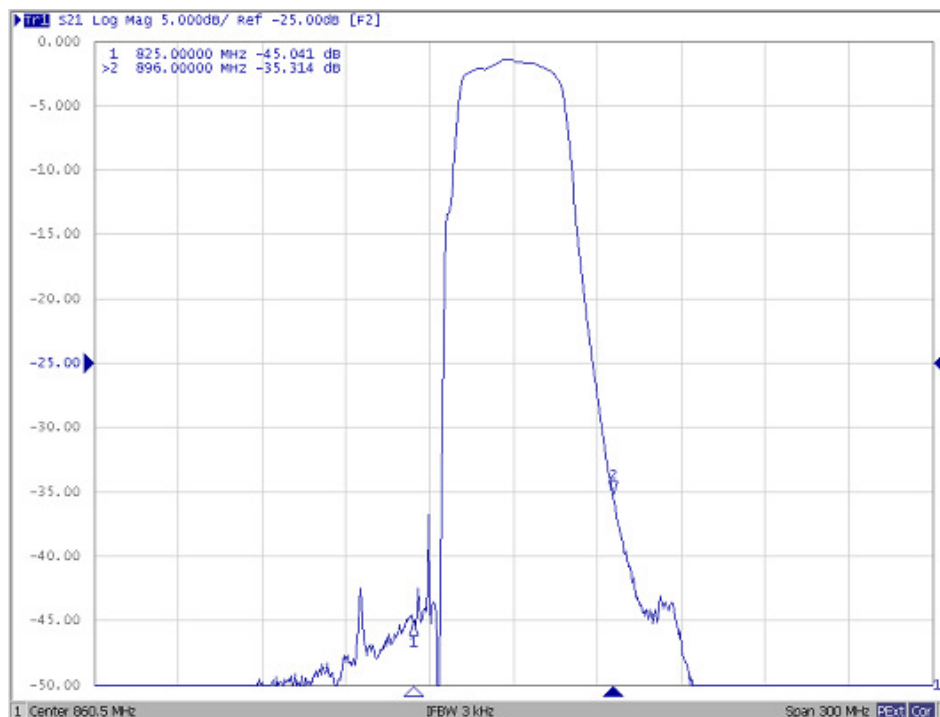
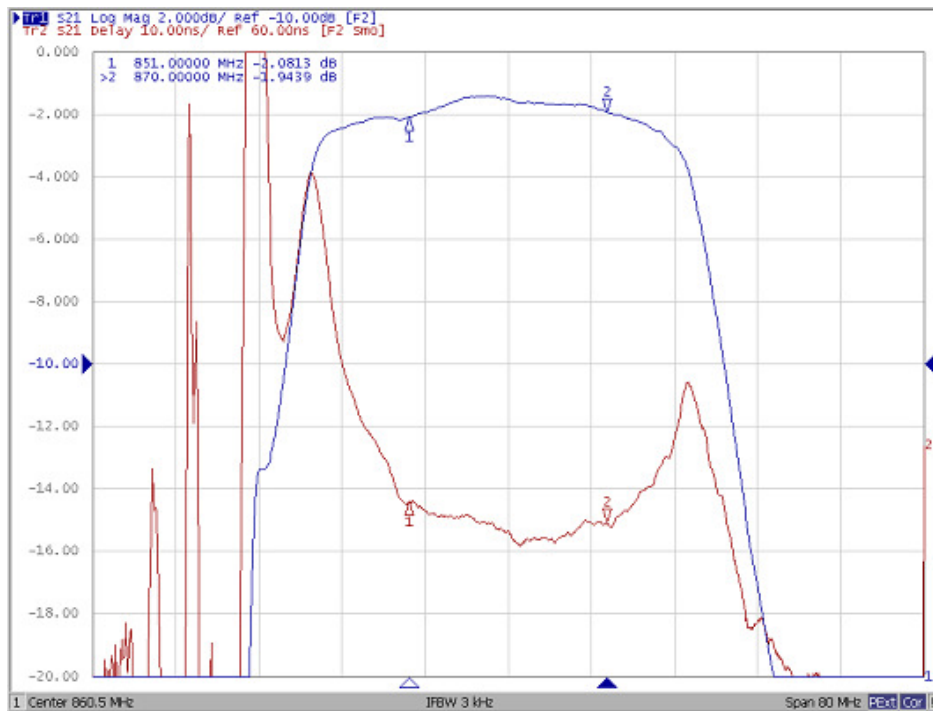
E. Frequency Characteristics:

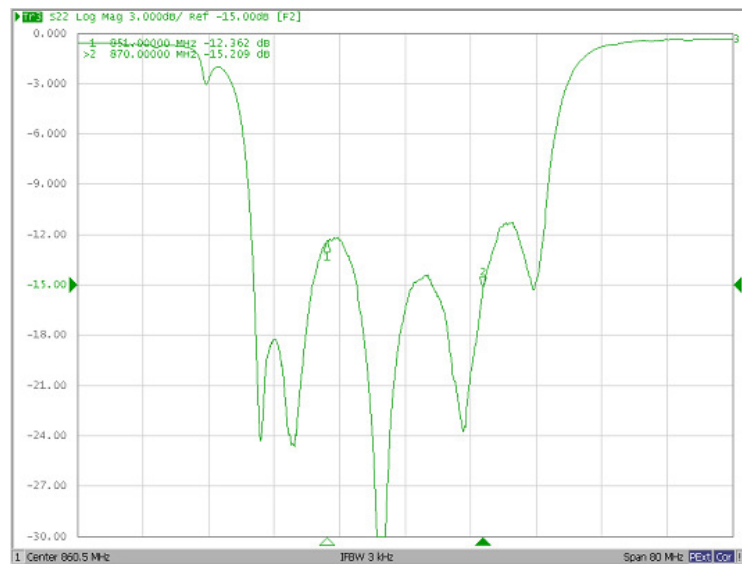
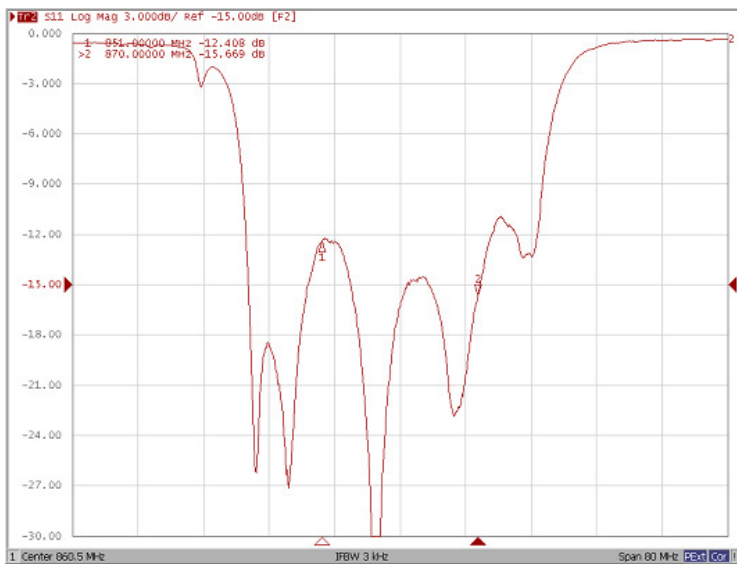
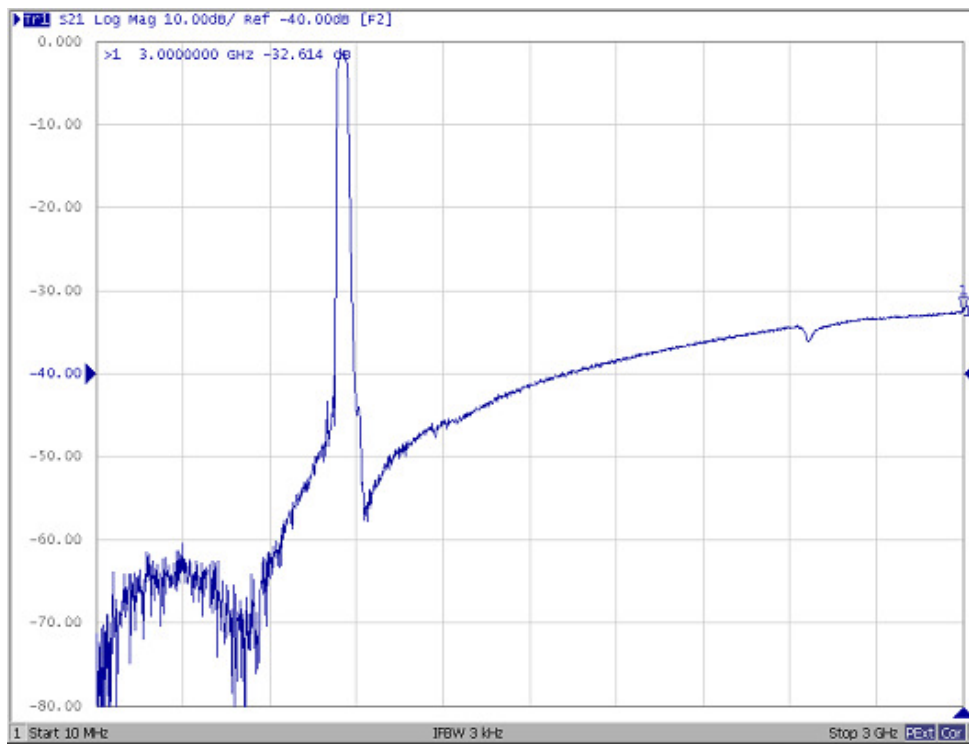
Filter 1





Filter 2

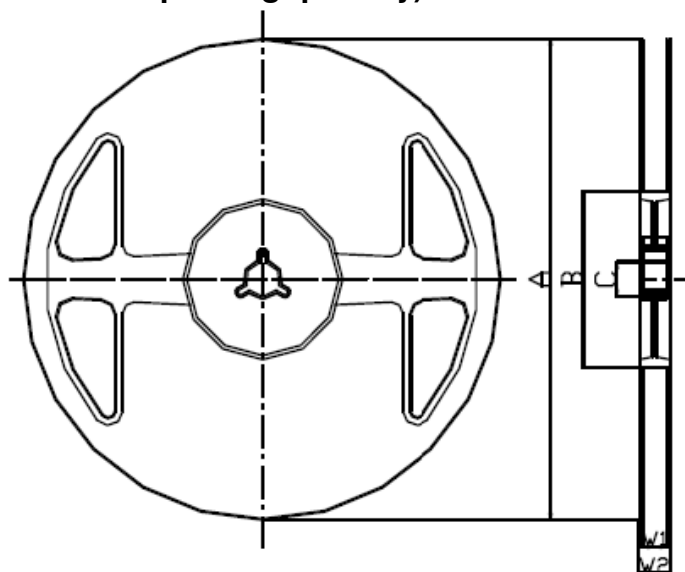




F. PACKING:

1. REEL DIMENSION

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



Materials of Reel

Material : Polystyrene + Carbon

Characteristics : Conforms to EIAJ-ET-7200A

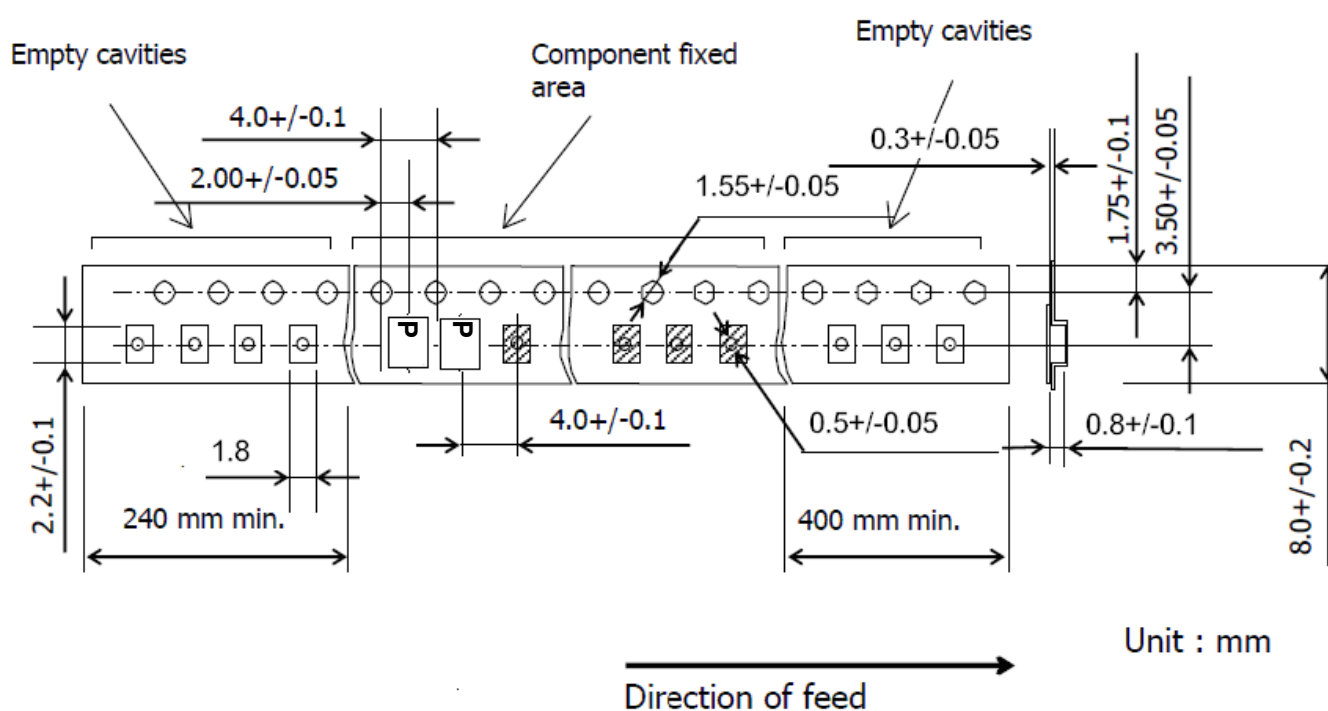
Color : Black

Surface resistance (reference value) : $10^9 \Omega/\text{sq}$ Max.

Unit : mm

Code	Quantity	A	B	C	W1	W2
Z	3,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/0.5$	$\phi 13.0 +/0.2$	$9.0 +1.0/-0.0$	$11.4 +/1.0$

2. TAPE DIMENSION



Unit : mm

G. 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 245~260°C peak (min. 10sec).
4. Time : 2 times.

