

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 : $T_{spec} = -30\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$

Terminating source impedance : $Z_s = 50\ \Omega$

Terminating load impedance : $Z_L = 50\ \Omega$

(Channel 1_772 MHz)

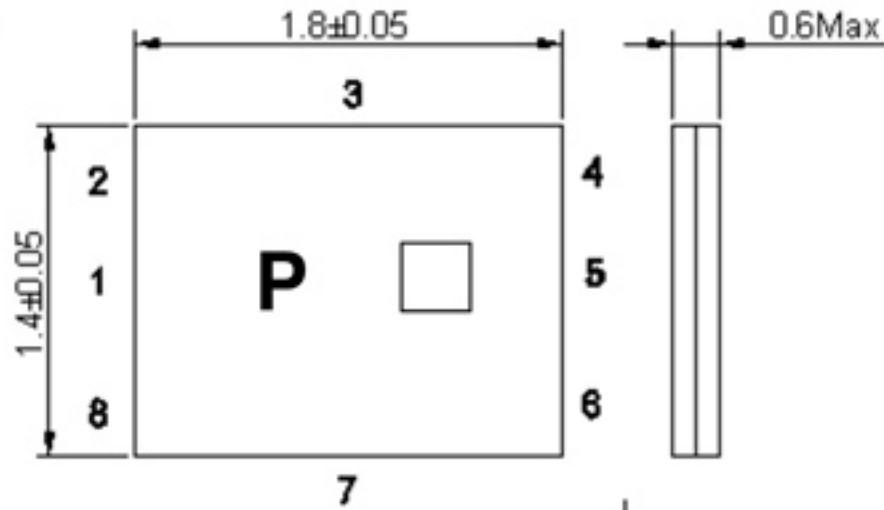
Item	Unit	Min	Typ	Max
Center frequency Fc	MHz	-	772	-
Insertion Loss (769.0~775.0 MHz) IL	dB	-	1.4	3
Ripple (769.0~775.0 MHz)	dB	-	0.1	1.5
Return Loss (769.0~775.0 MHz)	dB	9	17	-
Attenuation (Reference level from 0 dB)				
100 – 628 MHz	dB	45	55	-
628 – 700 MHz	dB	30	51	-
700 – 752 MHz	dB	20	35	-
788 – 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)

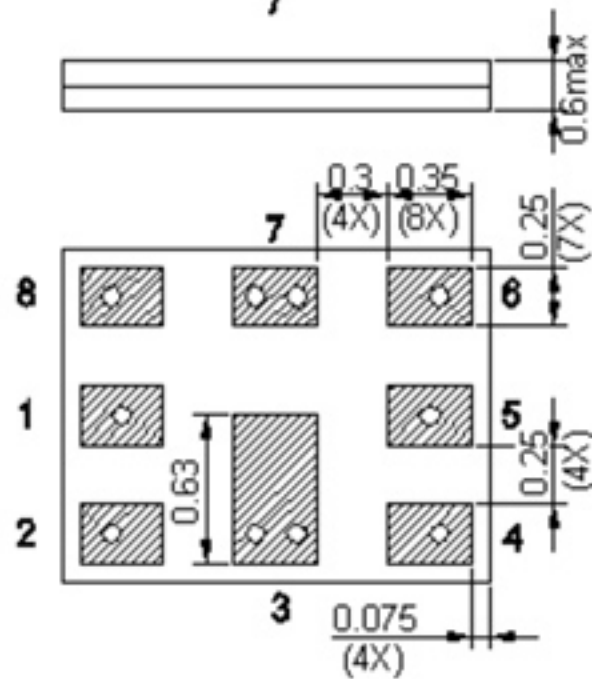
Item	Unit	Min	Typ	Max
Center frequency Fc	MHz	-	860.5	
Insertion Loss (851.0~870.0 MHz) IL	dB	-	2	2.5
Ripple (851.0~870.0 MHz)	dB	-	0.65	1.2
Return Loss (851.0~870.0 MHz)	dB	10	12	-
Attenuation (Reference level from 0 dB)				
DC – 688 MHz	dB	40	57	-
688 – 705 MHz	dB	40	55	-
769 – 788 MHz	dB	35	49	-
806 – 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:

top view



bottom view



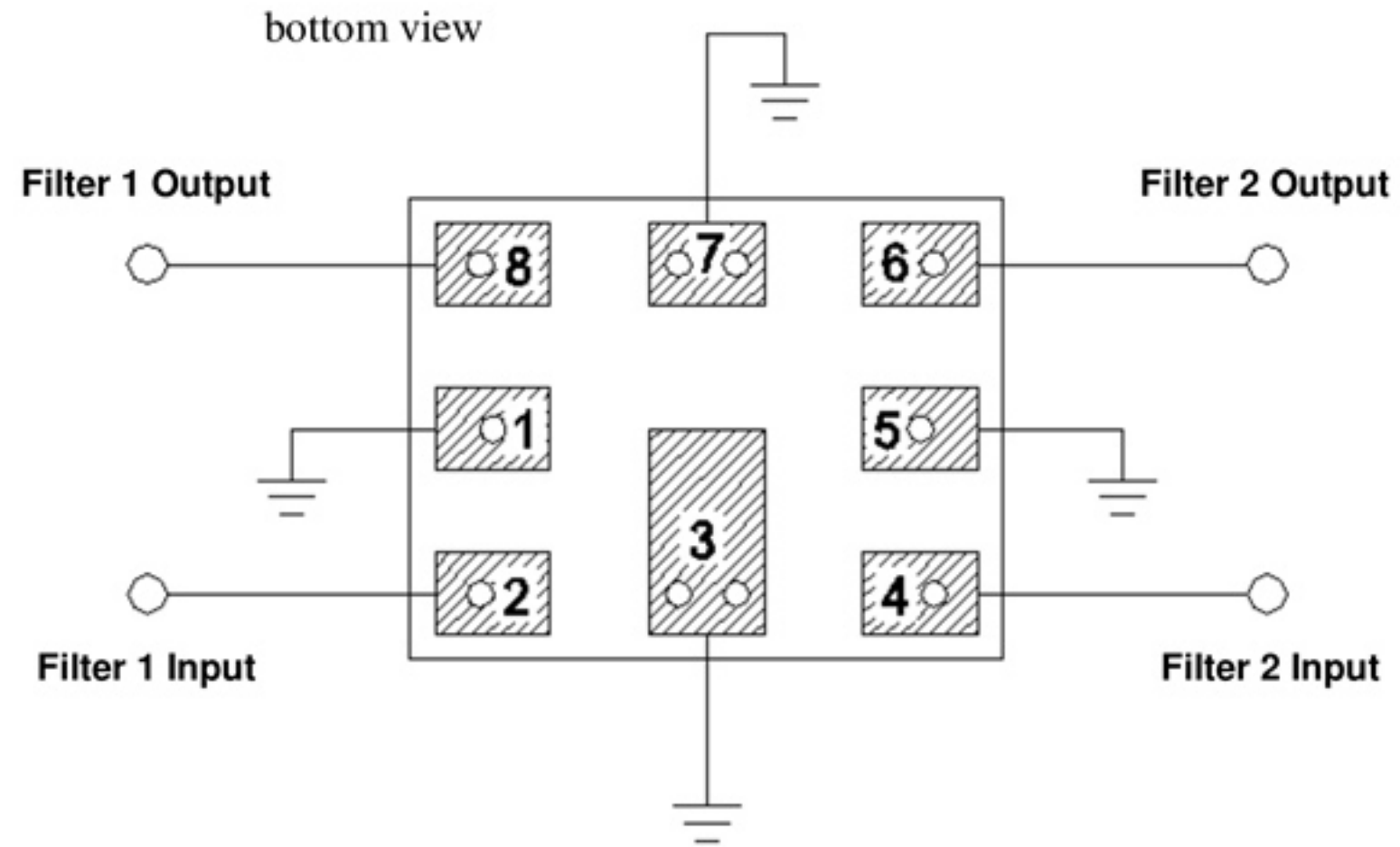
All tolerances are ± 0.05 mm unless otherwise specified
 Coplanarity : 0.1 mm max.
 1 to 8 : Pin No.
 Unit : mm

- 2 : Filter 1 Input
- 8 : Filter 1 Output
- 4 : Filter 2 Input
- 6 : Filter 2 Output
- 1,3,5,7 : Ground

□ : Year/Month Code (Follow the table)

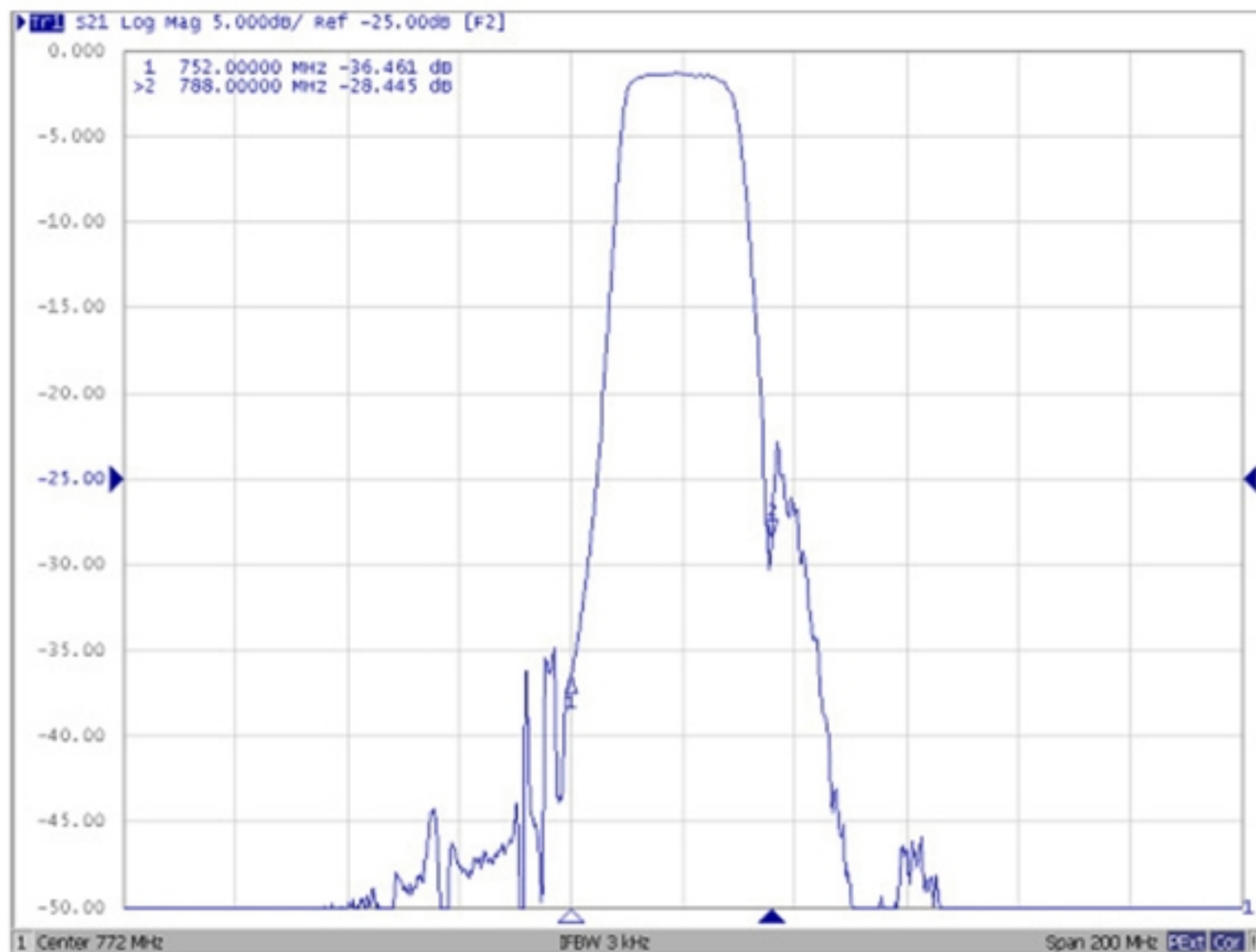
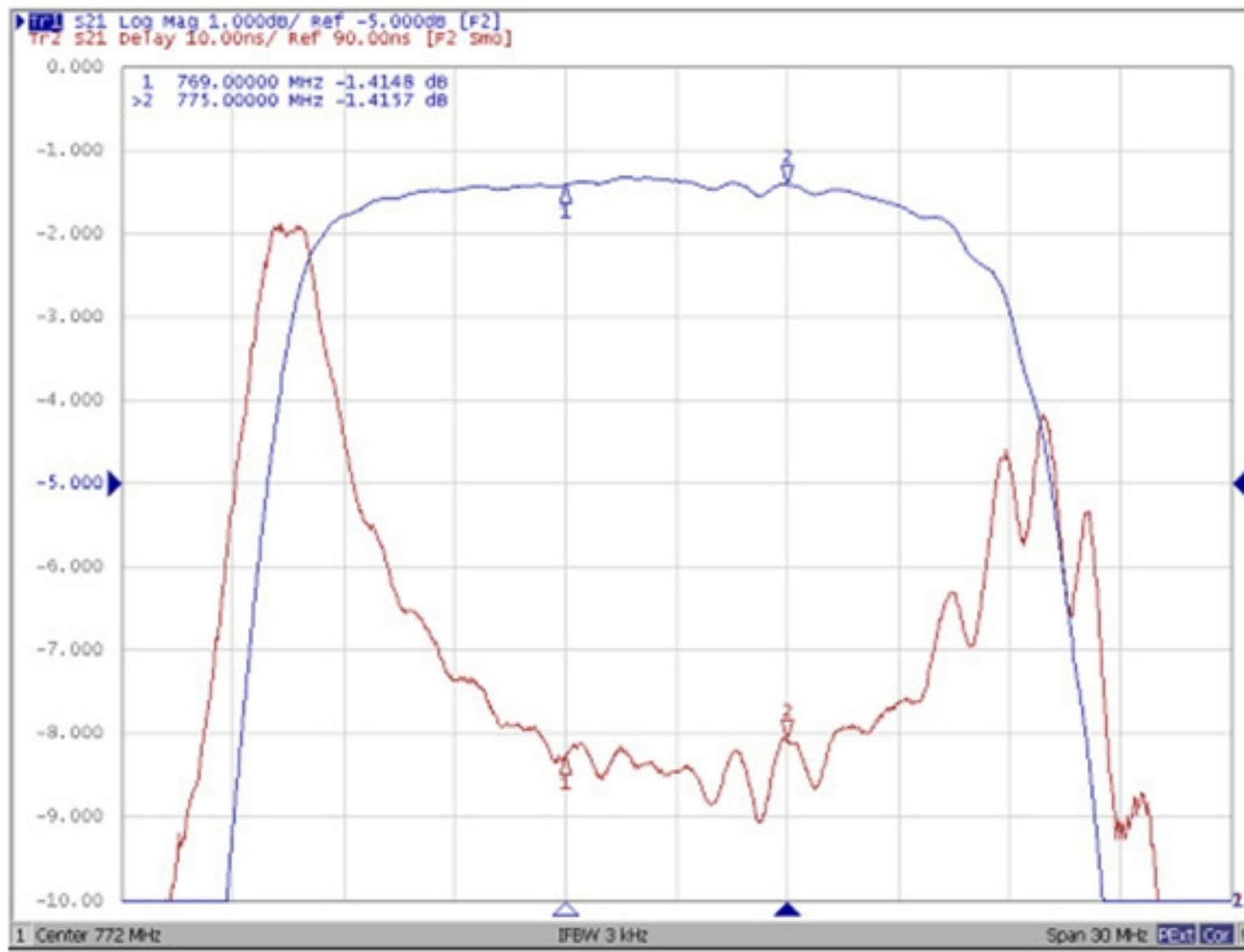
YEAR/Month	1	2	3	4	5	6	7	8	9	10	11	12
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>J</u>	<u>K</u>	<u>L</u>	<u>M</u>
2018	<u>N</u>	<u>P</u>	<u>Q</u>	<u>R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

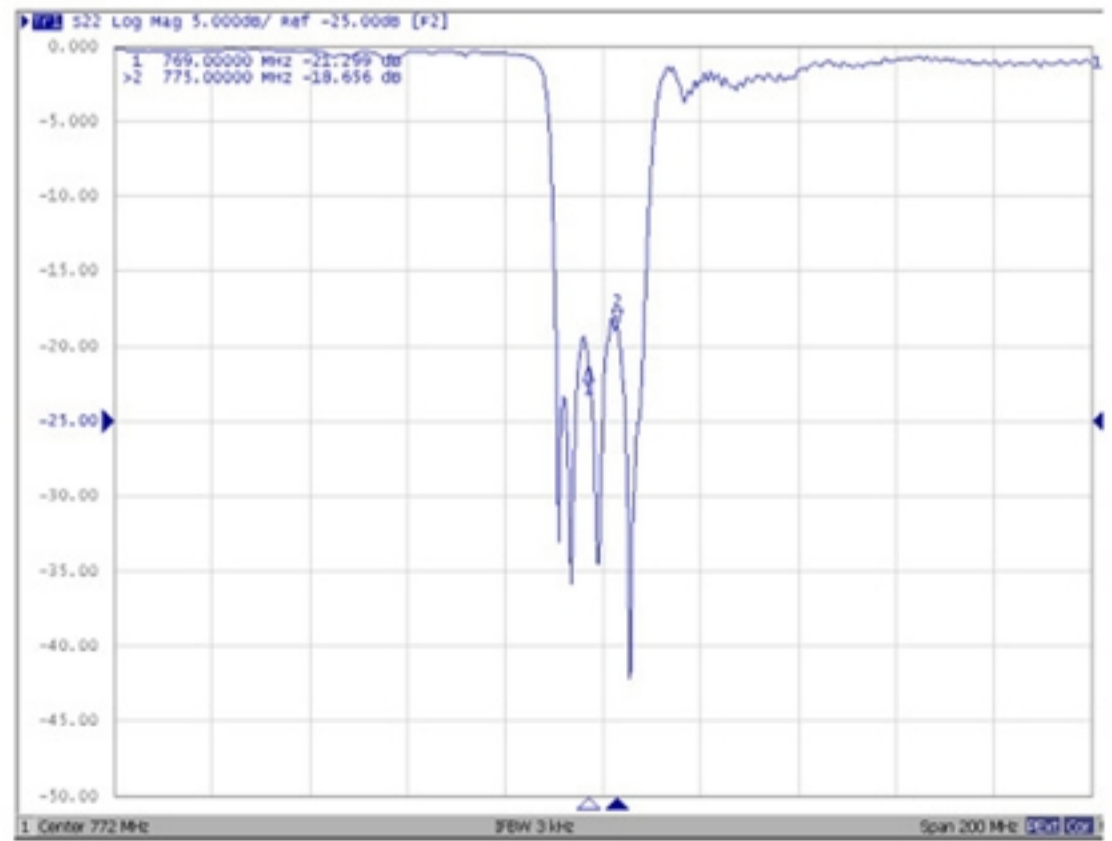
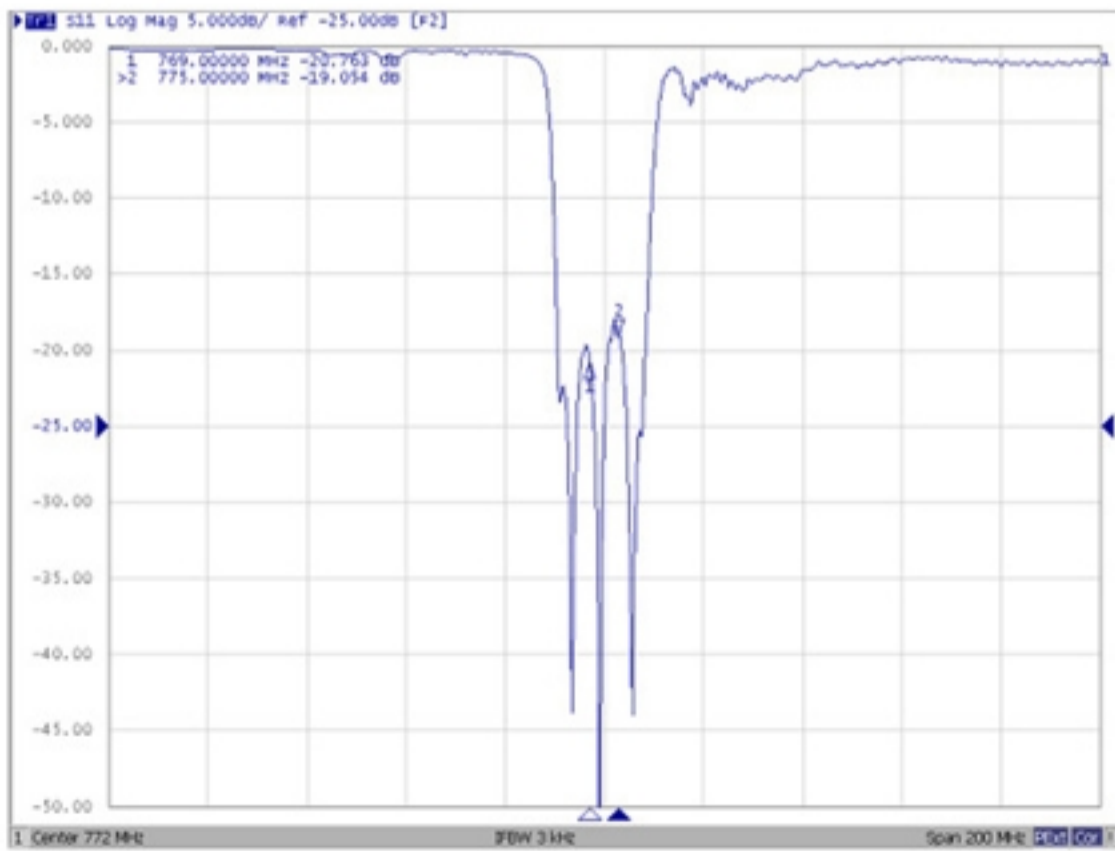
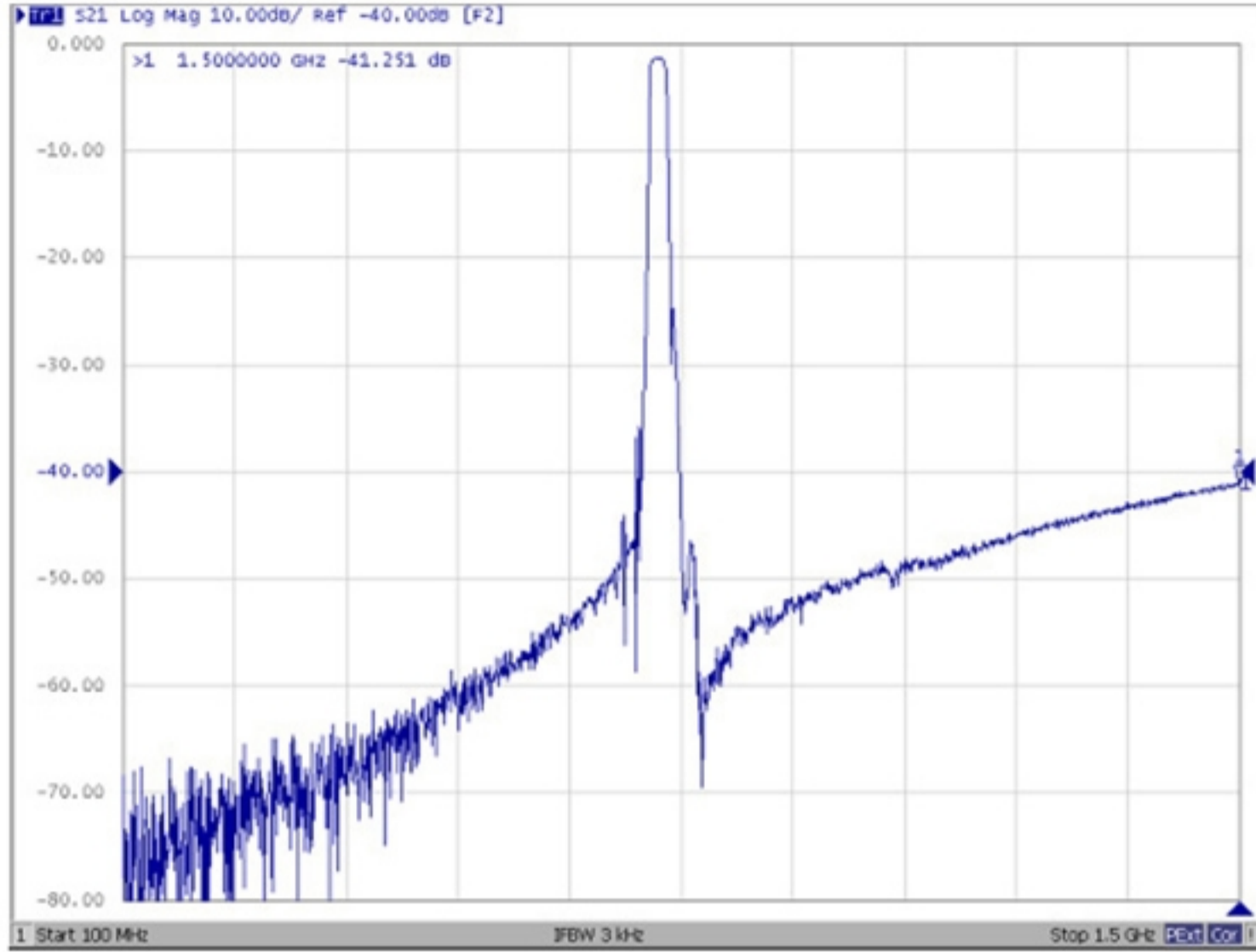
D. MEASUREMENT CIRCUIT:



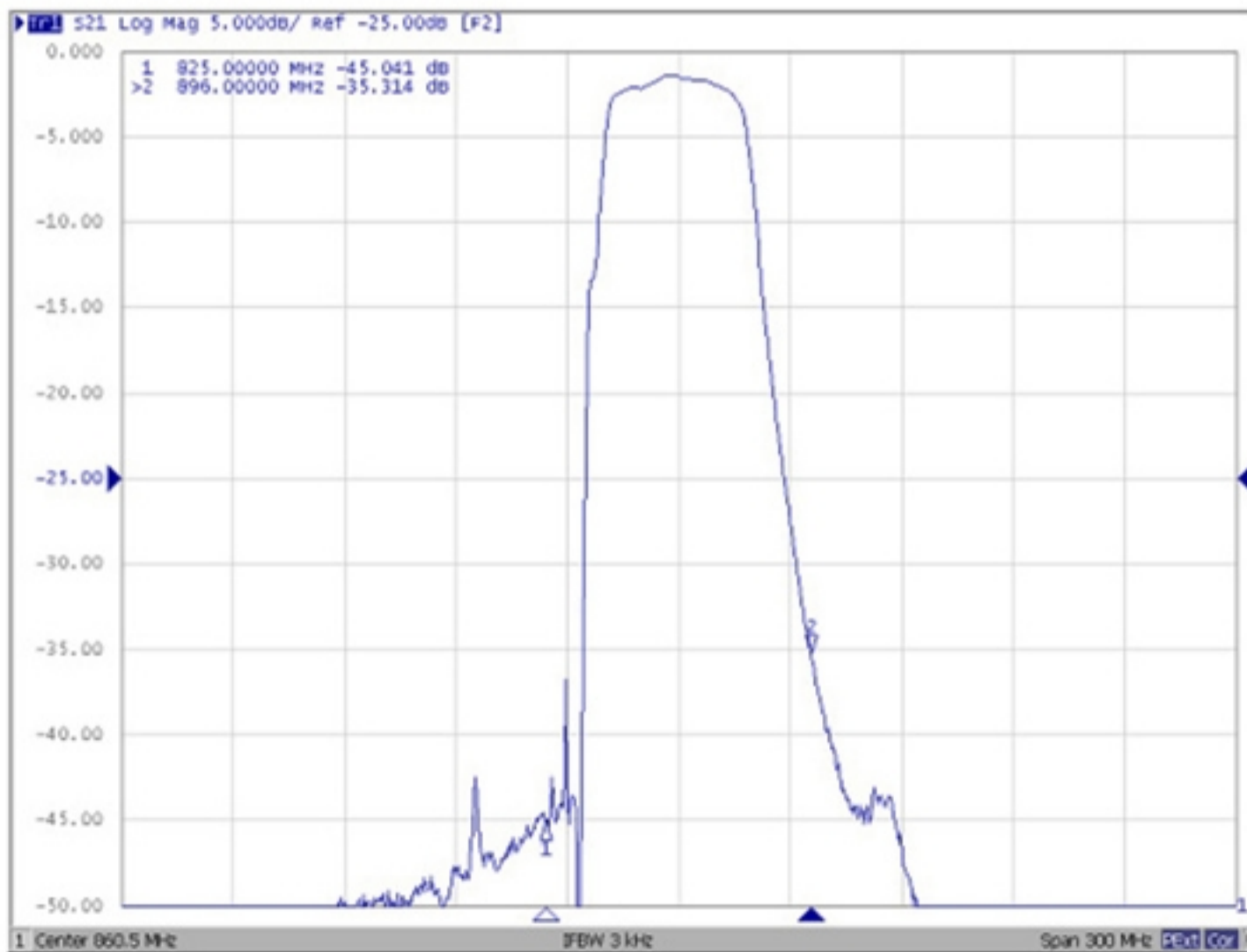
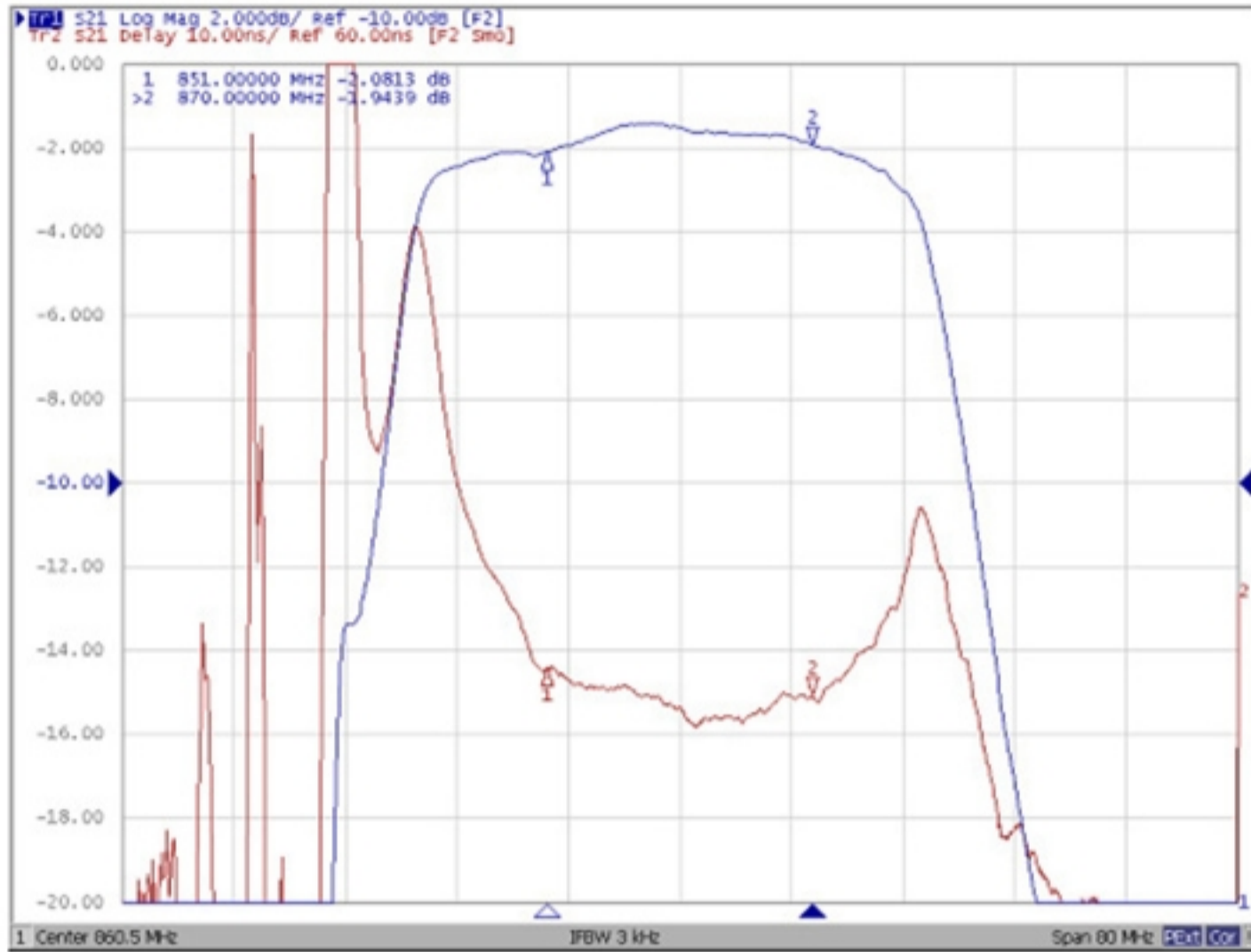
E. Frequency Characteristics:

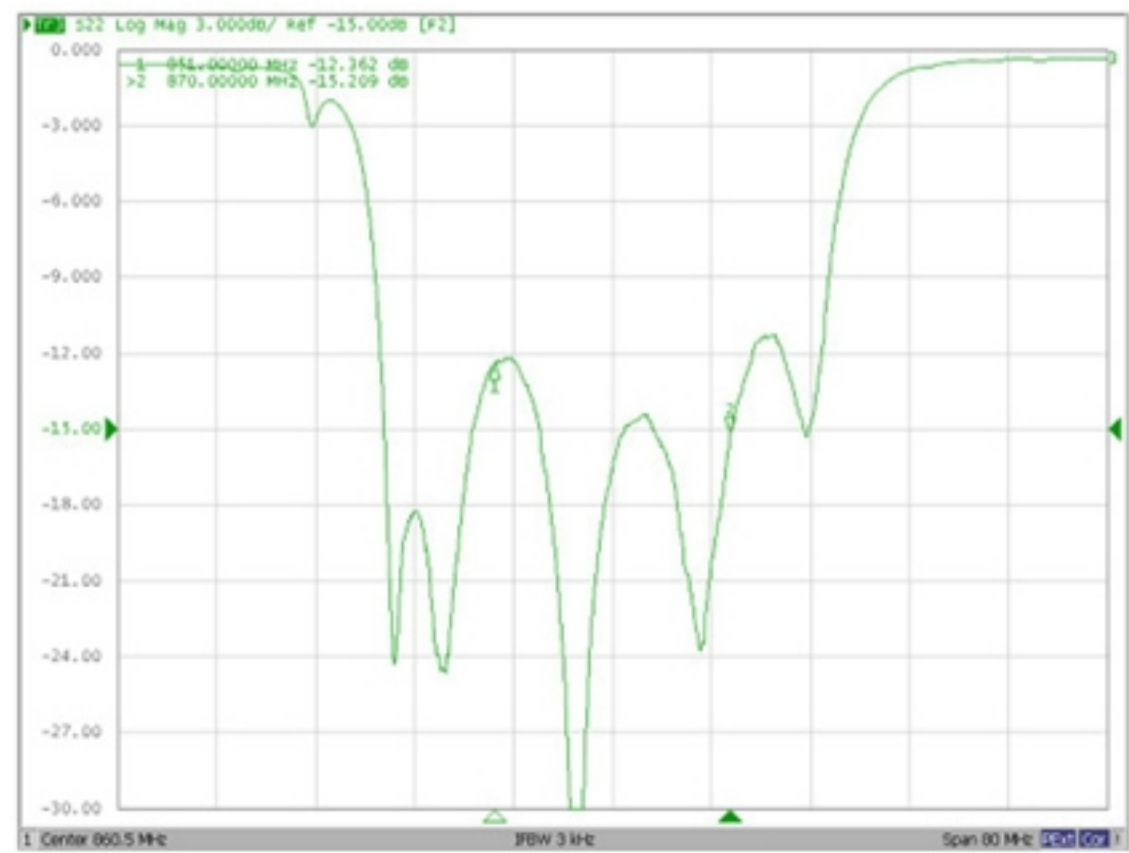
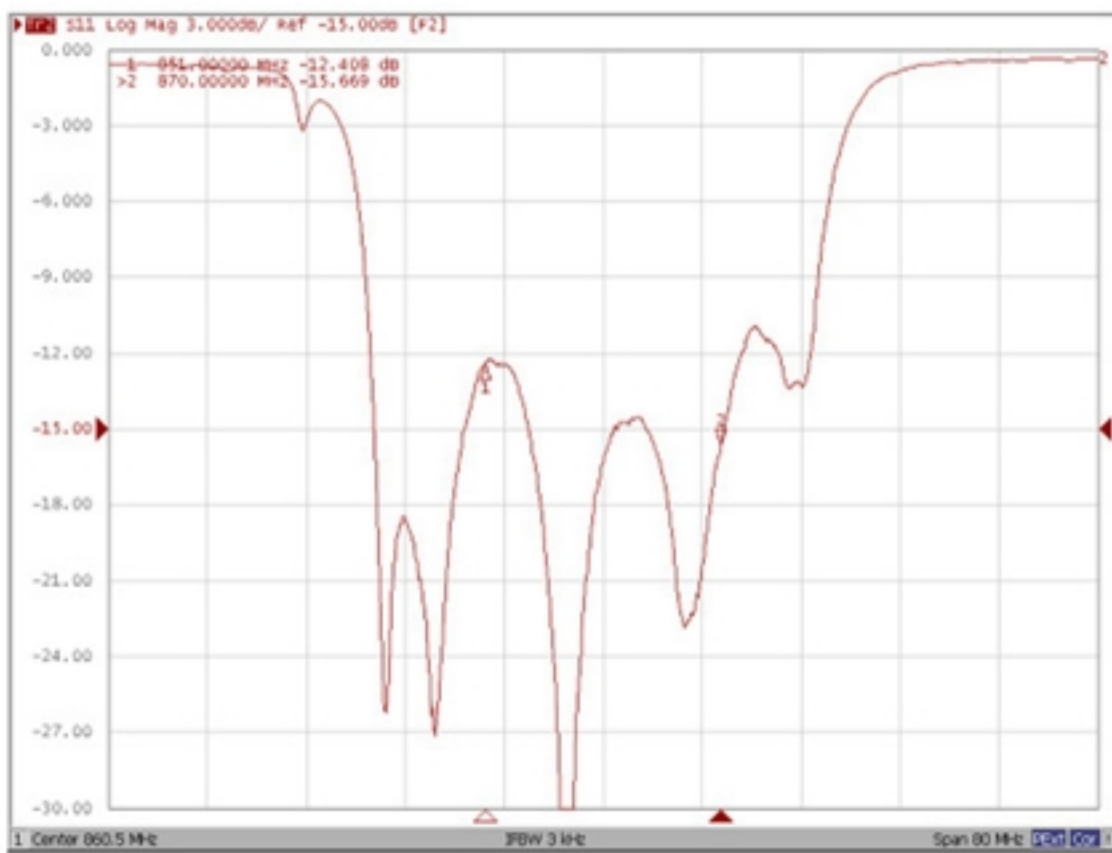
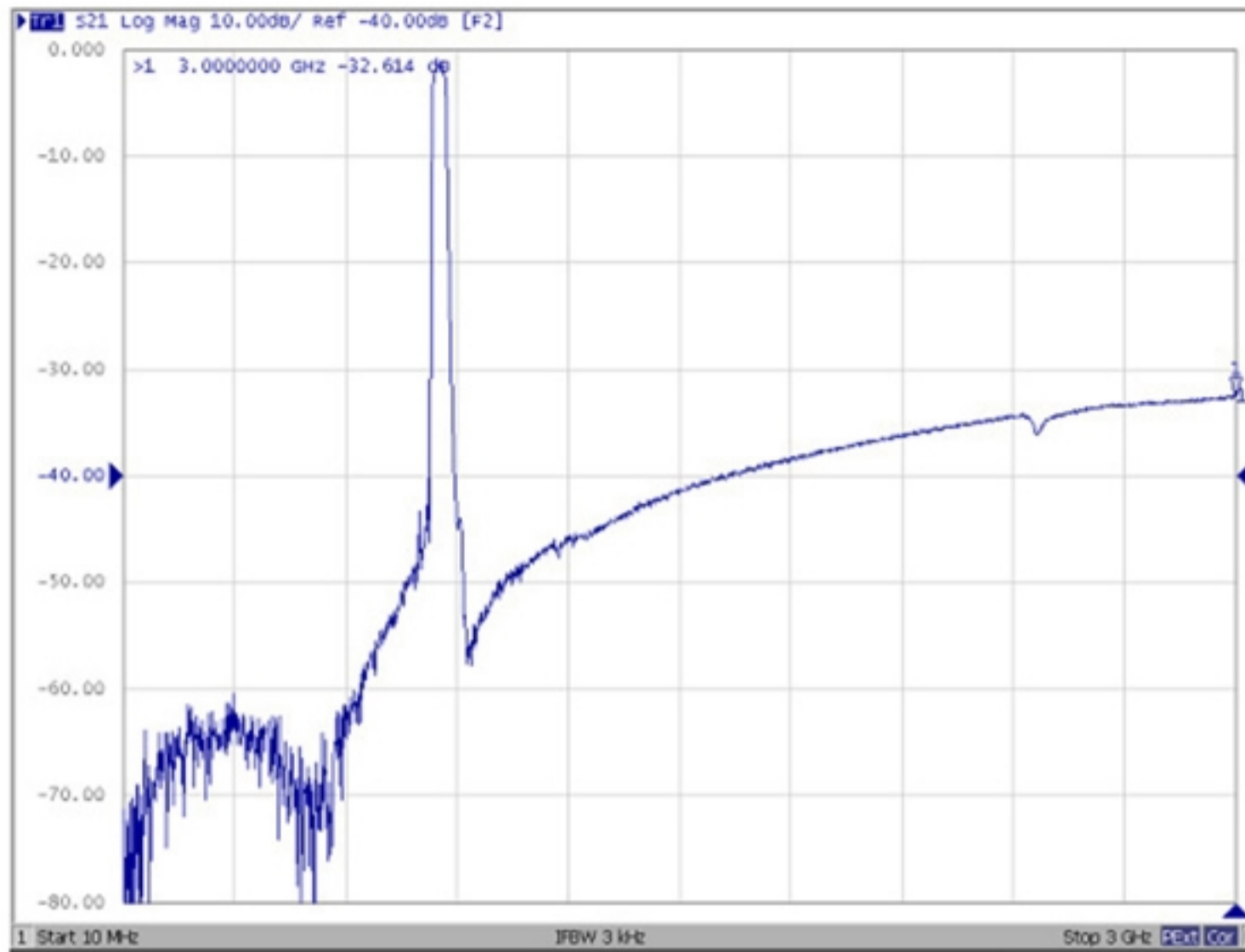
Filter 1





Filter 2

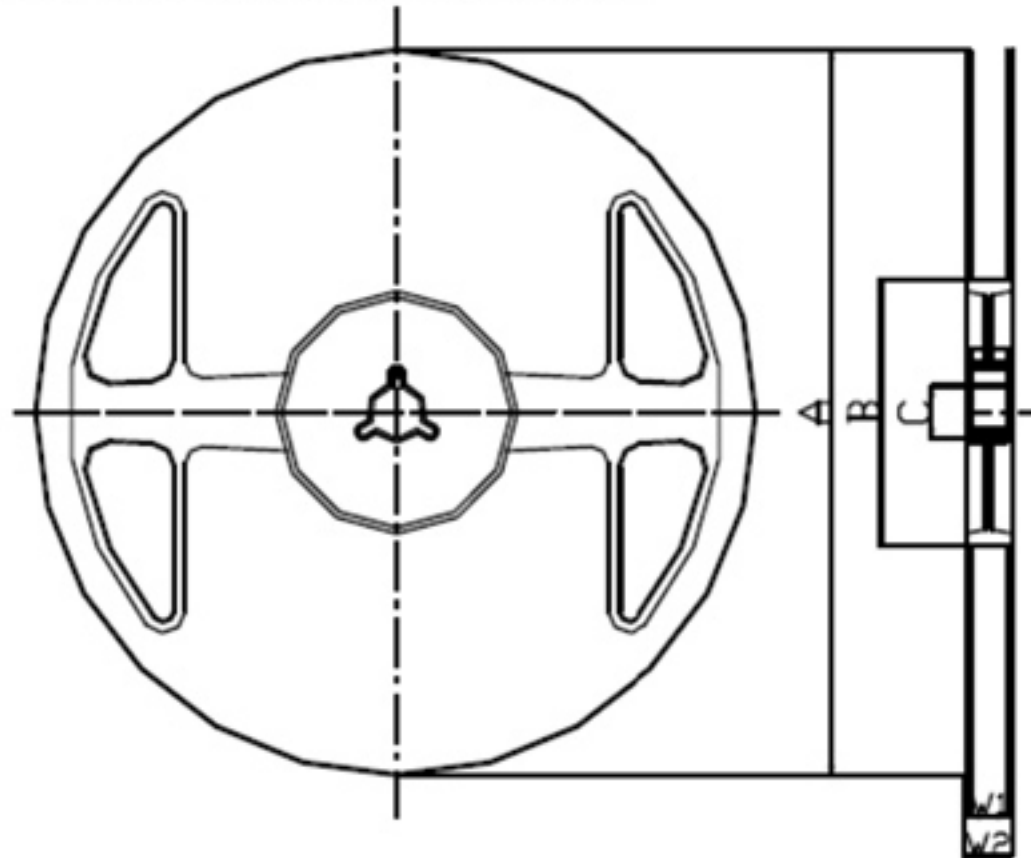




F. PACKING:

1. REEL DIMENSION

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



Materials of Reel

Material : Polystyrene + Carbon

Characteristics : Conforms to EIAJ-ET-7200A

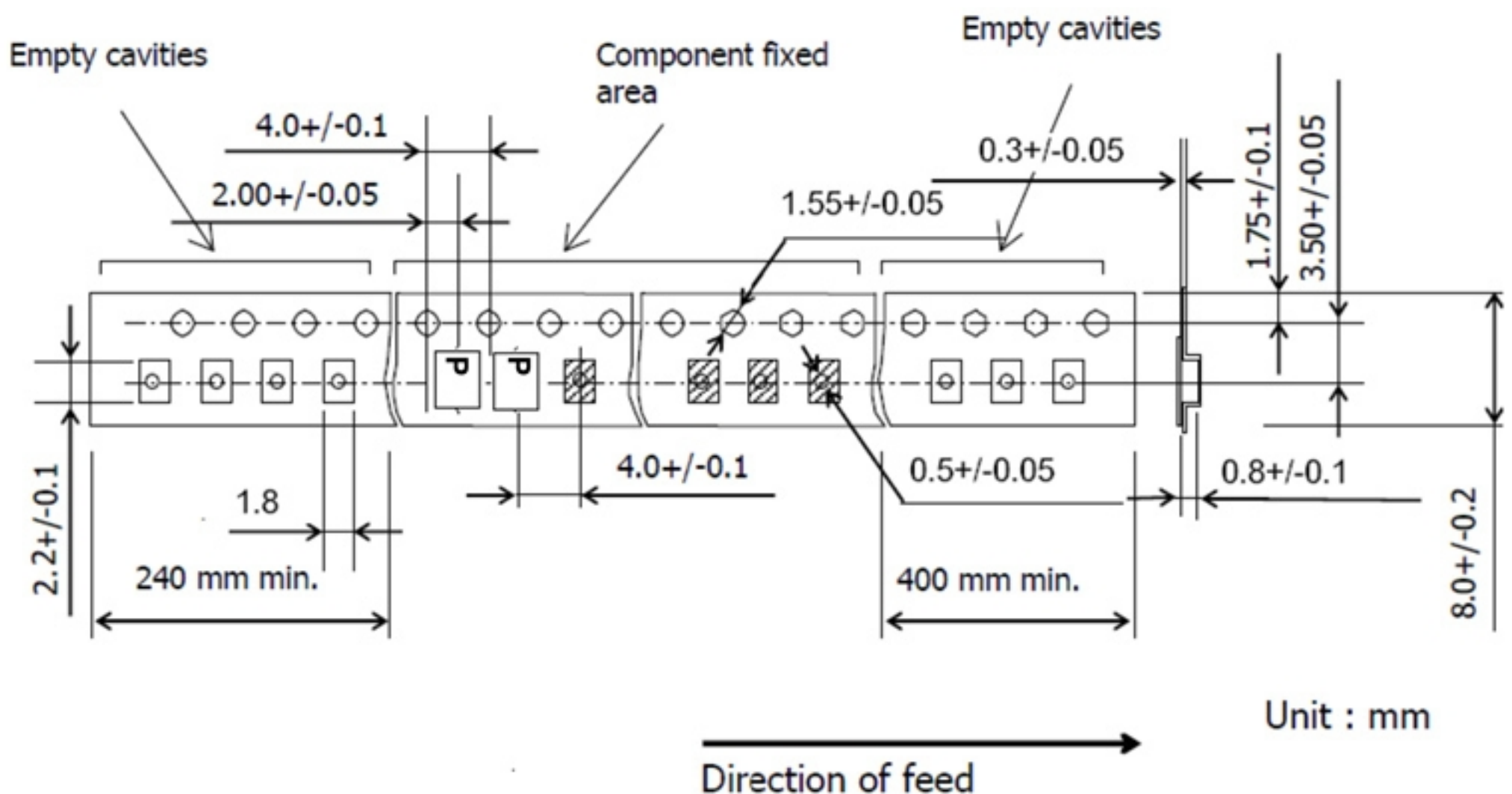
Color : Black

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.

