TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Description: Dual SAW Filter 460 / 420 MHz SMD 5X5 mm

TST Part No.: TE0114A

Customer Part No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Bob Chau _____

Approved by:_____ Francis Chen _____

Date:_____ 12, 5, 2011 _____

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.

TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Dual SAW Filter 460 / 420 MHz

MODEL NO.:TE0114A REV. NO.:1

A. MAXIMUM RATING of FILTER 1:

1. Input Power Level: 10 dBm
2. DC Voltage : 5V
3. Operating Temperature: -30°C to +60°C
4. Storage Temperature: -40°C to +85°C

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS of FILTER 1:

Item		Unit	Min.	Typ.	Max.	Note
Center Frequency	**Fc**	MHz	-	460	-	-
Insertion Loss (450~470 MHz)	**IL**	dB	-	2.1	3.2	-
Amplitude Ripple (450~470 MHz)		dB	-	0.5	2.4	-
Return Loss (450~470 MHz)		dB	10	12	-	-
Attenuation (Reference level from 0 dB)						
0.1 ~ 300 MHz		dB	30	56	-	-
300 ~ 380 MHz		dB	24	50	-	-
380 ~ 430 MHz		dB	12	29	-	-
504.825 ~ 524.825 MHz		dB	12	35	-	-
559.65 ~ 579.65 MHz		dB	28	49	-	-
597 ~ 617 MHz		dB	38	45	-	-
669.3 ~ 689.3 MHz		dB	24	39	-	-
689.3 ~ 1000 MHz		dB	26	38	-	-
Temperature Coefficient of Frequency		ppm/℃	-	-75	-	-

C. MAXIMUM RATING of FILTER 2:

3. Input Power Level: 10 dBm
4. DC Voltage : 5V
3. Operating Temperature: -30°C to +60°
5. Storage Temperature: -40°C to +85°C

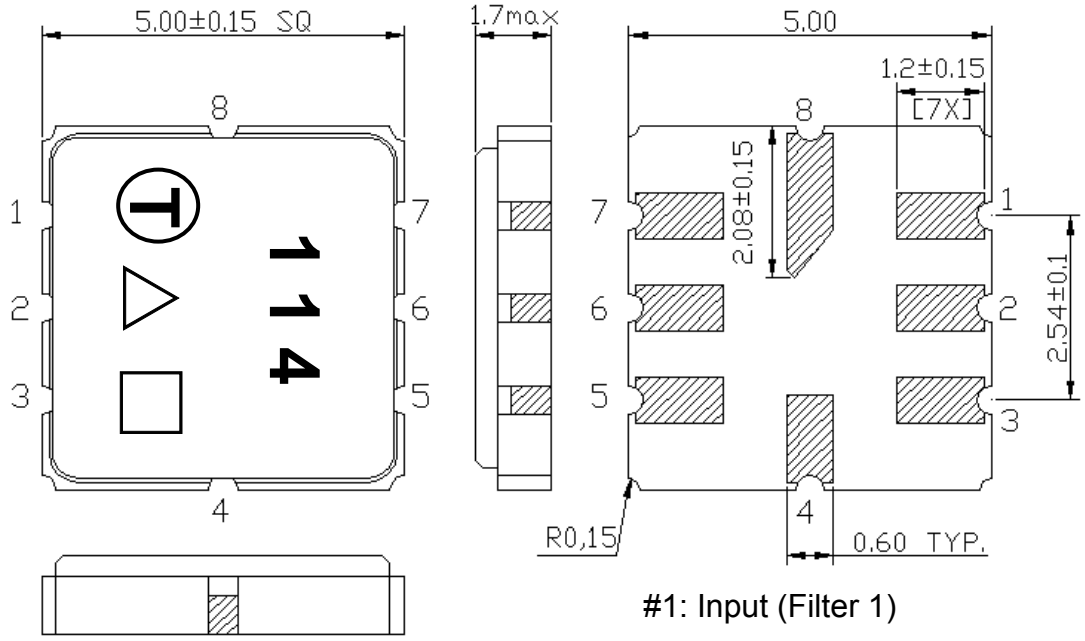
RoHS Compliant
Lead free
Lead-free soldering

Electrostatic **S**ensitive **D**evice (**ESD**)

D. ELECTRICAL CHARACTERISTICS of FILTER 2:

Item		Unit	Min.	Typ.	Max.	Note
Center Frequency	**Fc**	MHz	-	420	-	-
Insertion Loss (410~430 MHz)	**IL**	dB	-	2.1	3.3	-
Amplitude Ripple (410~430 MHz)		dB	-	0.5	2.2	-
Return Loss (410~430 MHz)		dB	9	10	-	-
Attenuation (Reference level from 0 dB)						
0.1 ~ 150 MHz		dB	35	58	-	-
204 ~ 216 MHz		dB	30	60	-	-
246 ~ 270 MHz		dB	30	59	-	-
272 ~ 301 MHz		dB	35	56	-	-
328 ~ 344 MHz		dB	30	51	-	-
345 ~ 360 MHz		dB	25	49	-	-
369 ~ 387 MHz		dB	16	43	-	-
451 ~ 473 MHz		dB	15	17	-	-
477 ~ 491 MHz		dB	25	49	-	-
492 ~ 516 MHz		dB	30	45	-	-
532 ~ 573 MHz		dB	30	45	-	-
557 ~ 577 MHz		dB	38	45	-	-
574 ~ 602 MHz		dB	33	45	-	-
602 ~ 1000 MHz		dB	27	38	-	-
Temperature Coefficient of Frequency		ppm/℃	-	-75	-	-

E.OUTLINE DRAWING:



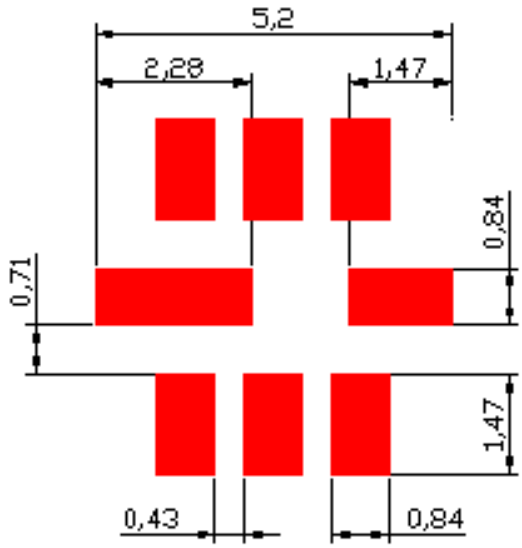
#1: Input (Filter 1)
#3: Input (Filter 2)
#5: Output (Filter 2)
#7: Output (Filter 1)
#2,6 : To be grounded
#4,8: Case ground
Unit: mm

△ : Product / Year Code

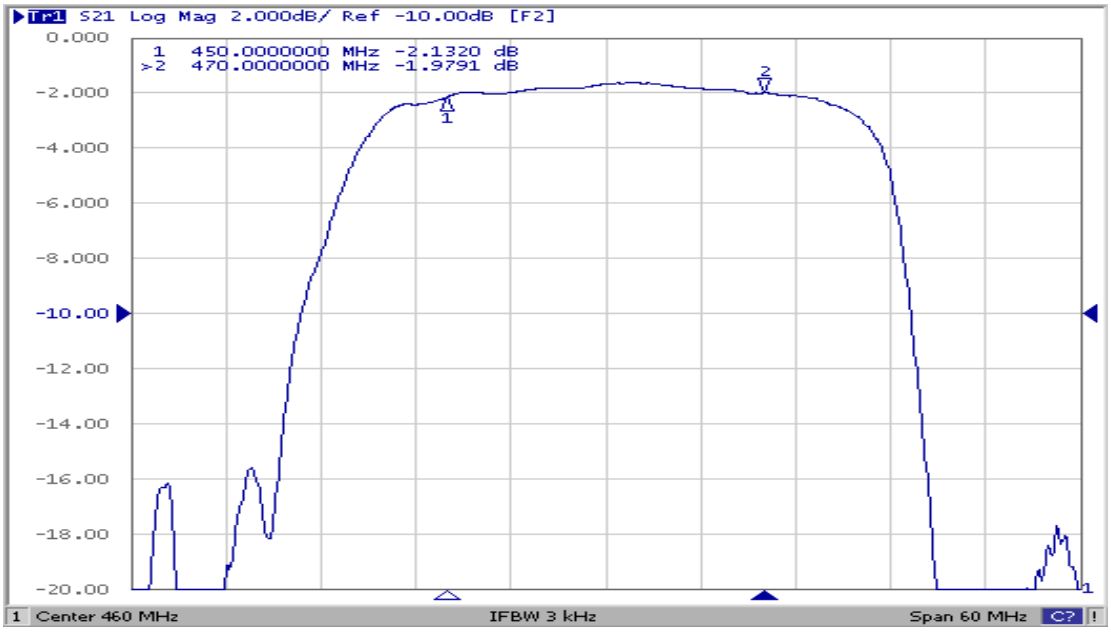
Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	E	e	E	e

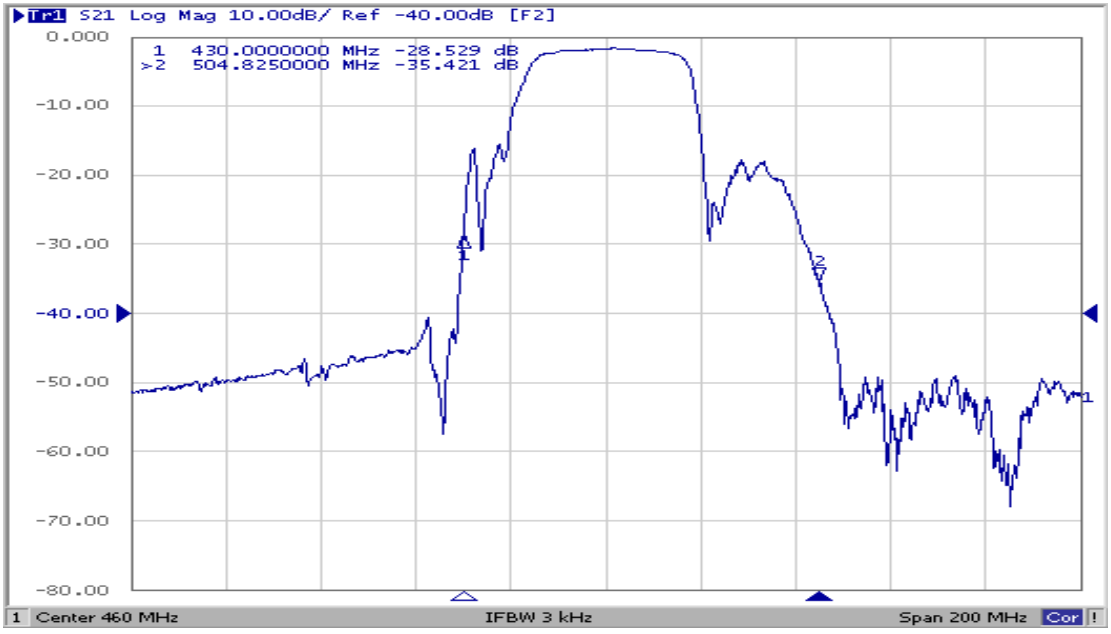
□ : Date Code (W01->A,W02->B,…W27->a,…,W52->z)

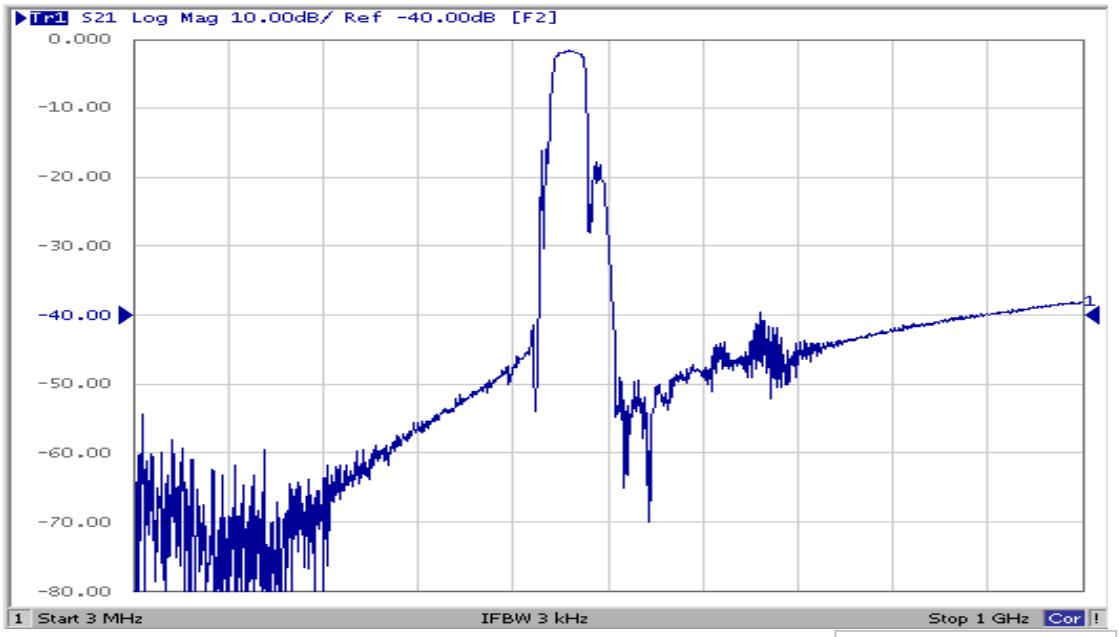
F. PCB Footprint:



G. Frequency Characteristics : (Filter 1)

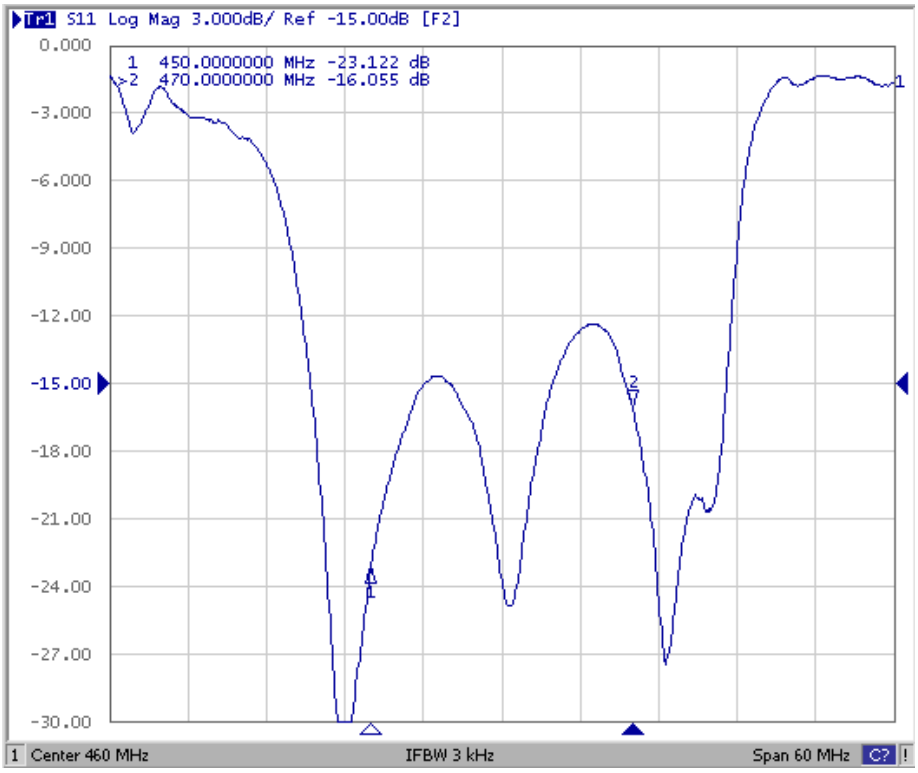




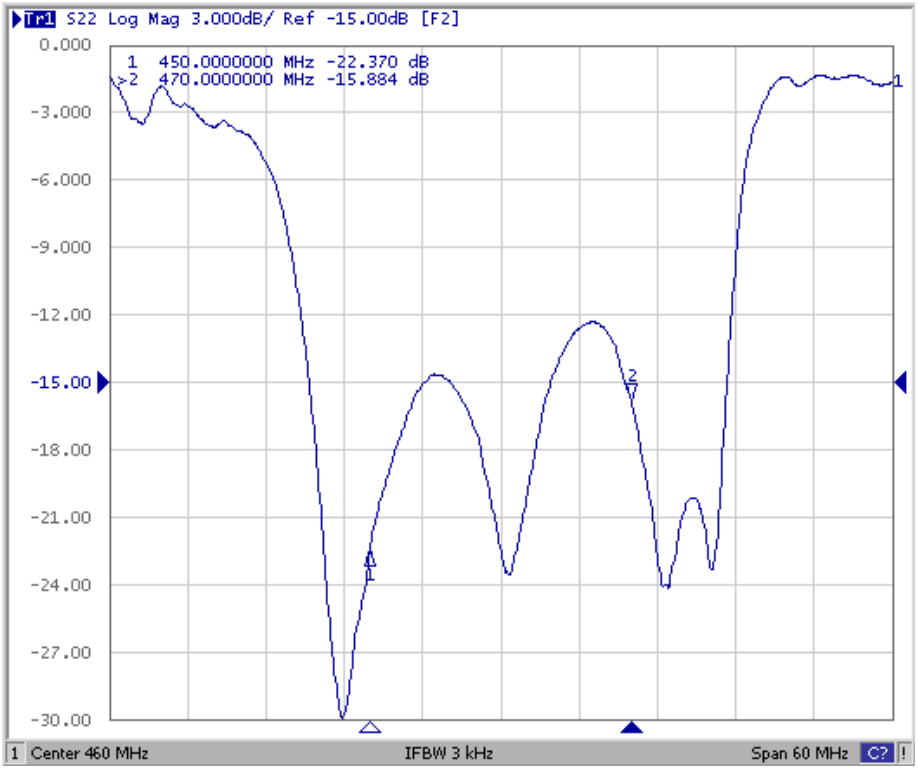


Reflection Functions : (Filter 1)

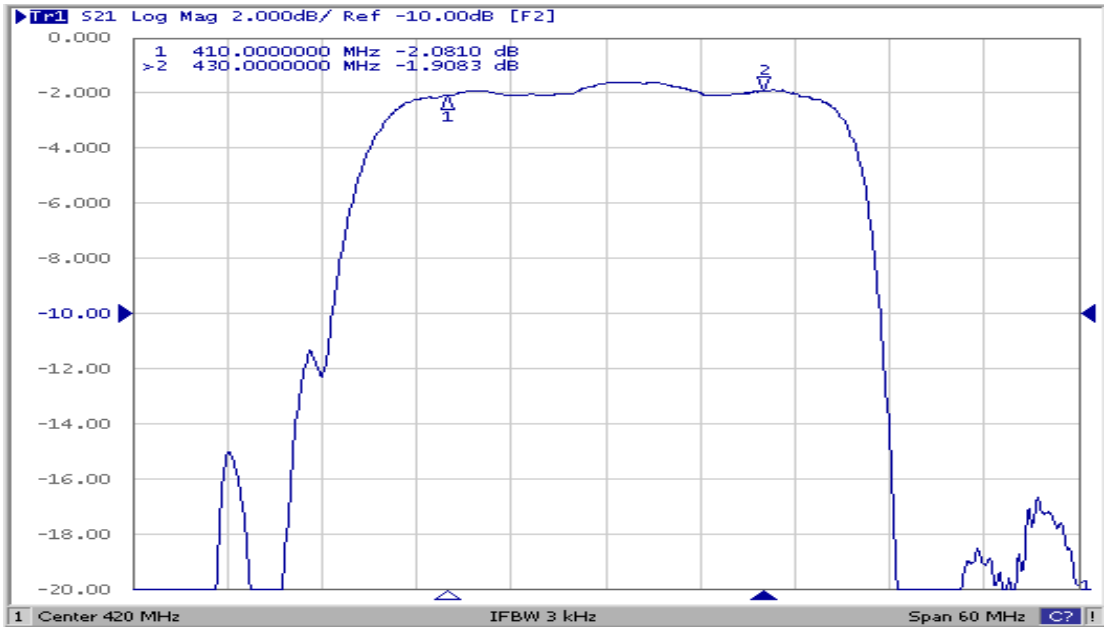
S11

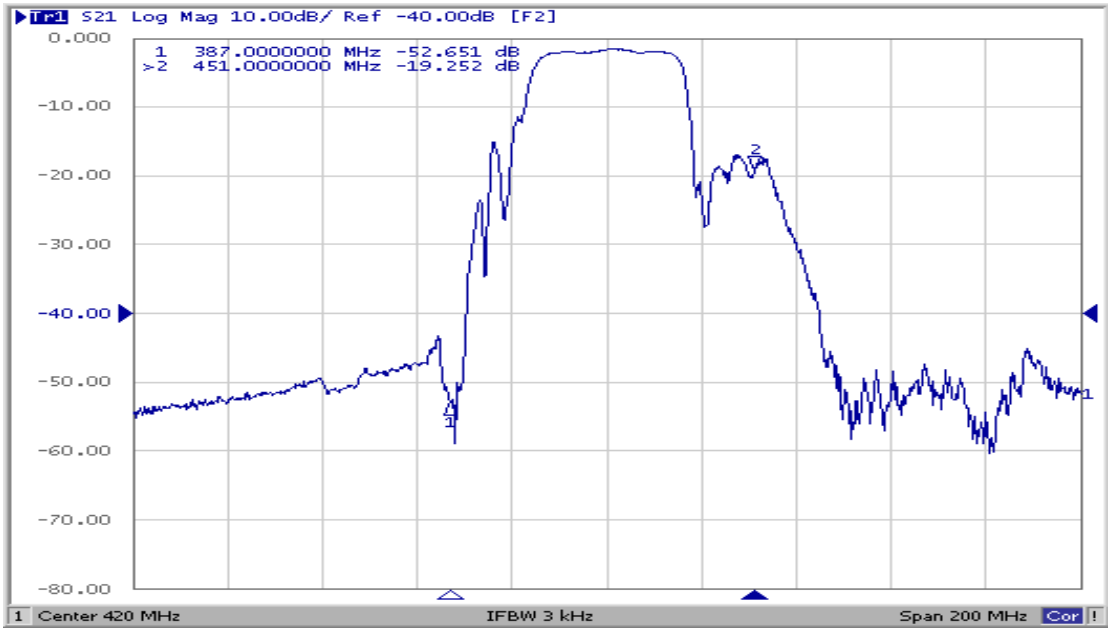


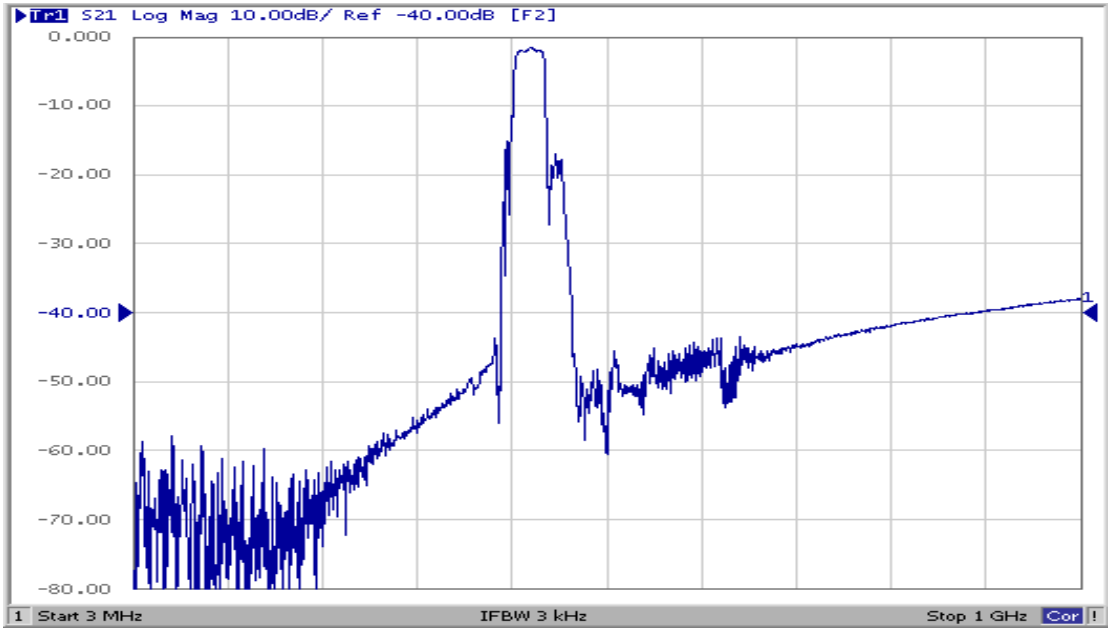
S22



H. Frequency Characteristics : (Filter 2)

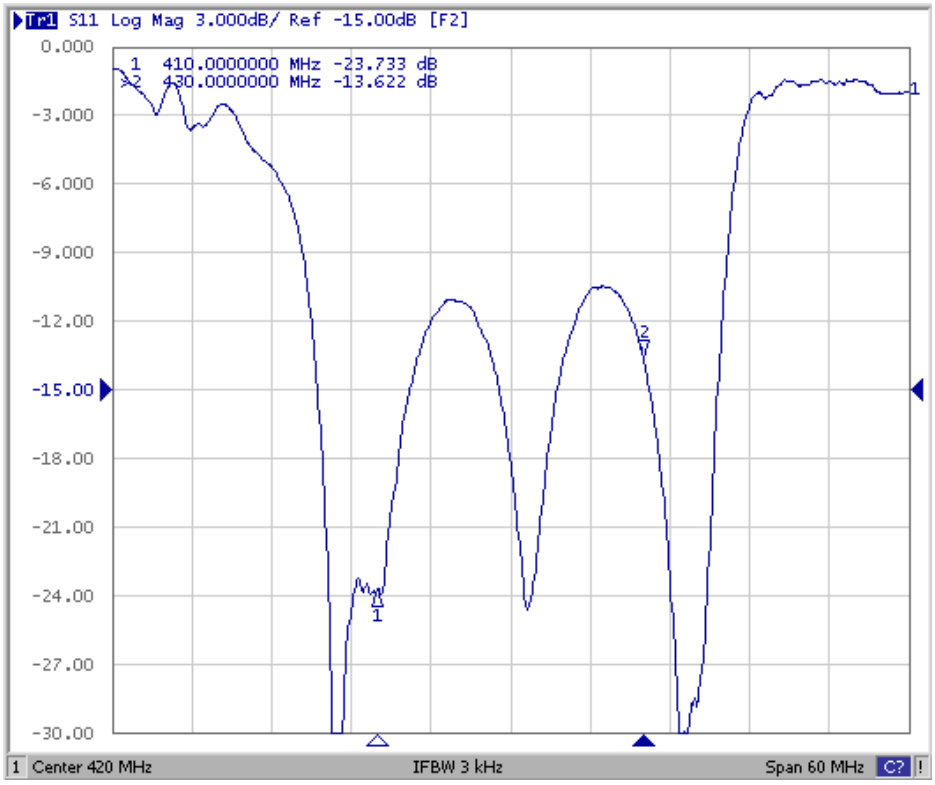




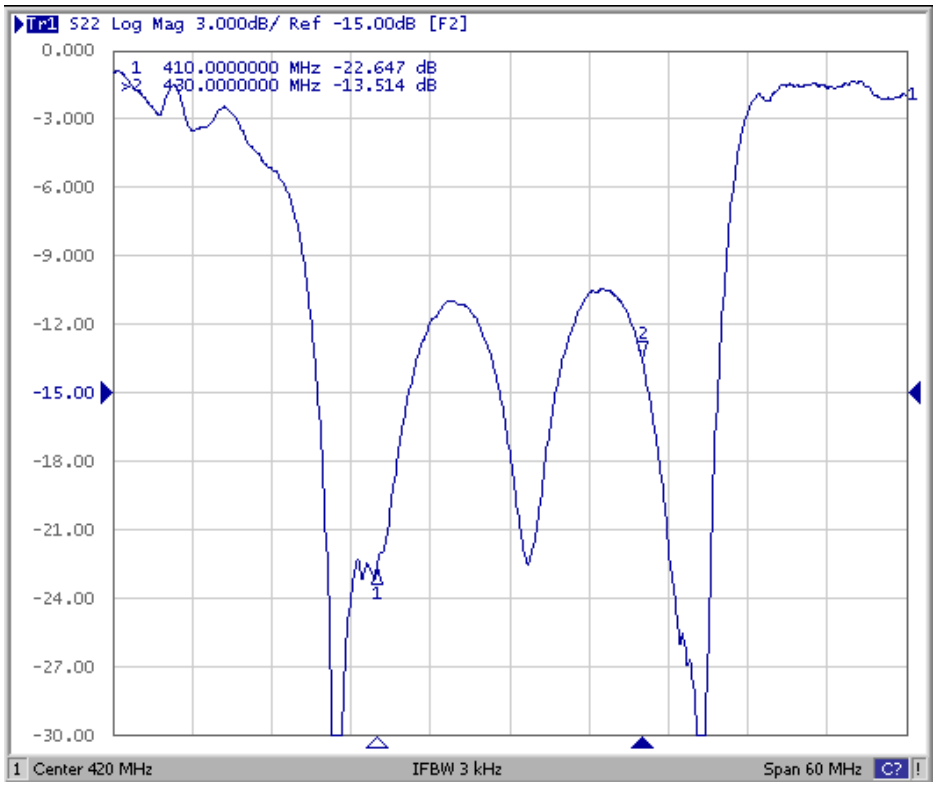


Reflection Functions : (Filter 2)

S11

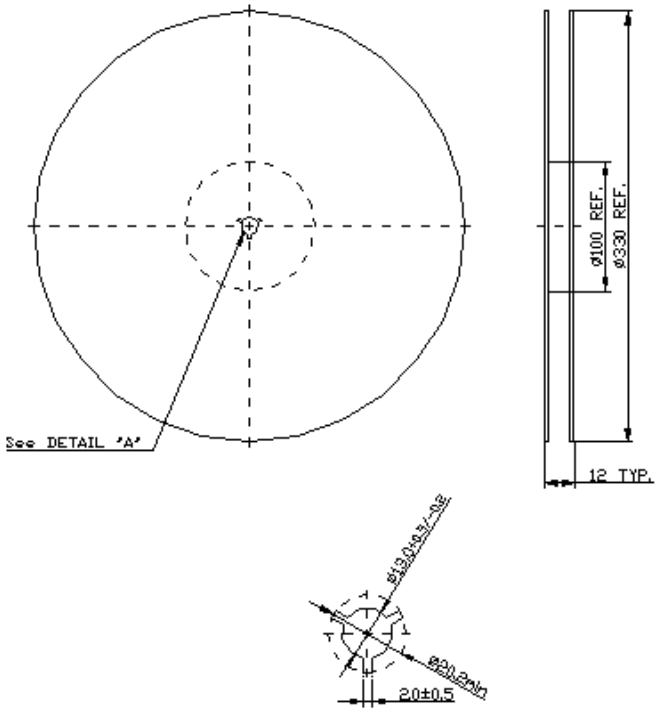


S22

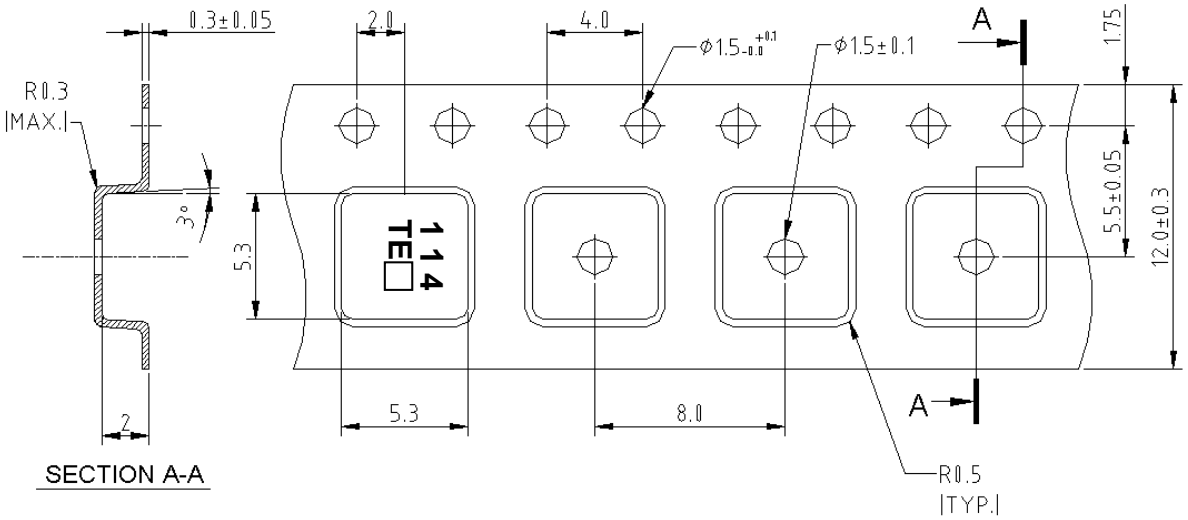


I. **PACKING**:

1. REEL DIMENSION



2.TAPE DIMENSION



Direction of Feed

J. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 245~260℃ peak (min. 10sec).
4. Time : 2 times.