



TAI-SAW TECHNOLOGY CO., LTD.

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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.



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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 Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS of FILTER 1:

Item	Unit	Min.	Typ.	Max.	Note
Center Frequency F_c	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/°C	-	-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

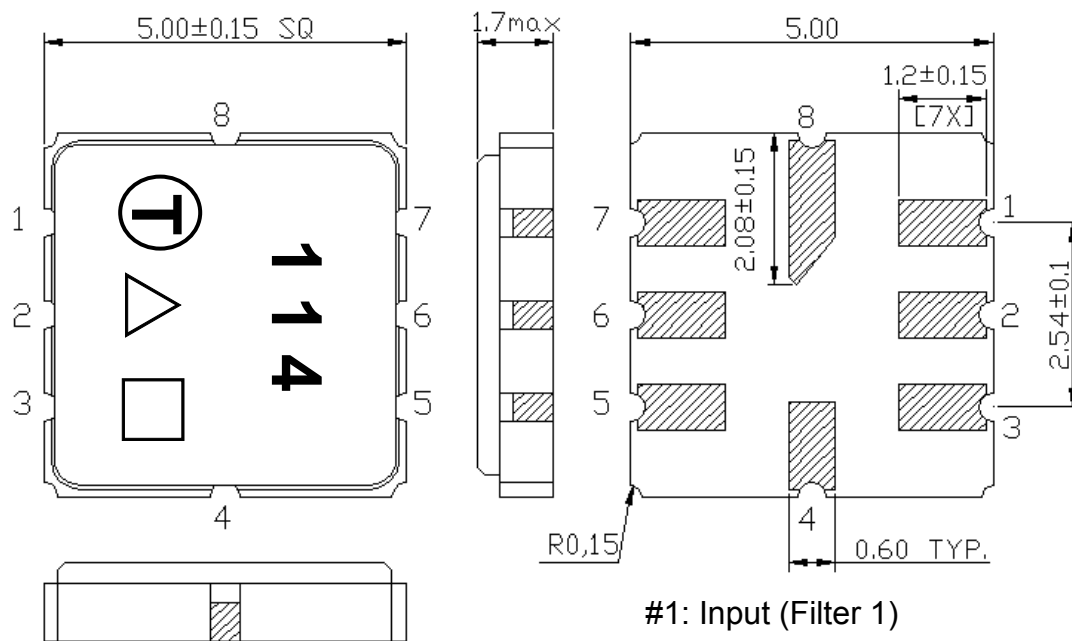
RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (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/°C	-	-75	-	-

E.OUTLINE DRAWING:



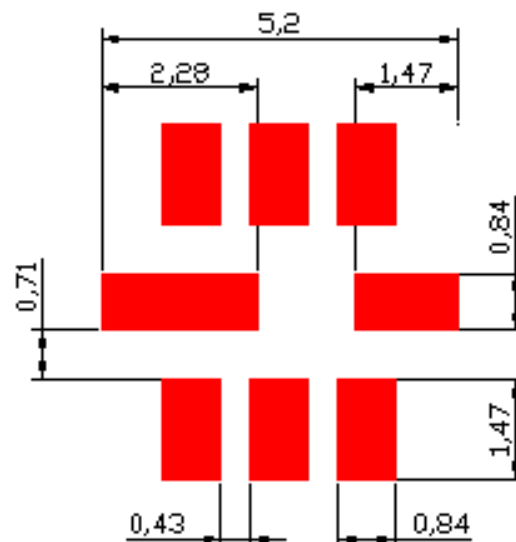
△ : Product / Year Code

Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	E	e	Ⓔ	⓪

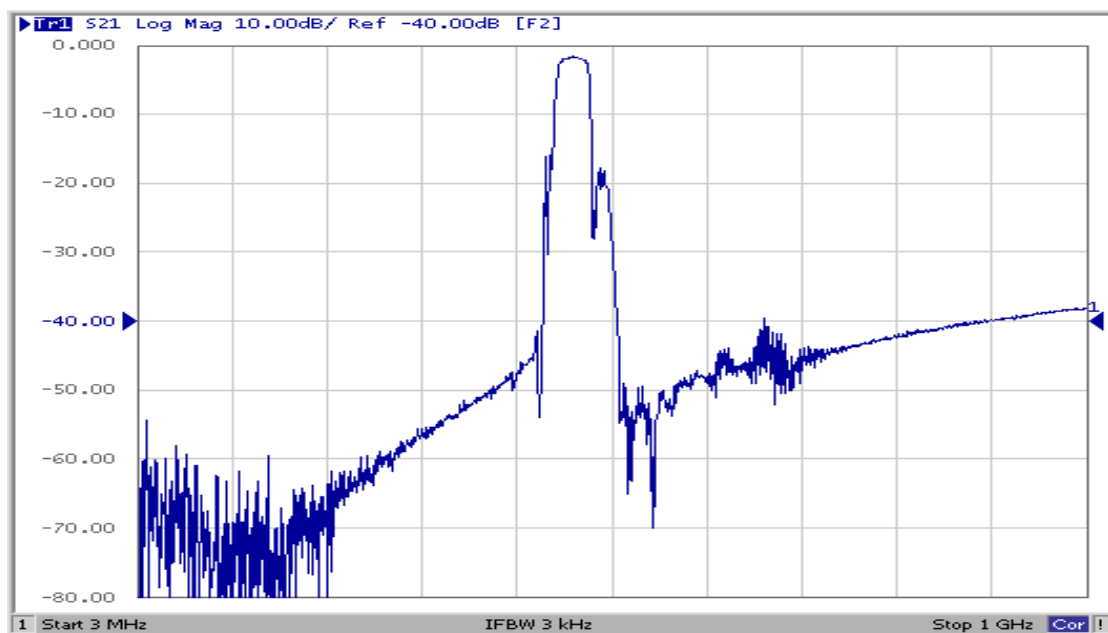
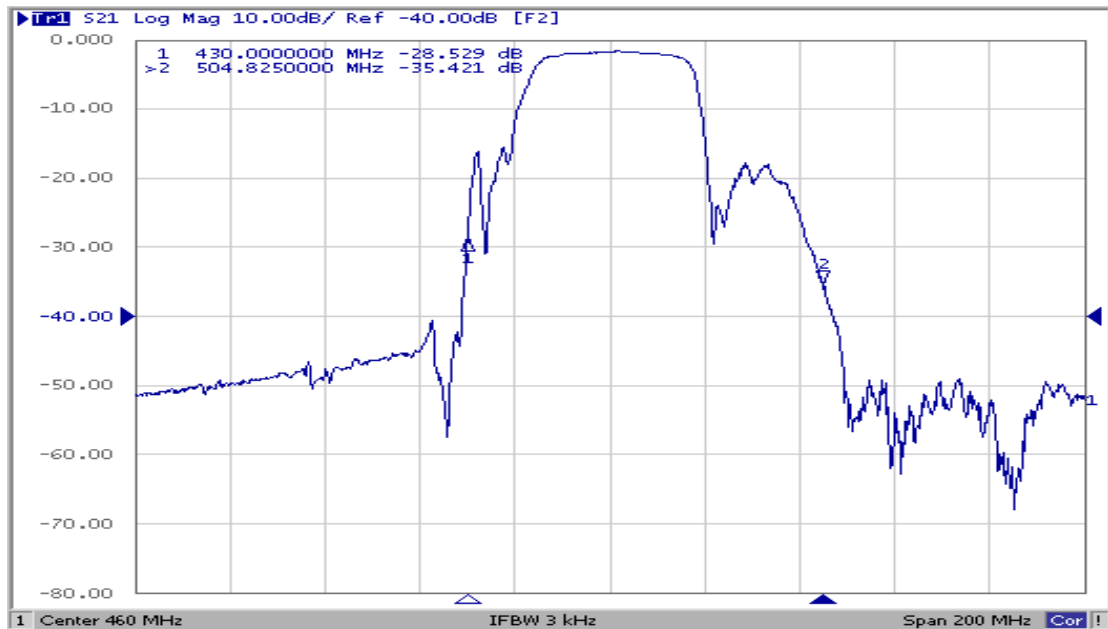
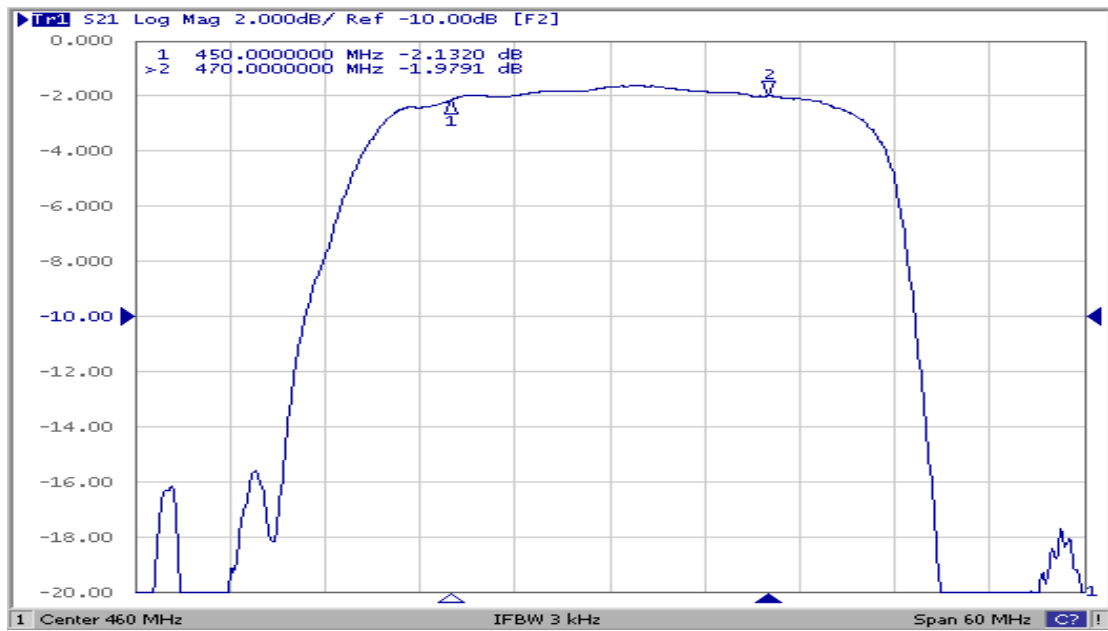
- #1: Input (Filter 1)
 - #3: Input (Filter 2)
 - #5: Output (Filter 2)
 - #7: Output (Filter 1)
 - #2,6 : To be grounded
 - #4,8: Case ground
- Unit: mm

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

F. PCB Footprint:

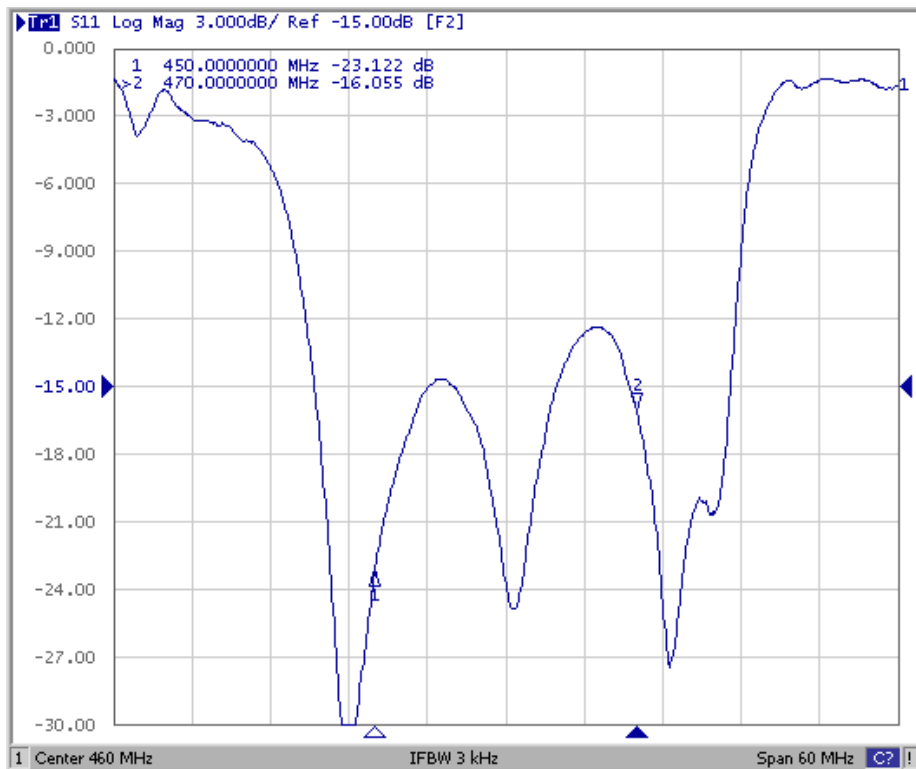


G. Frequency Characteristics : (Filter 1)

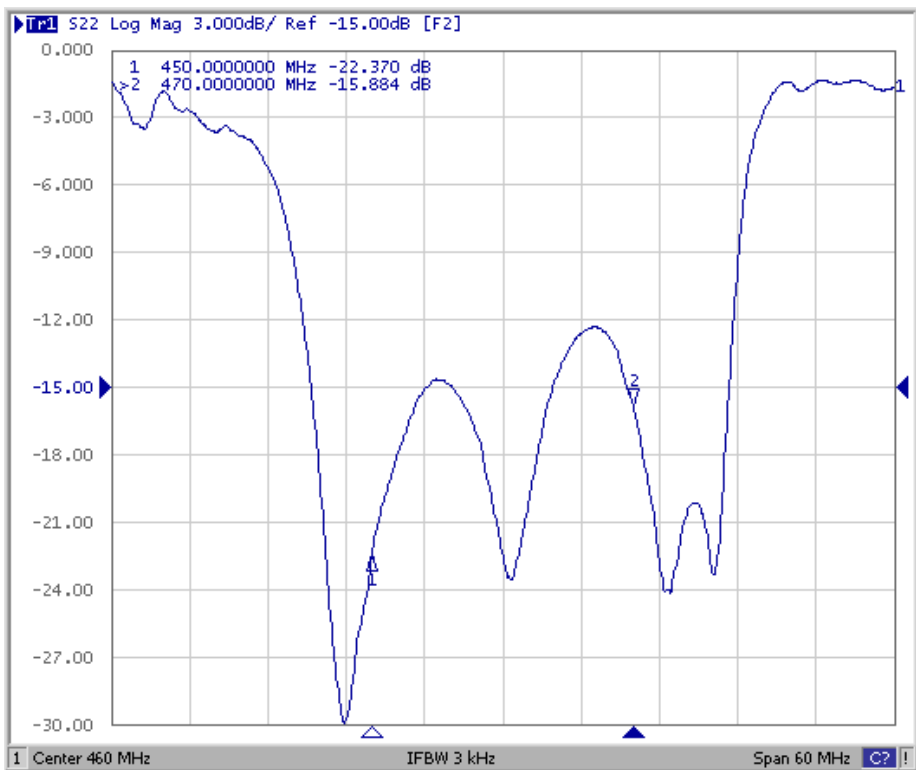


Reflection Functions : (Filter 1)

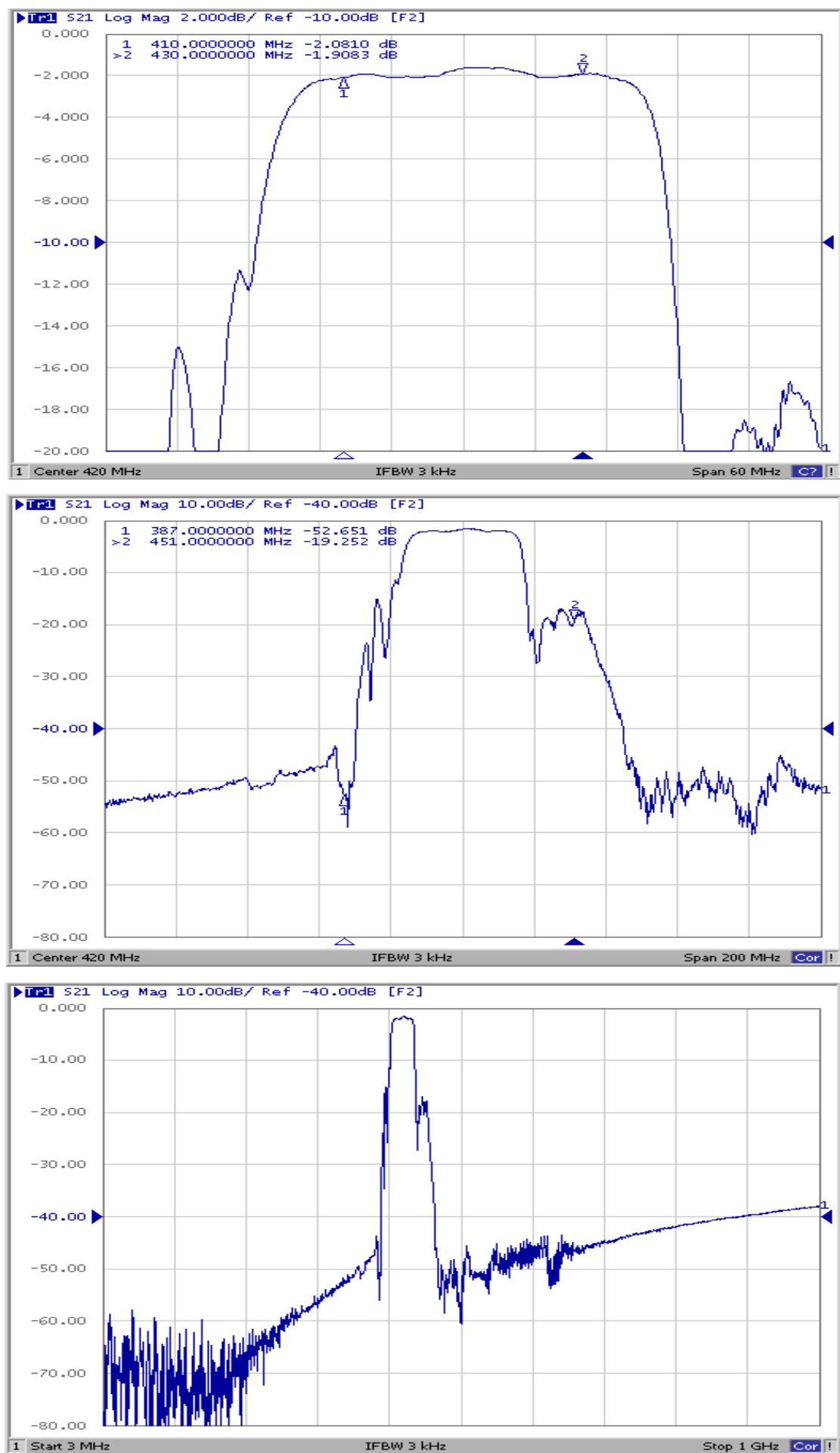
S11



S22

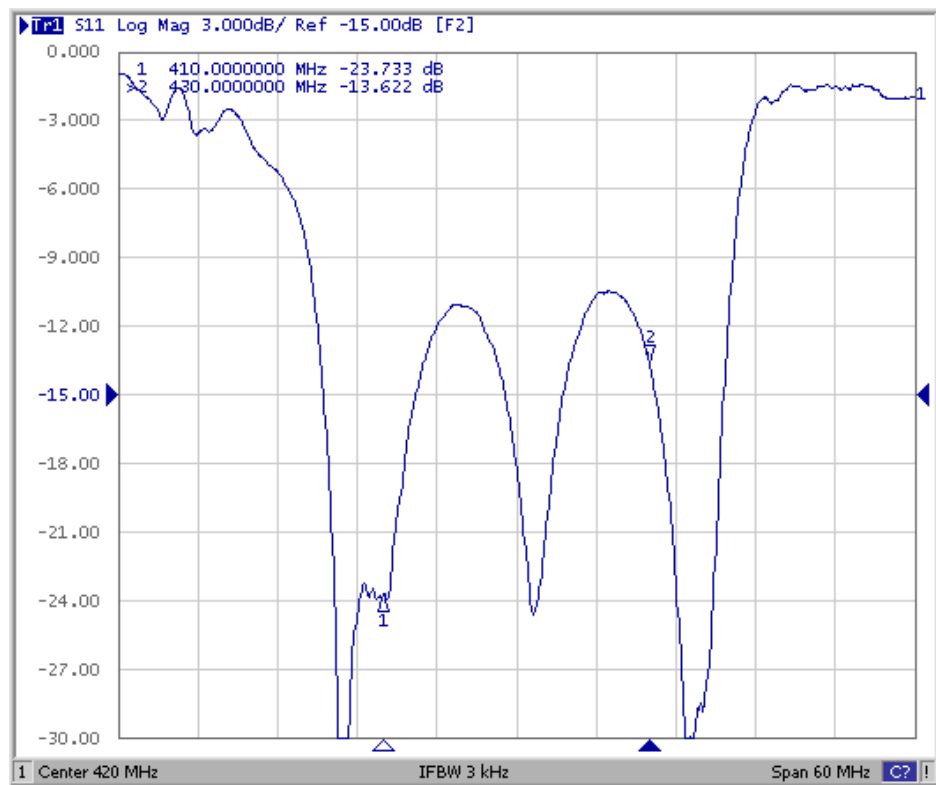


H. Frequency Characteristics : (Filter 2)

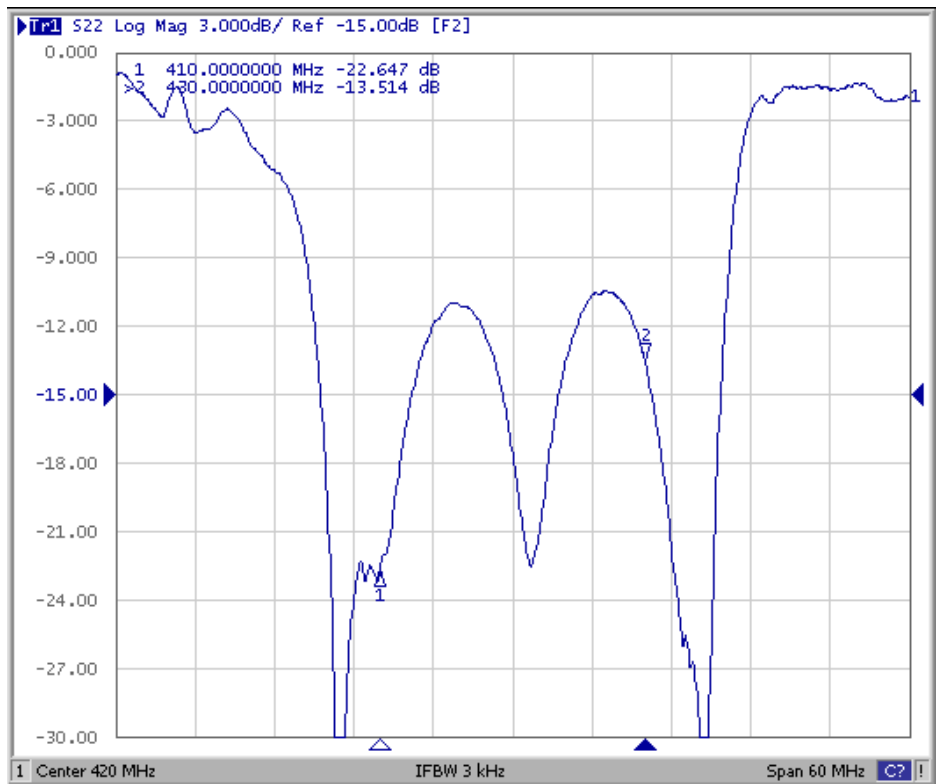


Reflection Functions : (Filter 2)

S11

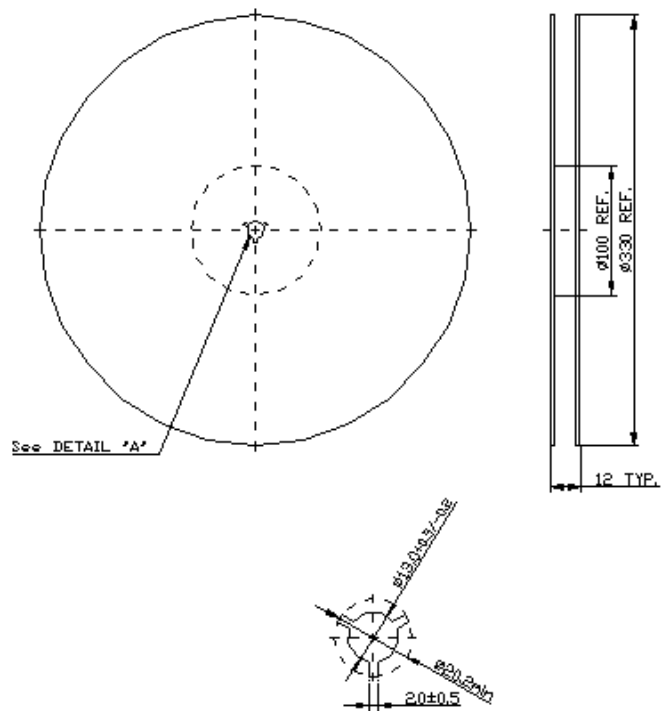


S22

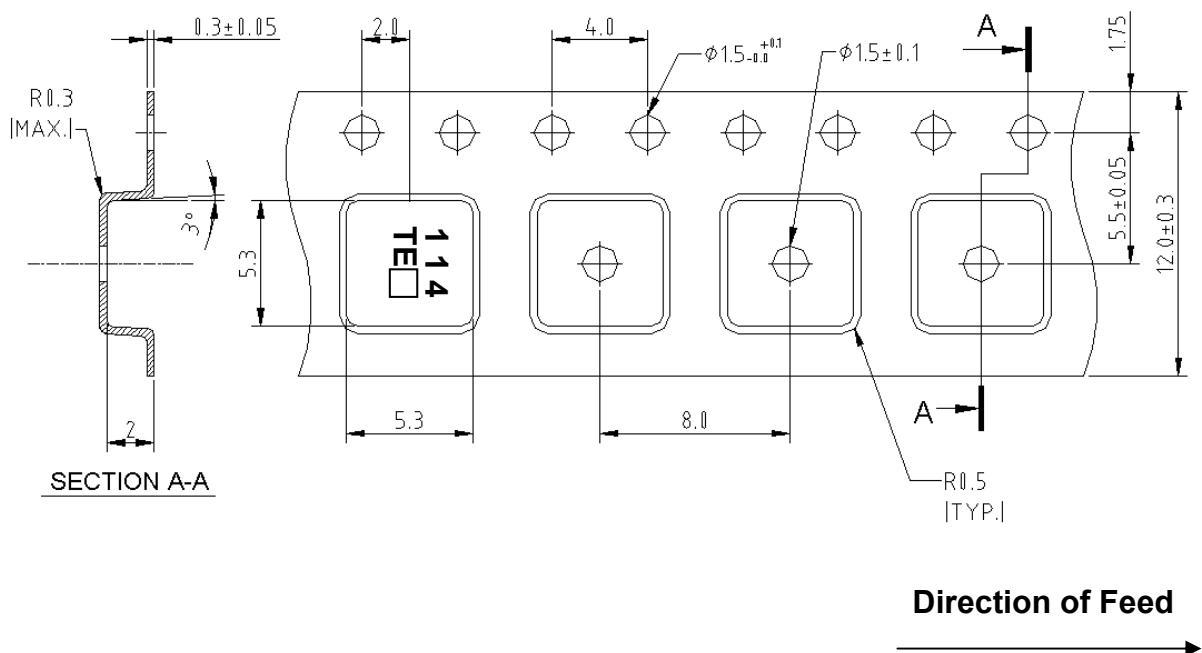


I. PACKING:

1. REEL DIMENSION



2. TAPE DIMENSION



J. 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.

