

# SAW Dual SAW 370/390 MHz (BW 20 MHz) SMD 5.0X5.0 mm

MODEL NO.:TE0161A

REV. NO.:1.0

## A. MAXIMUM RATING:

1. Input Power Level: 12 dBm
2. DC Voltage : 3 V
3. Operating Temperature: -30 °C to +85 °C
4. Storage Temperature: -40 °C to +85 °C
5. Moisture Sensitivity Level: Level 1(MSL1)



Electrostatic Sensitive Device (ESD)

## B. ELECTRICAL CHARACTERISTICS:

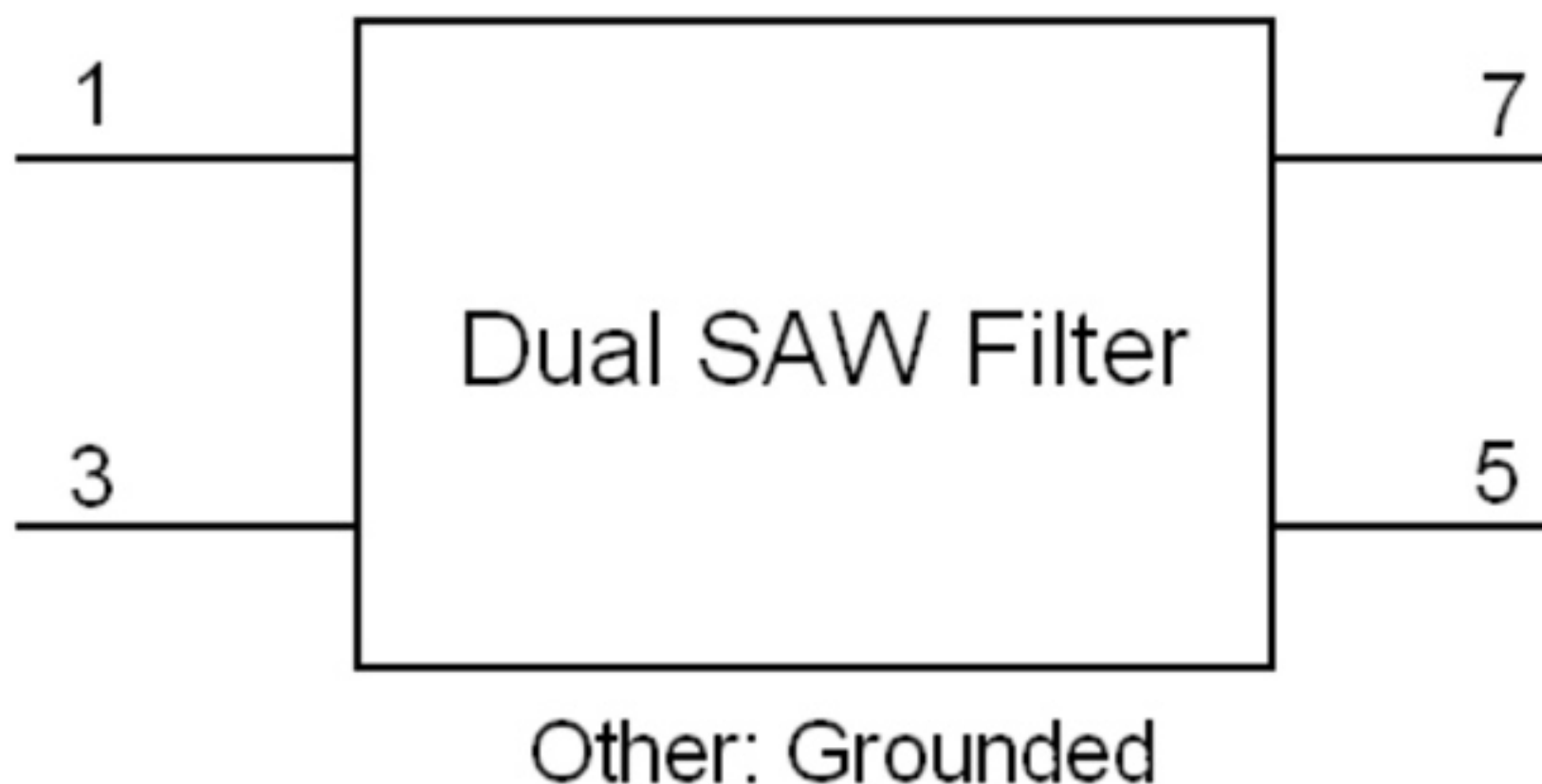
Terminating source impedance (single) :  $Z_s = 50 \Omega$

Terminating load impedance(single) :  $Z_L = 50 \Omega$

Item (Filter 1)	Unit	Min	Typ.	Max
<b>Center frequency</b>	MHz	-	370	-
<b>Insertion Loss</b> (360 – 380 MHz)	dB	-	2.4	3.0
<b>Amplitude Ripple</b> (360 – 380 MHz)	dB	-	1.0	2.0
<b>Return Loss</b> (360 – 380 MHz)	dB	8.0	11.0	-
<b>Attenuation</b> (Reference level from 0 dB)				
10 – 170 MHz	dB	35	55	-
170 – 315 MHz	dB	30	52	-
315 – 340 MHz	dB	20	45	-
400 – 420 MHz	dB	15	22	-
420 – 440 MHz	dB	25	44	-
440 – 660 MHz	dB	30	44	-
660– 1000 MHz	dB	25	37	-
<b>Temperature coefficient of Frequency</b>	ppm/K	-36		

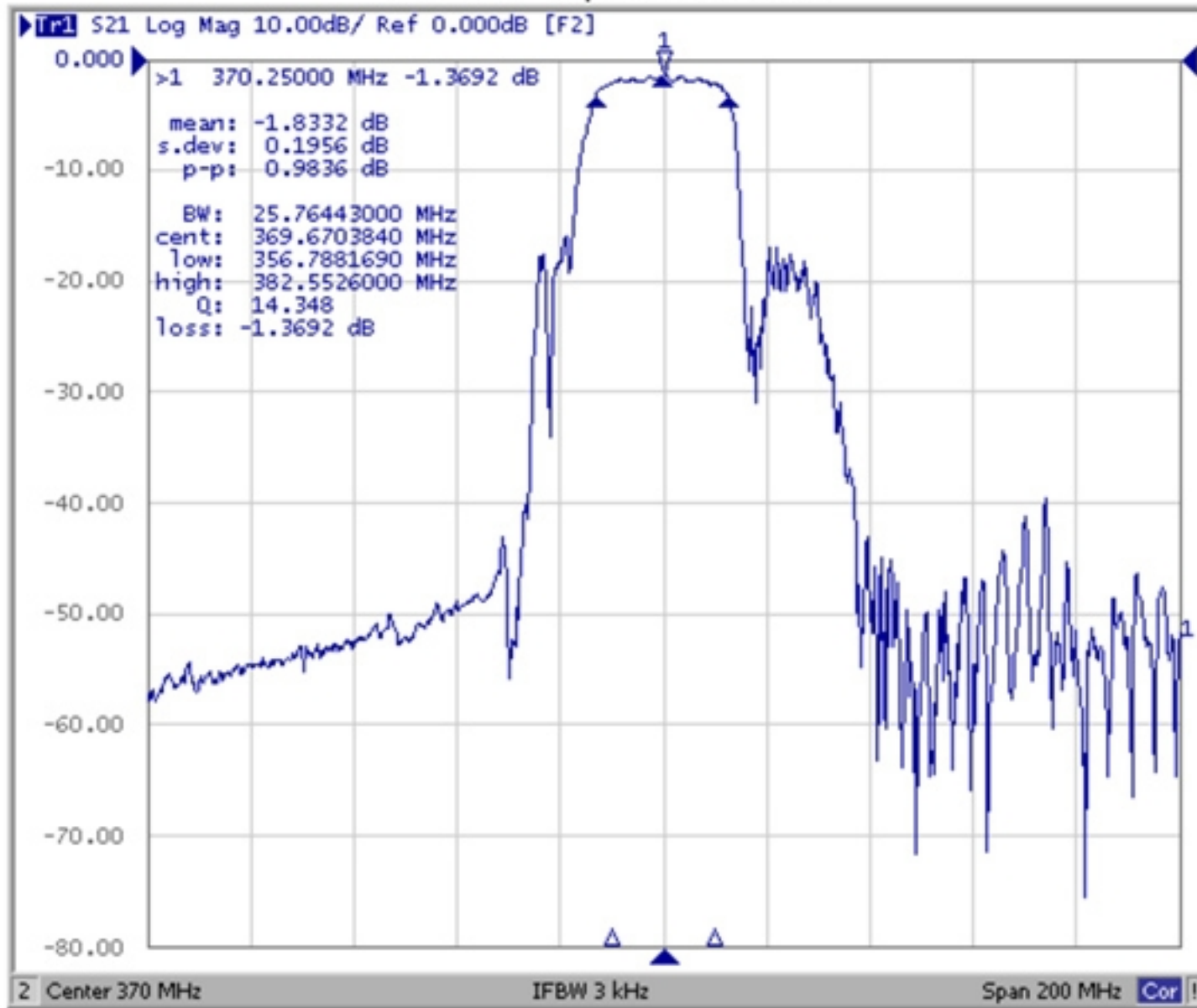
Item (Filter 2)	Unit	Min	Typ.	Max
<b>Center frequency</b>	MHz	-	390	-
<b>Insertion Loss</b> (380 – 400 MHz)	dB	-	2.4	3.0
<b>Amplitude Ripple</b> (380 – 400 MHz)	dB	-	1.0	2.0
<b>Return Loss</b> (380 – 400 MHz)	dB	8.0	11.0	-
<b>Attenuation</b> (Reference level from 0 dB)				
10 – 190 MHz	dB	35	55	-
190 – 335 MHz	dB	30	51	-
335 – 360 MHz	dB	25	45	-
420 – 440 MHz	dB	15	22	-
440 – 460 MHz	dB	25	55	-
460 – 680 MHz	dB	30	62	-
680– 1000 MHz	dB	25	44	-
<b>Temperature coefficient of Frequency</b>	ppm/K	-36		

**C. TEST CIRCUIT:**

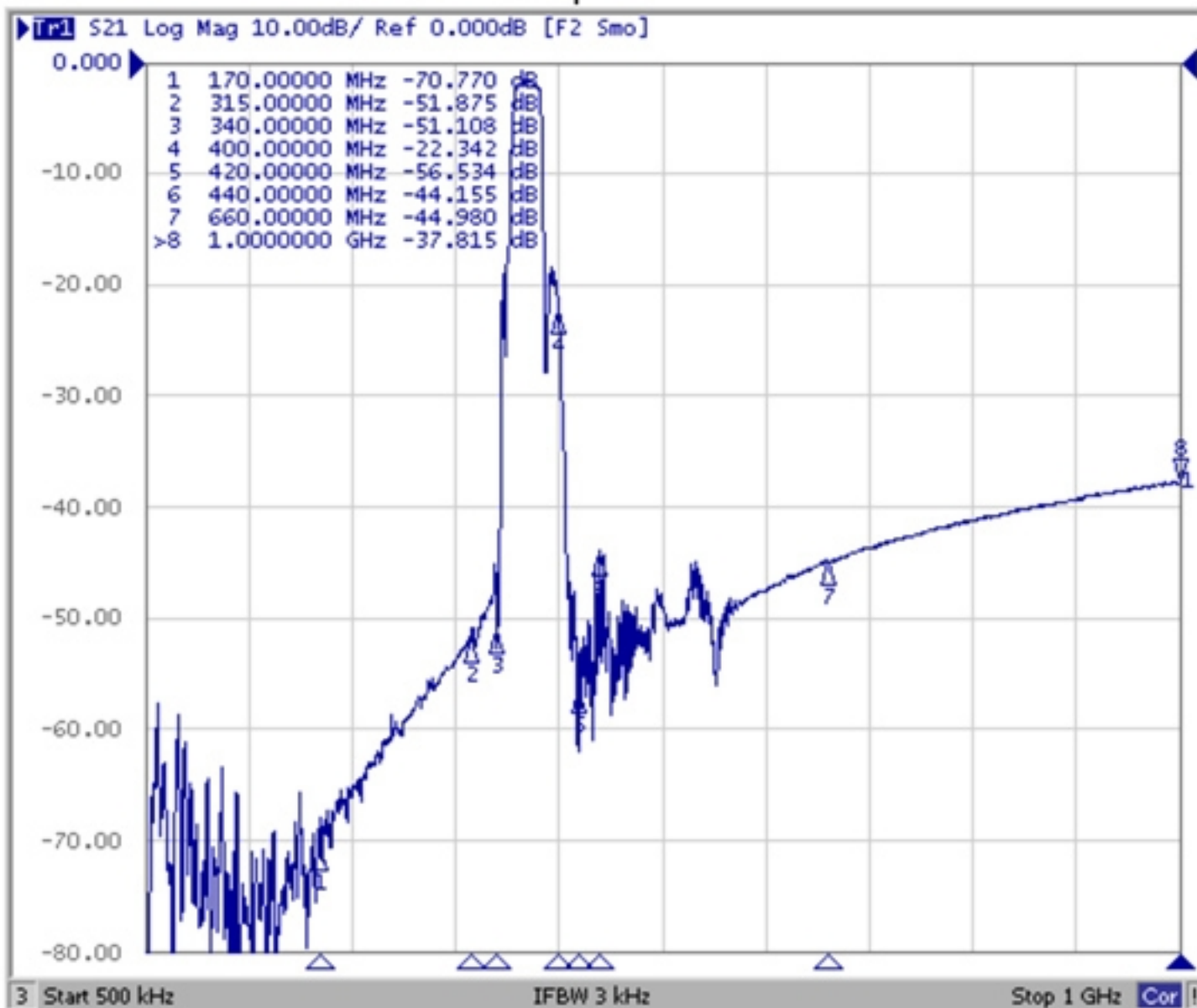


## D. Frequency Characteristics:

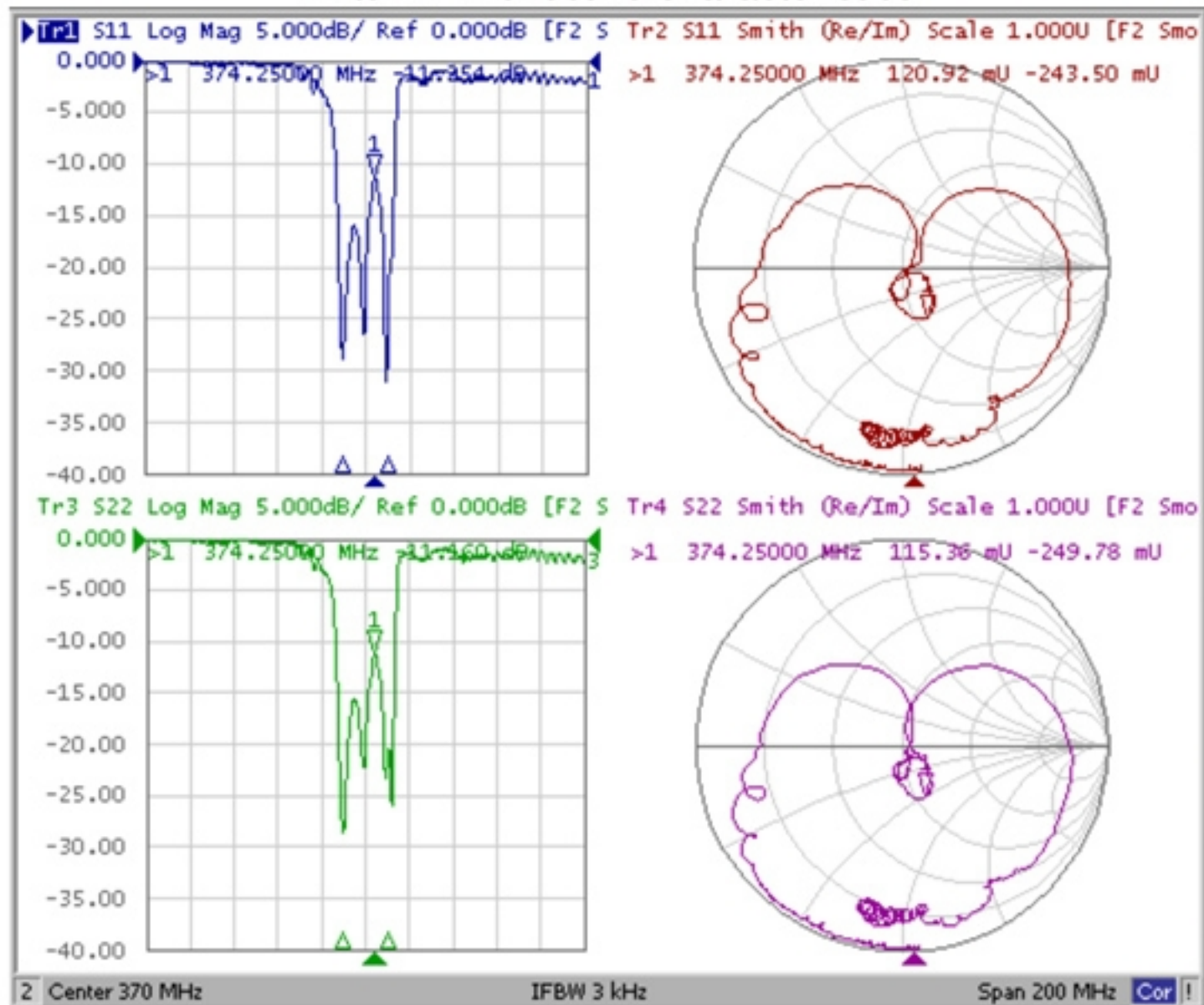
### Filter 1 - Span 200 MHz



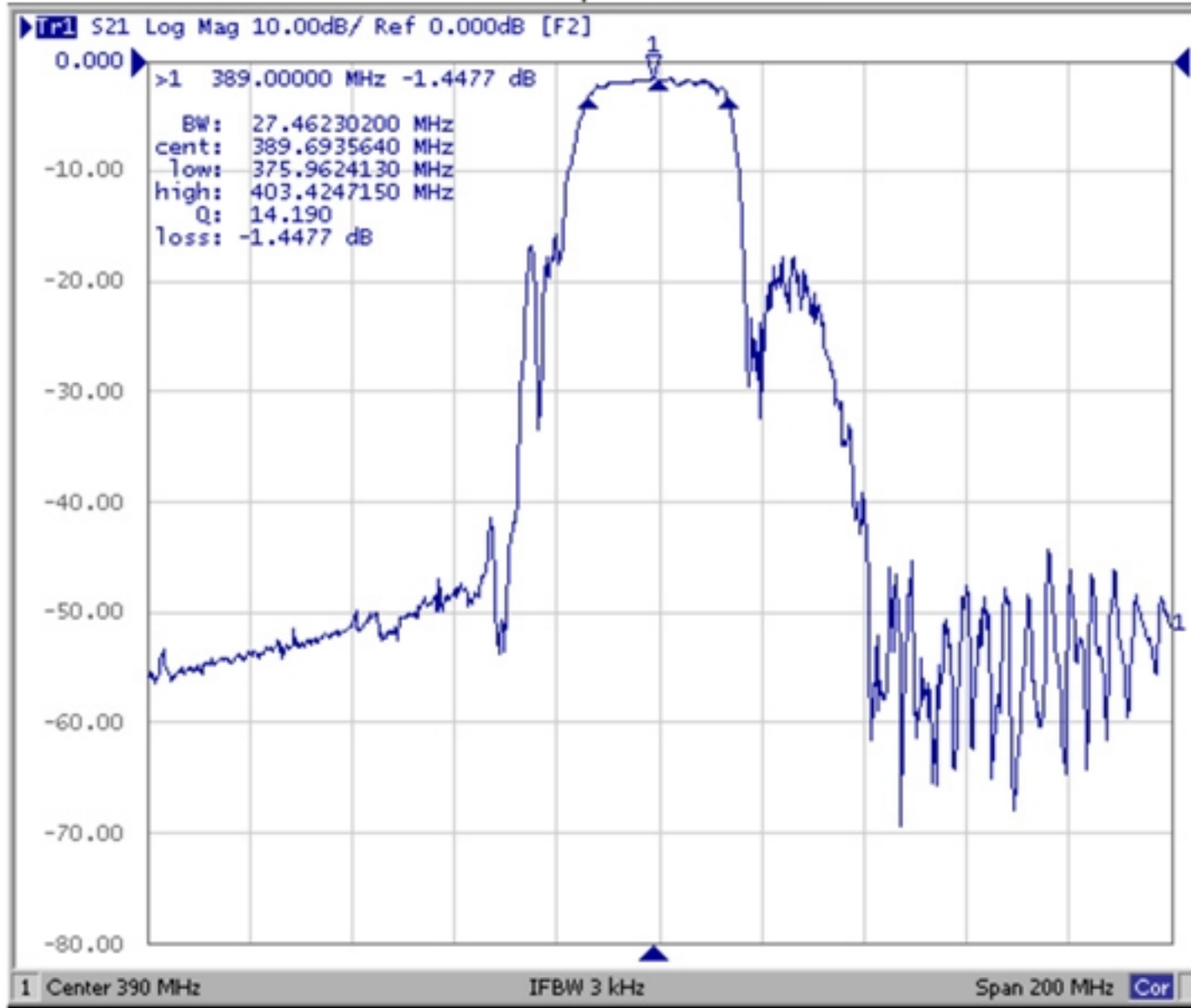
### Filter 1 - Span 1000 MHz



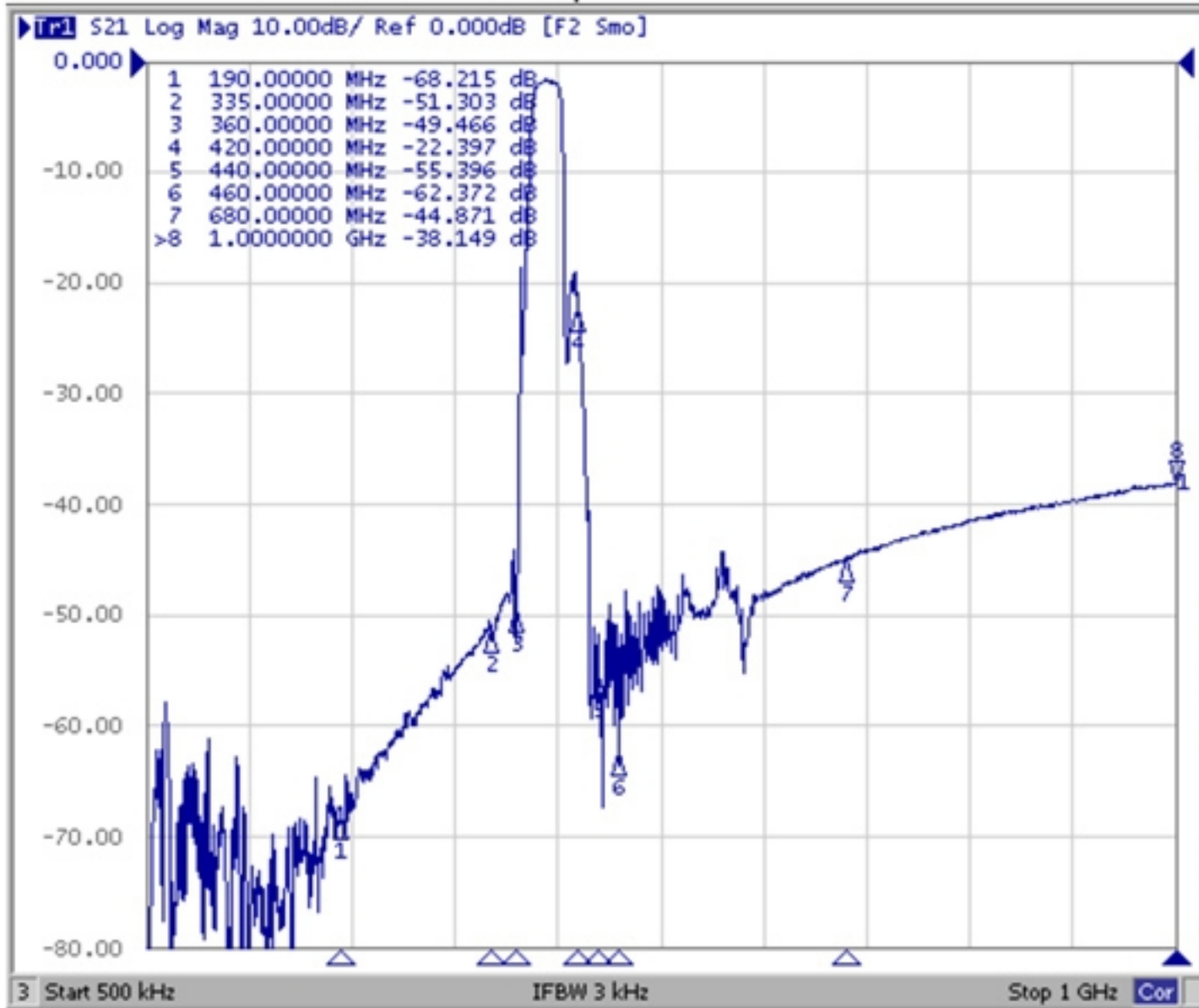
## Filter 1 - Reflective characteristics



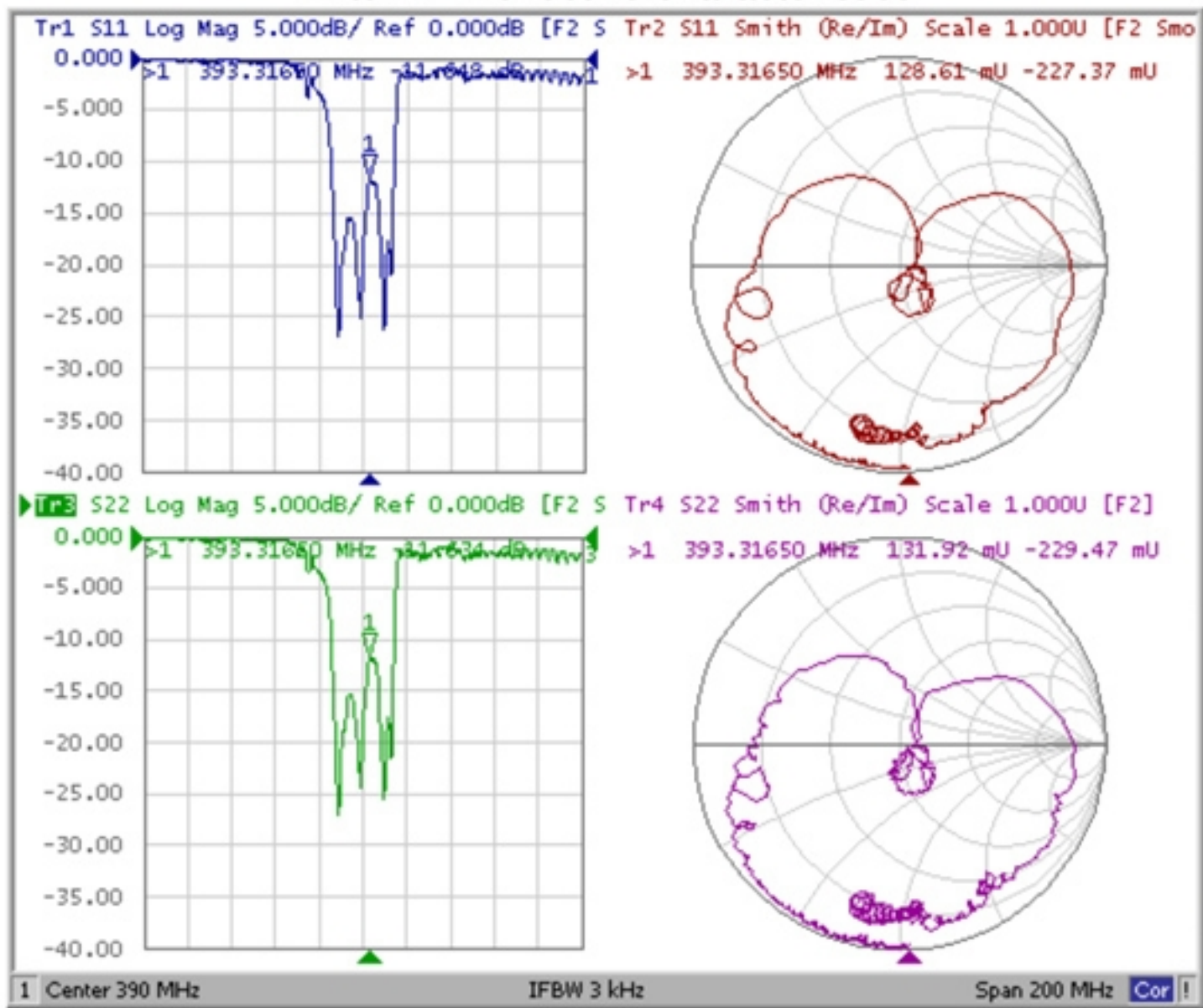
### Filter 2 - Span 200 MHz



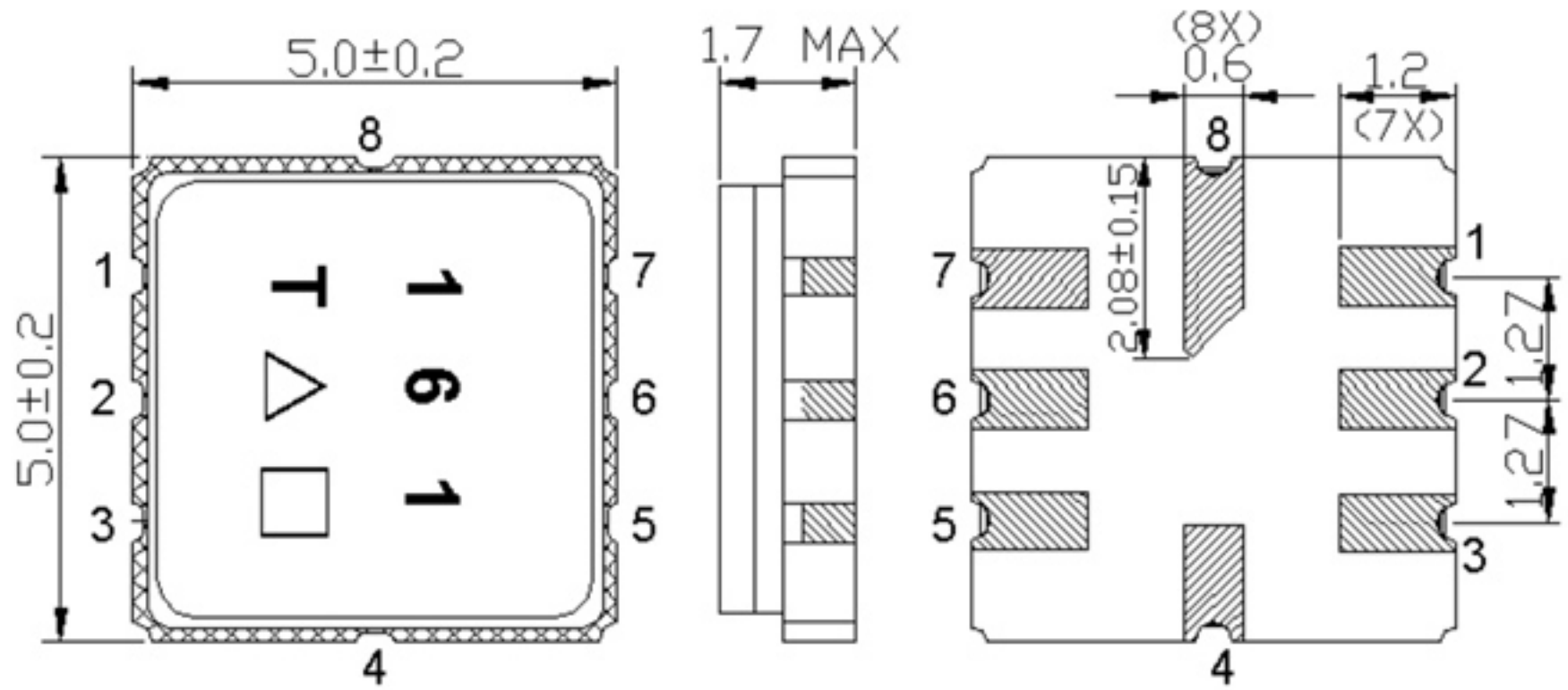
### Filter 2 - Span 1000 MHz



## Filter 2 - Reflective characteristics



**E.OUTLINE DRAWING:**



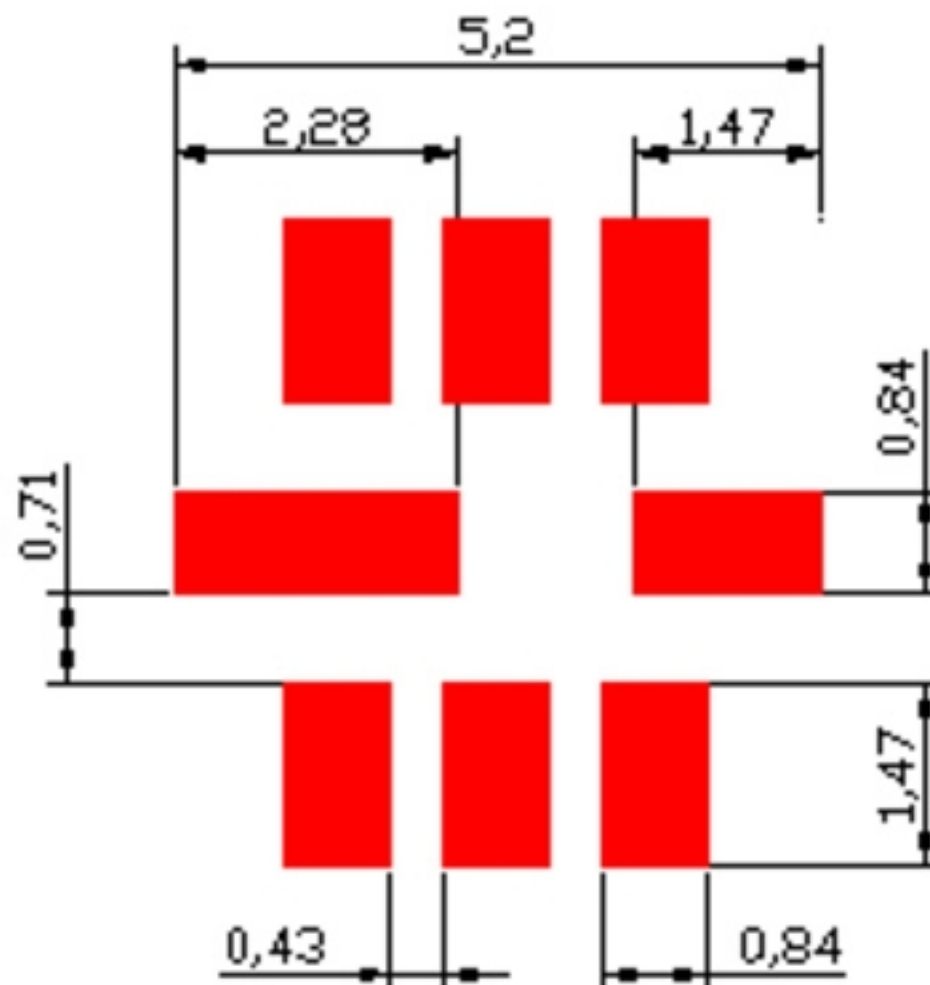
1	Input (Filter 1)	5	Output (Filter 2)
2	Grounded	6	Grounded
3	Input (Filter 2)	7	Output (Filter 1)
4	Case Ground	8	Case Ground

△ : Product / Year Code

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

Year	2009 2013	2010 2014	2011 2015	2012 2016
Product Code	E	e	<u>E</u>	<u>e</u>

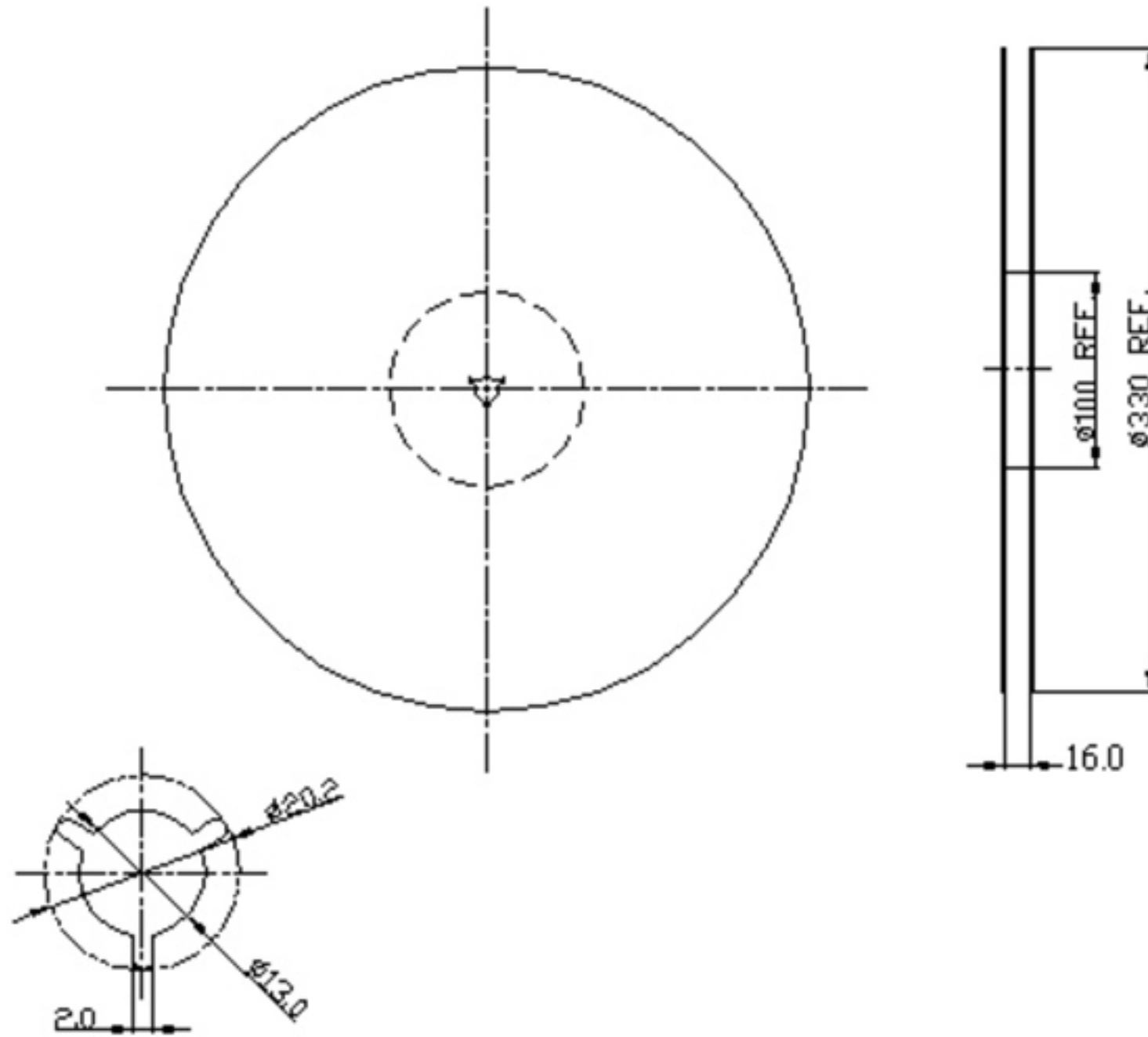
**F. PCB FOOTPRINT:**



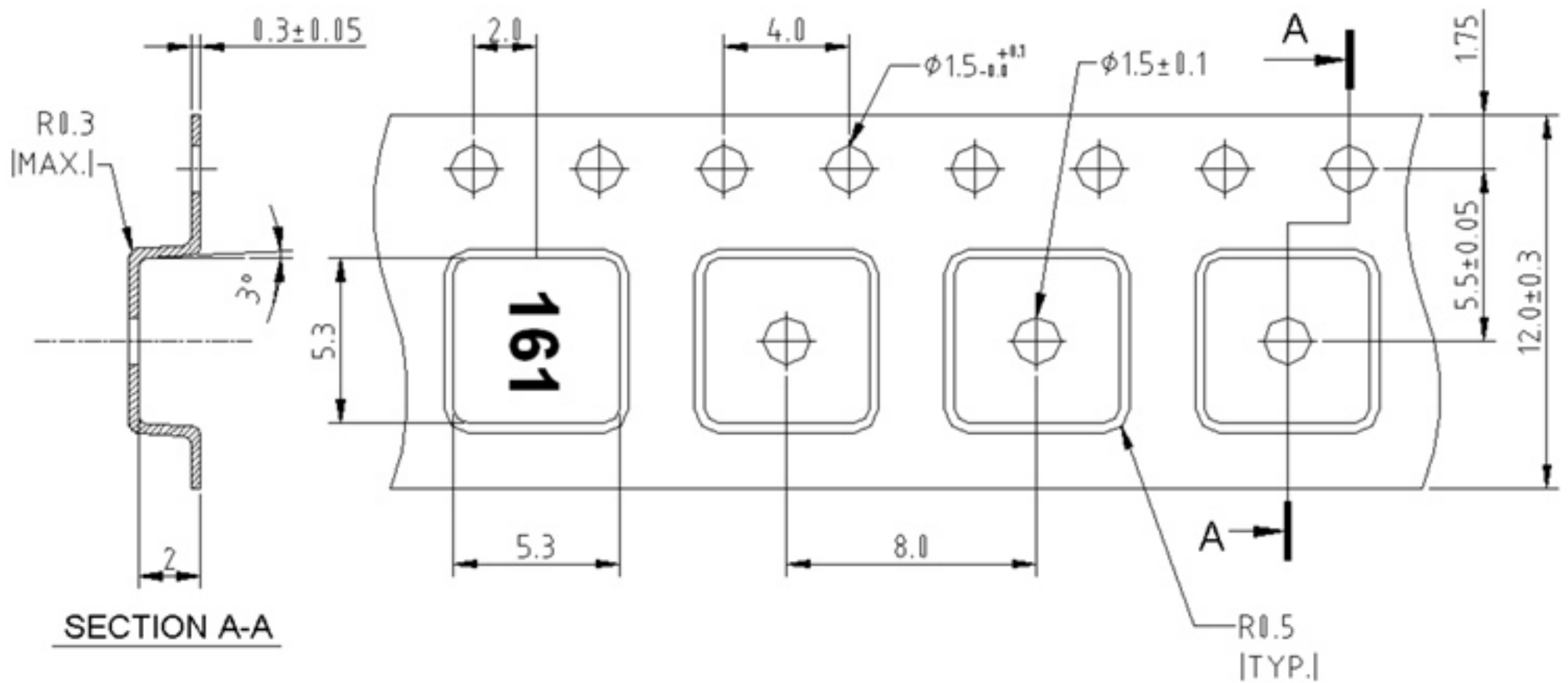
## G. PACKING:

### 1. REEL DIMENSION

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



### 2. TAPE DIMENSION





## H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at  $150\sim 180^{\circ}\text{C}$  for  $60\sim 90$  seconds.
2. Ascending time to preheating temperature  $150^{\circ}\text{C}$  shall be 30 seconds min.
3. Heating shall be fixed at  $220^{\circ}\text{C}$  for  $50\sim 80$  seconds and at  $260^{\circ}\text{C}+0/-5^{\circ}\text{C}$  peak ( $20\sim 40$ sec).
4. Time: 2 times.

