

**SAW Filter 433.920MHz**  
**Part No: MP05191**

**Model: TA1565A**  
**Rev No: 3**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Input Power Level: 10dBm
2. DC Voltage: 6V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +105°C

**B. ELECTRICAL CHARACTERISTICS:**

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	433.92	-
1.5dB BW	kHz	300	550	-
3dB BW	kHz	-	670	900
Minimum insertion loss IL (min)				
Including loss of matching elements (Q=) *1)	dB	-	2.6	3.4
Exclude loss in matching elements *2)	dB	-	2.4	3.2
Passband (relative to IL min) *1)				
433.770 ~ 434.070 MHz	dB	-	0.5	3.0
Attenuation (relative to IL min) *1)				
10.000 ~ 420.00MHz	dB	47	55	-
420.00 ~ 427.00MHz	dB	43	50	-
427.00 ~ 432.00MHz	dB	27	33	-
432.00 ~ 433.00MHz	dB	17	24	-
435.00 ~ 436.00MHz	dB	15	21	-
436.00 ~ 445.00MHz	dB	21	27	-
445.00 ~ 450.00MHz	dB	44	51	-
450.00 ~ 2000.00MHz	dB	42	49	-
Impedance at Fc, Input *1) $Z_{IN} = R_{IN} // C_{IN} Z_S$	$\Omega$	130 $\Omega$ // 1.3pF		
Impedance at Fc, Output *1) $Z_{OUT} = R_{OUT} // C_{OUT} Z_L$	$\Omega$	157 $\Omega$ // 1.1pF		

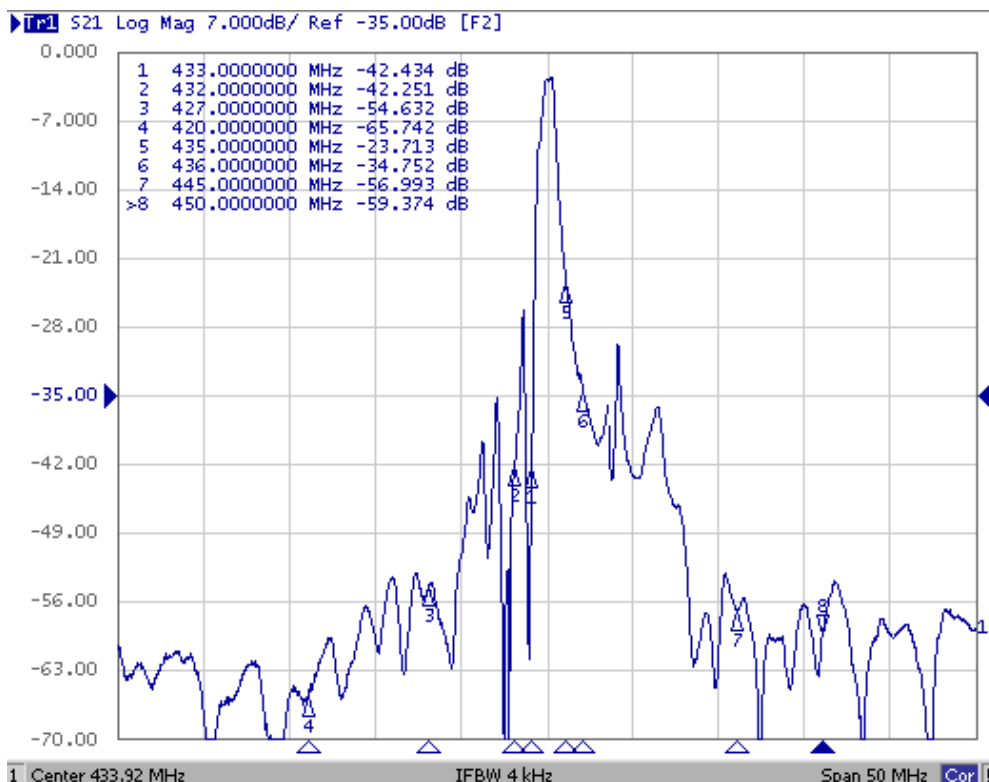
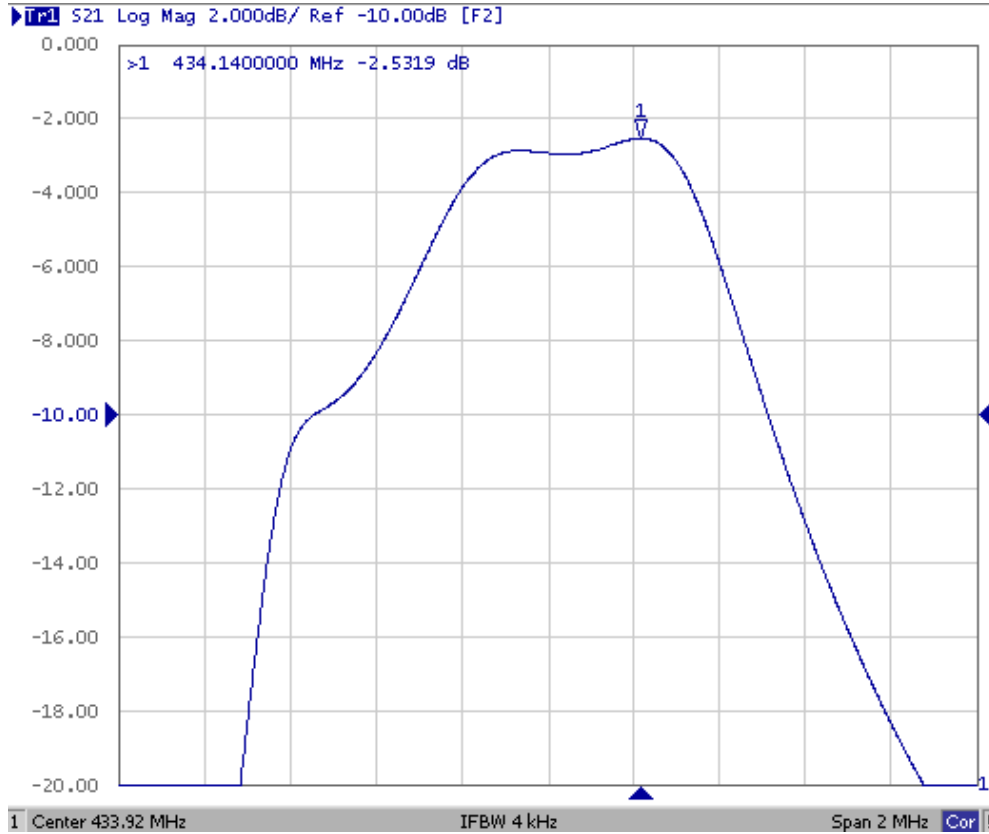
\*1): The matching circuit is real by actual passive components.  
 0805 Coilcraft CS series chip conductor is used for inductor.  
 0402 muRata GRM series is used for capacitor.

\*2): The matching circuit is ideal by simulation.

**SAW Filter 433.920MHz**  
**Part No: MP05191**

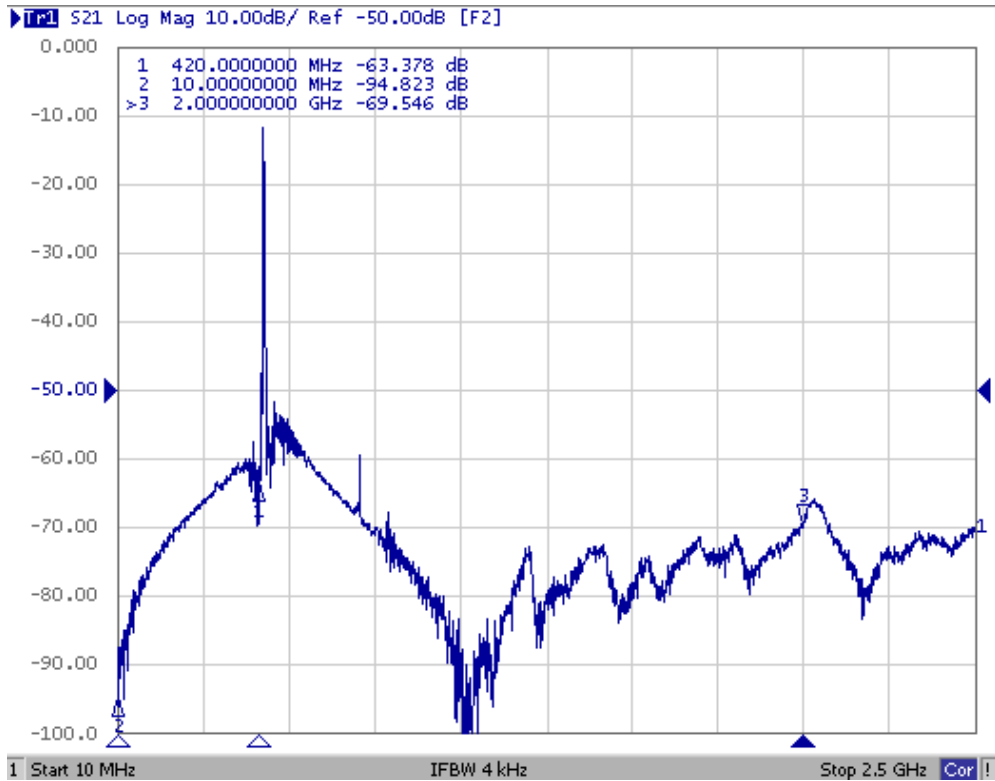
**Model: TA1565A**  
**Rev No: 3**

**C. FREQUENCY CHARACTERISTICS:**



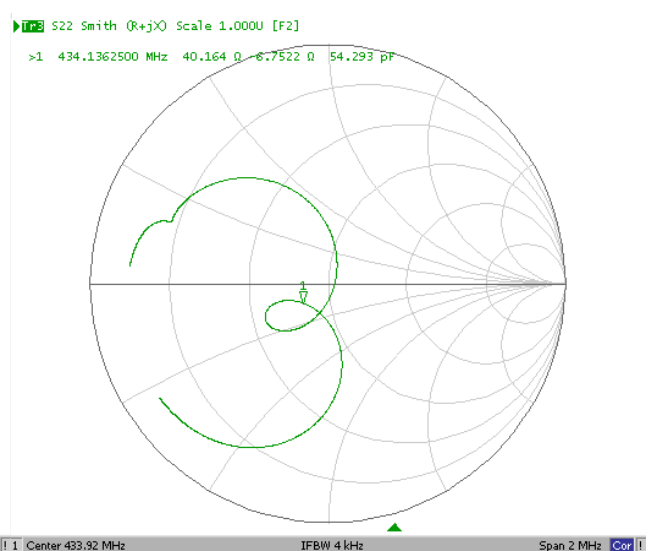
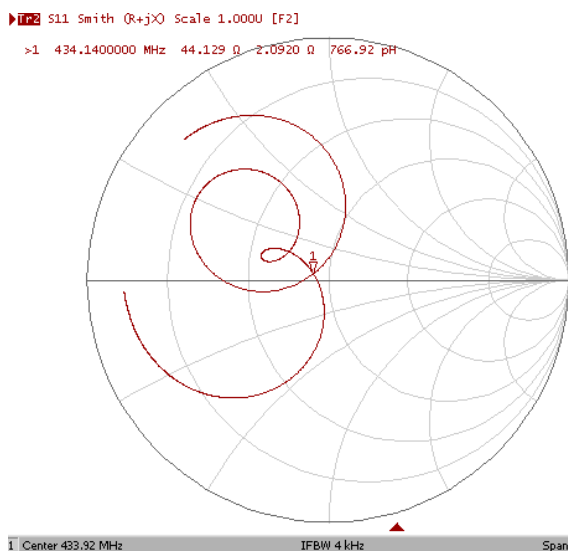
**SAW Filter 433.920MHz**  
**Part No: MP05191**

**Model: TA1565A**  
**Rev No: 3**



Smith Chart S11

Smith Chart S22

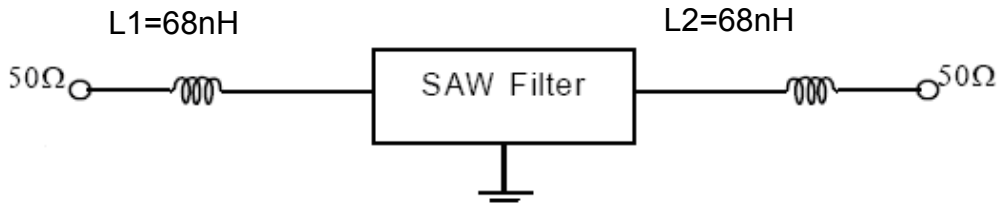


**SAW Filter 433.920MHz**  
**Part No: MP05191**

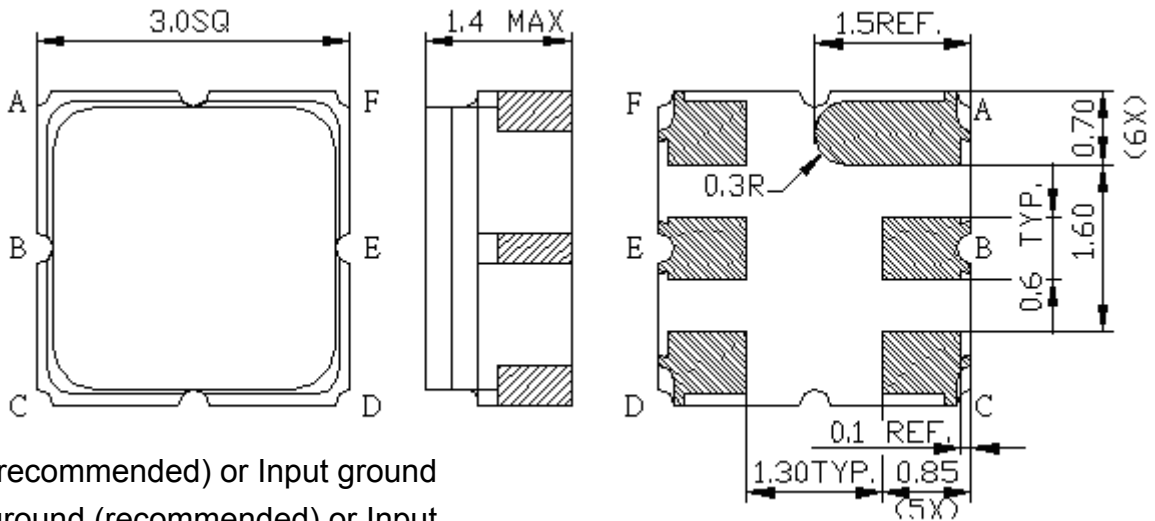
**Model: TA1565A**  
**Rev No: 3**

**D. MEASUREMENT CIRCUIT:**

The matching circuit is real by actual passive components.



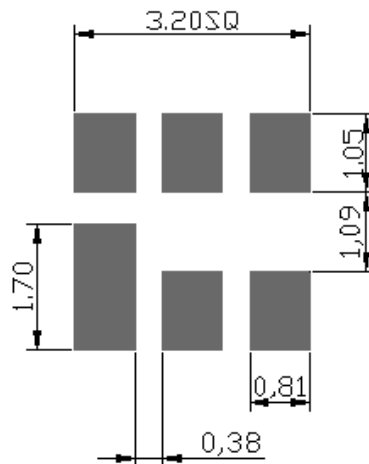
**E. OUTLINE DRAWING:**



- A: Input (recommended) or Input ground
  - B: Input ground (recommended) or Input
  - D: Output (recommended) or Output ground
  - E: Output ground (recommended) or Output
  - C, F: Ground
- Unit: mm

\*3) The recommended pin configuration offers better suppression of electrical crosstalk.

**F. PCB FOOTPRINT:**

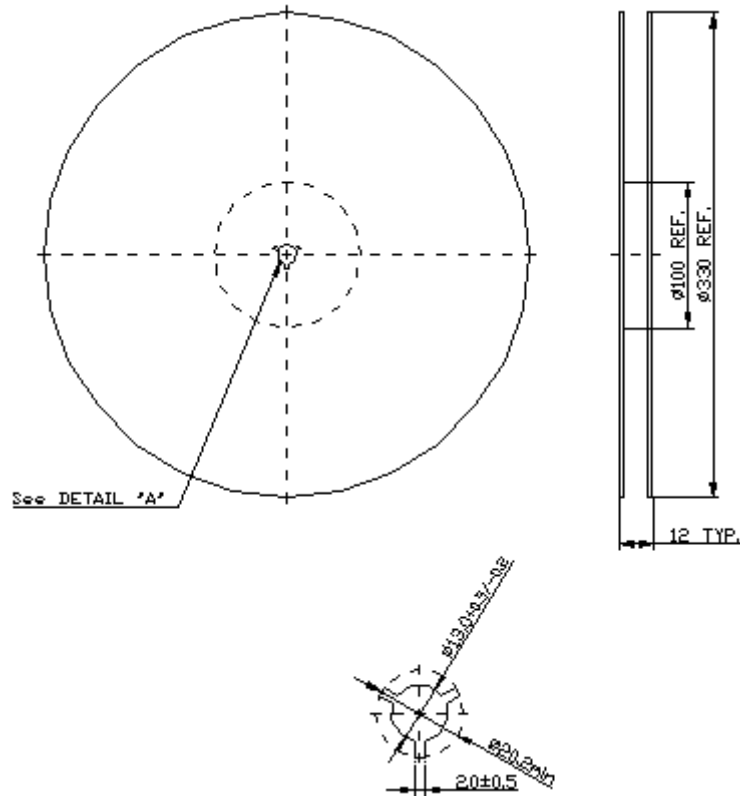


**SAW Filter 433.920MHz**  
**Part No: MP05191**

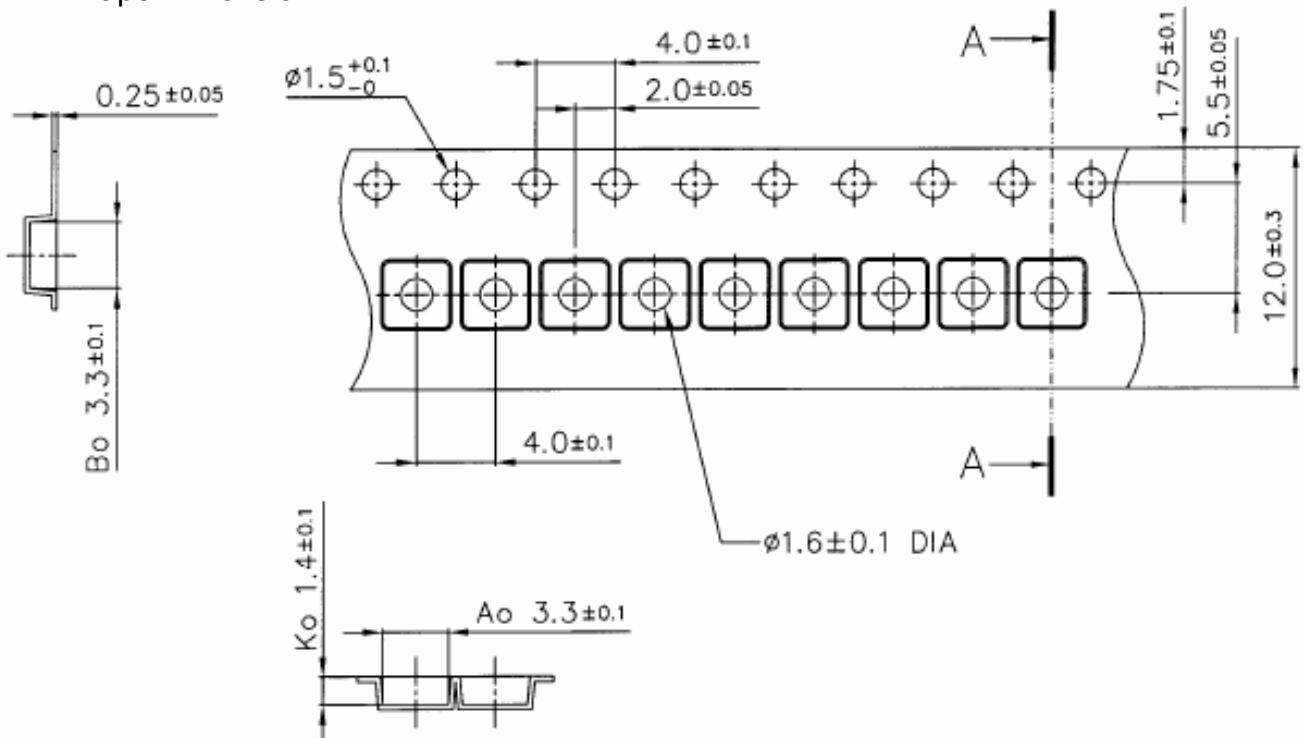
**Model: TA1565A**  
**Rev No: 3**

**G. PACKING:**

1. Reel Dimension (Please refer To Fr-75d10 for packing quantity)



2. Tape Dimension



**SAW Filter 433.920MHz**  
**Part No: MP05191**

**Model: TA1565A**  
**Rev No: 3**

**H. 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.

