

**SAW Filter 434.420MHz**  
**Part No: MP06487**

**Model: TA1789A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 13dBm
2. DC Voltage: 0V
3. Operating Temperature: -40°C to +105°C
4. Storage Temperature: -40°C to +105°C

**B. ELECTRICAL CHARACTERISTICS:**

1. Terminating source impedance (single):  $Z_S = 50\Omega$
2. Terminating load impedance (single):  $Z_L = 50\Omega$

Item	Unit	Min	Typ.	Max
Center Frequency Fc	MHz	-	434.42	-
Minimum Insertion Loss @ min				
Incl. Loss in matching elements (433.885 ~ 434.955MHz)	dB		2.2	2.9
Excl. Loss in matching elements (433.585 ~ 434.955MHz)	dB		1.4	2.1
Pass Band (Relative to @ min)				
433.885 ~ 434.955MHz 1			1.1	2.5
433.87 ~ 434.97MHz 2			1.3	3.0
Relative Attenuation (Relative to @ min) @ rel				
10 ~ 350MHz	dB	50	55	
350 ~ 414MHz	dB	30	35	
414 ~ 425MHz	dB	30	35	
425 ~ 432.72MHz	dB	13	17	
436.42 ~ 437.3MHz	dB	13	17	
437.3 ~ 438MHz	dB	22	27	
438 ~ 330MHz	dB	25	30	
330 ~ 446MHz	dB	25	30	
446 ~ 455MHz	dB	25	30	
455 ~ 480MHz	dB	28	33	
480 ~ 800MHz	dB	40	45	
800 ~ 1700MHz	dB	52	57	
1700 ~ 2500MHz	dB	42	47	
Package size	mm	SMD 3x3		
Impedance for pass band matching)				
Input: $Z_{IN} = Ls1 / Cp1$	nH		82/8.2	
Output: $Z_{OUT} = Ls2 / Cp2$	nH		68/1	

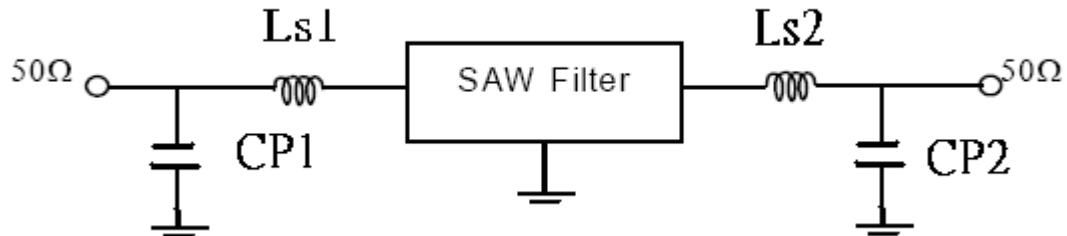
1. 433.885 to 434.90MHz for extended temperature range -40°C to +125°C
2. 433.870 to 434.915MHz for extended temperature range -40°C to +125°C

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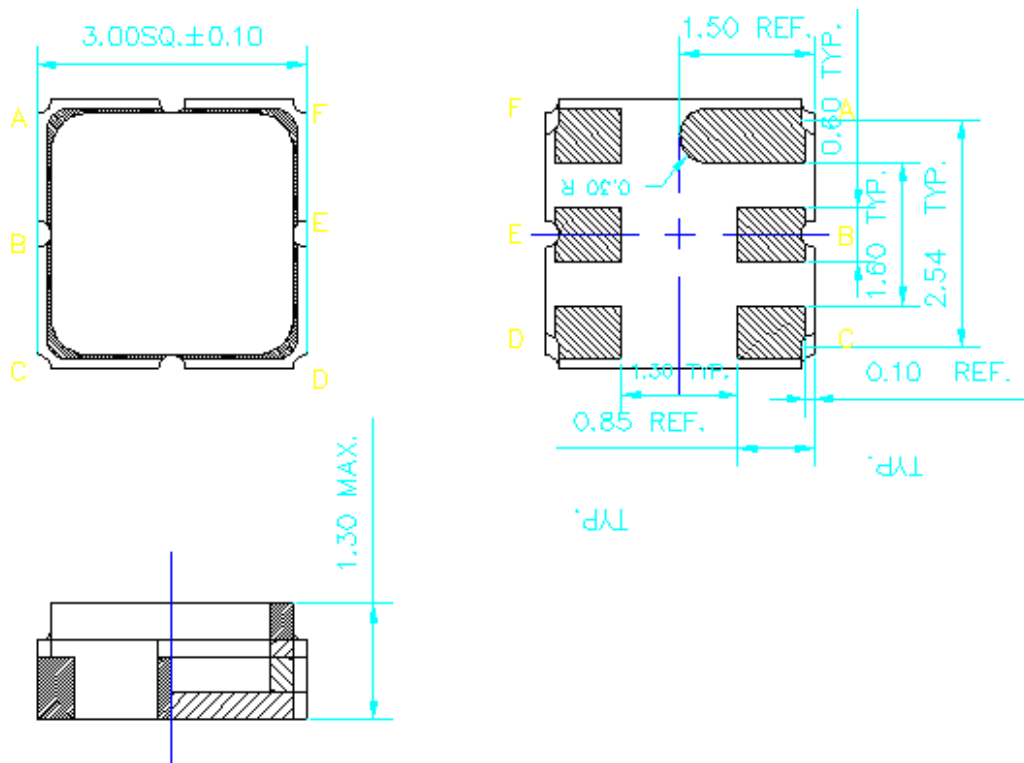
**C. TEST CIRCUIT:**

The matching circuit is



$Ls1 = 82nH$ ;  $Ls2 = 68nH$ ;  $Cp1 = 8.2pF$ ;  $Cp2 = 1pF$

**D. OUTLINE DRAWING:**



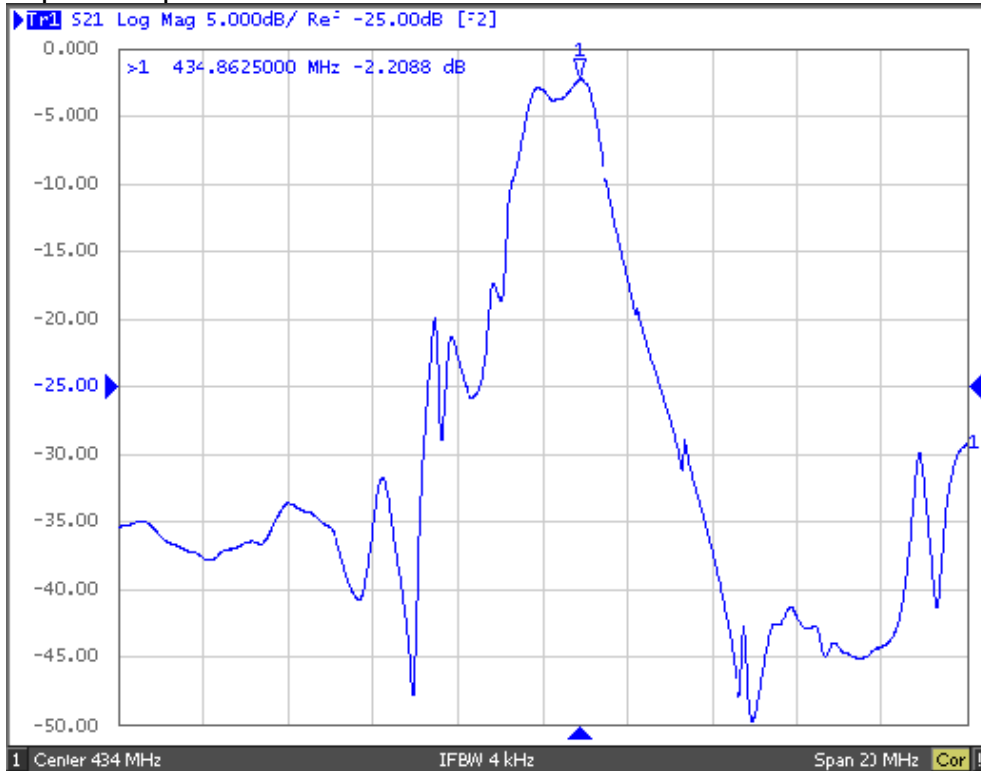
A, B: Input or input ground  
 D, E: Output or output ground  
 C, F: Ground  
 Unit: mm

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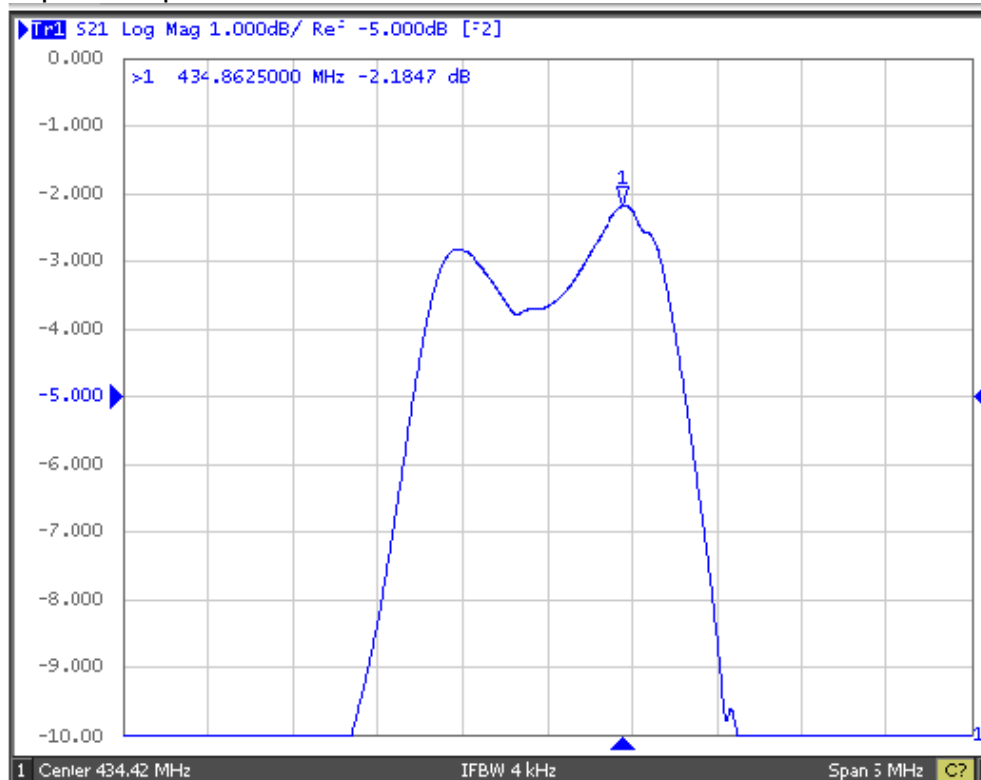
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**E. FREQUENCY CHARACTERISTICS:**

1. S21 response: span 20MHz



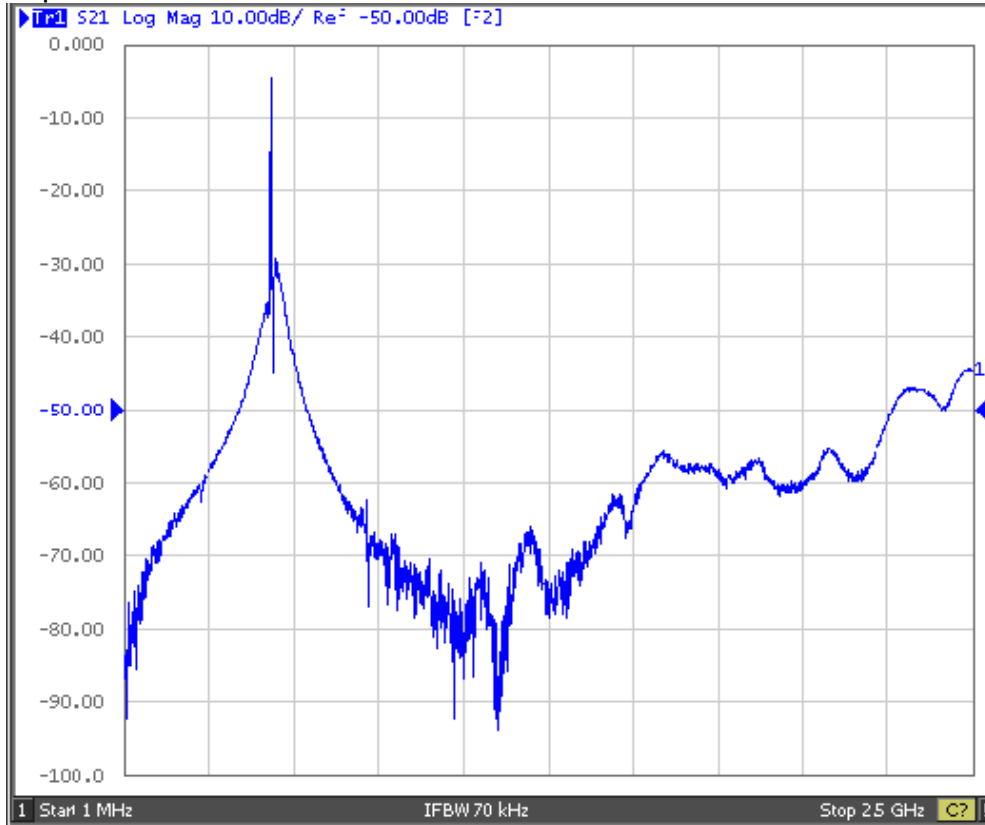
2. S21 response: span 5MHz



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3. S21 response: 1MHz ~ 2.5GHz





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**G. RECOMMENDED REFLOW PROFILE:**

