

SAW Filter 434.70MHz
Part No: MP07646

Model: TA1820A
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	-	434.7	-
Minimum Insertion Loss				
Incl. Loss in matching elements (434.165 ~ 435.235MHz)	dB		2.2	2.9
Excl. Loss in matching elements (434.165 ~ 435.235MHz)	dB		1.4	2.1
Pass Band (Relative to min)				
434.165 ~ 435.235MHz 1			1.1	2.5
434.15 ~ 435.25MHz 2			1.3	3.0
Relative Attenuation (Relative to min)				
10 ~ 350MHz	dB	50	55	
350 ~ 414MHz	dB	30	35	
414 ~ 425MHz	dB	30	35	
425 ~ 433MHz	dB	13	17	
436.7 ~ 437.3MHz	dB	13	17	
437.3 ~ 438MHz	dB	22	27	
438 ~ 330MHz	dB	25	30	

SAW Filter 434.70MHz

Model: TA1820A

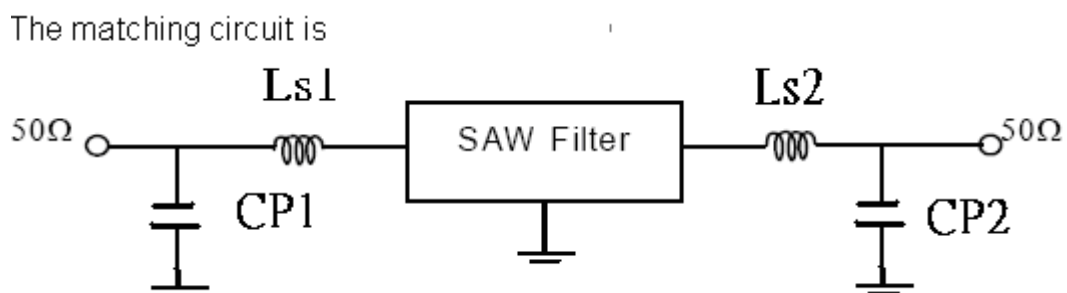
Part No: MP07646

Rev No: 1

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. 433.913 ... 434.928MHz for extended temperature range -40°C to +125°C.
2. 433.898 ... 434.943MHz for extended temperature range -40°C to +125°C.
3. 0805 Coilcraft CS series chip conductor is used for inductor.
4. 0402 muRata GRM series is used for capacitor.

C. TEST CIRCUIT:



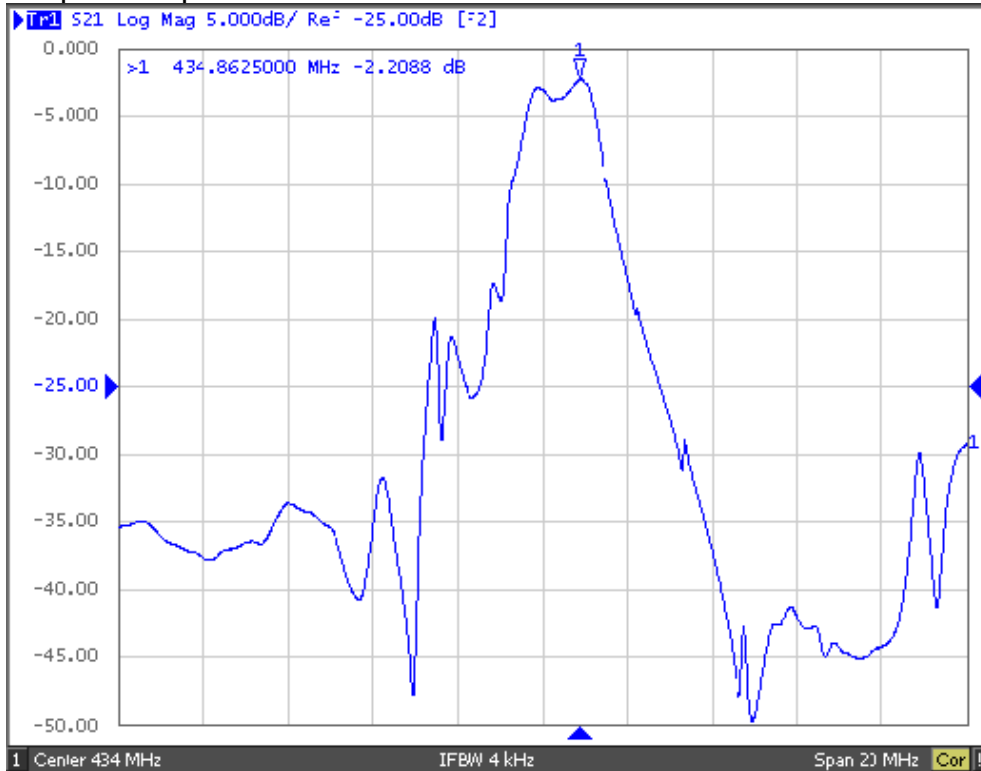
$Ls1 = 82nH, Ls2 = 68nH, Cp1 = 8.2pF, Cp2 = 1pF$

SAW Filter 434.70MHz
Part No: MP07646

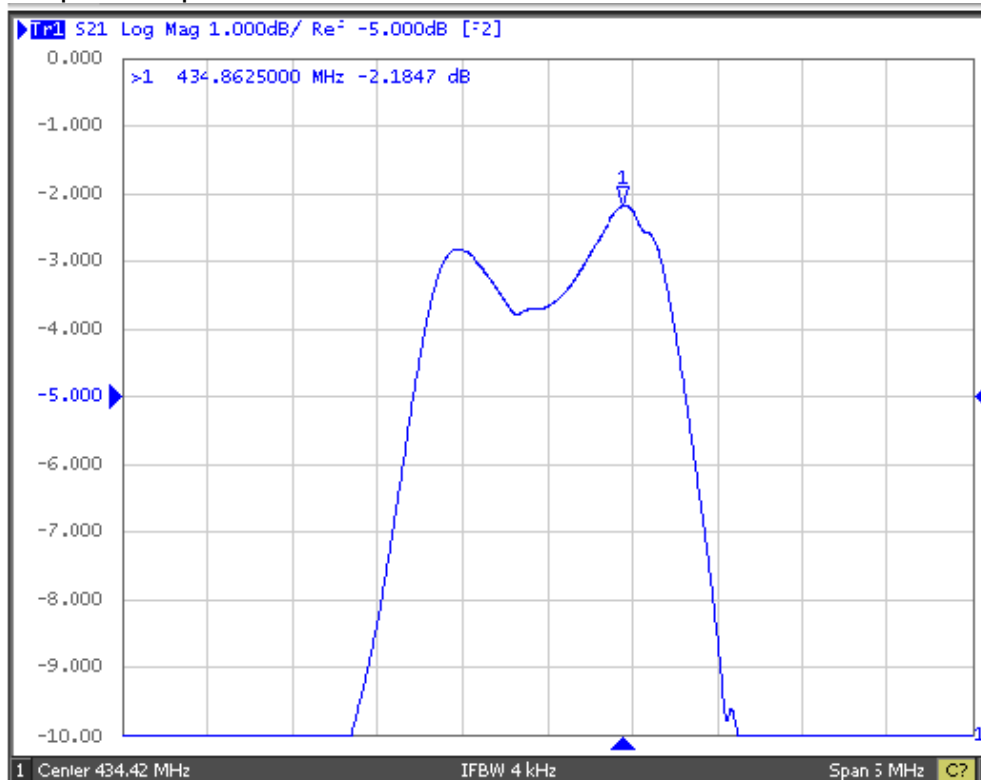
Model: TA1820A
Rev No: 1

D. FREQUENCY CHARACTERISTICS:

1. S21 response: span 20MHz



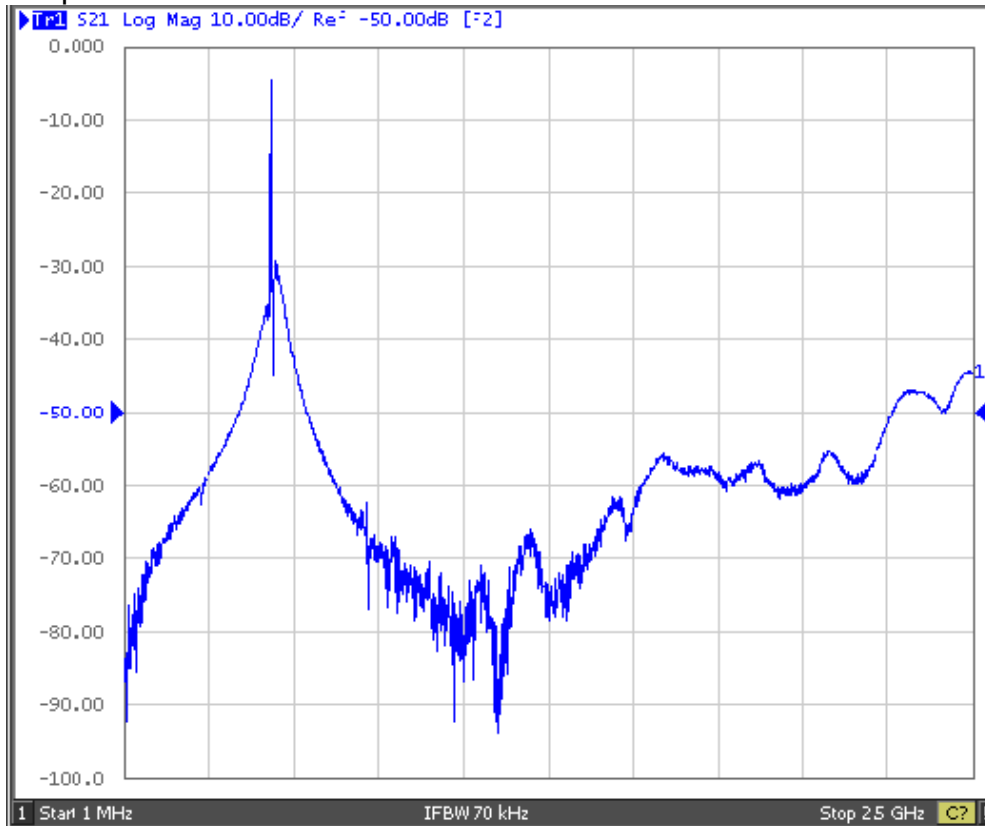
2. S21 response: span 5MHz



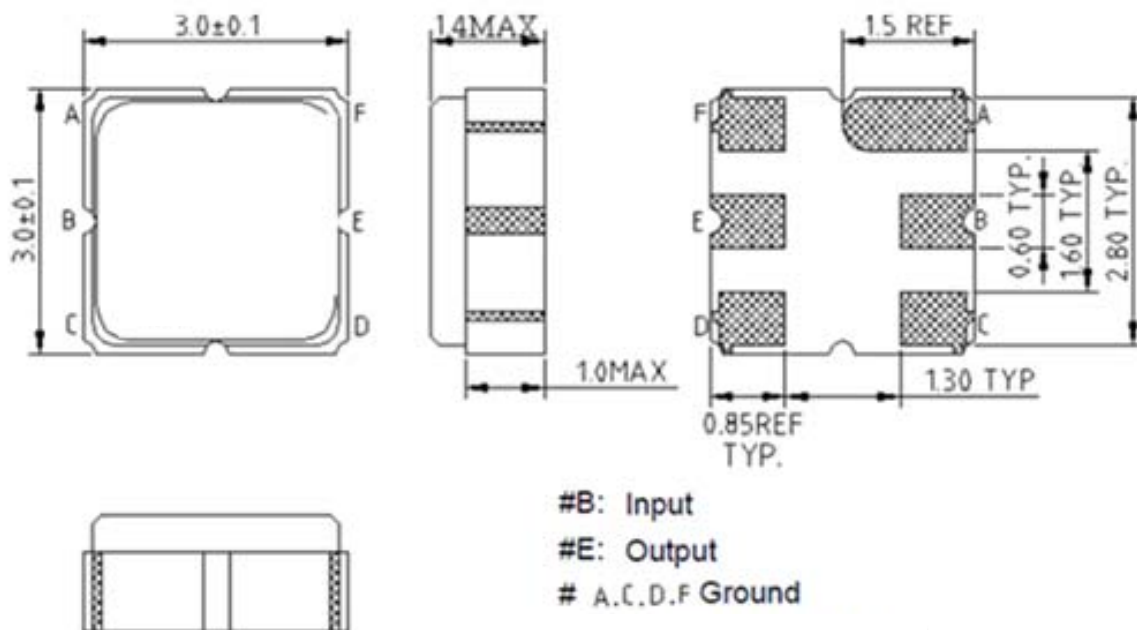
SAW Filter 434.70MHz
Part No: MP07646

Model: TA1820A
Rev No: 1

3. S21 response: 1MHz ~ 2.5GHz



E. OUTLINE DRAWING:



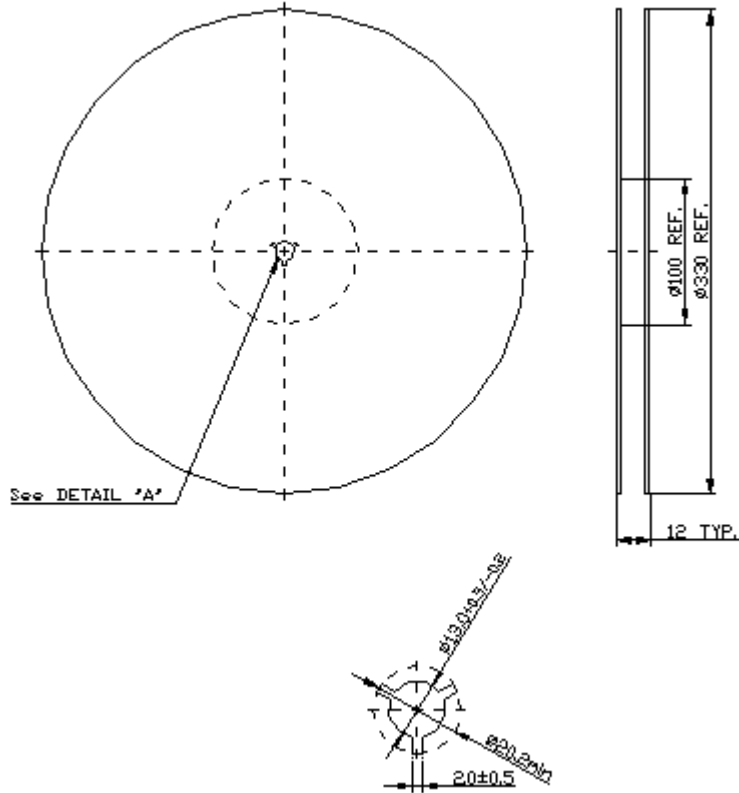
Unit: mm

SAW Filter 434.70MHz
Part No: MP07646

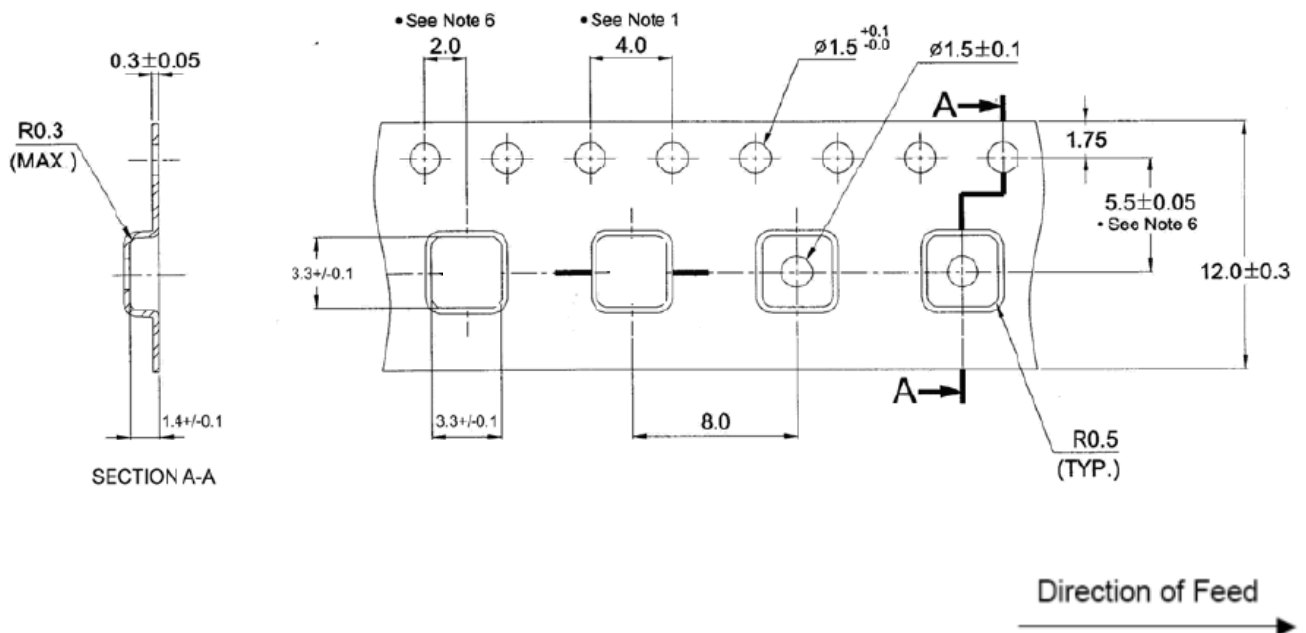
Model: TA1820A
Rev No: 1

F. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



SAW Filter 434.70MHz
Part No: MP07646

Model: TA1820A
Rev No: 1

G. RECOMMENDED REFLOW PROFILE:

