

SAW Filter 458.88750MHz

Model: TA1959A

Part No: MP06041

Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

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

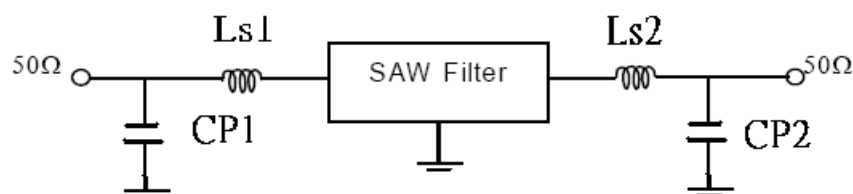
B. ELECTRICAL CHARACTERISTICS:

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 F_c	MHz	-	458.8875	-
Maximum Insertion Loss IL	dB		2.7	4.0
Amplitude Ripple	dB		0.5	2.0
2dB Bandwidth	dB	0.775	1.500	
Attenuation (Reference level from ILmin)				
10 ~ 135.9MHz	dB	40	60	
135.9 ~ 446.5MHz	dB	30	40	
446.5 ~ 457MHz	dB	10	20	
460.5 ~ 469.8MHz	dB	10	25	
469.8 ~ 515MHz	dB	22	30	
515 ~ 1000MHz	dB	40	50	
Temperature	ppm/k2		-0.036	
Impedance (By NA simulation)				
Input: $Z_{IN} = Ls1/Cp1$	nH/pF		90/5	
Output: $Z_{OUT} = Ls2/Cp2$	nH/pF		88/5	

C. TEST CIRCUIT:

The matching circuit is



$Ls1 = 90\text{nH}$, $Ls2 = 88\text{nH}$, $Cp1 = 5\text{pF}$, $Cp2 = 5\text{pF}$

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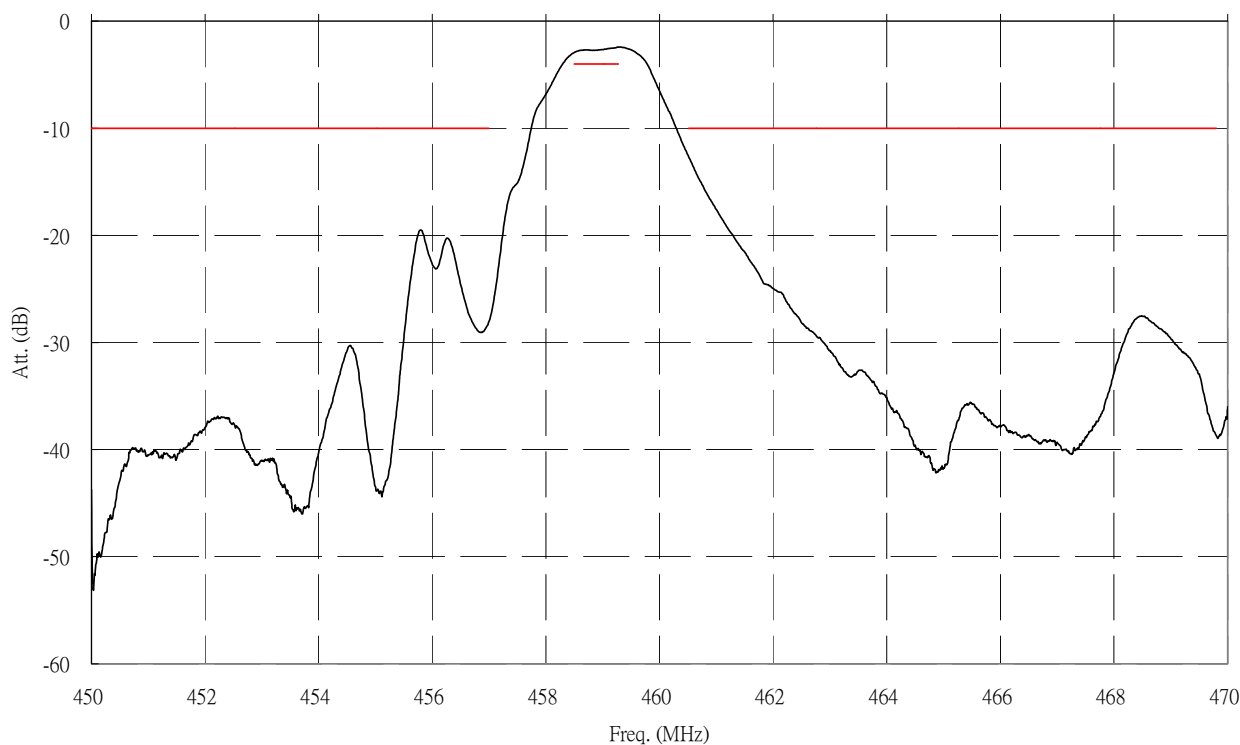
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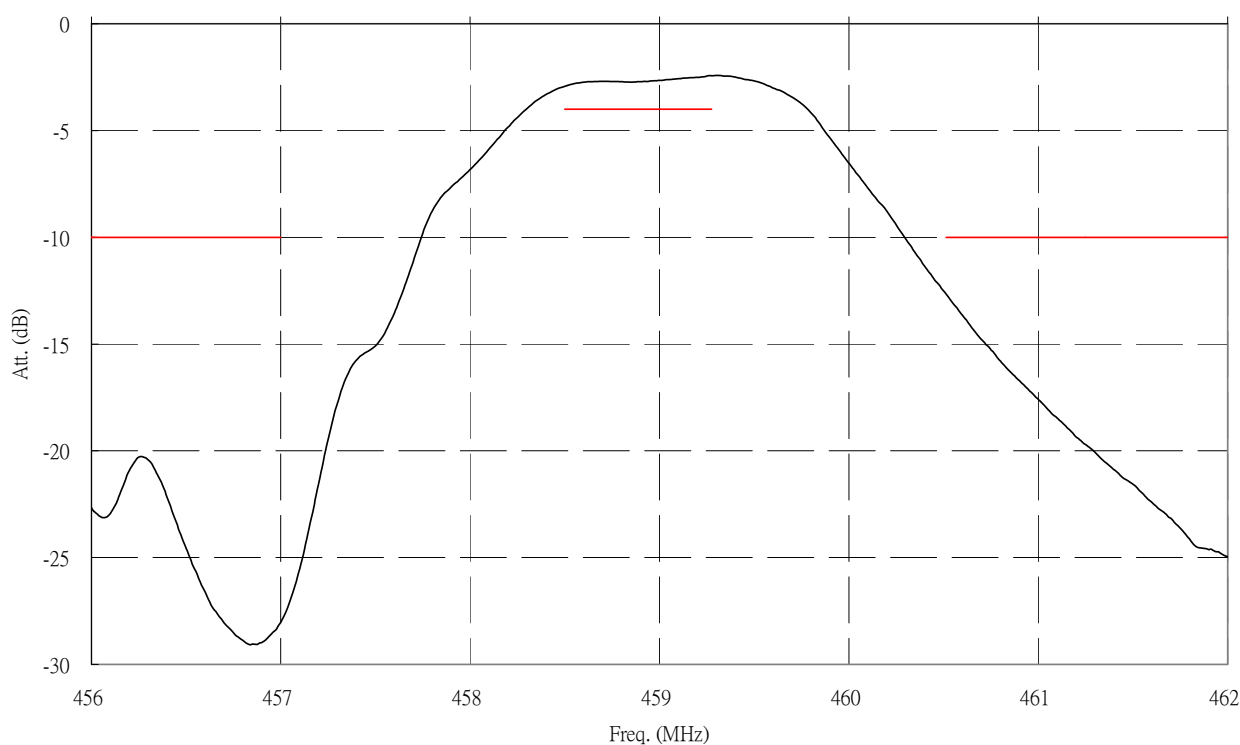
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D. FREQUENCY CHARACTERISTICS:

1. S21 response: center 460MHz, span 20MHz



2. S21 response: center 459MHz, span 6MHz



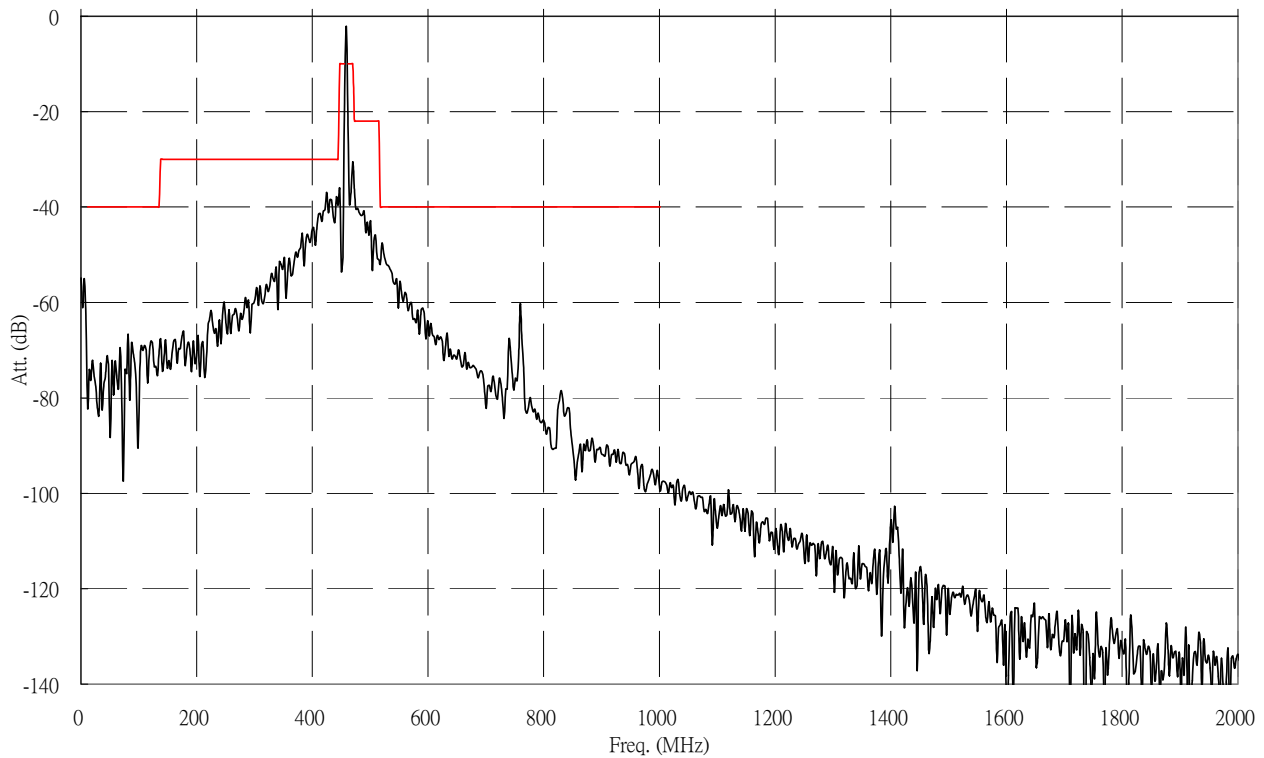
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3. S21 response: 0.3MHz ~ 2500MHz



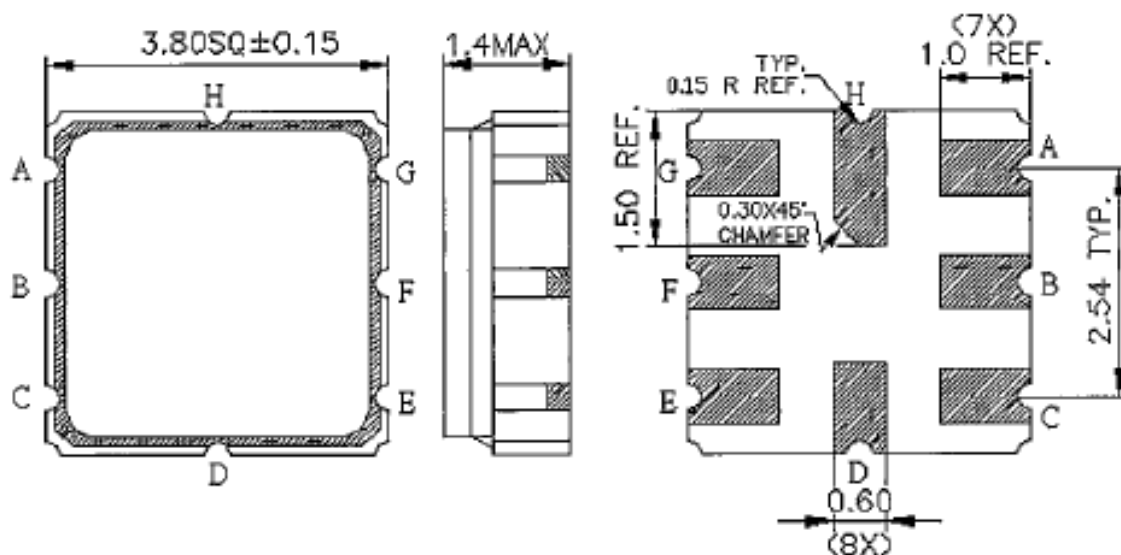
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E. OUTLINE DRAWING:



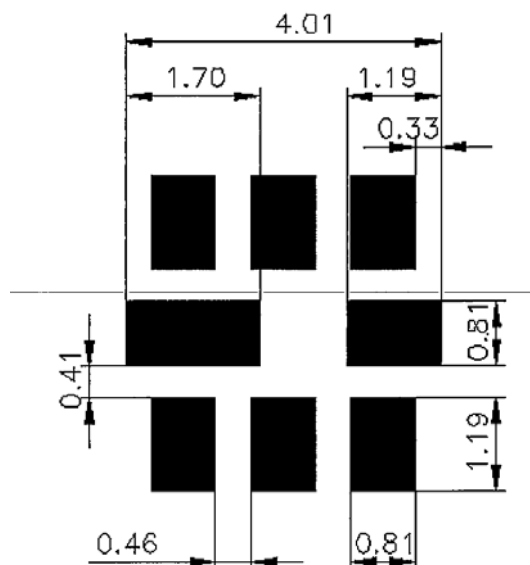
B: Input

F: Output

A, C, D, E, G, H: Ground

Unit: mm

F. PCB FOOTPRINT:

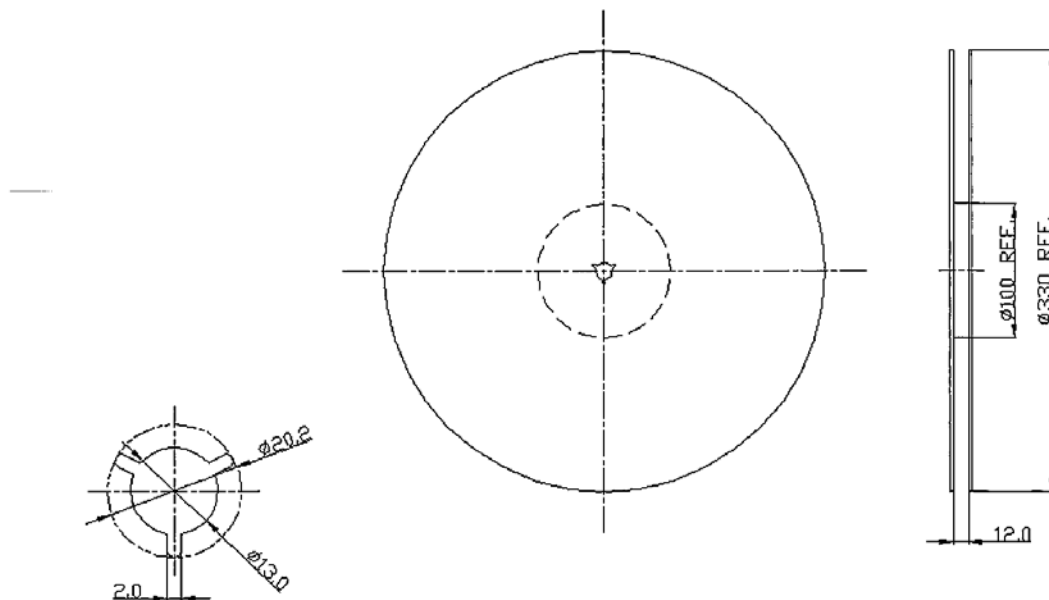


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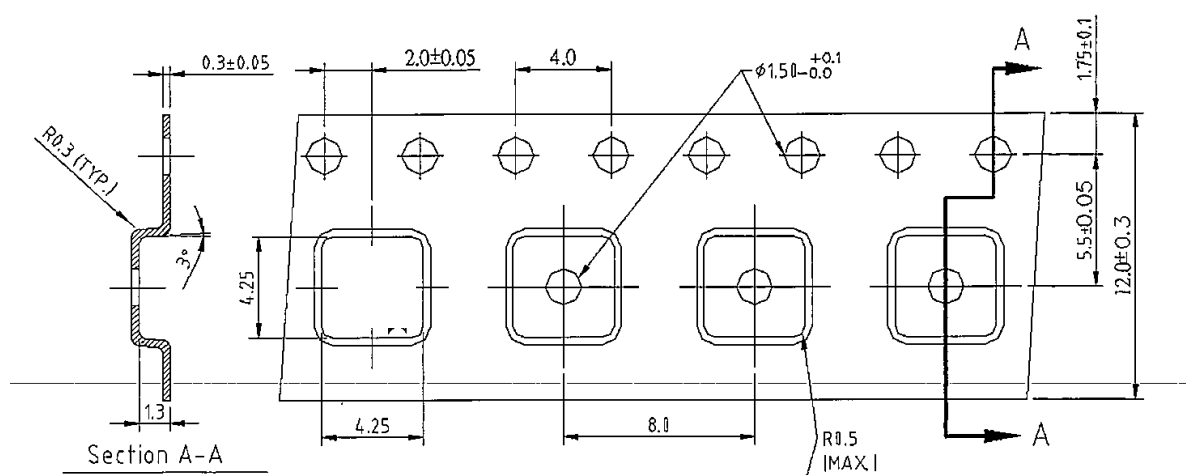
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G. PACKING:

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



2. Tape Dimension



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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 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

