

SAW Filter

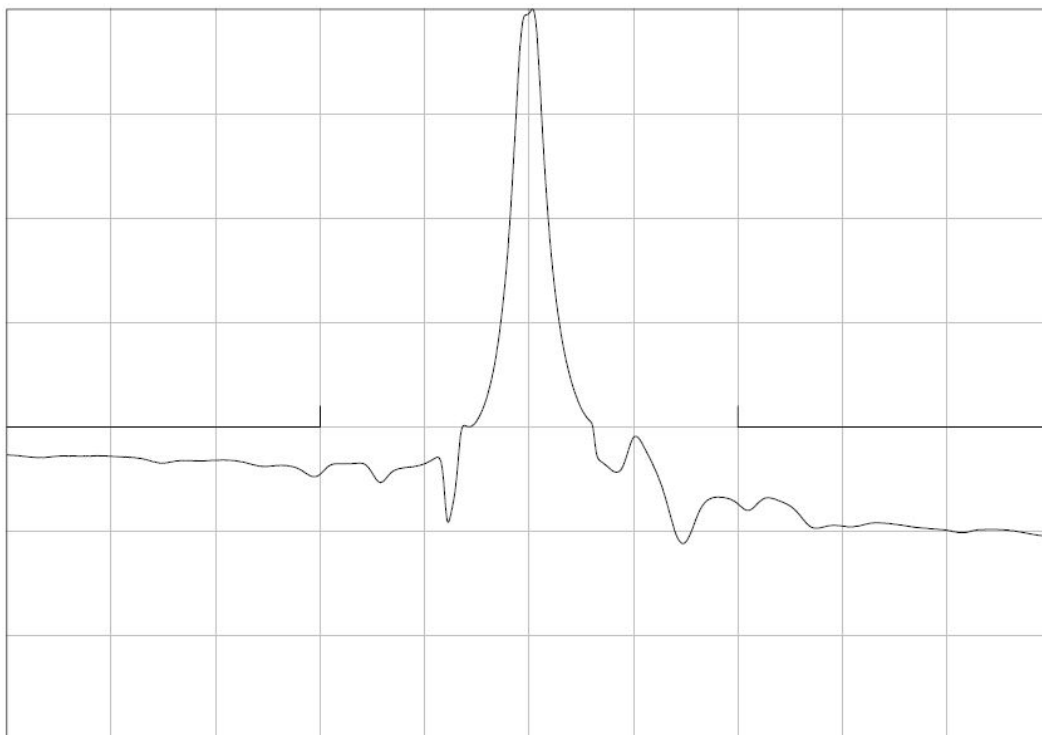
868 MHz SAW Filter, 600 kHz 1 dB Bandwidth



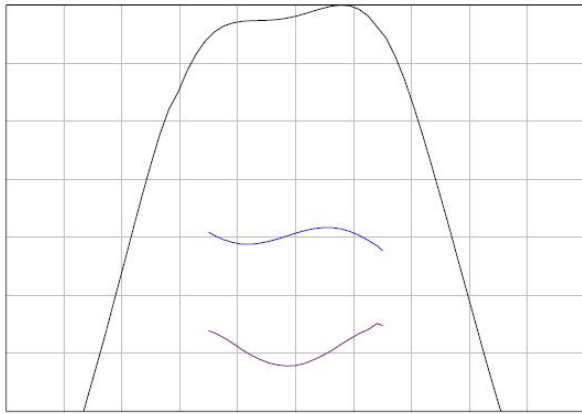
- 3.0 x 3.0 mm LCC, 6 Pads
- RoHS Compliant

These filters are manufactured on quartz, which provides optimal temperature performance and are available from 80 -1600 MHz. This TCRF is designed for narrowband IF filtering such as in satellite transponders, directional finders and anti-jam modems. Other packaging styles are available for more rugged environments and applications. Standard part numbers as well as custom solutions are available. Please contact sales for more information.

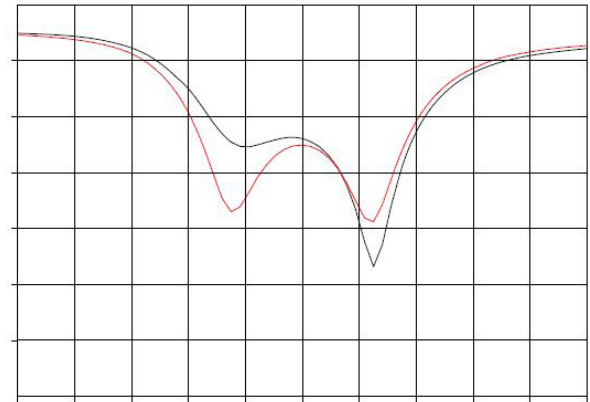
TYPICAL PERFORMANCE



Horizontal: Frequency : 5 MHz/div
Vertical: Relative Magnitude : 5 dB/div



Horizontal: Frequency: 0.2 MHz/div
 Vertical: Relative Magnitude: 1 dB/div
 Phase: 10 deg/div
 Group Delay: 200 ns/div



Horizontal: Frequency: 0.2 MHz/div
 Vertical: Input Return Loss: 5 dB/div
 Output Return Loss: 5 dB/div
 (0 dB at top of chart)

SPECIFICATION

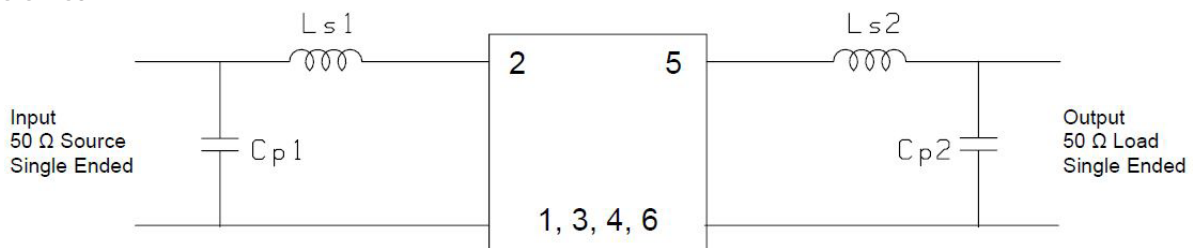
Parameter	Min	Typ	Max	Units
Nominal Center Frequency F_c	867.9	868	868.1	MHz
Insertion Loss ¹	-	4.5	5	dB
1 dB Bandwidth ²	0.6	0.7	-	MHz
3 dB Bandwidth ²	0.8	1.0	-	MHz
Absolute Delay	-	0.6	1.0	μ s
Rejection (200-858 MHz) ²	20	21	-	dB
Rejection (878-1500 MHz) ²	20	23	-	dB
Phase Variation, $F_c \pm 0.3$ MHz	-	4	10	deg
Group Delay Variation, $F_c \pm 0.3$ MHz	-	150	200	ns
Return Loss at F_c	6	10	-	dB
Source/Load Impedance	50			Ω

- Notes:
1. At response peak.
 2. All dB values are relative to the insertion loss level of note 1,
 3. Typical frequency shift with temperature is $\Delta F/F_c = 0.03(T-T_{ref})^2$ ppm (T_{ref} is TBD)

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-45	85	$^{\circ}$ C
Operating Temperature Range (T)	-30	60	$^{\circ}$ C
Input Power Level	-	10	dBm

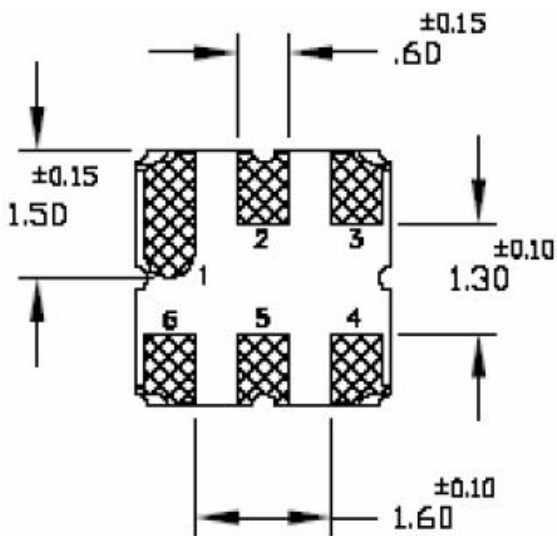
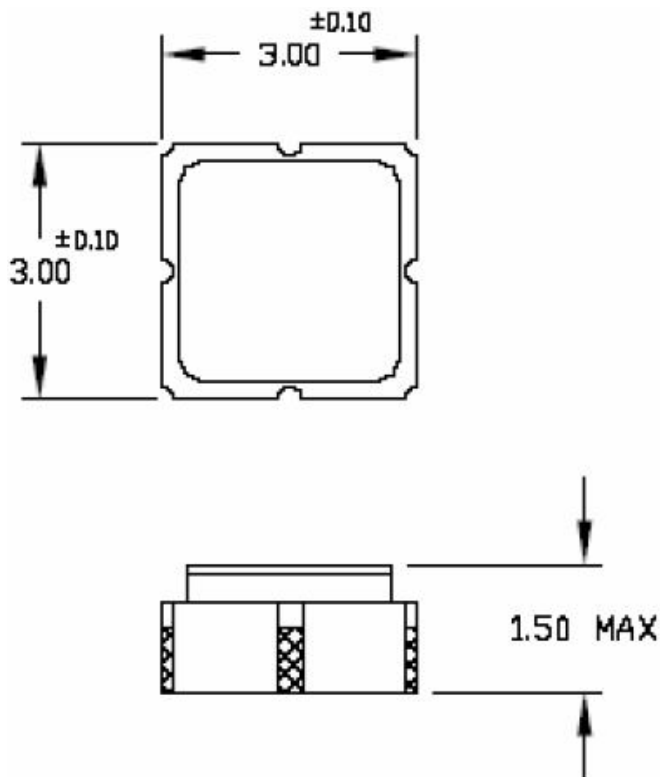
MATCHING CIRCUIT



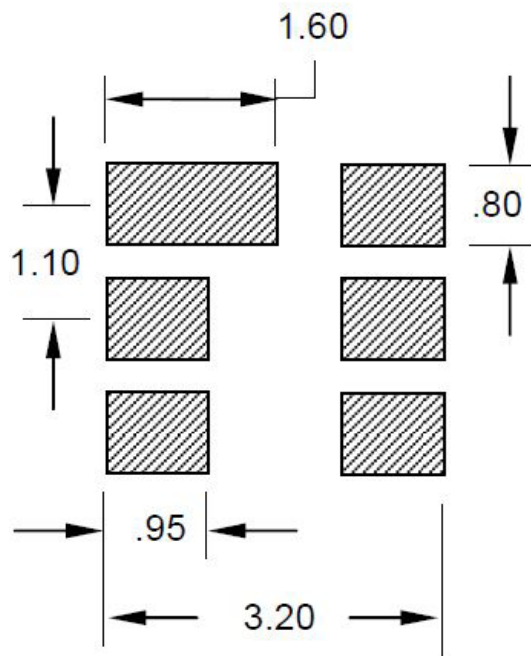
Typical component values: $L_{s1} = 27$ nH $L_{s2} = 27$ nH
 $C_{p1} = 4$ pF $C_{p2} = 4$ pF

- Notes:
- 2% tolerance matching components are recommended.
 - Tuning values shown are for reference only. Optimum values may change depending upon board layout.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

Tolerances are ± 0.15 mm except where indicated.

Pad Configuration:

Input: 2
 Output: 5
 Ground: 1, 3, 4, 6

Package Material:

Body: Al_2O_3 ceramic
 Lid: Kovar, Ni plated
 Terminations: Au plating 1 μ m min, over a 1.3 - 8.9 μ m Ni plating