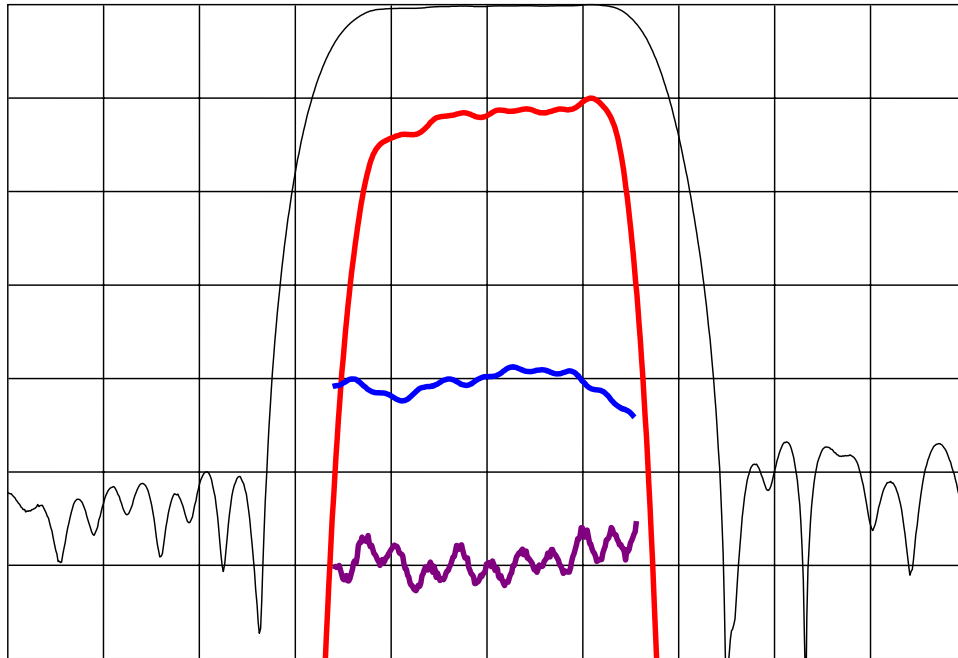


**DESCRIPTION**

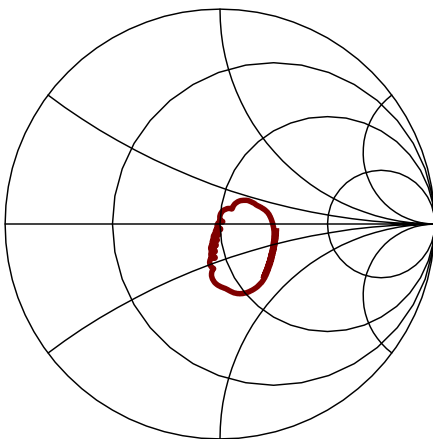
- 240 MHz SAW bandpass filter with 1.23 MHz bandwidth.
- 24.6 x 9 mm LCC package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

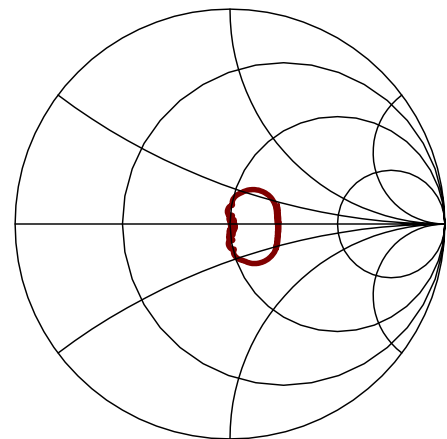


Horizontal: Frequency : 0.5 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 5 deg/div  
 Group Delay Deviation : 100 ns/div

**S11 (237.5-242.5 MHz)**



**S22 (237.5-242.5 MHz)**



## SPECIFICATION

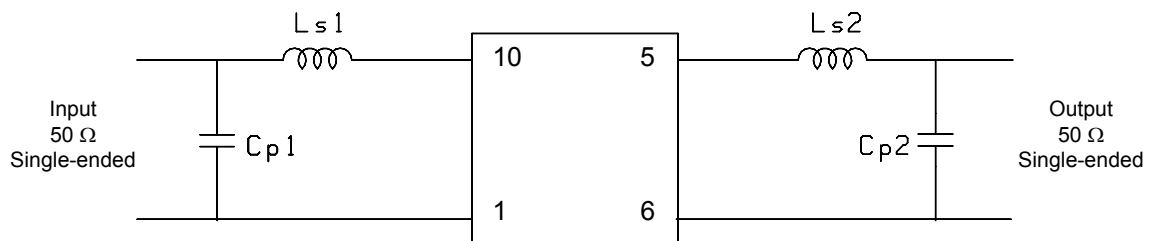
Parameter <sup>3</sup>	Min	Typ	Max	Units
Center Frequency ( Fc) <sup>1</sup>	-	240	-	MHz
Insertion Loss at Fc	-	12.7	16	dB
1 dB Bandwidth <sup>2</sup>	1.23	1.40	-	MHz
10 dB bandwidth <sup>2</sup>	-	1.87	-	MHz
38 dB Bandwidth <sup>2</sup>	-	2.29	2.5	MHz
45 dB bandwidth <sup>2</sup>	-	2.35	4.1	MHz
Passband Ripple (Fc+/-0.615 MHz)	-	0.2	1	dB p-p
Phase Linearity (Fc+/- 0.615 MHz)	-	2.5	8	deg p-p
Stopband Rejection (Fc+/-1.25 to Fc+/-2.05 MHz)	38	46	-	dB
Stopband Rejection (Fc+/-2.05 to Fc+/-220 MHz)	45	47.5	-	dB
Absolute Delay	-	3.04	-	us
Input Return Loss (Fc+/-0.615 MHz)	10	15	-	dB
Output Return Loss (Fc+/-0.615 MHz)	10	18	-	dB
System Source and Load Impedance	50			$\Omega$
Ambient Temperature	-	25	-	$^{\circ}\text{C}$

- Notes:
1. Defined as the average of the 10 dB frequencies..
  2. All dB levels are defined relative to the insertion loss at Fc.
  3. All electrical specifications apply across the full operating temperature range.

## MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
Storage Temperature Range	-40	25	85	$^{\circ}\text{C}$
Operating Temperature Range	-10	25	85	$^{\circ}\text{C}$
Input Power Level	-	10	13	dBm

## MATCHING CIRCUIT



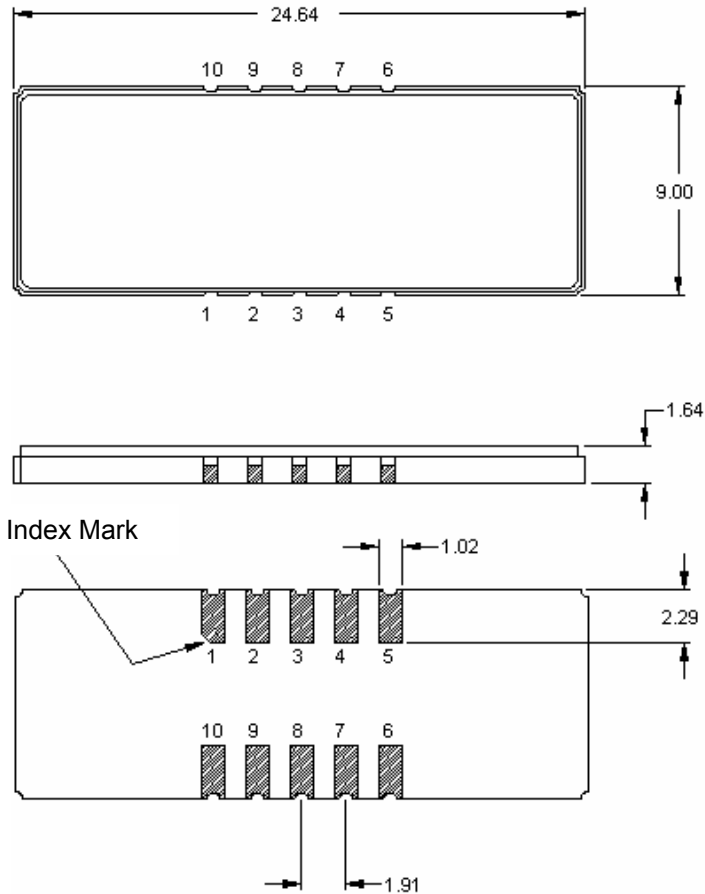
Typical component values:

$$\begin{aligned} L_{s1} &= 52 \text{ nH} & L_{s2} &= 56 \text{ nH} \\ C_{p1} &= 29 \text{ pF} & C_{p2} &= 27 \text{ pF} \end{aligned}$$

Notes:

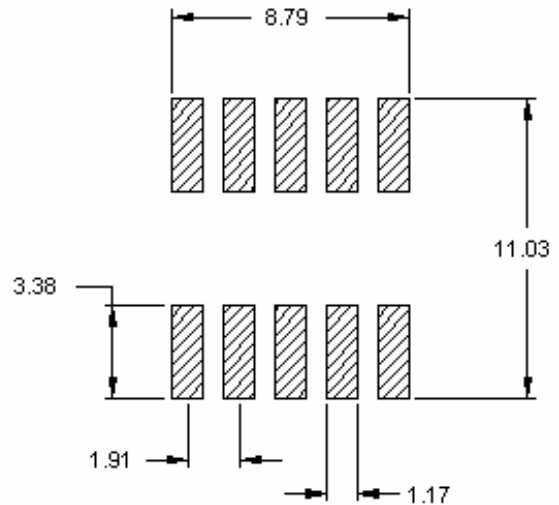
1. Recommend use of 2% tolerance matching components. Inductor Q=45.
2. Component values are for reference only and may change depending on board layout.

**PACKAGE OUTLINE**



Package Material:  
Body:  $Al_2O_3$  ceramic  
Lid: Kovar, Ni plated  
Terminations: Au plating 1  $\mu$ m min,  
over a 1.3-8.9  $\mu$ m Ni plating

**SUGGESTED FOOTPRINT**



**Units:** mm

Tolerances are  $\pm 0.15$  mm except where indicated and for the overall length and width, which are nominal values.

**Pad Configuration:**

Input:	10
Input return:	1
Output:	5
Output return:	6
Ground:	All other pads

ISO 9001  
Registered

All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.  
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