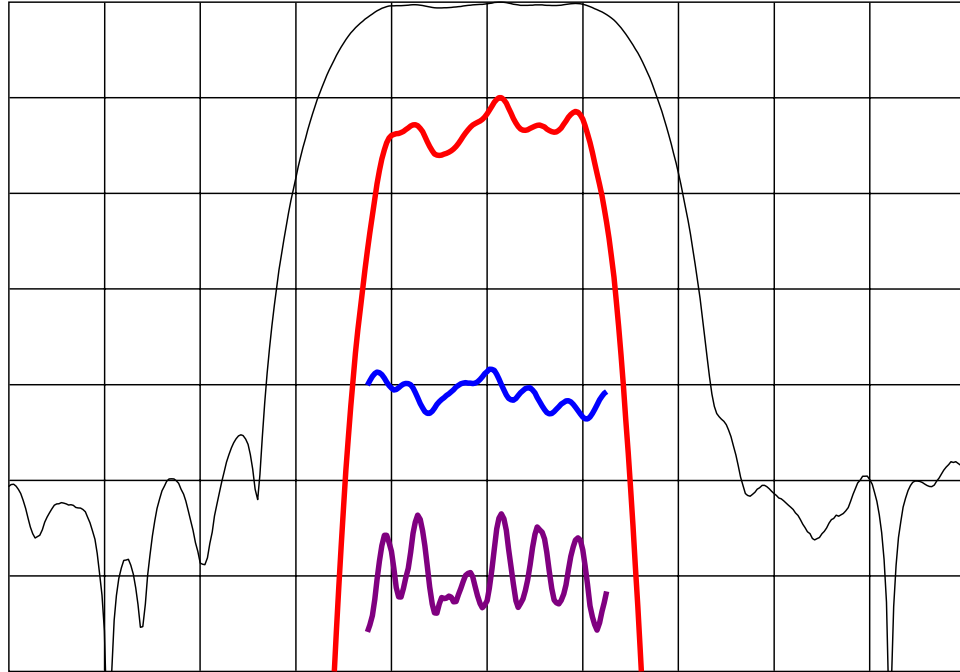


**DESCRIPTION**

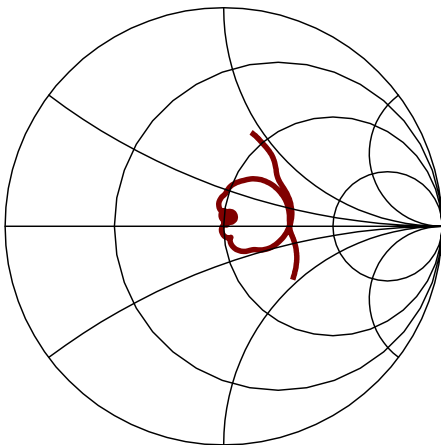
- 141 MHz SAW bandpass filter with 1.25 MHz bandwidth.
- 19 x 6.5 mm LCC package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

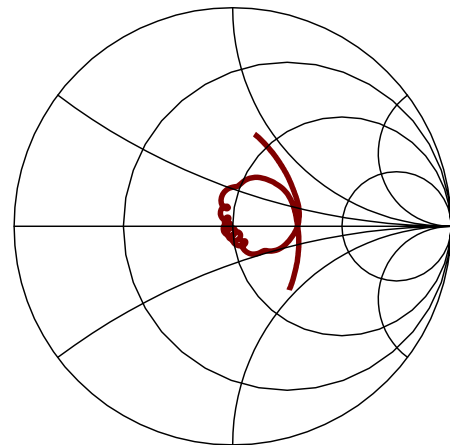


Horizontal: Frequency : 0.5 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 5 deg/div  
 Group Delay Deviation : 100 ns/div

**S11 (138.5 to 143.5 MHz)**



**S22 (138.5 to 143.5 MHz)**



## SPECIFICATION

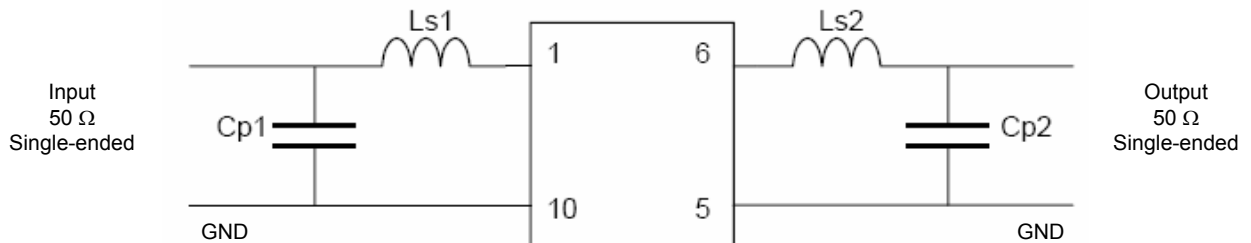
Parameter	Min	Typ	Max	Units
Center Frequency, $F_C$ (fixed reference)	-	141.0	-	MHz
Insertion loss at $F_C$	-	11.7	14	dB
1 dB Bandwidth <sup>1</sup>	-	1.21	-	MHz
Attenuation at $141 \pm 1.25$ MHz <sup>1</sup>	38	44	-	dB
Stopband Rejection (70 to 139.5 MHz) <sup>1</sup>	42	50	-	dB
Stopband Rejection (139.5 to 139.75 MHz) <sup>1</sup>	38	45	-	dB
Stopband Rejection (142.25 to 142.5 MHz) <sup>1</sup>	38	44	-	dB
Stopband Rejection (142.5 to 202.25 MHz) <sup>1</sup>	42	48	-	dB
Return Loss at Input and Output ( $141 \pm 0.625$ MHz) <sup>2</sup>	10	15	-	dB
Passband Amplitude Ripple ( $141 \pm 0.625$ MHz) <sup>3</sup>	-	0.65	1	dB p-p
Phase Linearity ( $141 \pm 0.625$ MHz)	-	2.8	4	deg p-p
Source/Load Impedance	50			ohms
Ambient Temperature	-	25	-	°C

- Notes:
1. All dB levels to be measured relative to average loss across the passband.
  2. When matched using external components as described below.
  3. Does not include roll-offs at edge of pass band.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	95	°C
Operating Temperature Range	-10	85	°C
Input Power Level	-	13	dBm

## MATCHING CIRCUIT



Typical component values:

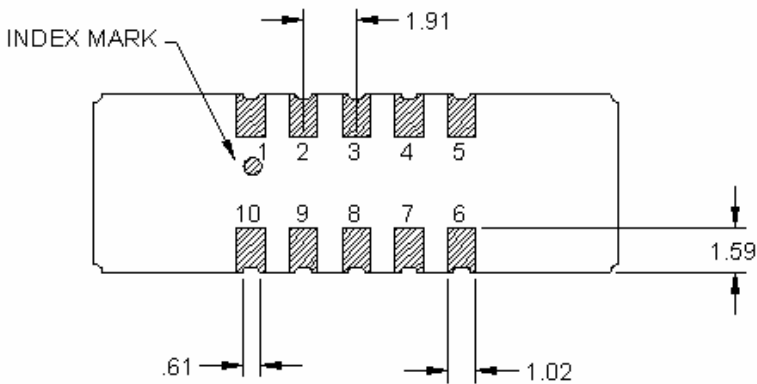
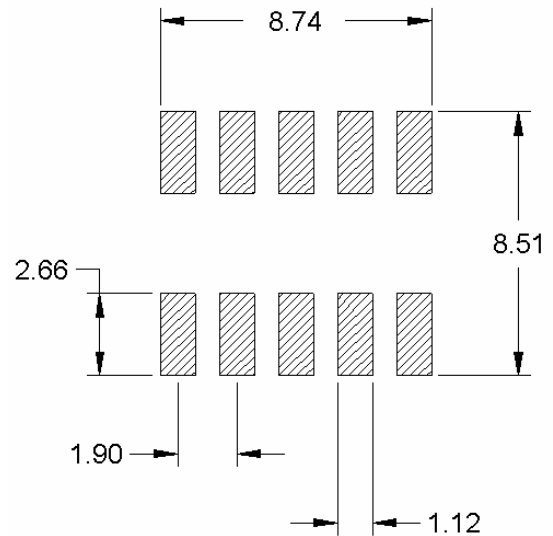
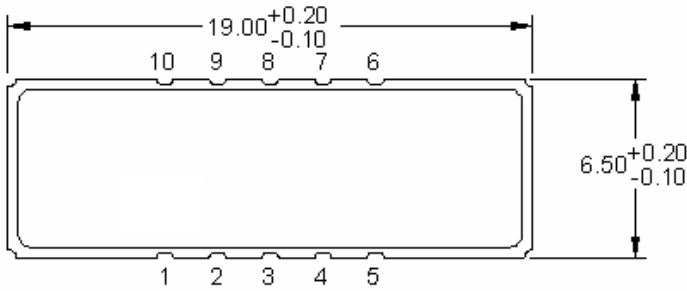
$$\begin{aligned} Ls1 &= 120 \text{ nH} & Ls2 &= 110 \text{ nH} \\ Cp1 &= 51 \text{ pF} & Cp2 &= 56 \text{ pF} \end{aligned}$$

Notes:

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

**PACKAGE OUTLINE**

**SUGGESTED FOOTPRINT**



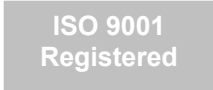
**Units:** mm

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

**Pad Configuration:**

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

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



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