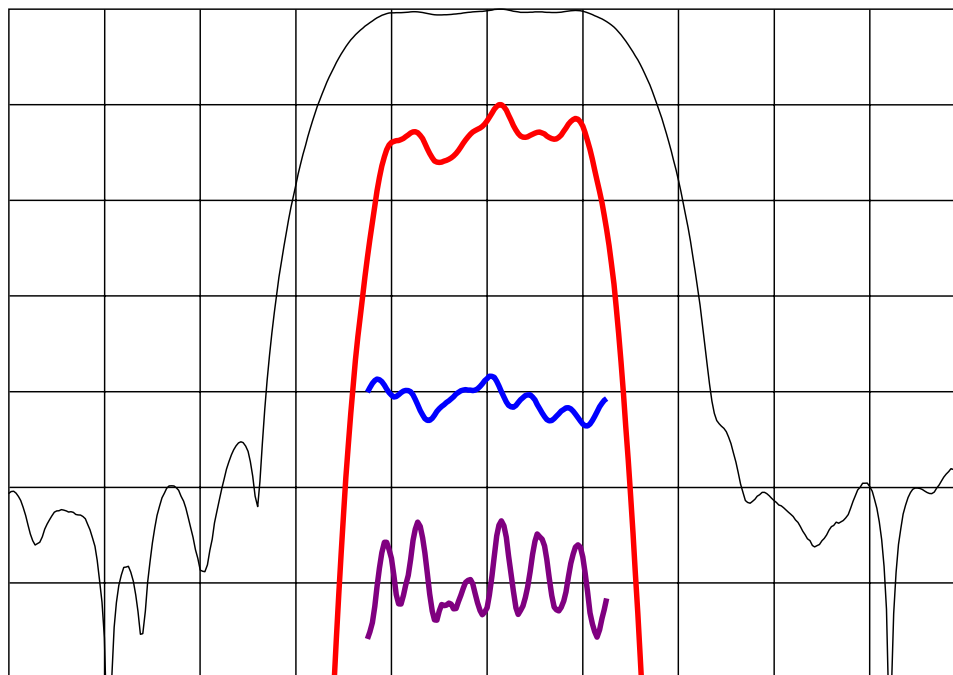


DESCRIPTION

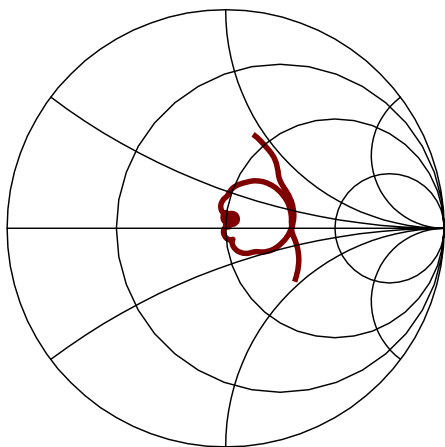
- 141 MHz SAW bandpass filter with 1.25 MHz bandwidth.
- 19 x 6.5 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

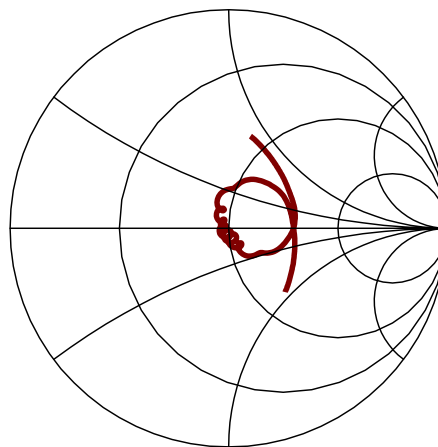


Horizontal: Frequency : 0.5 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 5 deg/div
 Group Delay Deviation : 100 ns/div

S11 (138.5 to 143.5 MHz)



S22 (138.5 to 143.5 MHz)



SPECIFICATION

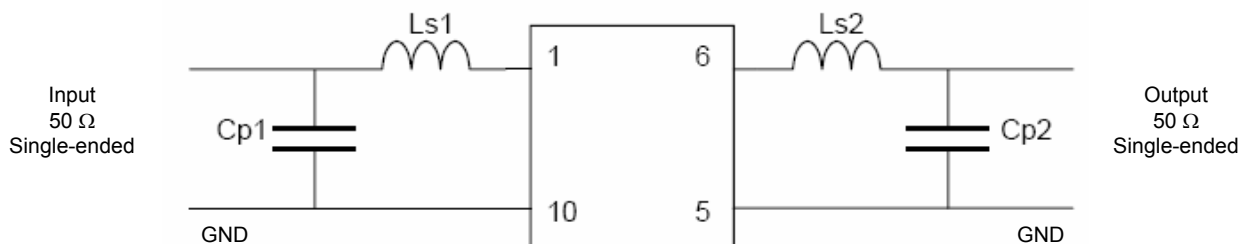
Parameter	Min	Typ	Max	Units
Center Frequency, F_c (fixed reference)	-	141.0	-	MHz
Insertion loss at F_c	-	11.7	14	dB
1 dB Bandwidth ¹	-	1.21	-	MHz
Attenuation at 141 ± 1.25 MHz ¹	38	44	-	dB
Stopband Rejection (70 to 139.5 MHz) ¹	42	50	-	dB
Stopband Rejection (139.5 to 139.75 MHz) ¹	38	45	-	dB
Stopband Rejection (142.25 to 142.5 MHz) ¹	38	44	-	dB
Stopband Rejection (142.5 to 202.25 MHz) ¹	42	48	-	dB
Return Loss at Input and Output (141 ± 0.625 MHz) ²	10	15	-	dB
Passband Amplitude Ripple (141 ± 0.625 MHz) ³	-	0.65	1	dB p-p
Phase Linearity (141 ± 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



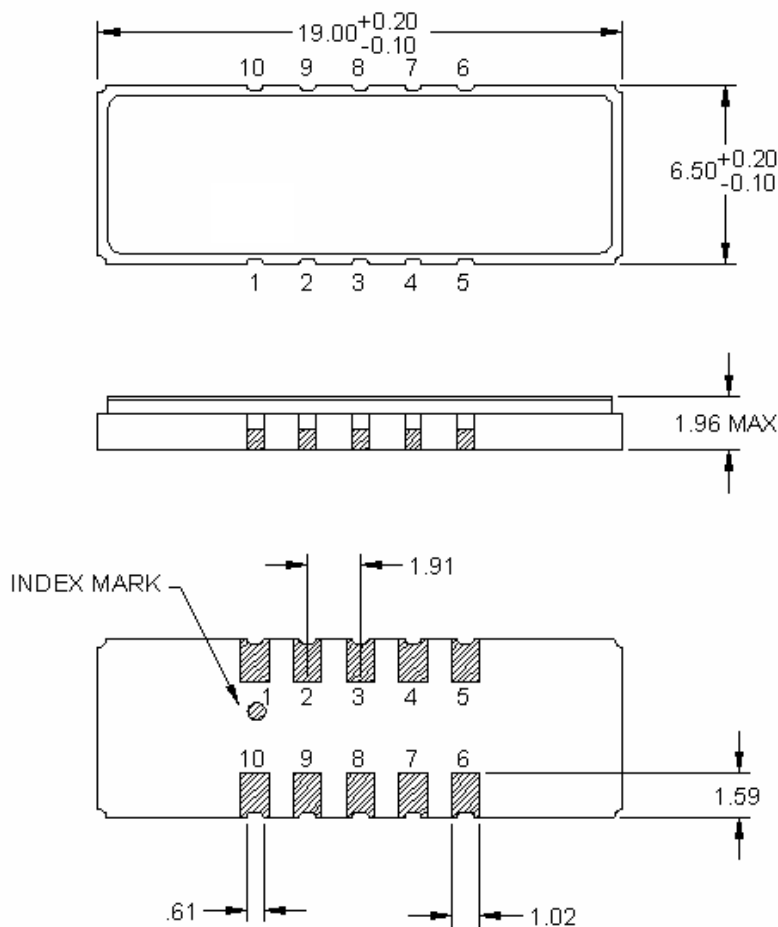
Typical component values:

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

Notes:

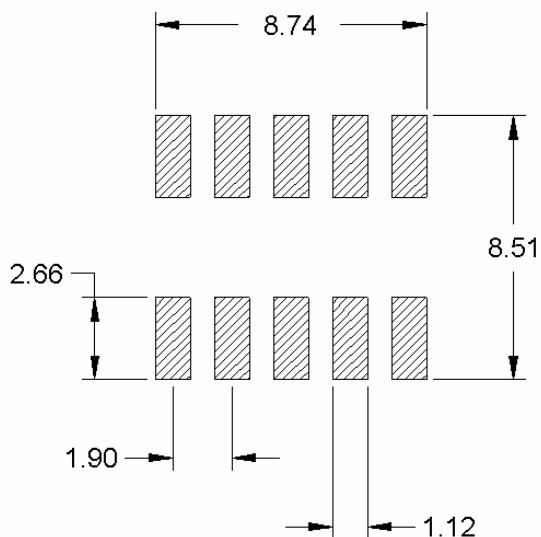
1. Recommend use of 2% tolerance matching components.
2. Component values are for reference only and may change depending on board layout.

PACKAGE OUTLINE



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

SUGGESTED FOOTPRINT



Units: mm

Tolerances are ± 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

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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