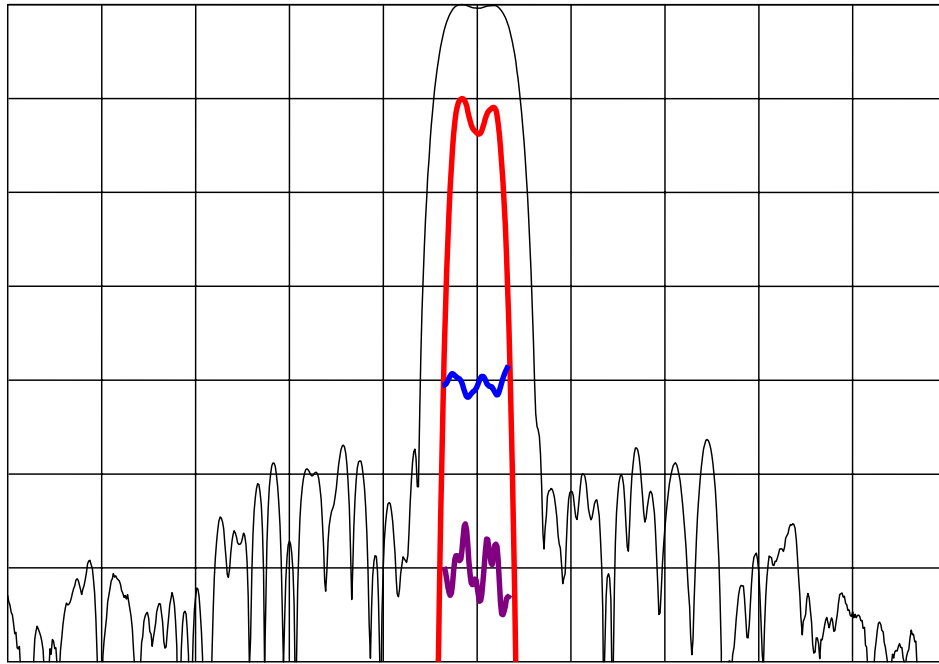


DESCRIPTION

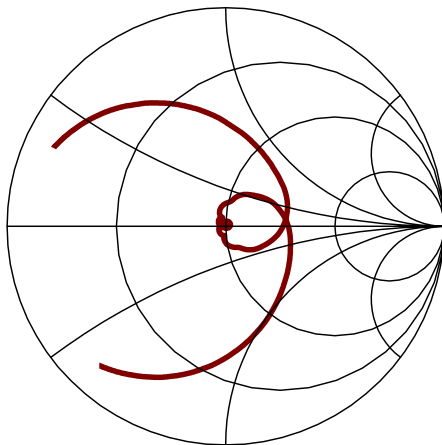
- 137.5 MHz SAW bandpass filter with 1 MHz bandwidth.
- 19 x 6.5 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

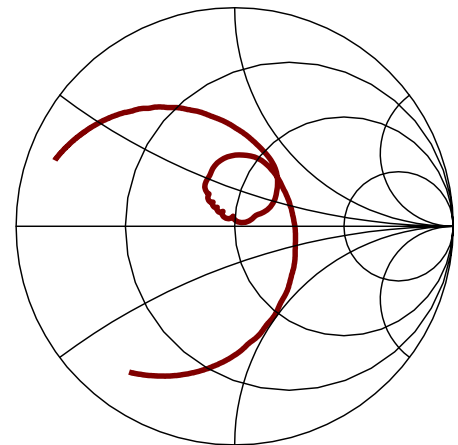


Horizontal: Frequency : 2 MHz/div
 Vertical from Top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 5 deg/div
 Group Delay Deviation : 50 ns/div

S11 (127.5 to 147.5 MHz)



S22 (127.5 to 147.5 MHz)



SPECIFICATION

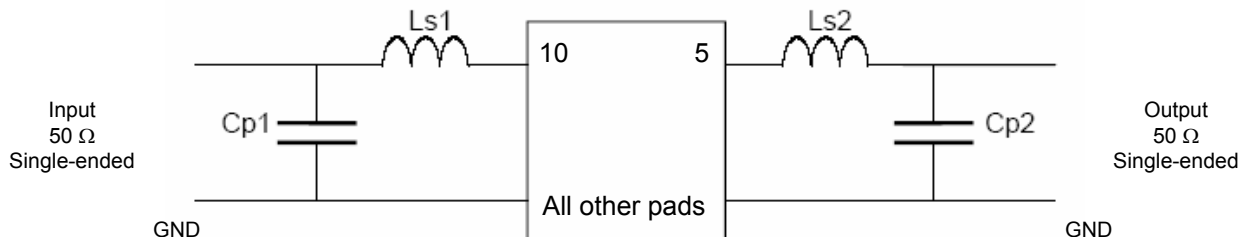
Parameter	Min	Typ	Max	Units
Center Frequency, F_c (fixed reference)	-	137.5	-	MHz
Insertion loss at F_c	-	11.2	14	dB
1 dB Bandwidth	1.0	1.20	-	MHz
3 dB Bandwidth	-	1.46	-	MHz
40 dB Bandwidth	-	2.46	2.6	MHz
Passband Amplitude Ripple ²	-	0.65	1	dB p-p
Passband Phase Linearity ²	-	1.2	5	deg p-p
Passband Group Delay Ripple ²	-	40	-	ns p-p
Rejection (10 to 127.5 MHz)	40	43	-	dB
Rejection (147.5 to 200 MHz)	40	43	-	dB
Return Loss at Input and Output ^{2,3}	-	18	-	dB
Absolute Delay	-	1.08	1.5	us
Source/Load Impedance	50			ohms
Ambient Temperature	-	25	-	°C

- Notes:
1. Fixed reference. All specified bandwidths are centered at this frequency.
 2. Over the central 1 MHz bandwidth.
 3. When matched using external components in MNC test fixture.
 4. The above specification applies over the full operating temperature range.

MAXIMUM RATINGS

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

MATCHING CIRCUIT



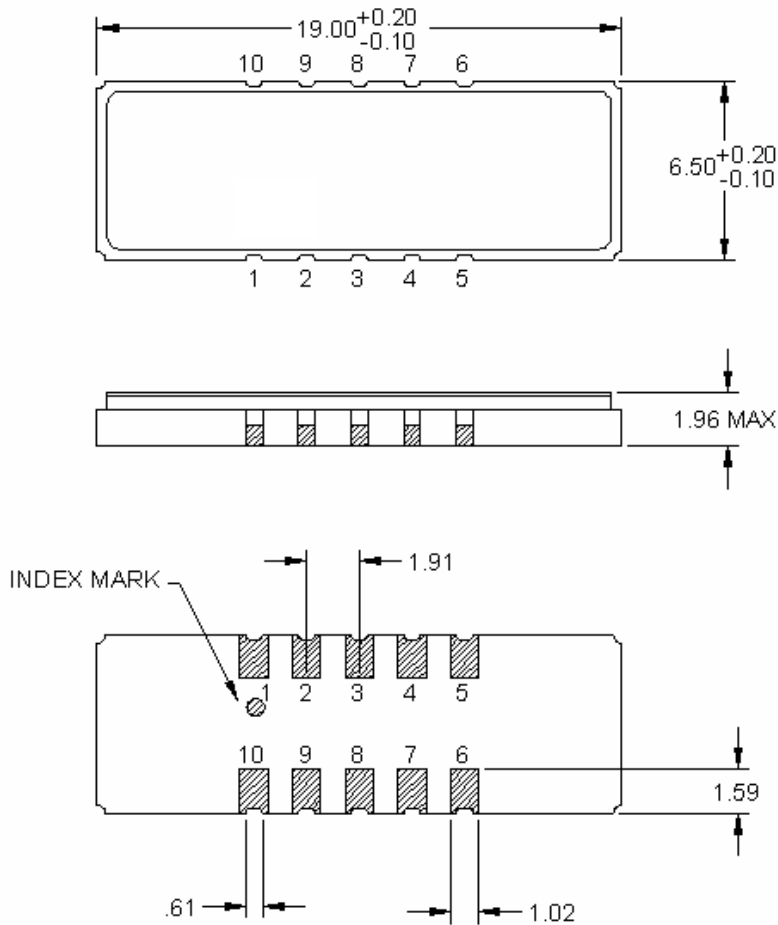
Typical component values:
Minimum $Q=45$

$$\begin{aligned} L_{s1} &= 128 \text{ nH} & L_{s2} &= 126 \text{ nH} \\ C_{p1} &= 56 \text{ pF} & C_{p2} &= 567 \text{ pF} \end{aligned}$$

Notes:

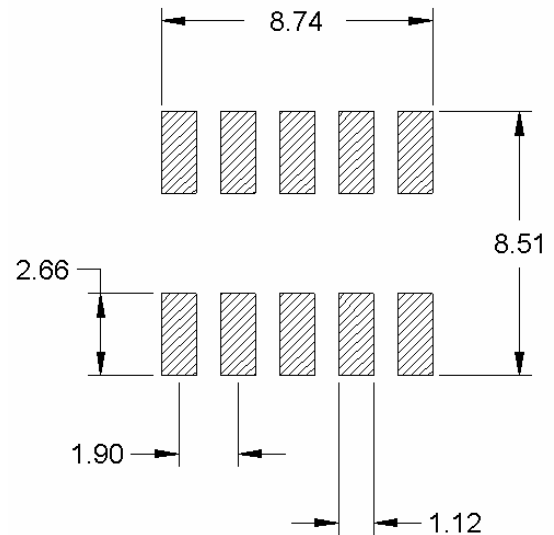
1. Recommend use of 2% tolerance matching components.
2. Component values are for reference only and may change depending on board layout.

PACKAGE OUTLINE



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

SUGGESTED FOOTPRINT

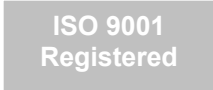


Units: mm

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

Pad Configuration:

Input: 10
Output: 5
Ground: All other pads



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