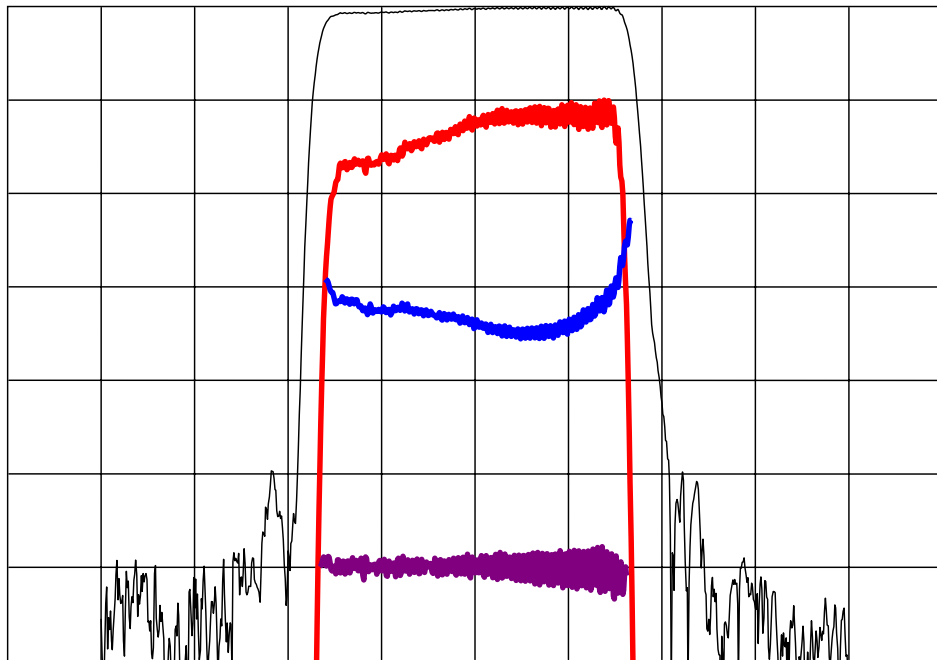


DESCRIPTION

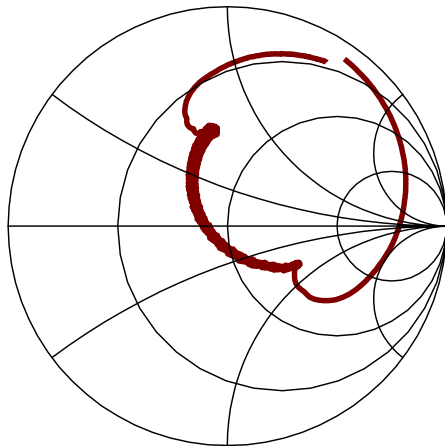
- 87.5 MHz SAW bandpass filter with 30 MHz bandwidth for wideband radio applications.
- 13.3 x 6.5 mm SMP.
- RoHS compliant.

TYPICAL PERFORMANCE

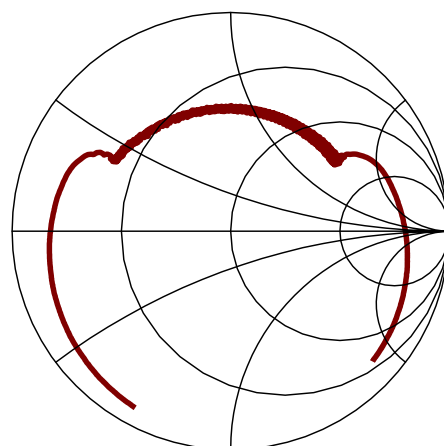


Horizontal: Frequency : 10 MHz/div
 Vertical from top: Relative Magnitude : 10 dB/div
 Relative magnitude : 1 dB/div
 Phase Linearity : 10 deg/div
 Group Delay : 100 ns/div

S11 (37.5 to 137.5 MHz)



S22 (37.5 to 137.5 MHz)



SPECIFICATION

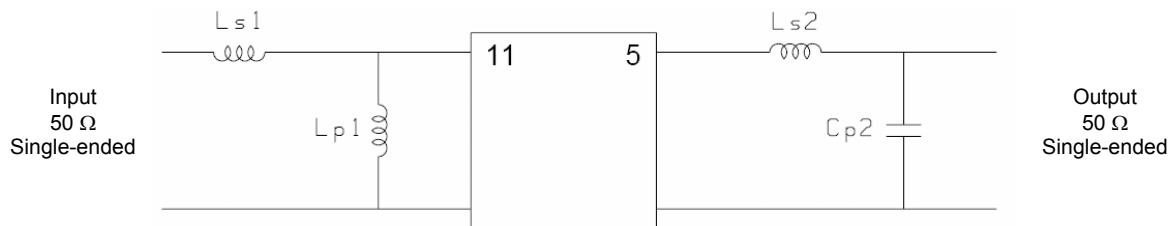
Parameter	Min	Typ	Max	Units
Center Frequency, F_c ¹	-	87.5	-	MHz
Insertion Loss ^{2,5}	-	16	18	dB
Lower 1 dB Frequency	-	71.7	72.5	MHz
Upper 1 dB Frequency	102.5	103.4	-	MHz
Passband Ripple ^{4,6}	-	0.6	1	dB p-p
Passband Ripple, Extended Temperature Range ^{3,5}	-	1.1	1.5	dB p-p
Phase Deviation from Linear ^{3,5}	-	9	14	deg p-p
Lower 38 dB Frequency ⁵	67.5	69.0	-	MHz
Upper 38 dB Frequency ⁵	-	106.7	107.5	MHz
Lower 40 dB Frequency ⁴	67.5	68.9	-	MHz
Upper 40 dB Frequency ⁴	-	106.9	107.5	ns p-p
Absolute Delay	-	1.0	1.2	us
Source and Load Impedance	-	50	-	Ω
Ambient Temperature	20	25	30	$^{\circ}$ C

- Notes:
1. Average of lower and upper 3 dB frequencies (3 dB measured from peak).
 2. Measured at 87.5 MHz.
 3. Evaluated over 87.5 +/- 15 MHz.
 4. Limit met over Operating Temperature Range.
 5. Limit met over Extended Operating Temperature Range.
 6. Evaluated over 87.5 +/- 14.5 MHz.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	$^{\circ}$ C
Operating Temperature Range	0	70	$^{\circ}$ C
Extended Operating Temperature Range	-20	85	$^{\circ}$ C
Operating Input Power Level	-	+10	dBm

MATCHING CIRCUIT



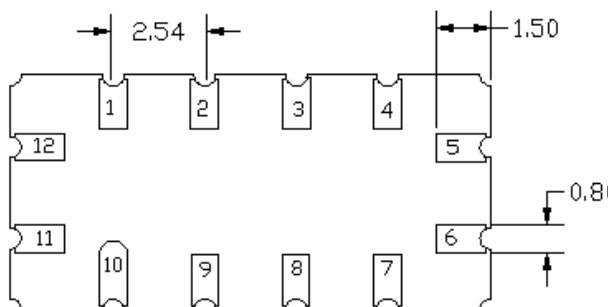
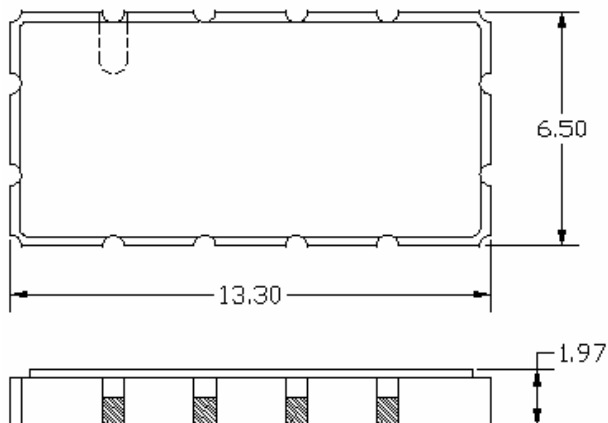
Typical component values:

$$\begin{aligned} L_{s1} &= 91 \text{ nH} & L_{s2} &= 120 \text{ nH} \\ L_{p1} &= 100 \text{ nH} & C_{p2} &= 22 \text{ pF} \end{aligned}$$

Notes:

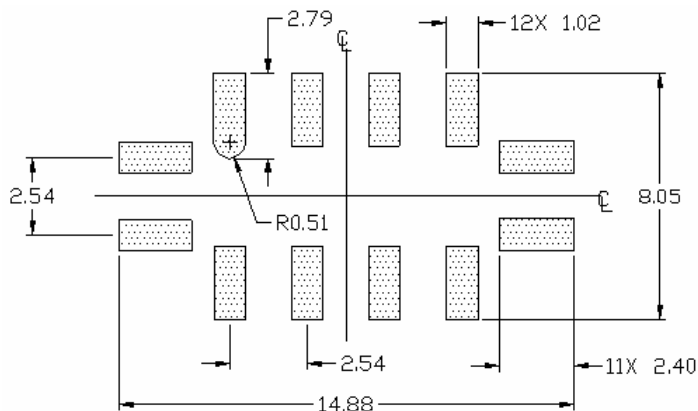
1. Recommend use of +/- 2% tolerance components. Minimum Q=40.
2. Component values are for reference only and may change depending on board layout.

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 for the overall length, width and pad dimensions, which are nominal values.

Pad Configuration:

- Input: 11
- Output: 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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