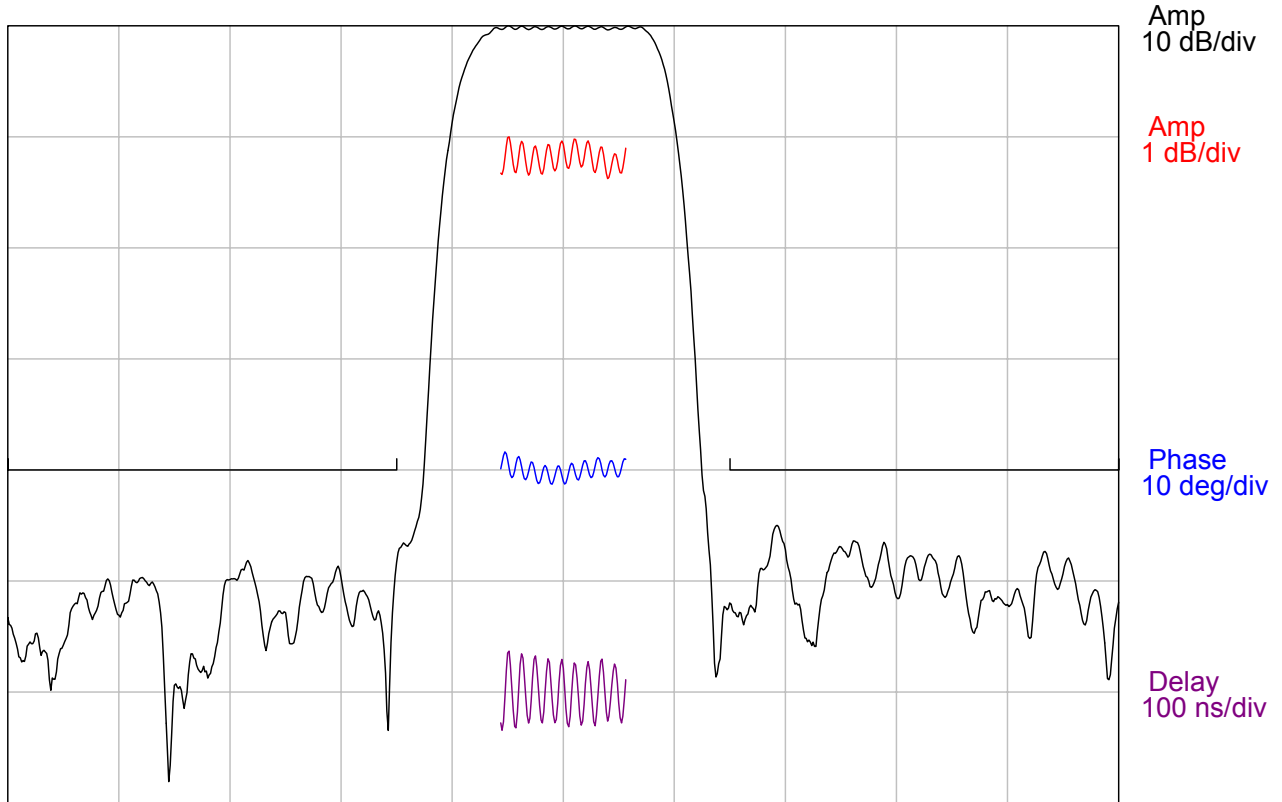


DESCRIPTION

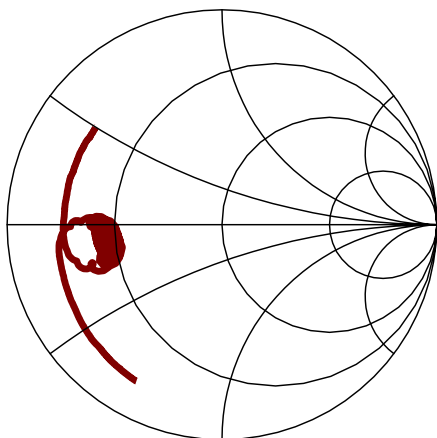
- 82.944 MHz SAW bandpass filter with 4.5 MHz bandwidth.
- 13.3 x 6.5 mm 12-pad LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

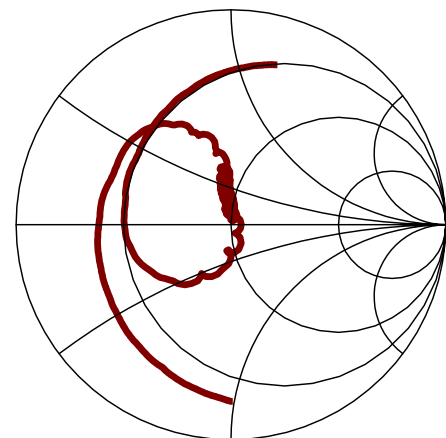


Center = 82.94 MHz, 4 MHz/div (50 kHz incr)

S11 (62.955-102.944 MHz)



S22 (62.944-102.944 MHz)



SPECIFICATION

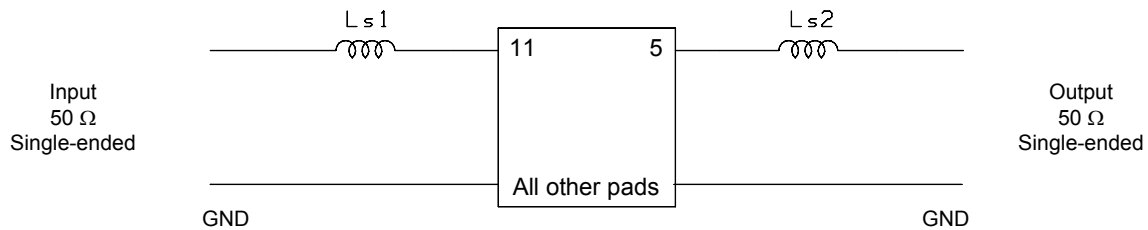
Parameter	Min	Typ	Max	Units
3 dB Center Frequency, F_c	-	82.944	-	MHz
Insertion Loss	-	11.3	12.5	dB
Lower 1 dB Frequency ¹	-	80.03	80.694	MHz
Upper 1 dB Frequency ¹	85.194	86.12	-	MHz
1 dB Bandwidth ¹	4.5	6.09	-	MHz
3 dB Bandwidth ¹	5.7	6.9	-	MHz
40 dB Bandwidth ¹	-	10	12	MHz
Amplitude Ripple ($F_c \pm 2.25$ MHz)	-	0.4	1	dB p-p
Phase Ripple ($F_c \pm 2.25$ MHz)	-	3	6	deg p-p
Group Delay Deviation ($F_c \pm 2.25$ MHz)	-	70	120	ns p-p
Rejection (20 to 76.944 MHz) ¹	40	44	-	dB
Rejection (88.944 to 150 MHz) ¹	40	43	-	dB
Temperature Coefficient of Frequency (T_c) ²	-86			ppm/°C
Source/Load Impedance	50			ohms
Ambient Temperature (T_{ref})	25			°C

- Notes:
1. All dB levels are referenced to the insertion loss.
 2. Typical shift of frequency response with temperature is: $\Delta f = (T - T_{ref}) * T_c * F_c$.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-20	70	°C
Input Power Level	-	10	dBm

MATCHING CIRCUIT

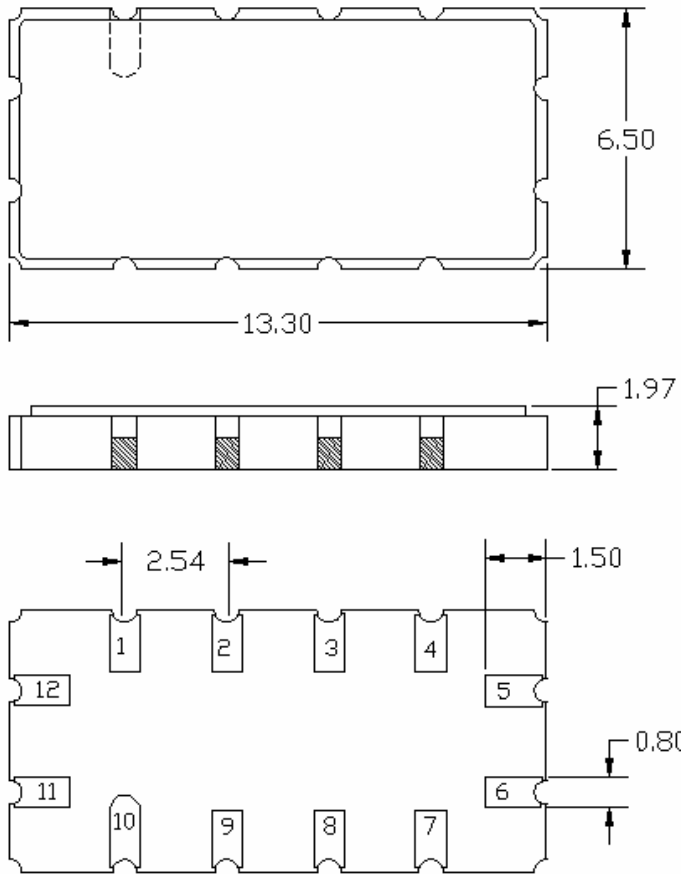


$$L_{s1} = 56 \text{ nH} \quad L_{s2} = 120 \text{ nH}$$

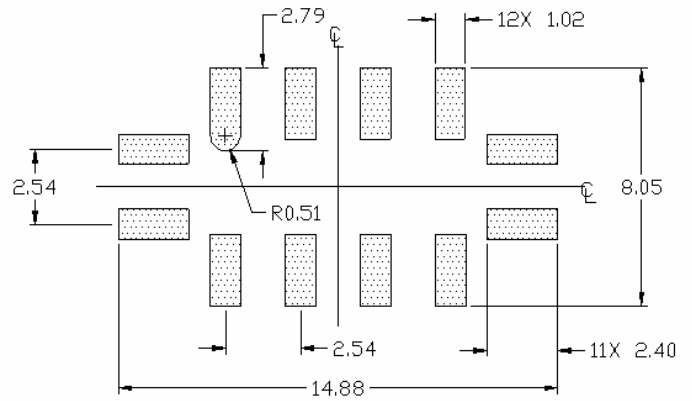
Notes:

- Recommend 2% or better tolerance matching components. Typical inductor $Q=40$.
- Optimum values may change depending on board layout. Values shown are intended as a guide only.

PACKAGE OUTLINE



SUGGESTED FOOTPRINT



Units: mm

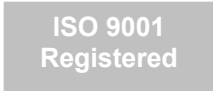
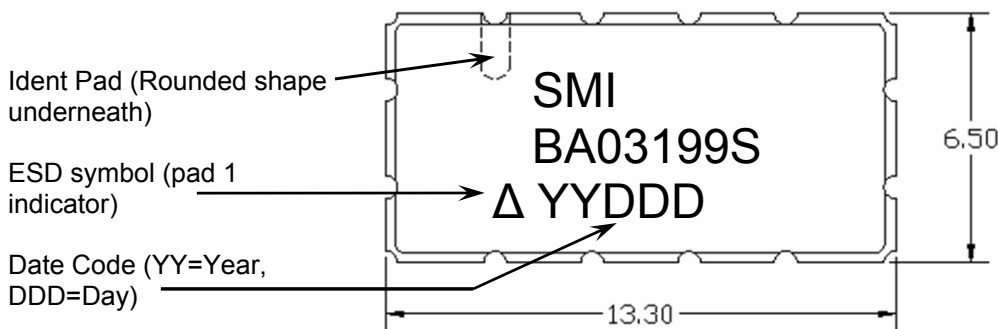
Tolerances are ± 0.15 mm except where indicated.

Pad Configuration:

Input: 11
 Output: 5
 Ground: All other pads

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

MARKING



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