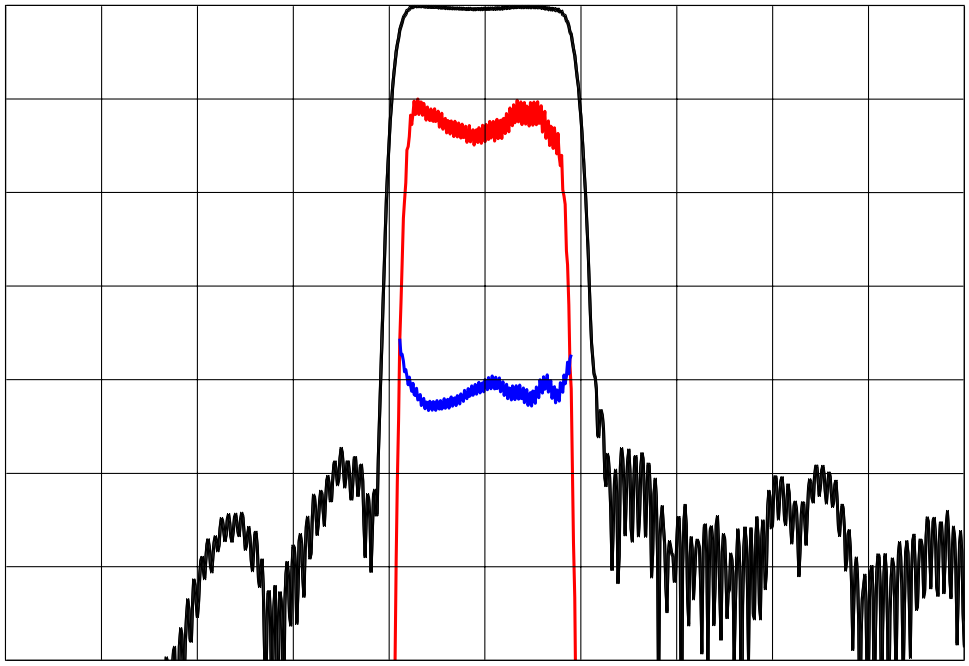
160 MHz SAW Filter
30 MHz Bandwidth
Part Number: SF0160BA01961S

DESCRIPTION

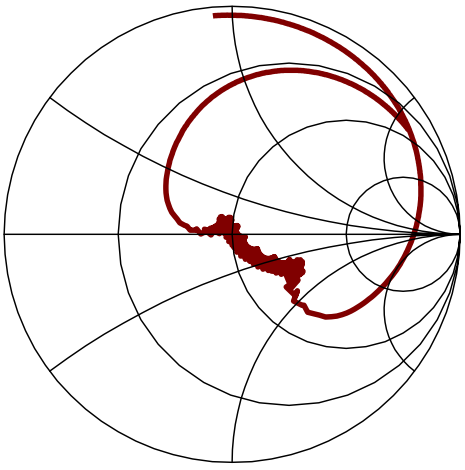
- 160 MHz SAW bandpass filter with 30 MHz bandwidth.
- 13.3 x 6.5 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

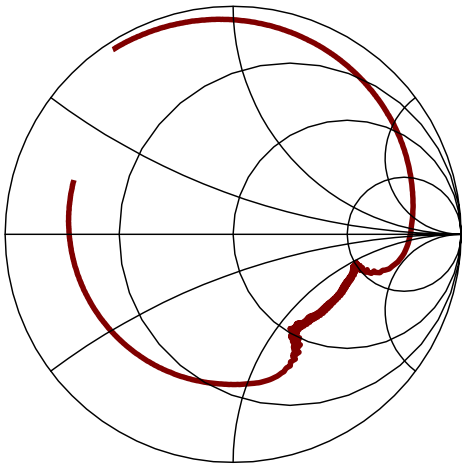


Horizontal:	Frequency :	20	MHz/div
Vertical from Top:	Relative Magnitude :	10	dB/div
	Relative magnitude :	1	dB/div
	Phase Linearity :	10	deg/div

S11 (60 to 260 MHz)



S22 (60 to 260 MHz)



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SPECIFICATION

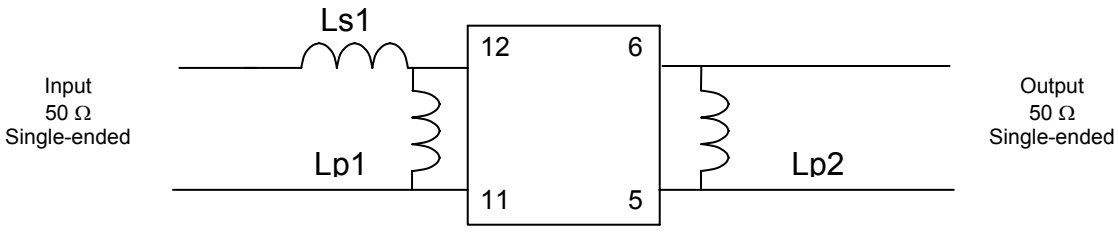
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) [1,3]	159.75	160.0	160.25	MHz
Insertion Loss	-	12.2	14	dB
1 dB Bandwidth	30	33.0	-	MHz
3 dB Bandwidth	-	35.0	-	MHz
40 dB Bandwidth	-	44.0	50	MHz
Passband Amplitude Ripple [2]	-	0.8	1	dB p-p
Phase Ripple(Fc +/- 15 MHz) [2]	-	9	12	deg p-p
Rejection: 10 - 135 MHz	40	50	-	dB
185 - 280 MHz	40	50	-	dB
270 - 370 MHz	20	25	-	dB
VSWR (Fc +/- 15 MHz)	4.4	6	-	dB
Ambient Temperature (Tref)	-	25	-	ºC

Notes:
1. Average of the lower and upper 3 dB band edge frequencies.
2. When used in the suggested matching network.
3. Typical change of filter frequency response with temperature is $\Delta f = (T-T_{ref})*Tc*Fc$, in ppm.

MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
Storage Temperature Range	-40	25	85	˚C
Operating Temperature Range (T)	-20	25	70	˚C
Temperature Coefficient of Frequency (Tc) [3]	-	-94	-	ppm/˚C
Input Power Level	-	10	13	dBm

MATCHING CIRCUIT

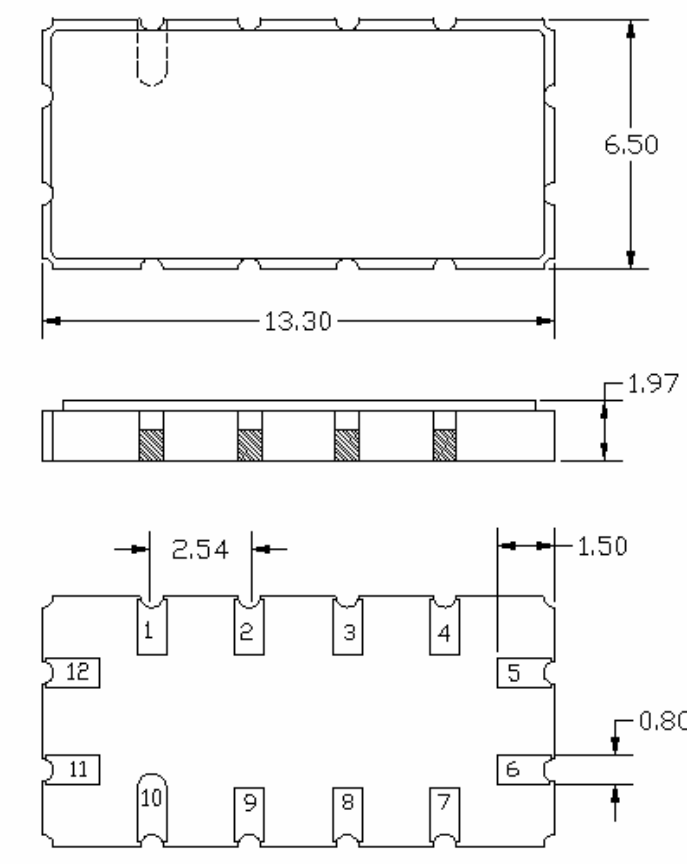


Typical component values:

Ls1 = 47 nH Ls2 = 47 nH
Lp1 = 43 nH

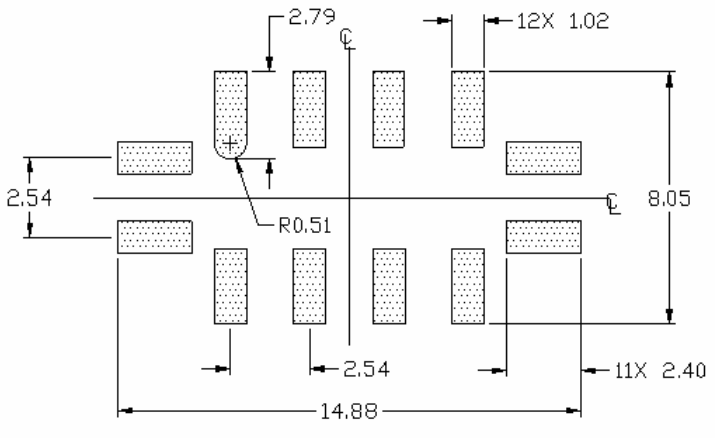
Notes:
1. Recommend use of 2% tolerance matching components. Inductor Q=45.
2. Component values are for reference only and may change depending on board layout.

PACKAGE OUTLINE



Package Material:
Body: Al_2O_3 ceramic
Lid: *Kovar, Ni* plated
Terminations: *Au* plating 1 µm min,
over a 1.3-8.9 µm *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:	11
Input return:	12
Output:	5
Output return:	6
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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