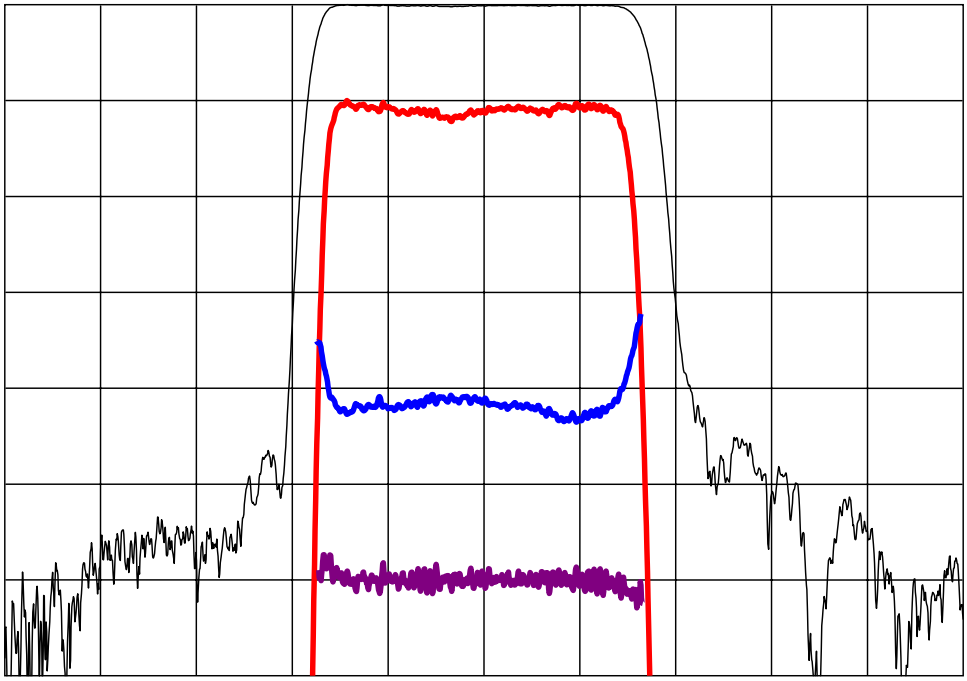
76.8 MHz SAW Filter
20 MHz Bandwidth
Part Number SF0077BA02499S

DESCRIPTION

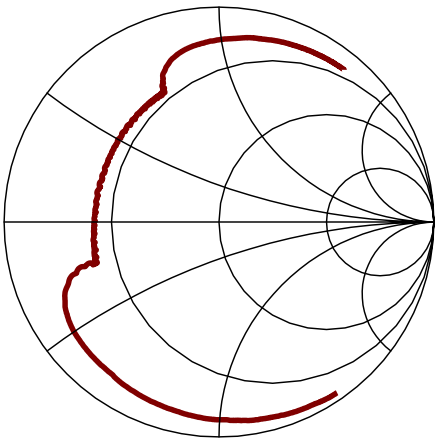
- 76.8 MHz SAW bandpass filter with 20 MHz bandwidth.
- 13.3 x 6.5 mm LCC package.
- RoHS compliant.

TYPICAL PERFORMANCE

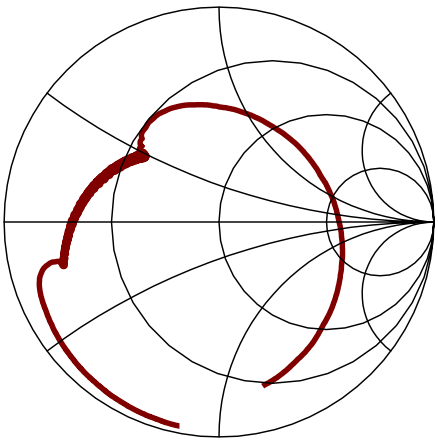


Horizontal:	Frequency :	8	MHz/div
Vertical:	Relative Magnitude :	10	dB/div
	Relative Magnitude :	1	dB/div
	Phase Linearity :	5	deg/div
	Group Delay :	50	ns/div

S11 (36.8-116.8 MHz)



S22 (36.8-116.8 MHz)



Spectrum Microwave
400 Nickerson Road, Marlborough, MA 01752, USA • Phone 1-508-251-6400 • Fax 1-508-251-6401
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SPECIFICATION

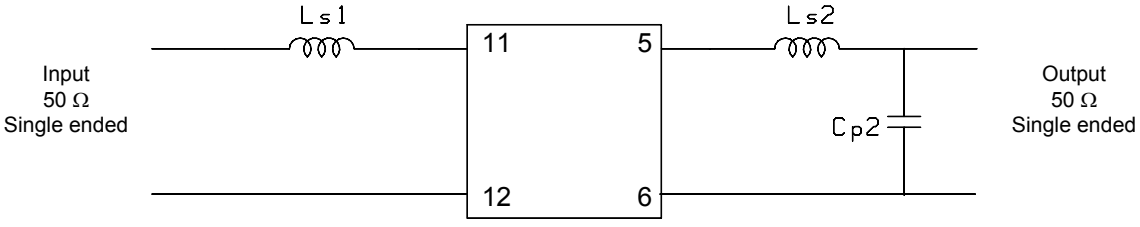
Parameter	Min	Typ	Max	Units
Center Frequency, F_C [1]	-	76.8	-	MHz
Insertion Loss (@ Fc)	-	16.2	20	dB
Amplitude Ripple [2]	-	0.3	1	dB p-p
Amplitude Ripple in any 3.84 MHz band [2]	-	0.2	0.6	dB p-p
Lower 1 dB Frequency	-	63.5	66.8	MHz
Upper 1 dB Frequency	86.8	89.3	-	MHz
Phase Linearity	-	1.3	5	deg p-p
Group Delay Variation [2]	-	20	100	ns p-p
Group Delay Variation in any 3.84 MHz band [2]	-	20	70	ns p-p
Absolute Delay	-	1.0	1.2	us
Rejection (5 to 7 MHz) [3]	40	49	-	dB
Rejection (7 to 26 MHz) [3]	45	53	-	dB
Rejection (35 to 57 MHz) [3]	40	50	-	dB
Rejection (97 to 118 MHz) [3]	40	45	-	dB
Rejection (128 to 149 MHz) [3]	45	50	-	dB
Source and Load Impedance		50		ohms
Temperature Coefficient of Frequency		-94		ppm/˚C
Ambient Temperature	-	25	-	˚C

Notes:
1. Fixed reference frequency. All bandwidths are centered at this frequency.
2. Defined over 76.8+/-10 MHz.
3. Dependent upon PC board layout.

MAXIMUM RATINGS

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

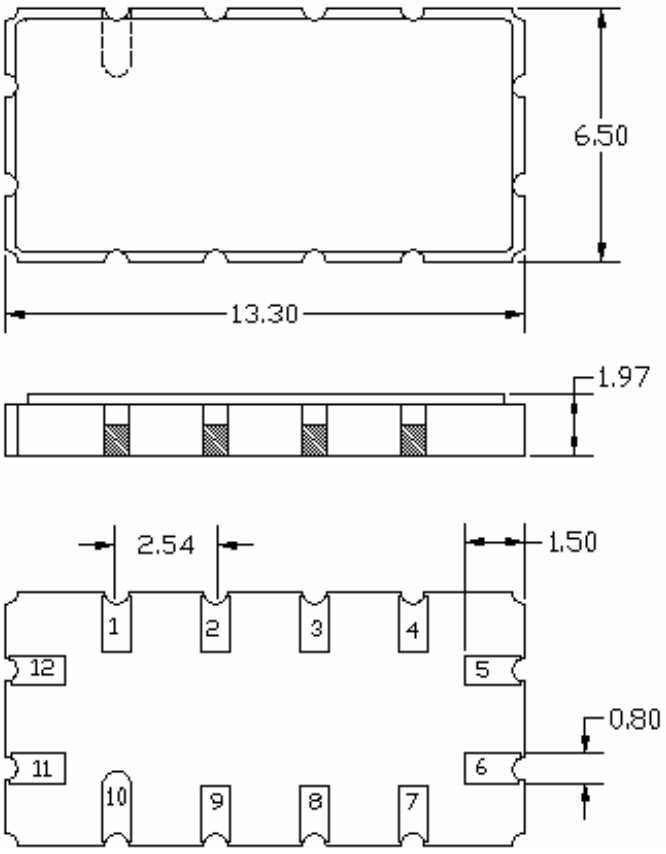
MATCHING CIRCUIT



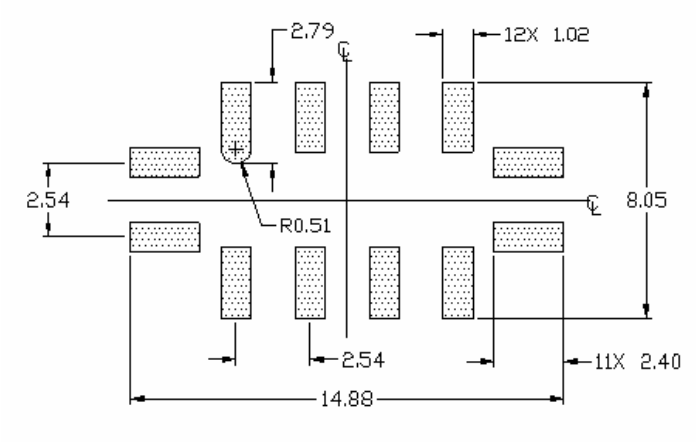
Typical Component values: Ls1 = 150 nH Ls2 = 100 nH
Cp2 = 41 pF

Notes:
- Recommend 5% or better tolerance matching components. Typical inductor Q=45.
- 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
Input return:	12
Output:	5
Output return:	6
Ground:	All other pads

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

ISO 9001 Registered

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