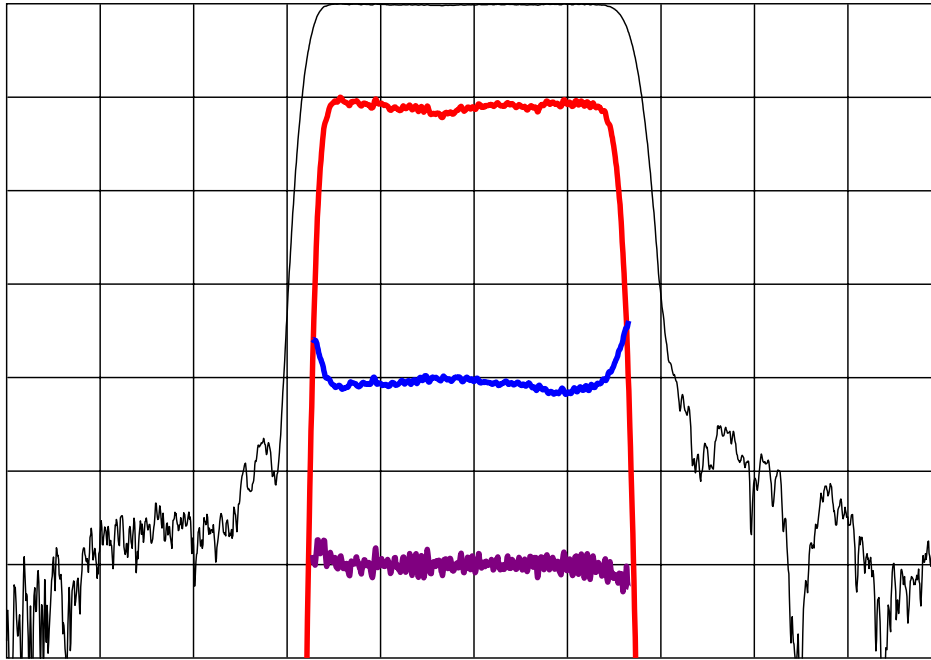


## DESCRIPTION

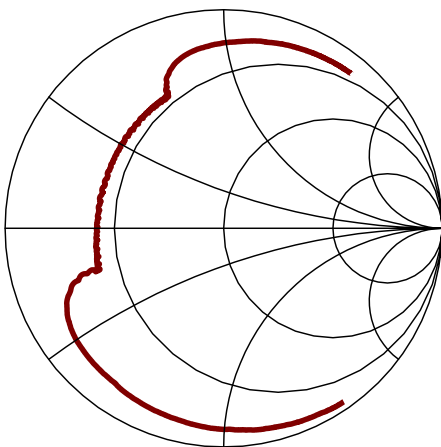
- 76.8 MHz SAW bandpass filter with 20 MHz bandwidth.
- 13.3 x 6.5 mm SMP package.
- RoHS compliant.

## TYPICAL PERFORMANCE

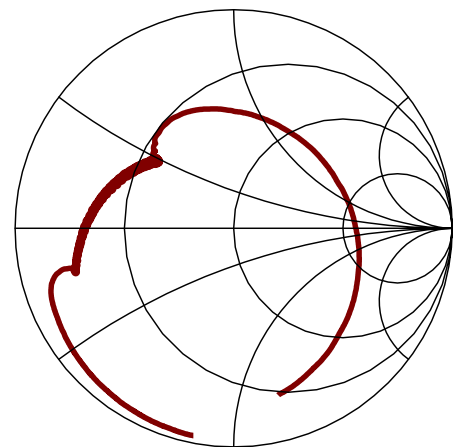


Horizontal: Frequency : 8 MHz/div  
Vertical from Top: Relative Magnitude : 10 dB/div  
Relative magnitude : 1 dB/div  
Phase Linearity : 5 deg/div  
Group Delay : 50 ns/div

S11



S22



## SPECIFICATION

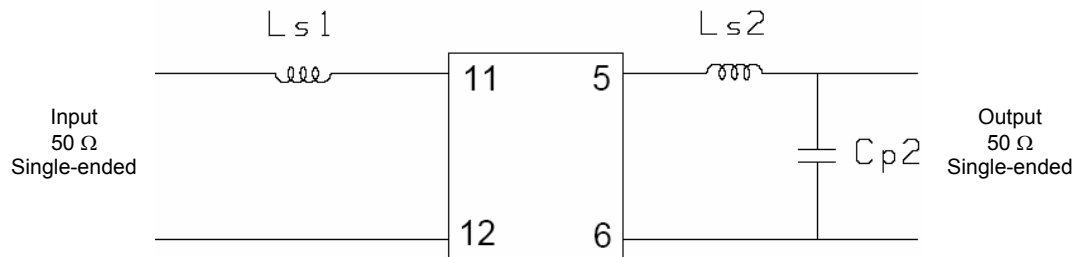
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) <sup>1</sup>	-	76.80	-	MHz
Insertion Loss at Fc	-	16.2	20	dB
Lower 1 dB Frequency	-	63.5	66.8	MHz
Upper 1 dB Frequency	86.8	89.3	-	MHz
Amplitude Ripple <sup>2</sup>	-	0.3	1.0	dB p-p
Amplitude Ripple in any 3.84 MHz Band <sup>2</sup>	-	0.2	0.6	dB p-p
Phase Linearity	-	1.3	5	deg p-p
Group Delay Variation <sup>2</sup>	-	20	100	ns p-p
Group Delay Variation in any 3.84 MHz Band <sup>2</sup>	-	20	70	ns p-p
Absolute Delay	-	1.0	1.2	μs
Rejection (5 to 7 MHz) <sup>2</sup>	40	49	-	dB
Rejection (7 to 26 MHz) <sup>2</sup>	45	53	-	dB
Rejection (35 to 57 MHz) <sup>2</sup>	40	50	-	dB
Rejection (97 to 118 MHz) <sup>2</sup>	40	45	-	dB
Rejection (128 to 149 MHz) <sup>2</sup>	45	50	-	dB
Source and Load Impedance	-	50	-	Ω
Ambient Temperature	-	25	-	°C

- Notes: 1. Average of lower and upper 3 dB band edge frequencies.  
2. Evaluated over 66.8 to 86.8 MHz.  
3. Specification is met over operating temperature range.

## MAXIMUM RATINGS

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

## MATCHING CIRCUIT



Typical component values:  
(Minimum inductor Q = 45)

$$Ls1 = 150 \text{ nH}$$

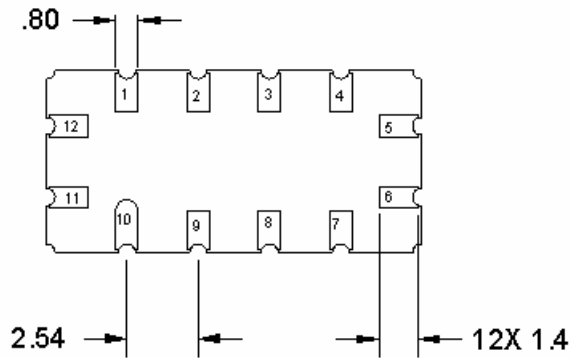
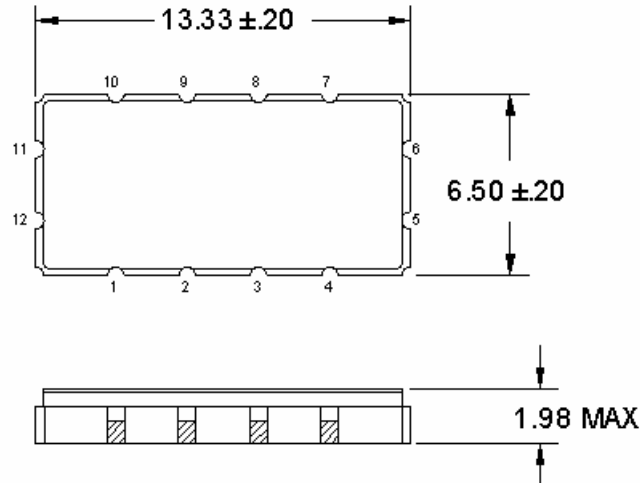
$$Ls2 = 100 \text{ nH}$$

$$Cp2 = 41 \text{ pF}$$

Notes:

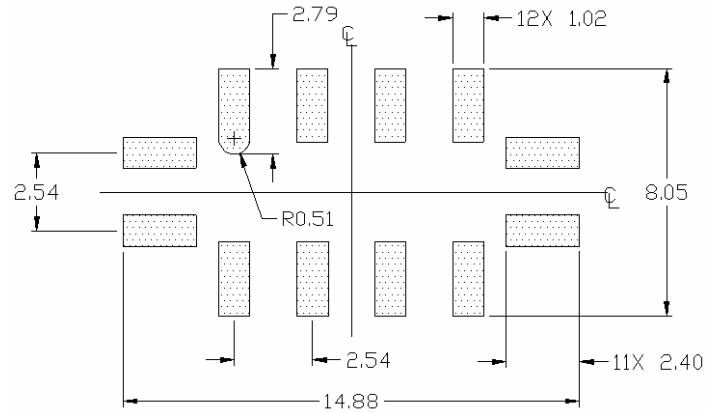
1. Recommend the use of +/-2% tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

**PACKAGE OUTLINE**



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

**SUGGESTED FOOTPRINT**



**Units:** mm

Tolerances are  $\pm 0.15$  mm except for the overall length and width, which are nominal values.

**Pad Configuration:**

Input:	11
Input return:	12
Output:	5
Output return:	6
Ground:	1,2,3,4,7,8,9,10

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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