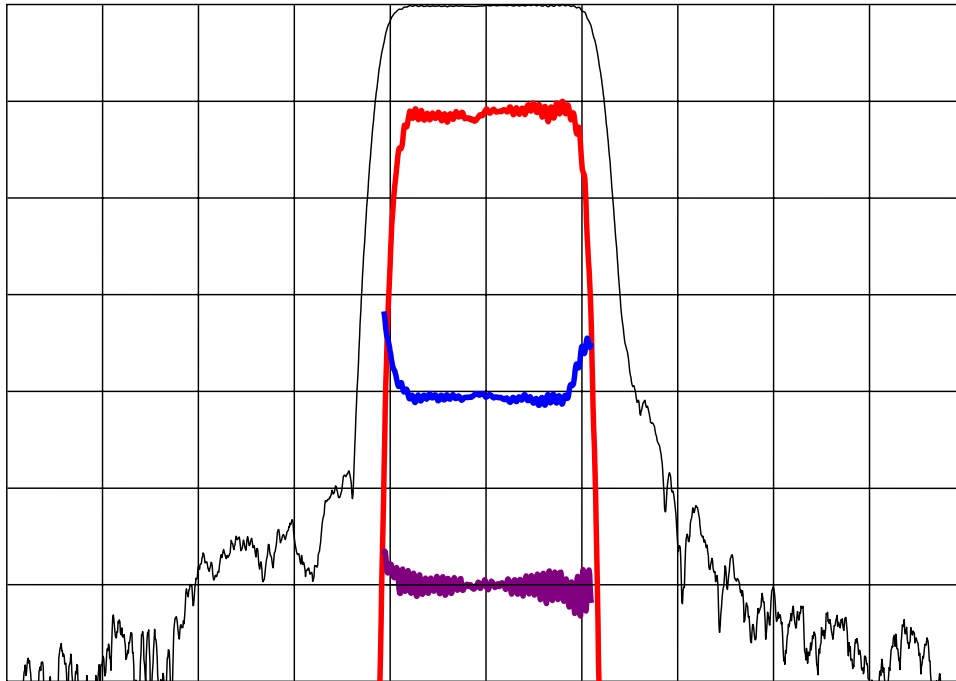


## DESCRIPTION

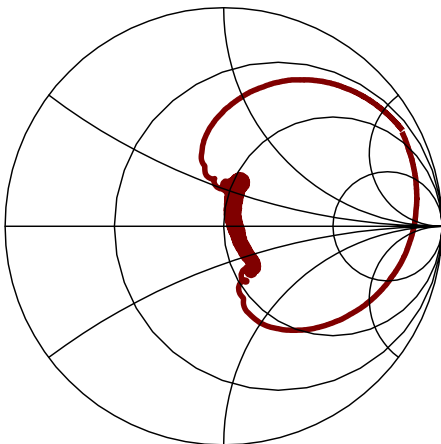
- 76.8 MHz SAW bandpass filter with 14.24 MHz bandwidth.
- 13.3 x 6.5 mm SMP package.
- RoHS compliant.

## TYPICAL PERFORMANCE

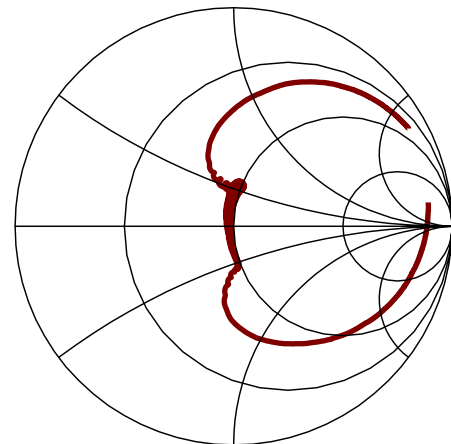


Horizontal: Frequency : 8 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 10 deg/div  
 Group Delay : 100 ns/div

**S11**



**S22**



## SPECIFICATION

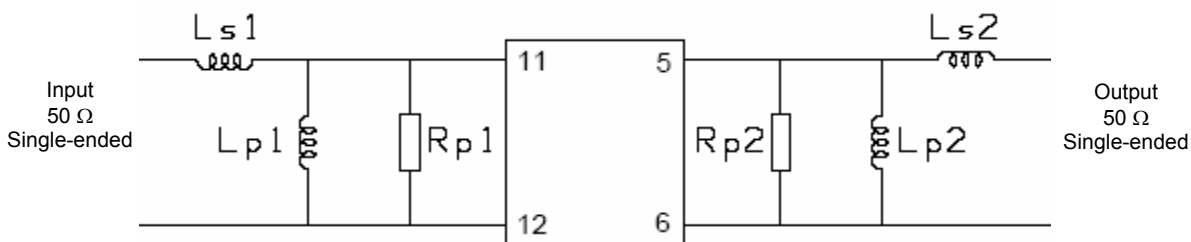
Parameter	Min	Typ	Max	Units
Center Frequency (Fc, fixed reference)	-	76.80	-	MHz
Operating Bandwidth	-	14.24	-	MHz
Insertion Loss at Fc	-	12.7	14	dB
Lower 35 dB Frequency	64.3	66.2	-	MHz
Upper 35 dB Frequency	-	88.5	89.3	MHz
Amplitude Ripple <sup>1</sup>	-	0.5	1	dB p-p
Phase Linearity <sup>1</sup>	-	3	8	deg p-p
Group Delay Variation <sup>1</sup>	-	45	100	ns p-p
Absolute Delay	-	1.1	1.5	μs
Triple Travel Suppression	35	45	-	dB
Rejection (0.3 to 7 MHz)	40	49	-	dB
Rejection (7 to 54 MHz)	45	53	-	dB
Rejection (54 to 64.3 MHz) <sup>2</sup>	40	50	-	dB
Rejection (89.3 to 100 MHz) <sup>2</sup>	40	45	-	dB
Rejection (100 to 130 MHz) <sup>2</sup>	45	50	-	dB
Rejection (130 to 178 MHz) <sup>2</sup>	45	50	-	dB
Rejection (178 to 300 MHz) <sup>2</sup>	45	50	-	dB
Input and Output Return Loss <sup>1,5</sup>	9	10	-	dB
Two-tone Input 3 <sup>rd</sup> Order Intercept <sup>3</sup>	35	-	-	dBm
Source and Load Impedance	-	50	-	Ω
Ambient Temperature	-	25	-	°C

- Notes:
1. Applies over the operating bandwidth.
  2. Rejection is relative to the insertion loss.
  3. Measured with tones spaced at 10 and 20 MHz above and below Fc.
  4. All parameters to be met over the operating temperature range except Return Loss.
  5. Room temperature only

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	95	°C
Operating Temperature Range <sup>4</sup>	-10	85	°C
Input Power Level	-	17	dBm

## MATCHING CIRCUIT



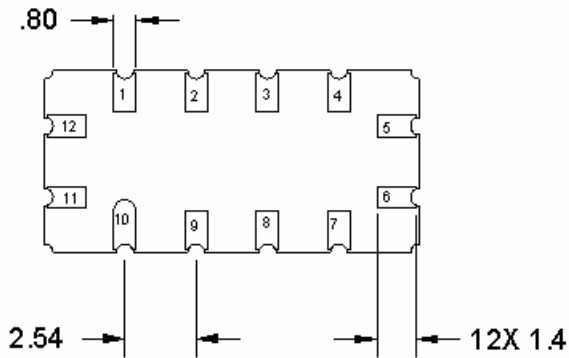
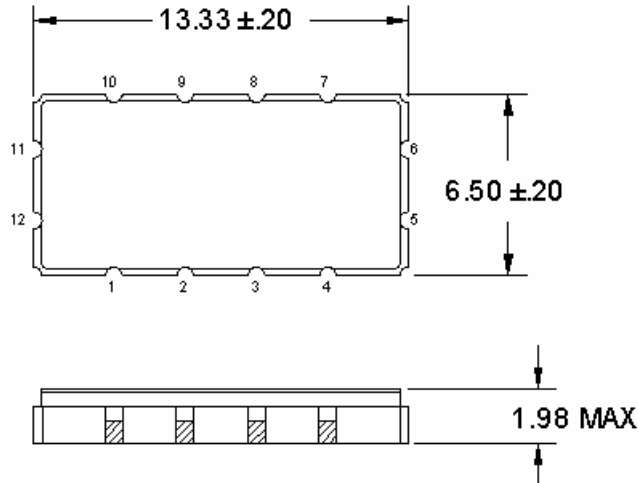
Typical component values:  
(Minimum inductor Q = 45)

Ls1 =	220 nH	Ls2 =	238 nH
Lp1 =	270 nH	Lp2 =	560 nH
Rp1 =	1000 Ω	Rp2 =	1000 Ω

Notes:

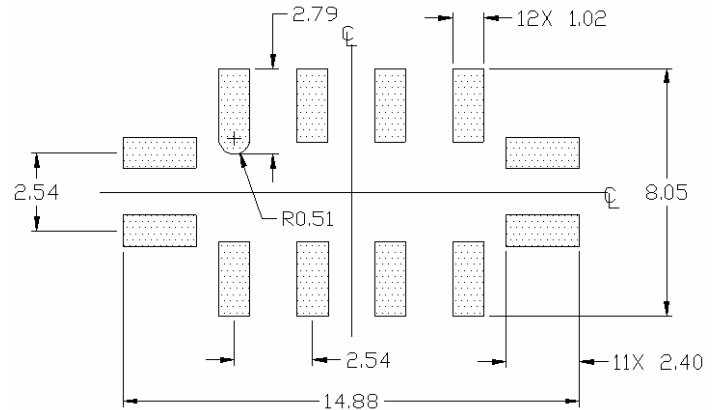
1. Recommend the use of +/-2% tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

**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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