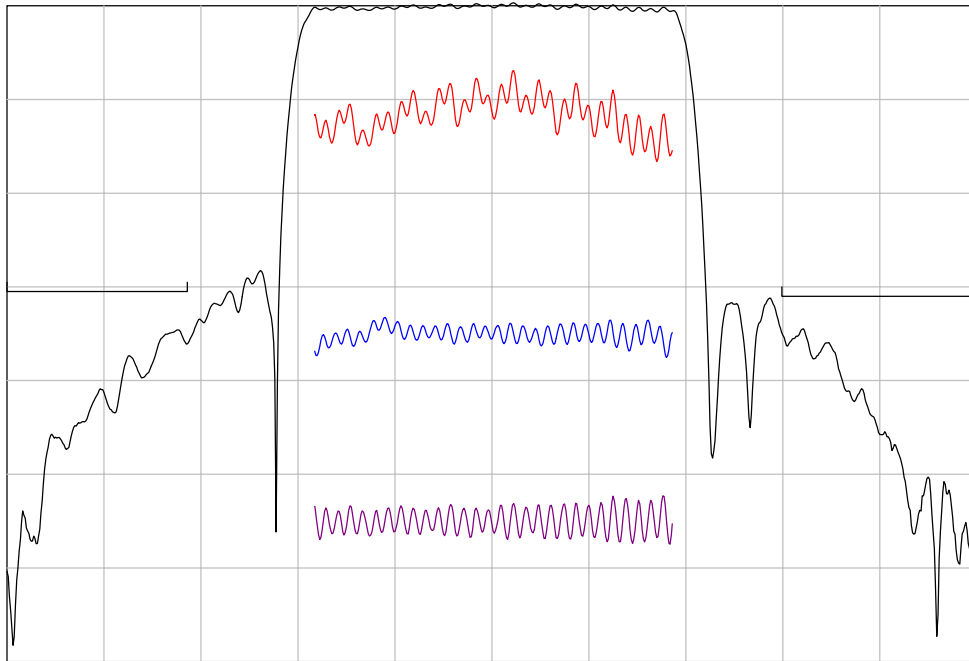


**DESCRIPTION**

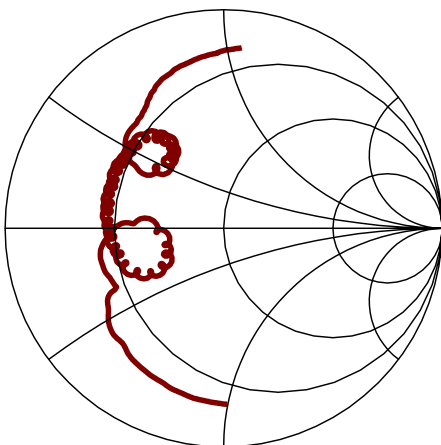
- 77.8 MHz SAW bandpass filter with 14.24 MHz bandwidth.
- 13.3 x 6.5 mm SMP package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

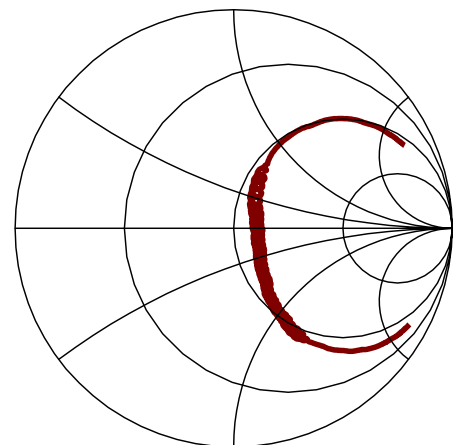


Horizontal: Frequency : 4 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase Linearity : 10 deg/div  
 Group Delay : 100 ns/div

**S11**



**S22**



## SPECIFICATION

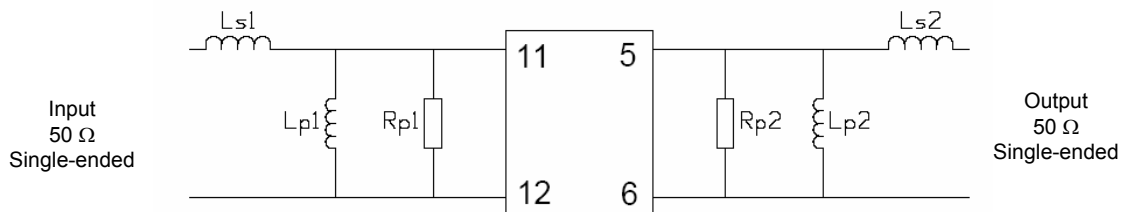
Parameter <sup>2</sup>	Min	Typ	Max	Units
Center Frequency (Fc) <sup>1</sup>	-	77.8	-	MHz
Operating Bandwidth	14.24	15.1	-	MHz
Insertion Loss	-	15.8	17	dB
Amplitude Ripple <sup>3</sup>	-	0.8	1.2	dB p-p
Triple Travel Suppression	30	35	-	dB
Phase Deviation from Linear <sup>3</sup>	-	5	10	deg p-p
Group Delay Variation <sup>3</sup>	-	100	180	ns p-p
Absolute Delay	-	0.97	-	us
Rejection at Fc+/-8.5 MHz <sup>2</sup>	5	7	-	dB
Rejection at Fc+9.6 MHz <sup>2</sup>	16	18	-	Db
Rejection <sup>2</sup>				
0.3 to 55 MHz	45	55	-	dB
55 to 65 MHz	30	34	-	dB
90 to 100 MHz	30	35	-	dB
100 to 210 MHz	45	53	-	dB
210 to 260 MHz	30	49	-	dB
260 to 500 MHz	45	70	-	dB
Input/Output Return Loss (Fc+/-7.12 MHz)	3	4.6	-	dB
Temperature Coefficient of Fc	-	-75	-	ppm/°C
System Source and Load Impedance	-	50	-	Ω

- Notes:
1. Fixed reference frequency..
  2. Rejection relative to passband insertion loss
  3. Evaluated over any 3.84 MHz band within Fc+/-7.12 MHz.
  4. All parameters met over operating temperature range.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-10	75	°C
Input Power Level	-	22	dBm

## MATCHING CIRCUIT



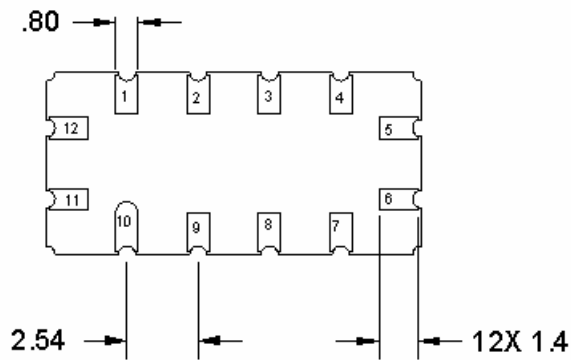
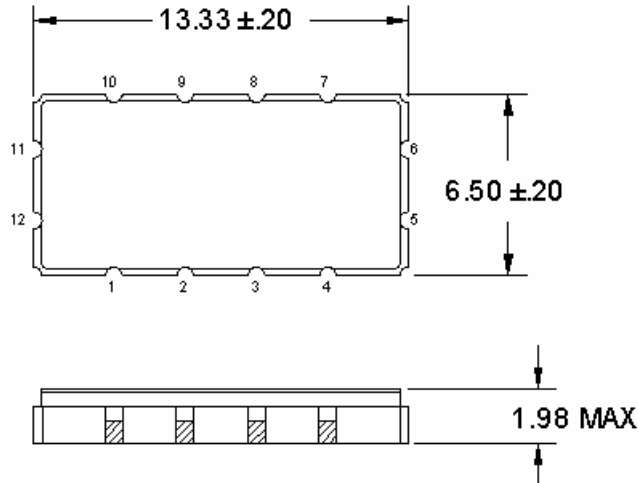
Typical component values:  
(Minimum inductor Q = 45)

Ls1 =	180 nH	Ls2 =	560 nH
Lp1 =	1800 nH	Lp2 =	3300 nH
Rp1 =	3300 Ω	Rp2 =	5600 Ω

Notes:

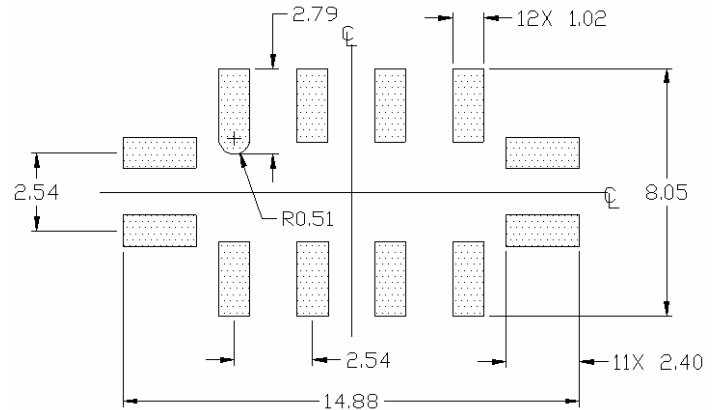
1. Recommend the use of +/-2% tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

**PACKAGE OUTLINE**



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