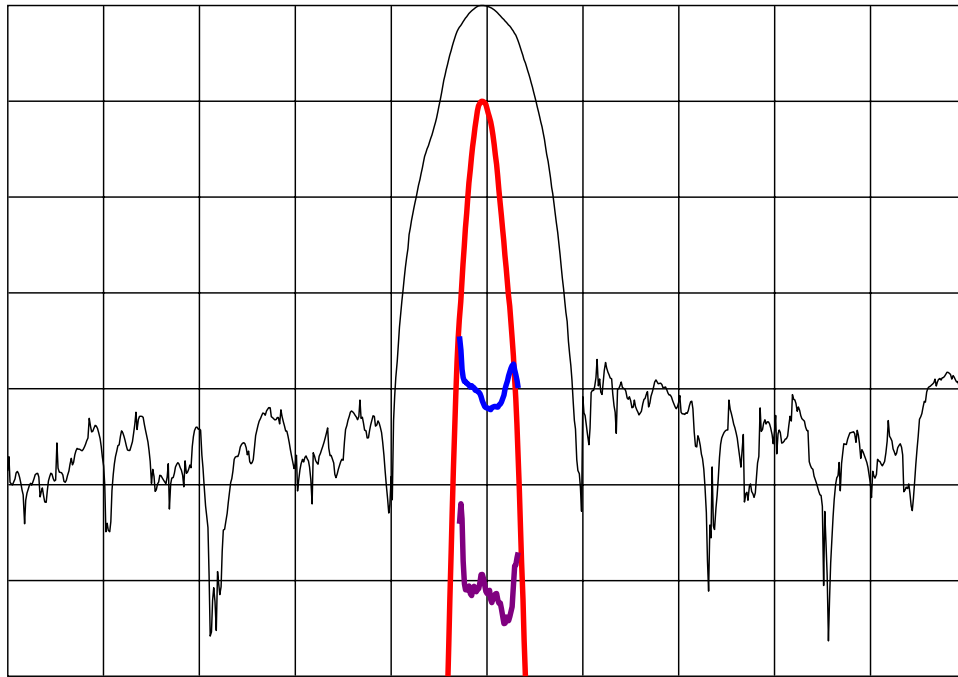


**DESCRIPTION**

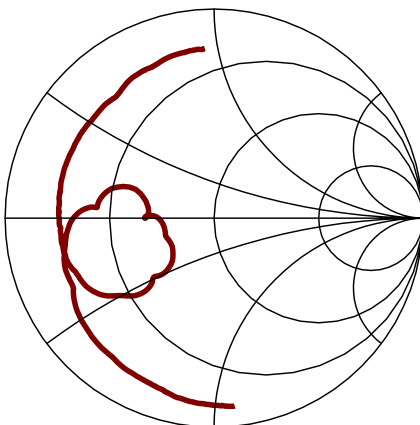
- 72.8 MHz SAW bandpass filter with 1 MHz bandwidth.
- 7 x 5 mm SMP package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

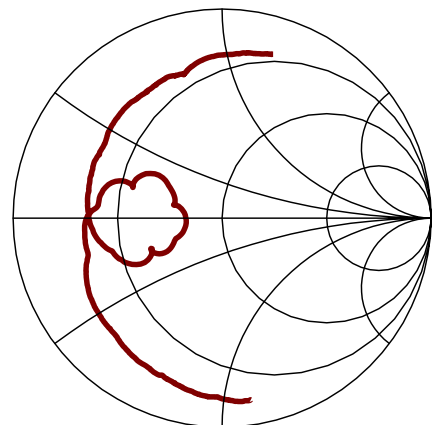


Horizontal: Frequency : 8 MHz/div  
 Vertical from Top: Relative Magnitude : 10 dB/div  
 Relative magnitude : 1 dB/div  
 Phase : 5 deg/div  
 Group Delay : 100 ns/div

**S11**



**S22**



## SPECIFICATION

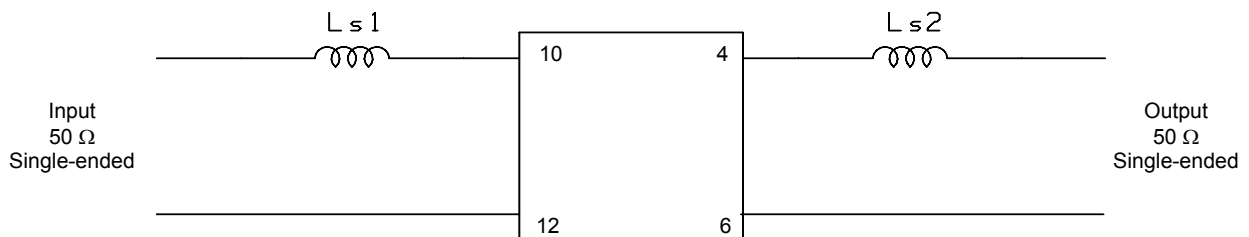
Parameter	Min	Typ	Max	Units
Center Frequency $F_C$ <sup>1</sup>	72.68	72.80	72.92	MHz
Minimum Insertion Loss	-	6.5	10	dB
1 dB Bandwidth <sup>2</sup>	-	0.71	-	MHz
3 dB bandwidth <sup>2</sup>	1.00	1.24	-	MHz
Lower 35 dB Band Edge <sup>2</sup>	70.80	70.99	-	MHz
Upper 35 dB Band Edge <sup>2</sup>	-	74.56	74.80	MHz
Group Delay Variation	-	80	150	ns p-p
Absolute Delay	-	0.75	-	us
Rejection (30 to $F_C$ -3 MHz)	40	42	-	dB
Rejection ( $F_C$ +3 to 140 MHz)	35	38	-	dB
Temperature Coefficient	-	-23	-	ppm/°C
Substrate Material	112 LiTaO <sub>3</sub>			
Ambient Temperature	-	25	-	°C

- Notes:
1. Defined as the average of the lower and upper 3 dB frequencies.
  2. All dB levels are defined relative to the insertion loss.

## MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	°C
Operating Temperature Range	-40	70	°C
Input Power Level	-	10	dBm

## MATCHING CIRCUIT

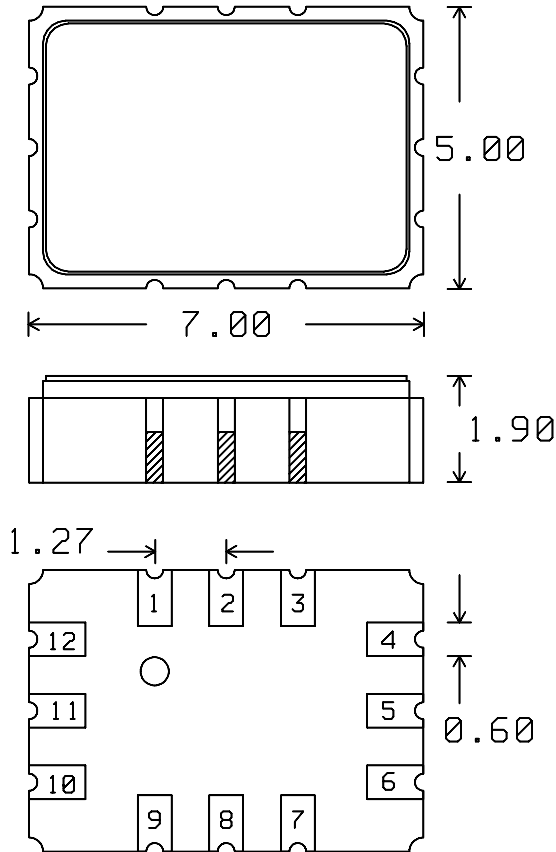


Typical component values:  
(Minimum inductor Q = 45)     $L_{s1} = 390 \text{ nH}$                        $L_{s2} = 470 \text{ nH}$

### Notes:

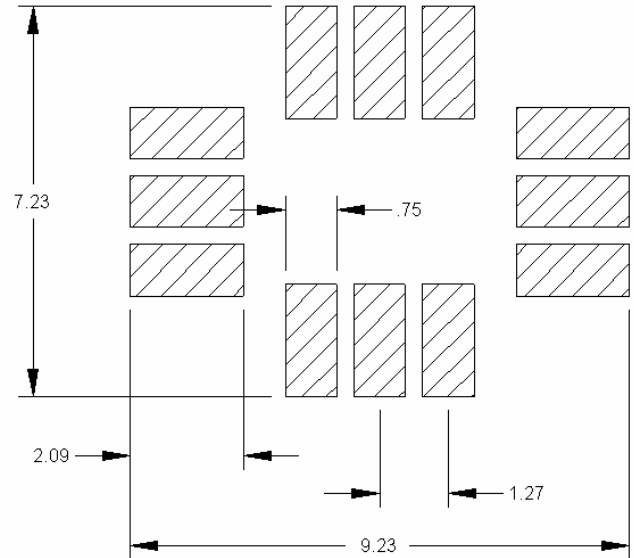
1. Recommend the use of  $\pm 2\%$  tolerance components.
2. Component values shown are for guidance only and may change depending on board layout.

**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**

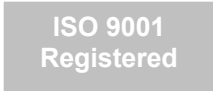


**Units:** mm

Dimensions are nominal in mm. All tolerances are  $\pm 0.15$  mm except overall length and width.

**Pad Configuration:**

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



All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.  
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