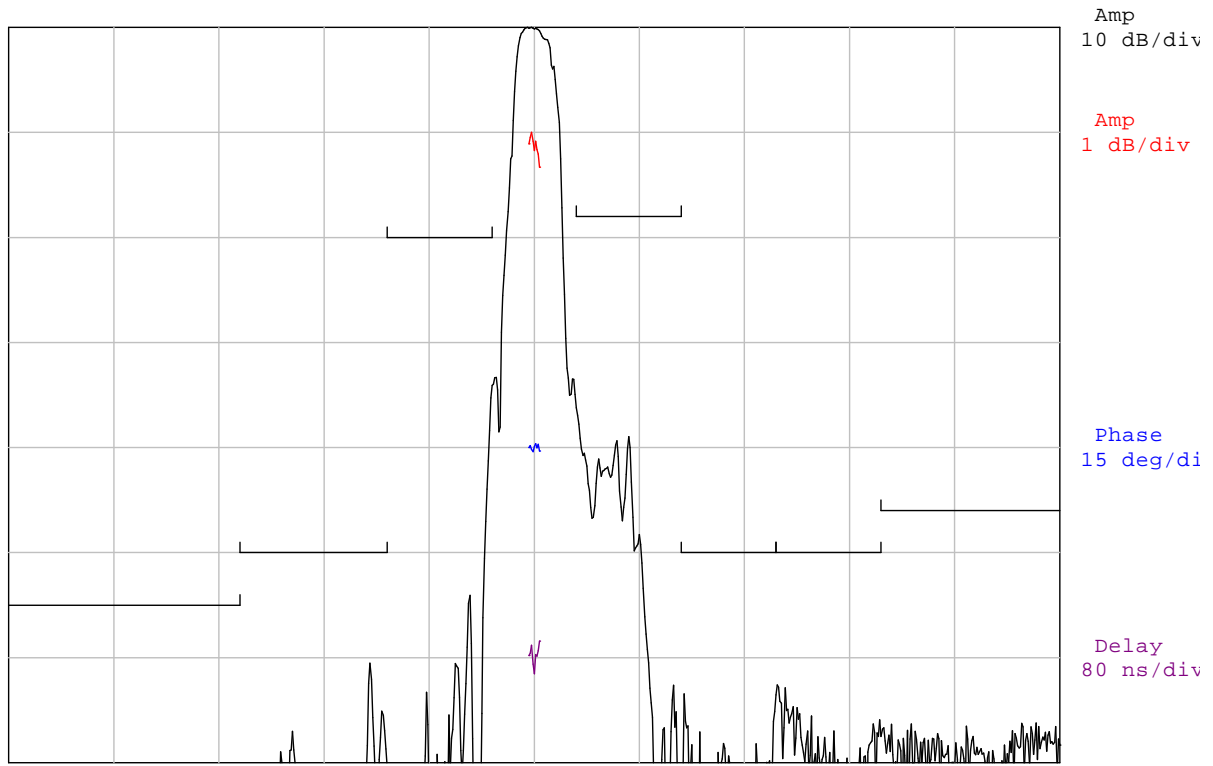


**DESCRIPTION**

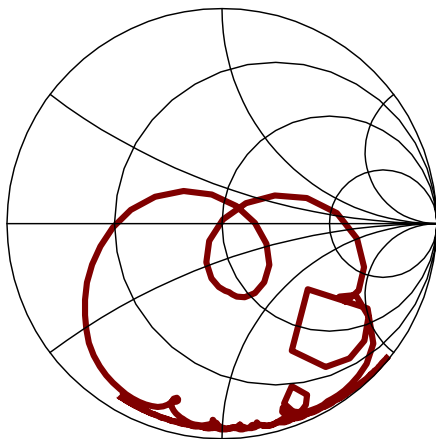
- 160 MHz SAW bandpass filter with 3 MHz bandwidth.
- 9 x 7 mm ceramic LCC package.
- RoHS compliant.

**TYPICAL PERFORMANCE**

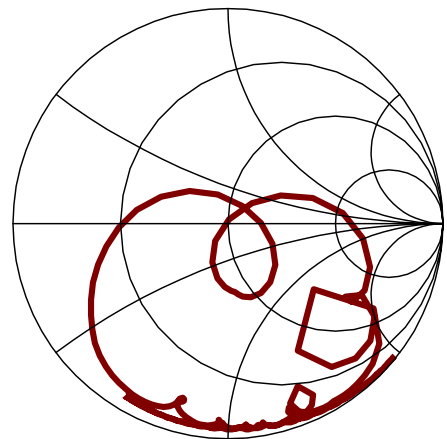


Center = 160 MHz, 10 MHz/div (125 kHz incr)

**S11 (110-210 MHz)**



**S22 (110-210 MHz)**



## SPECIFICATION

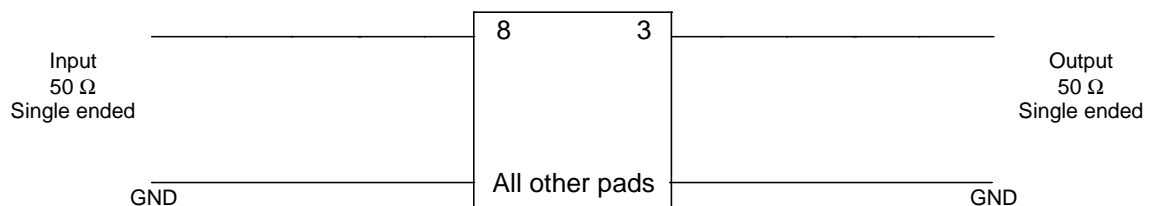
Parameter	Min	Typ	Max	Units
Center Frequency, $F_c$ <sup>1</sup>	-	160	-	MHz
Minimum Insertion Loss	-	1.5	4	dB
Amplitude Ripple (159.5-160.5 MHz)	-	0.5	1	dB p-p
Group Delay Variation (159.5-160.5 MHz)	-	25	80	ns p-p
Phase Linearity (159.5-160.5 MHz)	-	2	8	deg p-p
Absolute Delay	-	300	-	ns
1 dB bandwidth <sup>2</sup>	2	2.3	-	MHz
3 dB bandwidth <sup>2</sup>	3	3.3	-	MHz
Relative Attenuation (10 to 132 MHz) <sup>2</sup>	55	58	-	dB
Relative Attenuation (132 to 146 MHz) <sup>2</sup>	50	56	-	dB
Relative Attenuation (146 to 156 MHz) <sup>2</sup>	20	34	-	dB
Relative Attenuation (164 to 174 MHz) <sup>2</sup>	18	35	-	dB
Relative Attenuation (174 to 183 MHz) <sup>2</sup>	50	53	-	dB
Relative Attenuation (183 to 193 MHz) <sup>2</sup>	50	54	-	dB
Relative Attenuation (193 to 320 MHz) <sup>2</sup>	46	55	-	dB
Input/Output Return Loss ( $F_c \pm 150$ kHz)	10	13	-	dB
Input IP3 <sup>3</sup>	37	-	-	dBm
Source and Load Impedance	50			ohms
Temperature Coefficient of Frequency	-32			ppm/°C
Ambient Temperature	-	25	-	°C

- Notes:
1. Reference frequency. Computed as mean of the 3 dB frequencies.
  2. All dB values are referenced to the insertion loss value.
  3. Measured inside filter passband.

## MAXIMUM RATINGS

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

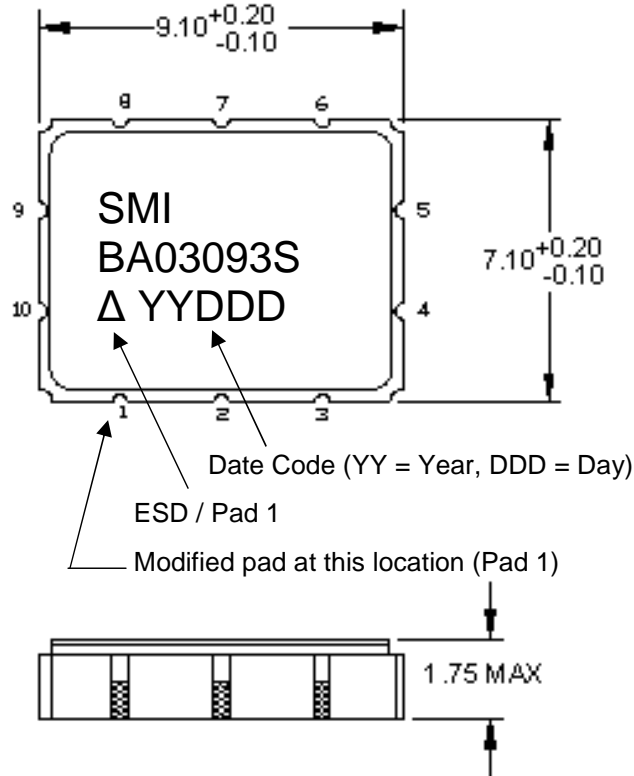
## MATCHING CIRCUIT



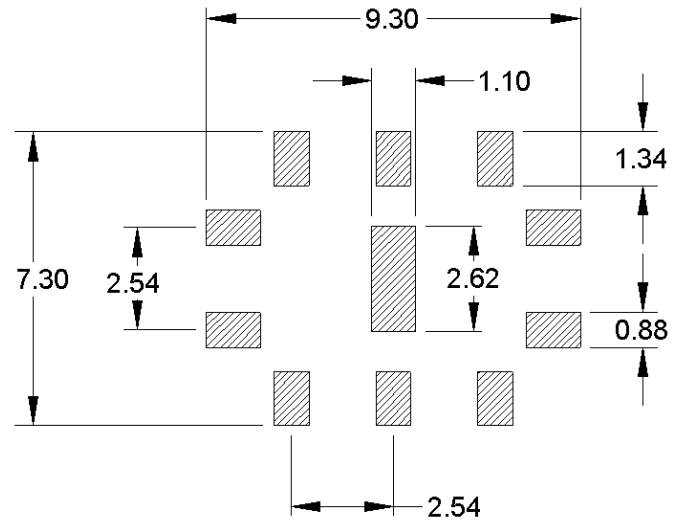
Notes:

- Matching components are not required.
- Device to operate in a 50 ohm single ended system.

**PACKAGE OUTLINE**



**SUGGESTED FOOTPRINT**

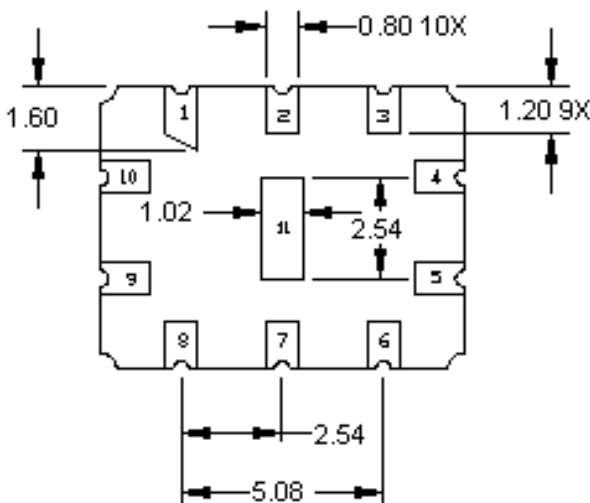


Tolerances are typically  $\pm 0.15$  mm except where indicated.

**Pad Configuration:**

Input: 8  
Output: 3  
Ground: All other pads

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



ISO 9001  
Registered

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