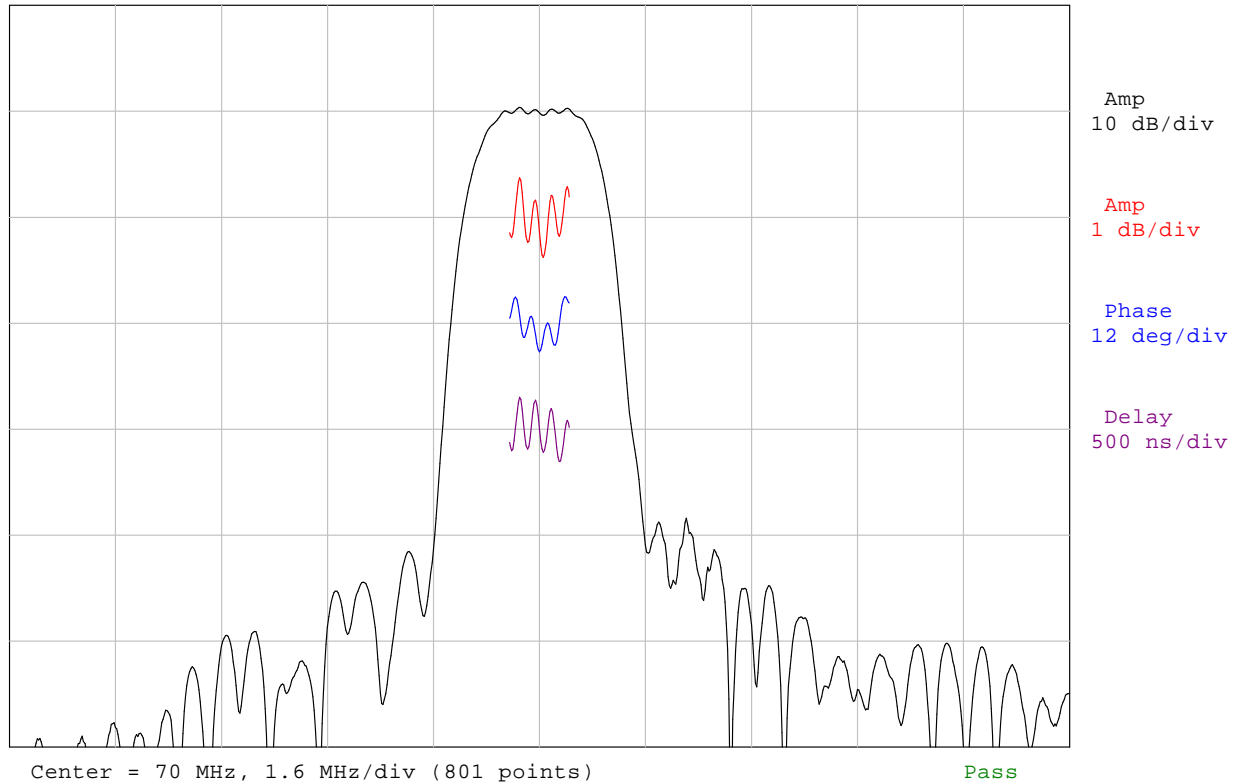


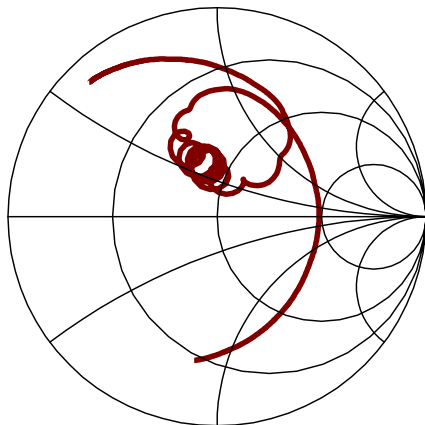
## DESCRIPTION

- 70 MHz SAW bandpass filter with 1.5 MHz bandwidth.
- 19 x 6.5 mm SMP, 10 pads.
- RoHS compliant.

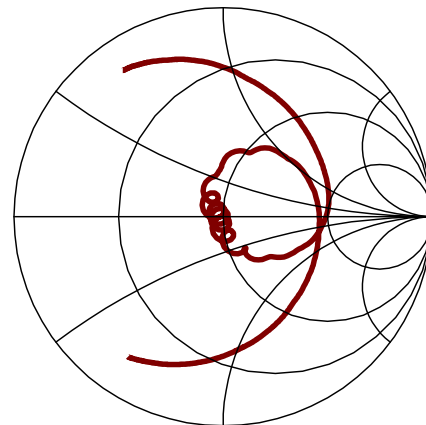
## TYPICAL PERFORMANCE



**S11 (200Ω balanced)**



**S22 (200Ω balanced)**



## SPECIFICATION

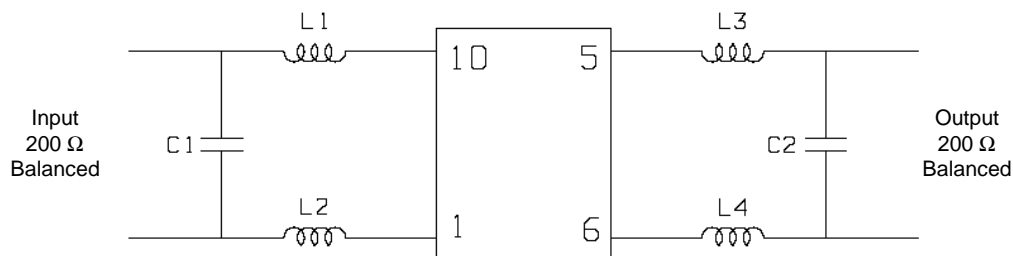
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) <sup>1</sup>	69.90	70.00	70.10	MHz
Insertion Loss	-	9.2	9.7	dB
1 dB Bandwidth	1.00	1.34	65.4	MHz
3 dB Bandwidth	1.50	1.69	-	MHz
36 dB Bandwidth	-	3.10	3.30	MHz
Passband Ripple <sup>2</sup>	-	0.8	1	dB p-p
Phase Deviation from Linear <sup>2</sup>	-	6.5	8	deg p-p
Group Delay Variation <sup>2</sup>	-	320	425	ns p-p
Absolute Delay	-	2.1	-	us
System Source and Load Impedance, Balanced	-	200	-	Ω
Temperature Coefficient of Frequency (Tc) <sup>3</sup>	-	-23	-	ppm/°C
Ambient Temperature (T <sub>ref</sub> )	-	25	-	°C

- Notes:
1. Average of lower and upper 3 dB frequencies.
  2. Evaluated over 60% of the 3 dB bandwidth.
  3. Typical change of filter frequency response with temperature is  $\Delta f = (T - T_{ref}) * T_c * F_c$ , in ppm.

## MAXIMUM RATINGS

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

## MATCHING CIRCUIT



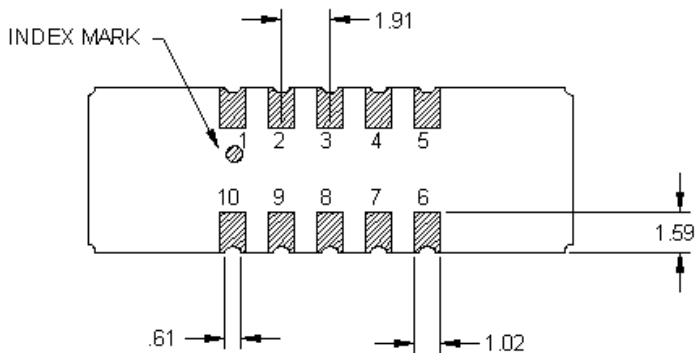
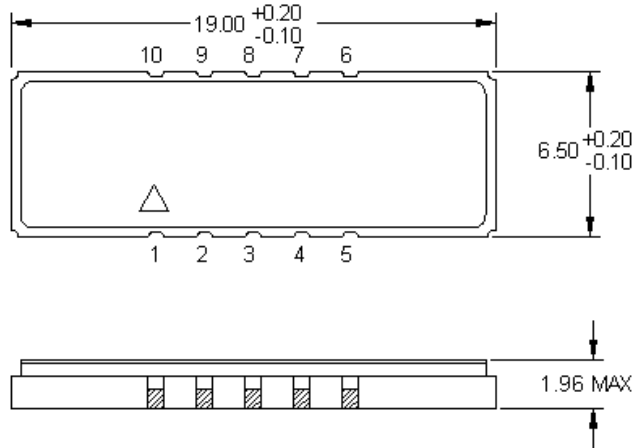
Typical component values:  
(Minimum inductor Q = 45)

L1	=	100	nH	L2	=	100	nH
L3	=	120	nH	L4	=	120	nH
C1	=	41	pF	C2	=	39	pF

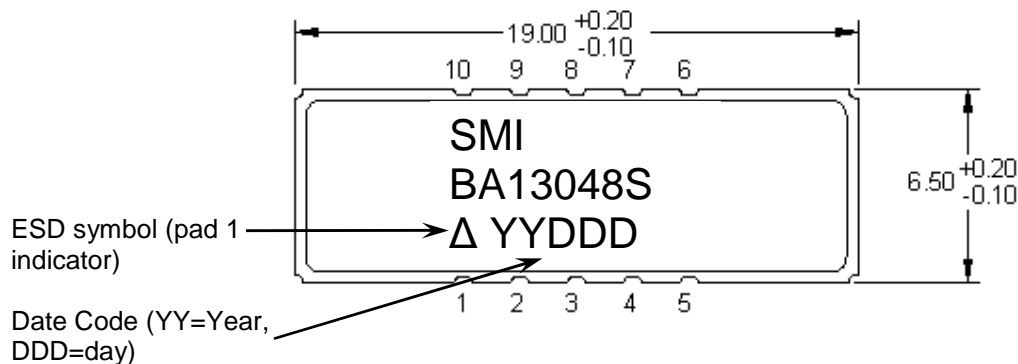
Notes:

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

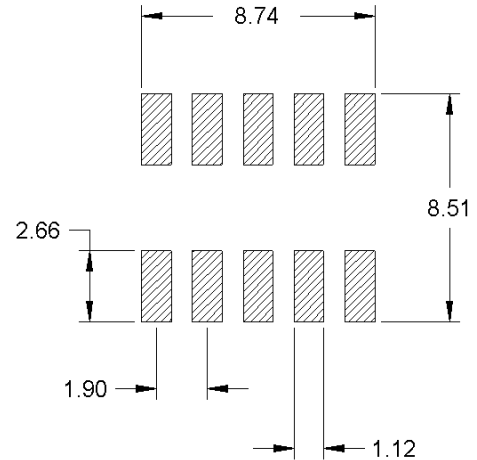
**PACKAGE OUTLINE**



**MARKING**



**SUGGESTED FOOTPRINT**



Units: mm

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

**Pad Configuration:**

Inputs: 10, 1  
 Outputs: 5, 6  
 Ground: 2, 3, 4, 7, 8, 9

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 the right to make changes without notice.  
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