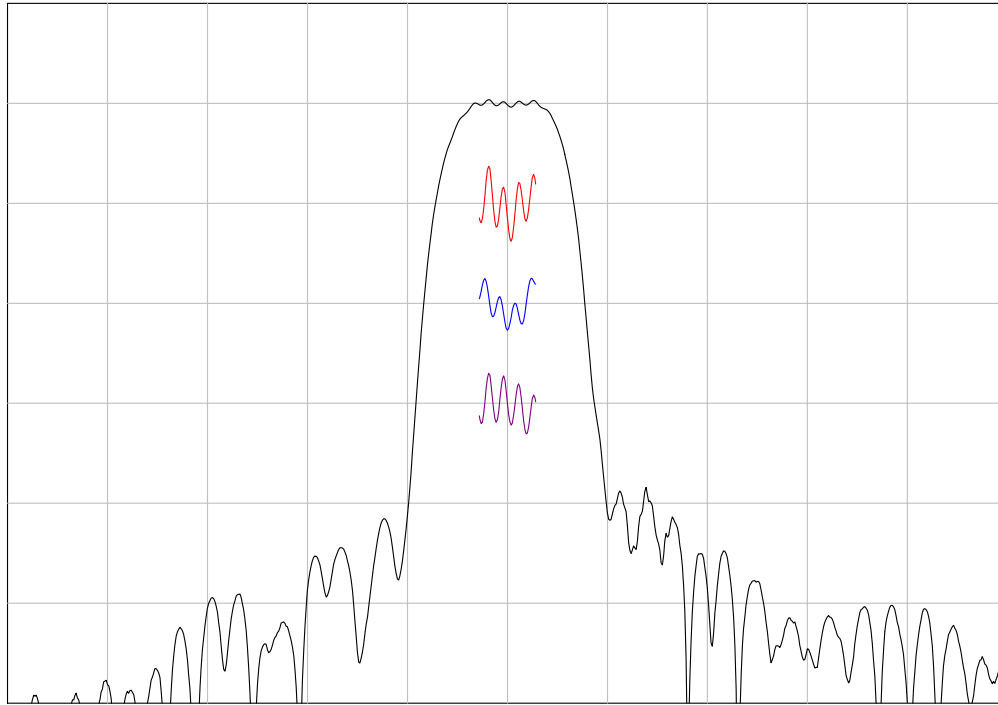




## DESCRIPTION

- 70 MHz SAW bandpass filter with 1.5 MHz bandwidth.
- 13.3 x 6.5 mm SMP.
- RoHS compliant.

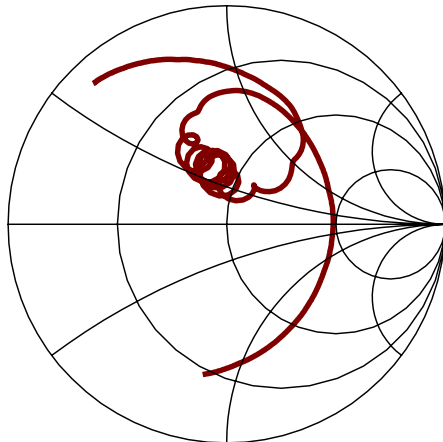
## TYPICAL PERFORMANCE



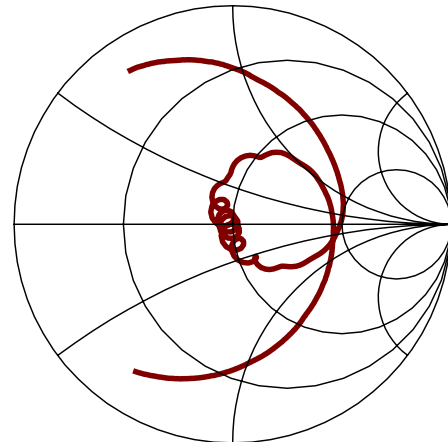
Horizontal:  
Vertical from Top:

Frequency : 1.6 MHz/div  
Relative Magnitude : 10 dB/div  
Relative magnitude : 1 dB/div  
Phase Linearity : 12 deg/div  
Group Delay Deviation : 500 ns/div

**S11 (200Ω balanced)**



**S22 (200Ω balanced)**





## SPECIFICATION

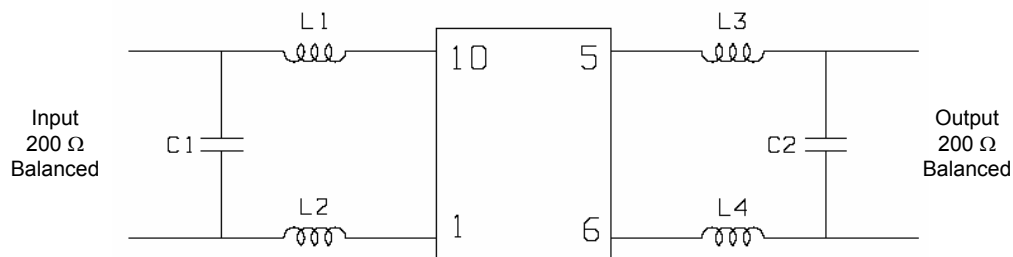
Parameter	Min	Typ	Max	Units
Center Frequency (Fc) <sup>1</sup>	69.90	70.00	70.10	MHz
Insertion Loss	-	9.2	9.7	dB
1 dB Bandwidth	1.00	1.34	65.4	MHz
3 dB Bandwidth	1.50	1.69	-	MHz
36 dB Bandwidth	-	3.10	3.30	MHz
Passband Ripple <sup>2</sup>	-	0.8	1	dB p-p
Phase Deviation from Linear <sup>2</sup>	-	6.5	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  $\Delta f = (T-T_{ref}) * Tc * Fc$ , 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)

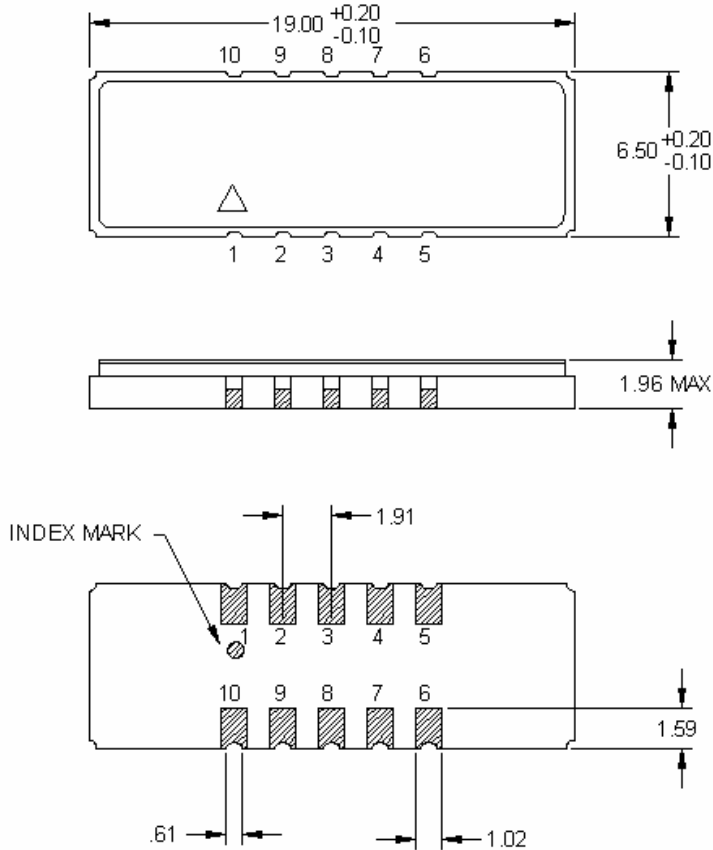
L1 =	100 nH	L2 =	100 nH
L3 =	120 nH	L4 =	120 nH
C1 =	41 pF	C2 =	39 pF

Notes:

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

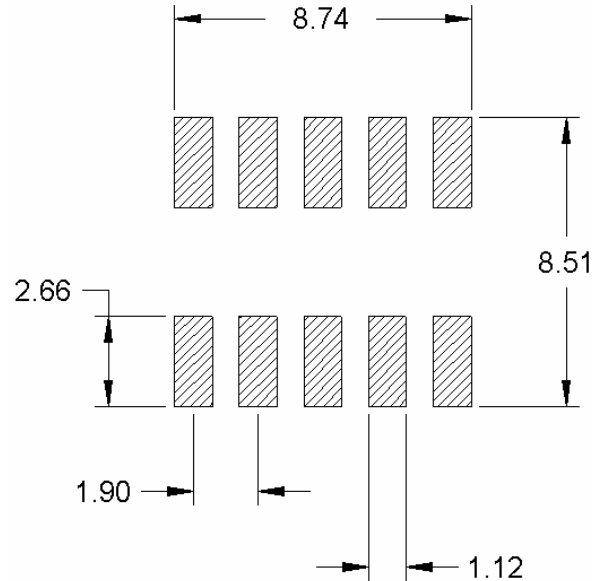


**PACKAGE OUTLINE**



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**

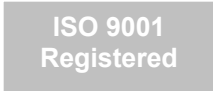


**Units:** mm

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

**Pad Configuration:**

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



All specifications are believed to be accurate and reliable. However, MNC reserves the right to make changes without notice.  
© 2006 All rights reserved.