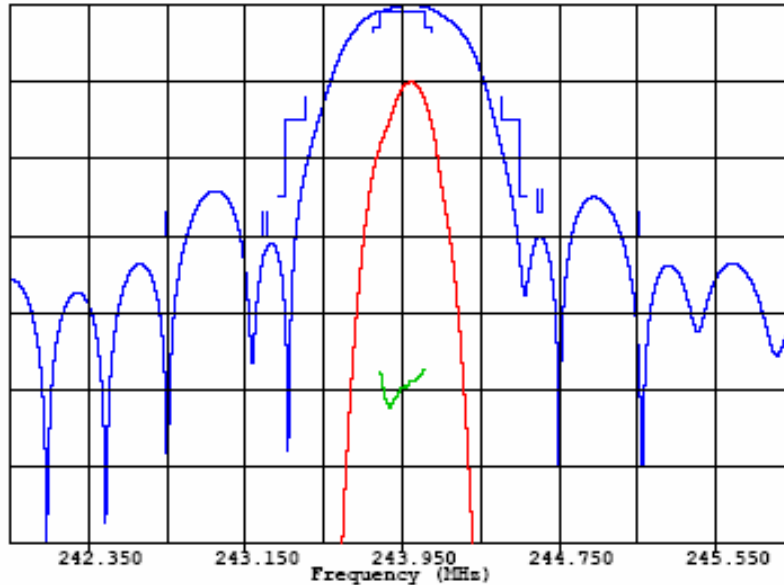


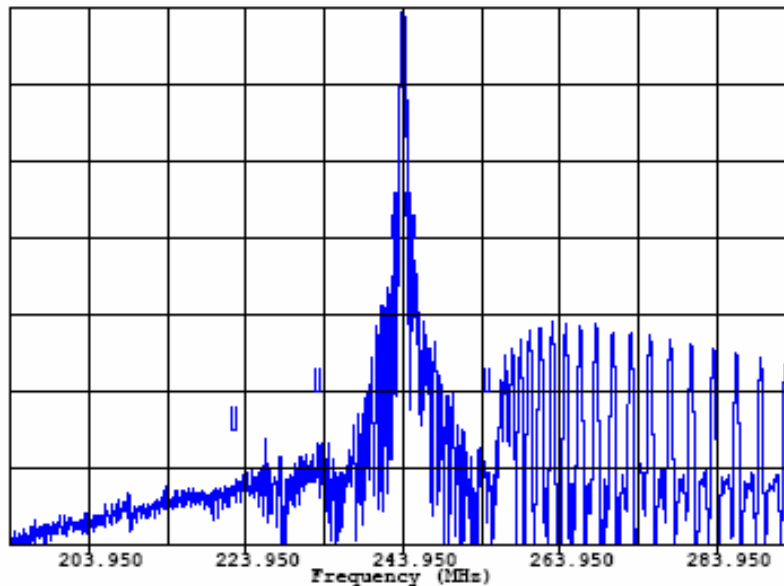
**DESCRIPTION**

- 243.85 MHz SAW bandpass filter with 0.3 MHz bandwidth for personal handyphone application.
- 11.4 x 4 mm LCC package.
- RoHS compliant.

**TYPICAL PERFORMANCE**



Vertical from top:    **Relative Magnitude :**    10    dB/div  
                                  **Relative Magnitude :**    1    dB/div  
                                  **Group Delay Variation :**    200    ns/div



Vertical Scale:    **Relative Magnitude :**    10    dB/div

## SPECIFICATION

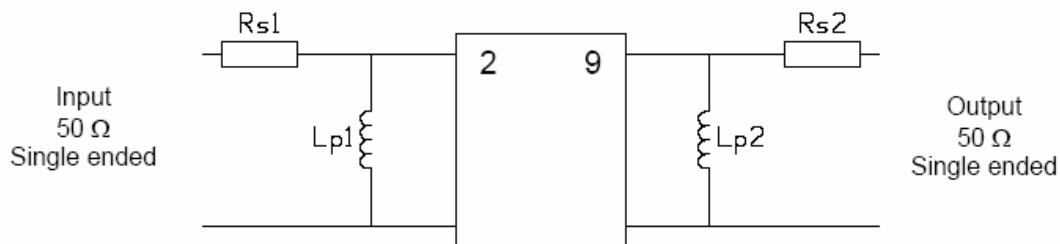
Parameter <sup>3</sup>	Min	Typ	Max	Units
Center Frequency ( Fc ) <sup>1</sup>	-	243.95	-	MHz
Insertion Loss	-	3.8	5	dB
Lower 3 dB Frequency <sup>2</sup>		243.65	243.80	MHz
Upper 3 dB Frequency <sup>2</sup>	244.10	244.25	-	MHz
Passband Amplitude Variation (Fc±0.11 MHz)	-	0.7	1	dB p-p
Group Delay Ripple (Fc±0.11 MHz)	-	110	600	ns p-p
Rejection (Fc-21.6 MHz) <sup>2</sup>	55	63		dB
Rejection (Fc±10.8 MHz) <sup>2</sup>	50	56		dB
Rejection (Fc±1.2 MHz) <sup>2</sup>	30	40		dB
Rejection (Fc-0.7 MHz) <sup>2</sup>	30	33		dB
Rejection (Fc±0.6 MHz) <sup>2</sup>	25	29		dB
Rejection (Fc±0.5 MHz) <sup>2</sup>	15	16		dB
Rejection (Fc+0.7 MHz) <sup>2</sup>	27	30		dB
Absolute Delay	-	1.4	-	us
System Source and Load Impedance	50			Ω
Ambient Temperature	-	25	-	°C

- Notes:
1. Fixed reference frequency.
  2. All dB levels are defined relative to the insertion loss.
  3. All electrical specifications apply across the full operating temperature range.

## MAXIMUM RATINGS

Parameter	Min	Typ	Max	Units
Storage Temperature Range	-40	25	85	°C
Operating Temperature Range	-10	25	50	°C
Input Power Level	-	0	10	dBm

## MATCHING CIRCUIT



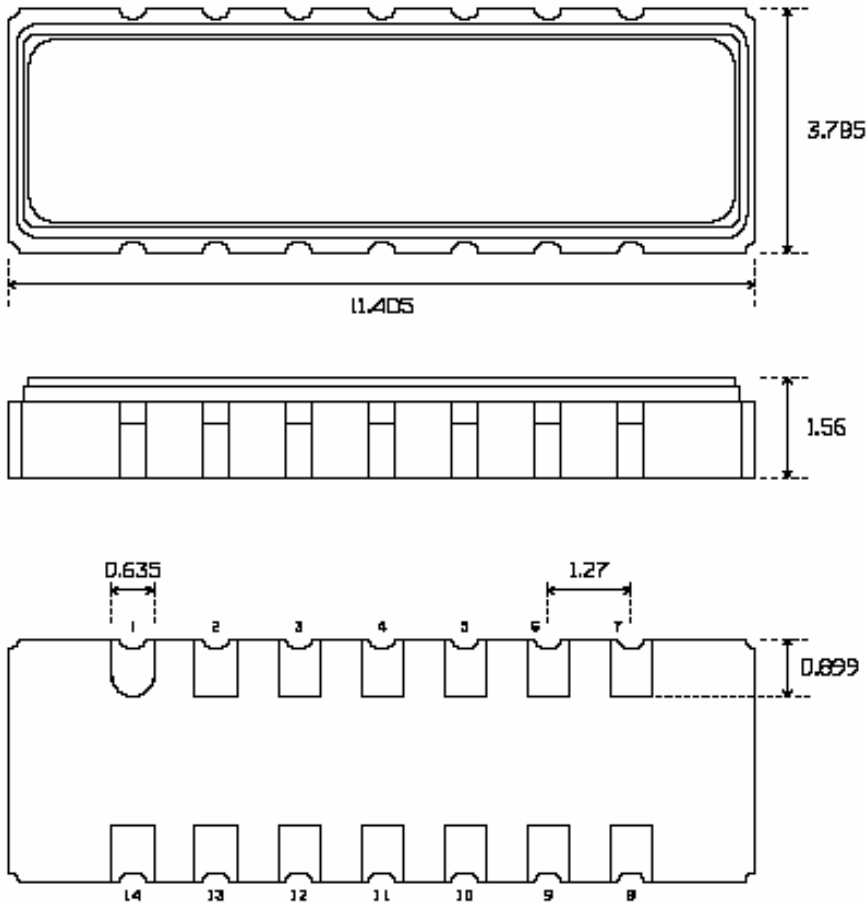
Typical component values:

$$\begin{aligned} R_{s1} &= 30 \text{ } \Omega & R_{s2} &= 82 \text{ } \Omega \\ L_{p1} &= 27 \text{ nH} & L_{p2} &= 33 \text{ nH} \end{aligned}$$

Notes:

1. Recommend use of 5% tolerance matching components. Inductor Q=45.
2. Component values are for reference only and may change depending on board layout.
3. Insertion loss is adjusted by 6.2 dB at test to allow for the effect of Rs1 and Rs2.

**PACKAGE OUTLINE**



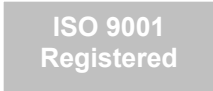
**Units:** mm

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

**Pad Configuration:**

Input: 2  
 Output: 9  
 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



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