



### Features


- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Ceramic Surface Mount Package
- ◇ Small size RoHS compliant (2002/95/EC), Pb-free

### Specifications

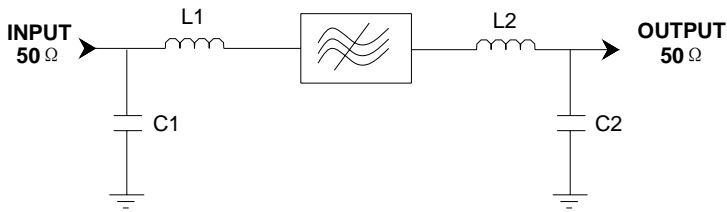
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	224.9	225	225.1
Insertion Loss	dB	-	24	25
1.5 dB Bandwidth	MHz	4	4.1	-
3 dB Bandwidth	MHz	-	4.32	-
40 dB Bandwidth	MHz	-	5.46	-
50 dB Bandwidth	MHz	-	5.6	-
Passband Variation	dB	-	0.5	1
Phase Linearity( $f_0 \pm 2\text{MHz}$ )	deg	-	3	-
Absolute Delay	usec	-	2.58	-
Ultimate Rejection	dB	50	51	-
Material Temperature coefficient	KHz/°C	0.225		
Substrate Material	-	Qz		
Ambient Temperature	°C	25		
Operating Temperature Range	°C	-40	-	+85
Storage Temperature Range	°C	-45	-	+105
DC Voltage	V	0		
Input Power	dBm	-	-	10
ESD Class	-	1		
Package Size	SMD19.0*6.5A			

#### Notes:

1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
4. This is the optimum impedance in order to achieve the performance show.

	<b>SIPAT Co., Ltd.</b> ( CETC No.26 Research Institute ) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBS22501	
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		Ver.	1.0	Page 1/4

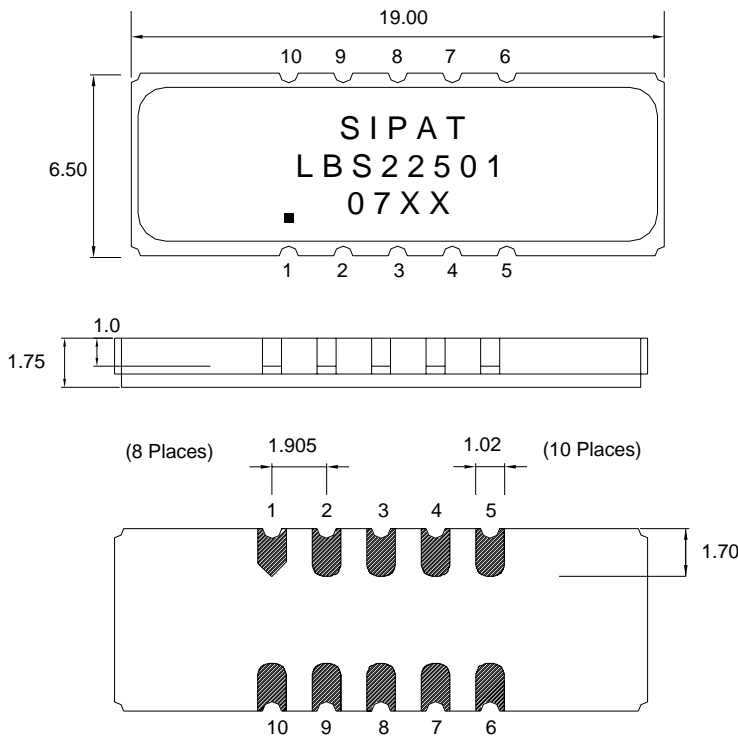
### Matching Configuration



**L1=39nH L2=27nH**  
**C1=33pF C2=27pF**  
**Source/Load Impedance=50 ohm**

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

Input 10  
Output 5  
Ground All Others

#### Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LBS22501: Part Number
- 4) 07XX: Date Code

Package: SMD19.0\*6.5A

Unit: mm



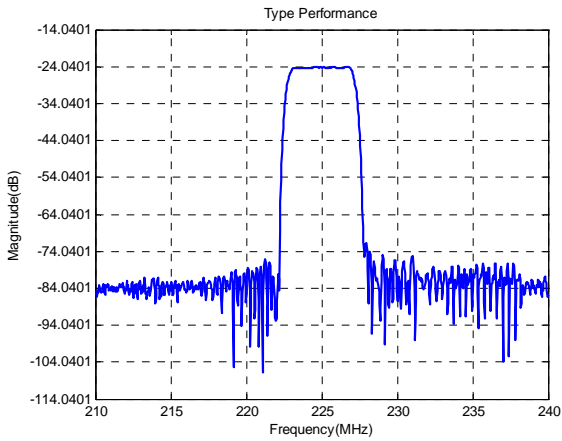
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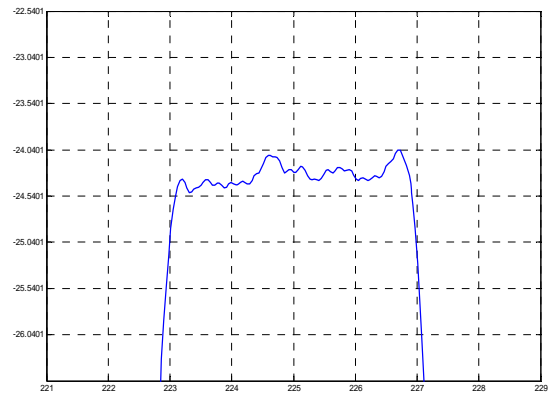
Typical Performance

Frequency Respond



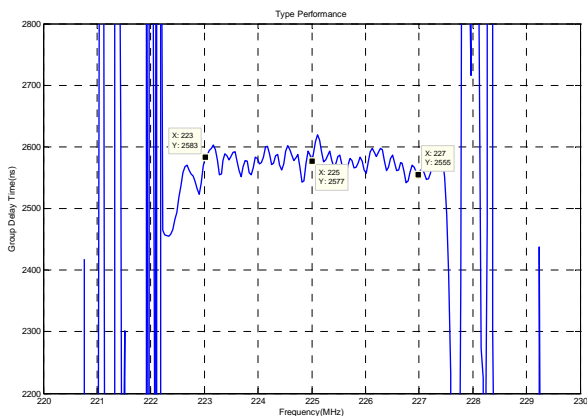
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



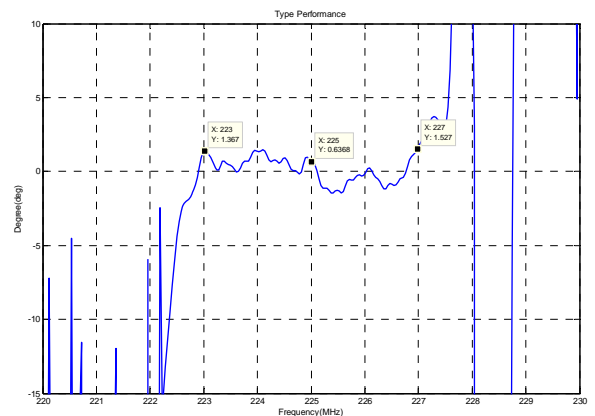
Horizontal: 1MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±2MHz)



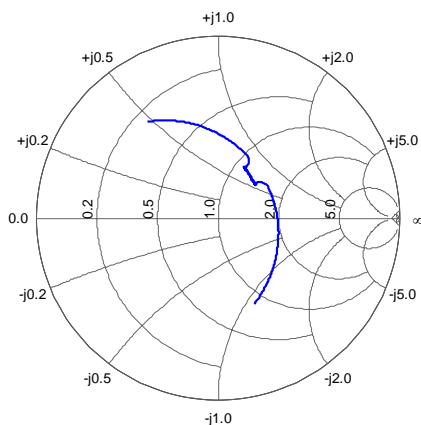
Horizontal: 1MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±2MHz)

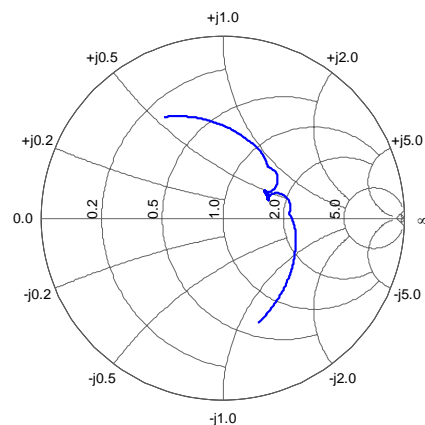


Horizontal: 1MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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China Electronics Technology Group Corporation  
No.26 Research Institute

225MHz SAW Filter  
4MHz Bandwidth

**SIPAT Co., Ltd.**  
[www.sipatsaw.com](http://www.sipatsaw.com)

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