



### Features

- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Dual In-line Package

### Specifications

Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	138.35	138.5	138.65	
Insertion Loss	dB	-	23.7	26	
1.2 dB Bandwidth	MHz	-	0.94	-	
3 dB Bandwidth	MHz	1	1.1	-	
40 dB Bandwidth	MHz	-	1.84	-	
Passband Variation	dB	-	0.5	1.2	
Absolute Delay	usec	-	3.83	4	
Ultimate Rejection	$f_0 \pm 0.95\text{MHz}$	dB	35	40	-
	$f_0 \pm 1.15\text{MHz}$	dB	45	52	-
	$f_0 \pm 1.55\text{MHz}$	dB	50	70	-
	$f_0 \pm 5.55\text{MHz}$	dB	55	80	-
	$f_0 \pm 15\text{MHz}$	dB	55	70	-
Material Temperature coefficient	KHz/°C	0.14			
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	DIP3512 (35.0x12.8x4.7mm3)				

#### 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.



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Part Number	LBS13901		
Rev. Date	2007-09-13		
Ver.	1.0	Page 1/3	

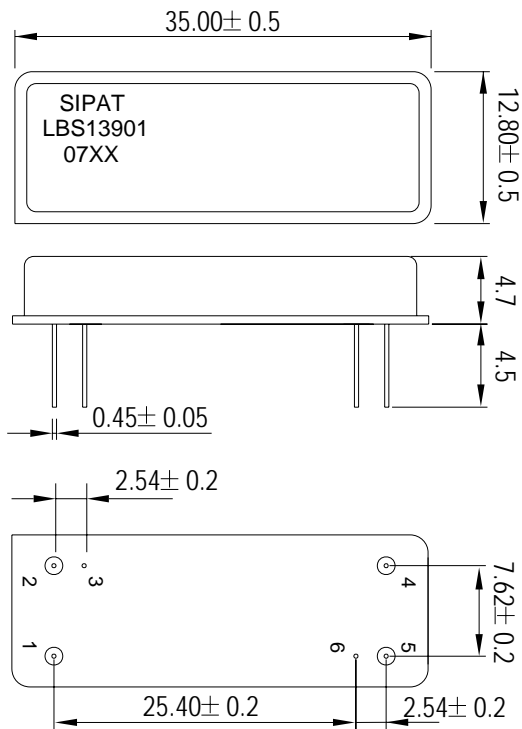
### Matching Configuration



Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

Input 1  
 Output 5  
 Ground All Others

#### Marking Configuration:

- 1) SIPAT: Manufacturer Name
- 2) LBS13901: Part Number
- 3) 07XX: Date Code

Package: DIP3512

Unit: mm



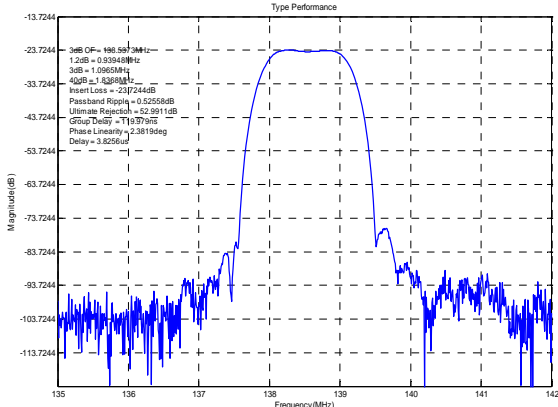
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Typical Performance

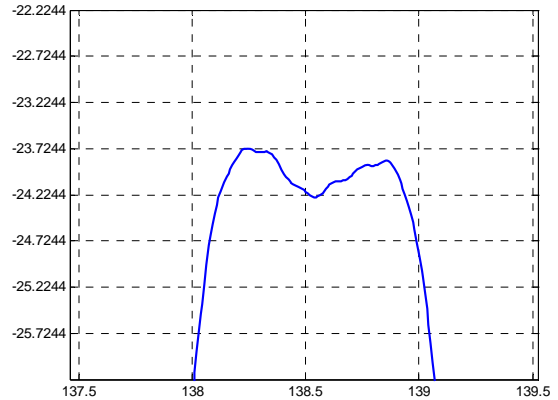
Frequency Respond



Horizontal: 1MHz/Div

Vertical: 10dB/Div

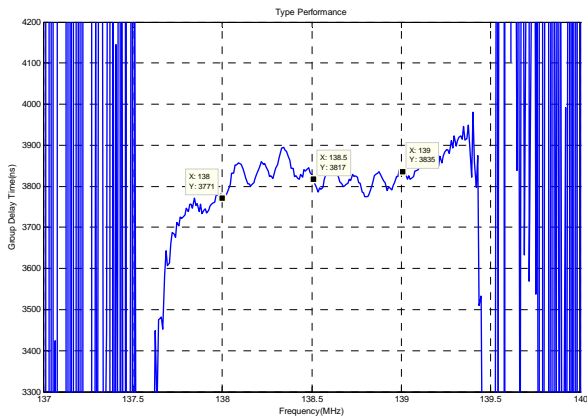
Passband Respond



Horizontal: 0.5MHz/Div

Vertical: 0.5dB/Div

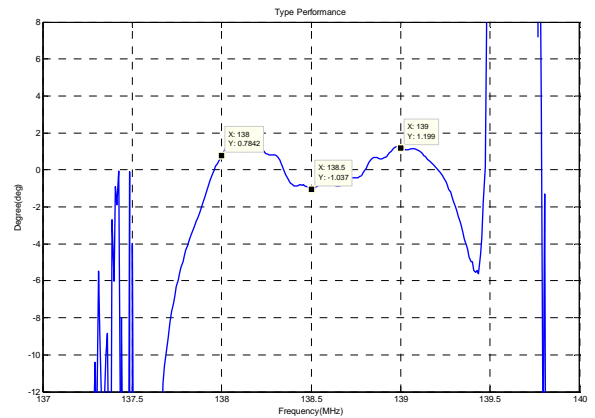
Group Delay Variation(f0±0.5MHz)



Horizontal: 0.5MHz/Div

Vertical: 100ns/Div

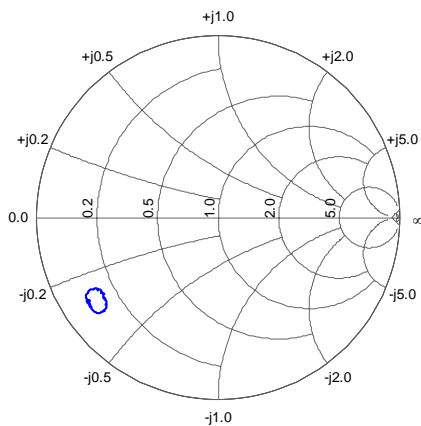
Phase Linearity(f0±0.5MHz)



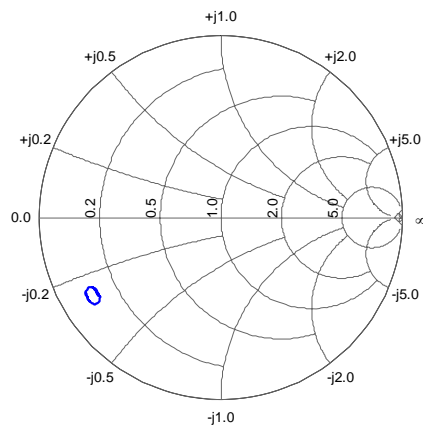
Horizontal: 0.5MHz/Div

Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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