



### Features


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

### Specifications

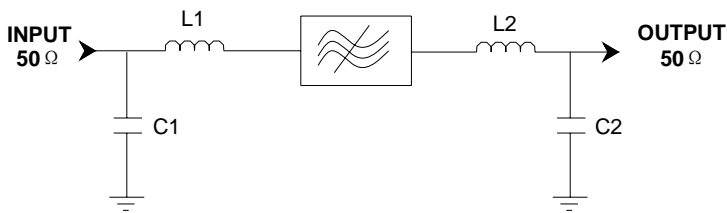
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	140.45	140.6	140.75	
Insertion Loss	dB	-	28	30	
1.5 dB Bandwidth	MHz	-	5.92	-	
3 dB Bandwidth	MHz	6	6.08	-	
40 dB Bandwidth	MHz	-	6.82	-	
Passband Variation	dB	-	1.2	1.5	
Absolute Delay	usec	-	3.84	4	
Ultimate Rejection	$f_0 \pm 3.45\text{MHz}$	dB	35	45	-
	$f_0 \pm 3.65\text{MHz}$	dB	45	52	-
	$f_0 \pm 4.05\text{MHz}$	dB	50	52	-
	$f_0 \pm 8.05\text{MHz}$	dB	50	53	-
	$f_0 \pm 11\text{MHz}$	dB	55	57	-
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 (35.0x12.8x4.7mm <sup>3</sup> )				

#### 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	LBS14102	
		Rev. Date	2007-09-20	
		Ver.	1.0	Page

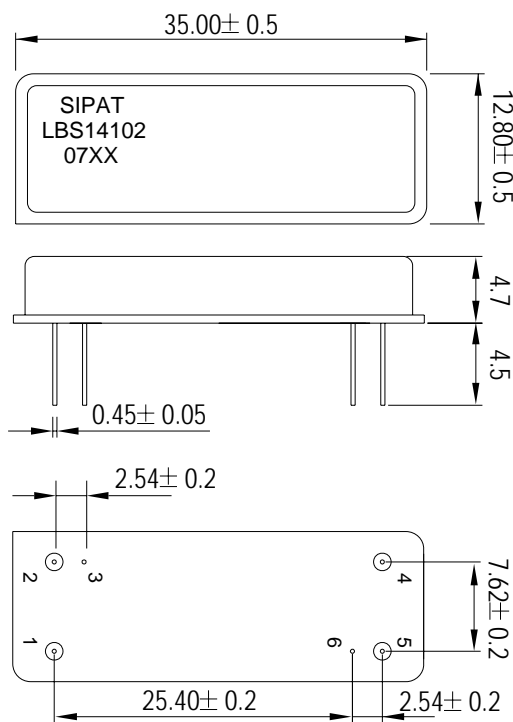
### Matching Configuration



**L1=100nH L2=68nH**  
**C1=56pF C2=47pF**  
**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) LBS14102: Part Number  
3) 07XX: Date Code

**Package: DIP3512**

**Unit: mm**



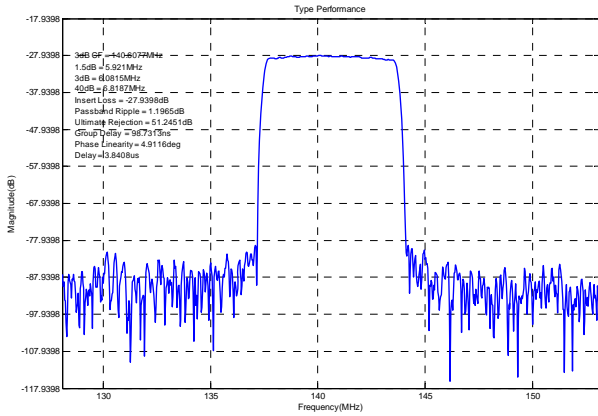
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( CETC No.26 Research Institute )  
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Typical Performance

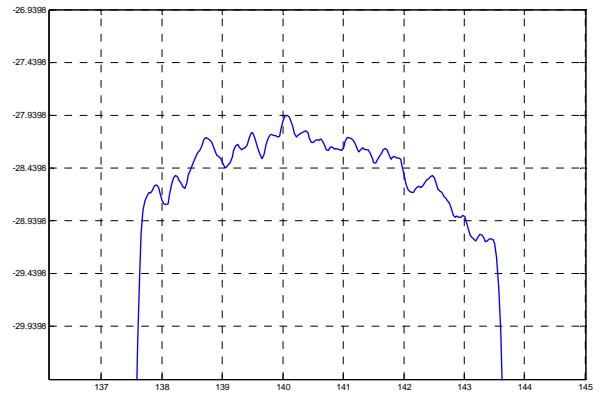
Frequency Respond



Horizontal: 5MHz/Div

Vertical: 10dB/Div

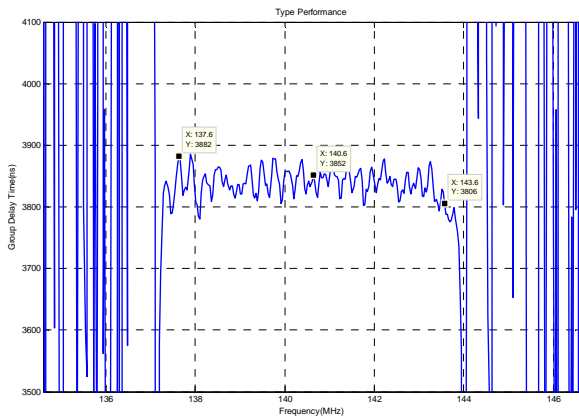
Passband Respond



Horizontal: 1MHz/Div

Vertical: 0.5dB/Div

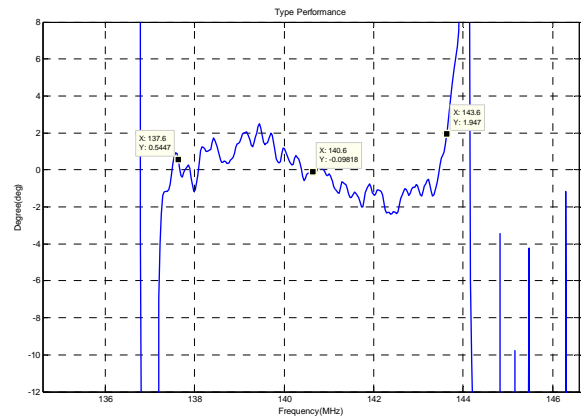
Group Delay Variation(f0±3MHz)



Horizontal: 2MHz/Div

Vertical: 100ns/Div

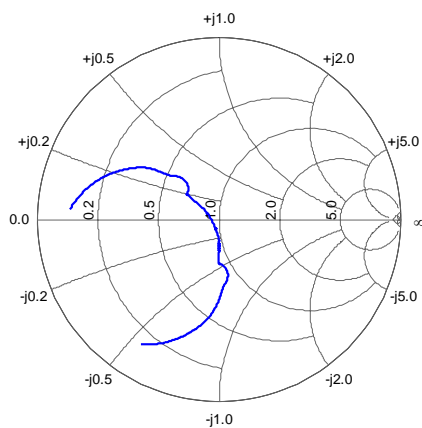
Phase Linearity(f0±3MHz)



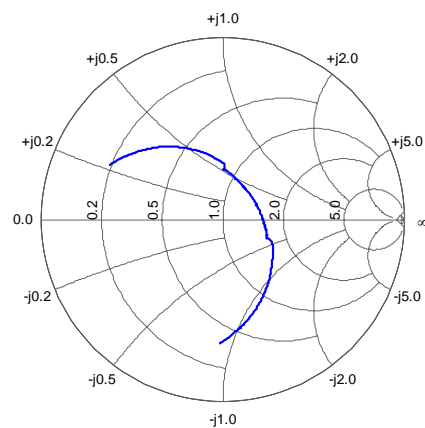
Horizontal: 2MHz/Div

Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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