



### Features

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

### Specifications

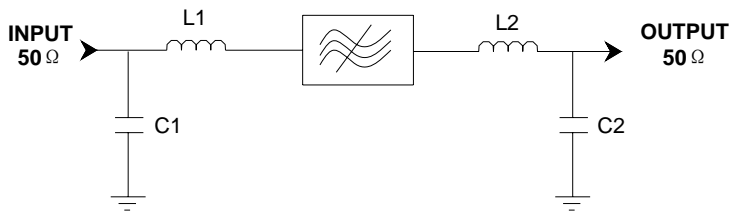
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	-	140	-	
Insertion Loss	dB	-	10.7	15	
1 dB Bandwidth	MHz	5.3	6.53	-	
3 dB Bandwidth	MHz	6.1	7.36	-	
Passband Variation	dB	-	0.3	1	
Group Delay Variation( $f_0 \pm 2.7\text{MHz}$ )	nsec	-	70	100	
Absolute Delay	usec	-	1.05	-	
Ultimate Rejection	@131.5~132.5MHz	dB	45	52	-
	@147.5~163.8MHz	dB	45	46	-
	$f \leq 131.5\text{MHz}$ , $f \geq 163.8\text{MHz}$	dB	40	54	-
Material Temperature coefficient	KHz/°C	-2.52			
Substrate Material	-	112LT			
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	-	1A			
Package Size	SMD1365C				

#### 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	LB140DS32	
		Rev. Date	2008-03-06	
		Ver.	1.0	Page 1/3

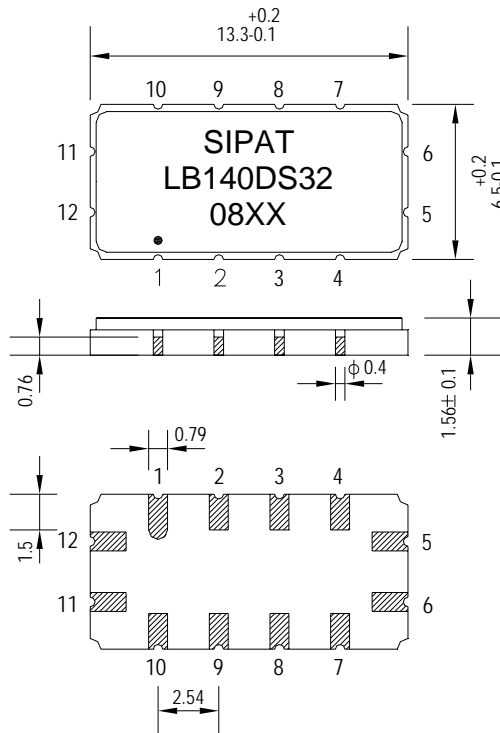
### Matching Configuration



$L1 = (100 + 10)nH$     $L2 = (100 + 15)nH$   
 $C1 = C2 = 47pF$   
Source/Load Impedance = 50 ohm

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

Input    11  
Output   5  
Ground   All Others

#### Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LB140DS32: Part Number
- 4) 08XX: Date Code

Package: SMD1365C

Unit: mm



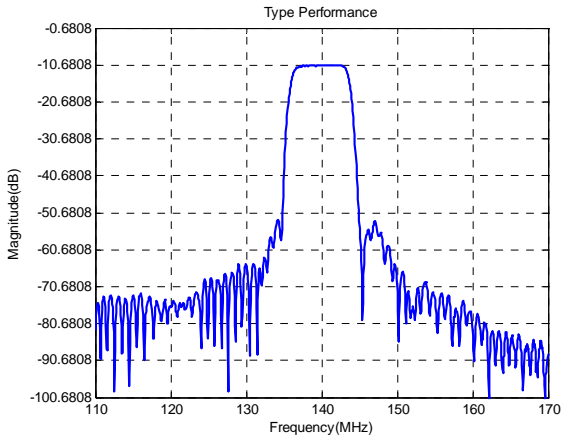
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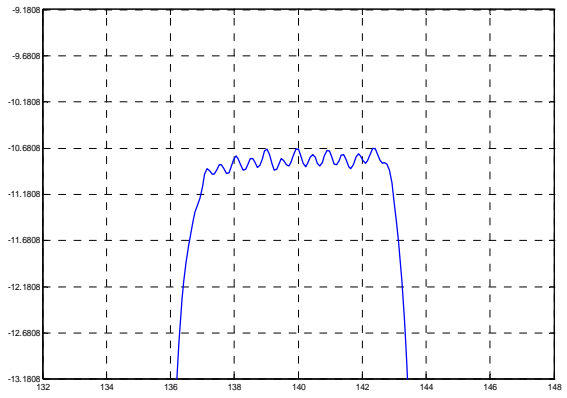
Typical Performance

Frequency Respond



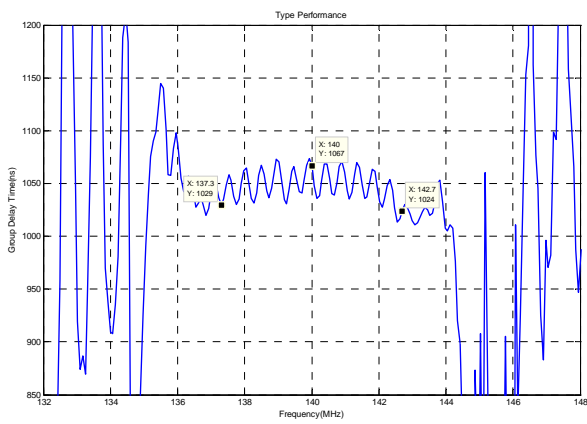
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



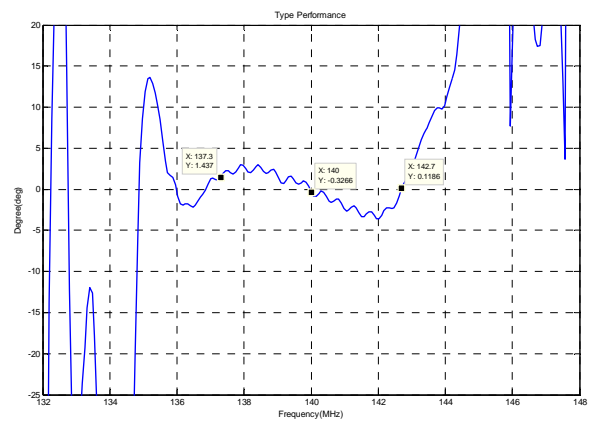
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation( $f_0 \pm 2.7$ MHz)



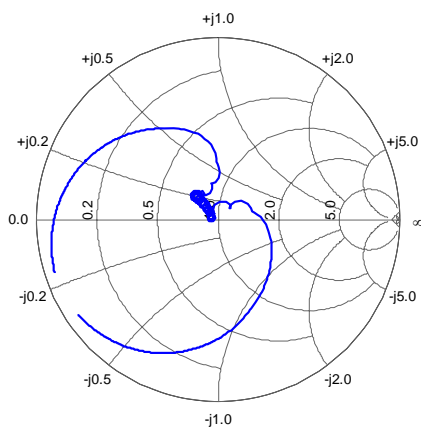
Horizontal: 2MHz/Div Vertical: 50ns/Div

Phase Linearity( $f_0 \pm 2.7$ MHz)

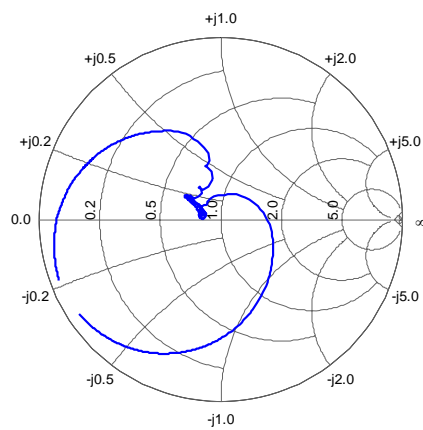


Horizontal: 2MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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