



### Features

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

### Specifications

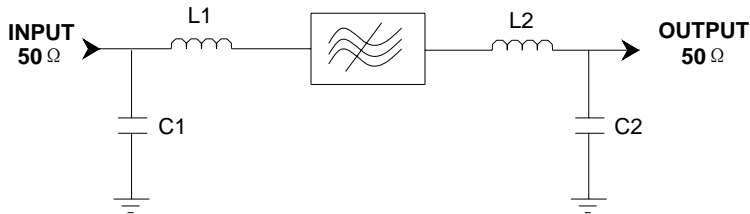
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	-	140	-
Insertion Loss	dB	-	12.6	18.5
Passband Variation	137.25~142.75MHz	dB	0.3	1.8
	136.5~143.5MHz	dB	0.3	2
Phase Linearity	137.25~142.75MHz	deg	2	6
	136.5~143.5MHz	deg	3	8
Absolute Delay(137.25~142.75MHz)	usec	-	1.05	-
Input/Output return loss(136.5~143.5MHz)	dB	8.5	12/10.7	-
Ultimate Rejection	10~132MHz	dB	40	-
	132~133MHz	dB	35	-
	147~150MHz	dB	35	-
	150~200MHz	dB	40	-
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	SMD9.1*4.8			

#### 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	LB140DS38	
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### Matching Configuration



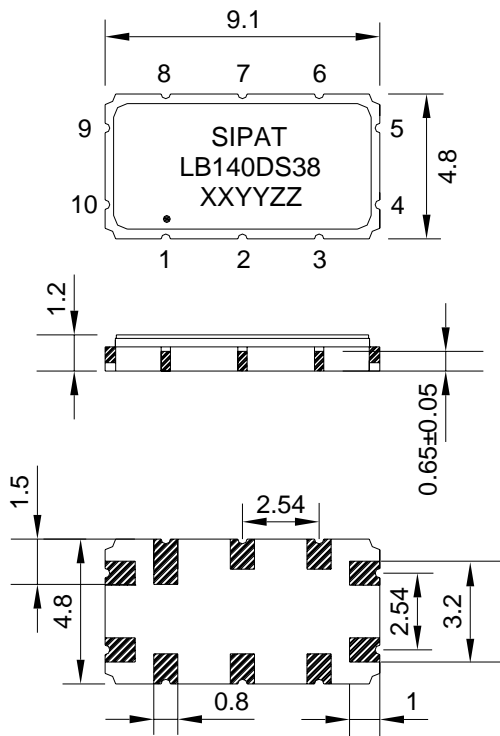
$$L1 = (27 + 15)nH \quad L2 = 47nH$$

$$C1 = C2 = 56pF$$

Source/Load Impedance = 50 ohm

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

Input: 9  
Output: 4  
Ground: All Others

#### Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LB140DS38: Part Number
- 4) XXYY: Date (Year/month)
- 5) ZZ: Identified Code

Package: SMD9148

Unit: mm



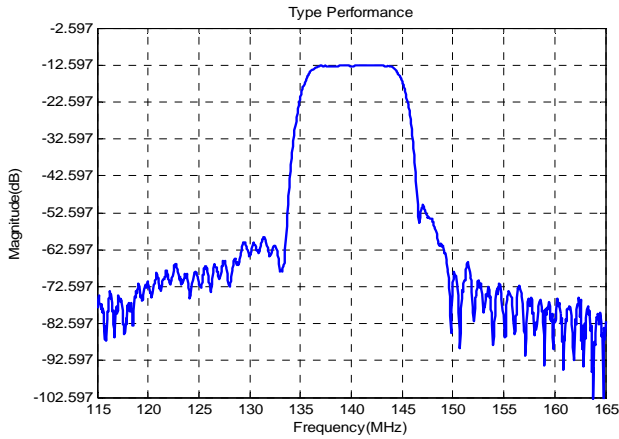
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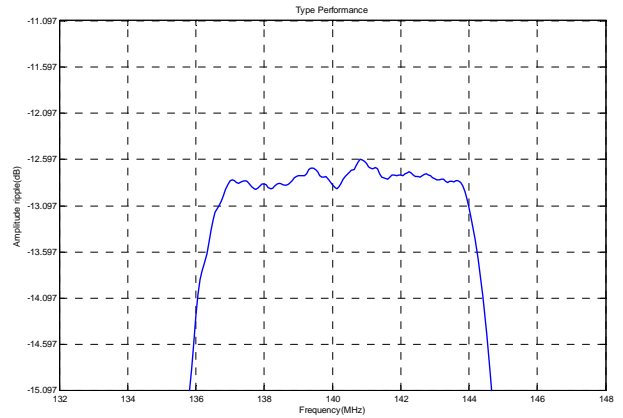
Typical Performance

Frequency Respond



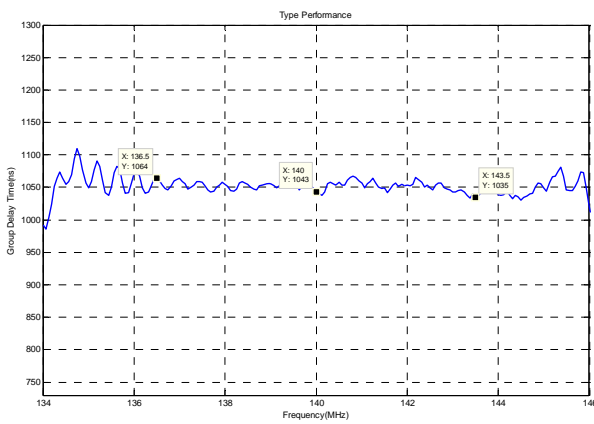
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



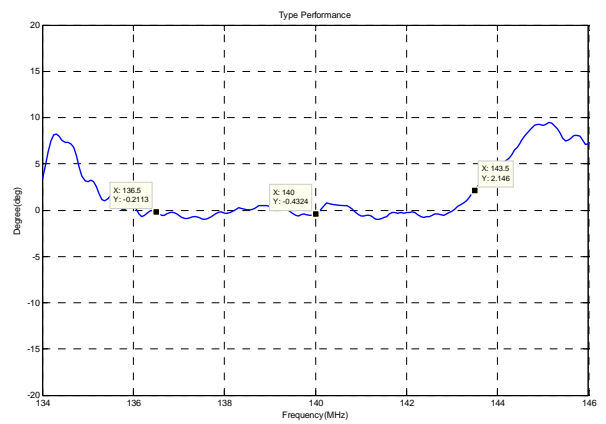
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation( $f_0 \pm 3.5$ MHz)



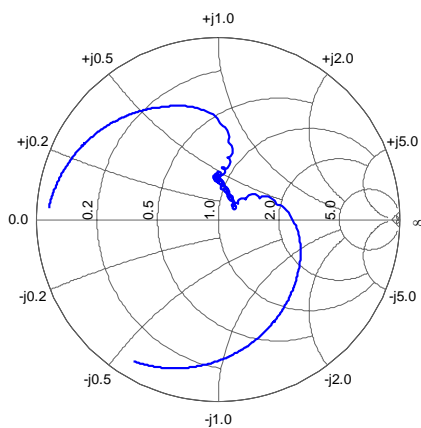
Horizontal: 2MHz/Div Vertical: 50ns/Div

Phase Linearity( $f_0 \pm 3.5$ MHz)

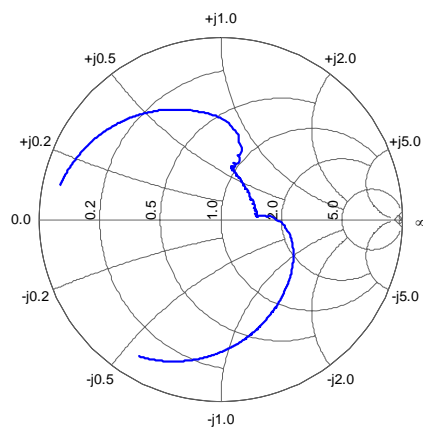


Horizontal: 2MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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