



Features


- ◇ For Low-loss SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Ceramic Surface Mount Package
- ◇ Small size

Specifications

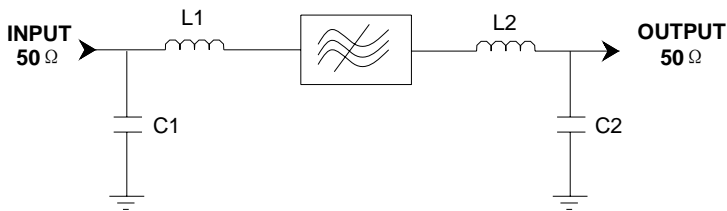
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	139.8	140	140.2
Insertion Loss	dB	-	5.8	7.5
1 dB Bandwidth	MHz	5.8	6.2	-
3 dB Bandwidth	MHz	6.85	7.22	-
40 dB Bandwidth	MHz	-	10.88	11.1
Passband Variation($f_0 \pm 2.4\text{MHz}$)	dB	-	0.4	1
Phase Linearity($f_0 \pm 2.4\text{MHz}$)	deg	-	3	14
Group Delay($f_0 \pm 2.4\text{MHz}$)	nsec	-	70	200
Absolute Delay	usec	-	1.24	-
Ultimate Rejection	dB	-	48	-
Material Temperature coefficient	KHz/°C	-13.16		
Substrate Material	-	YZ		
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	SMD13.3*6.5C			

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.

	SIPAT Co., Ltd. (CETC No.26 Research Institute) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LB140DS07	
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Matching Configuration



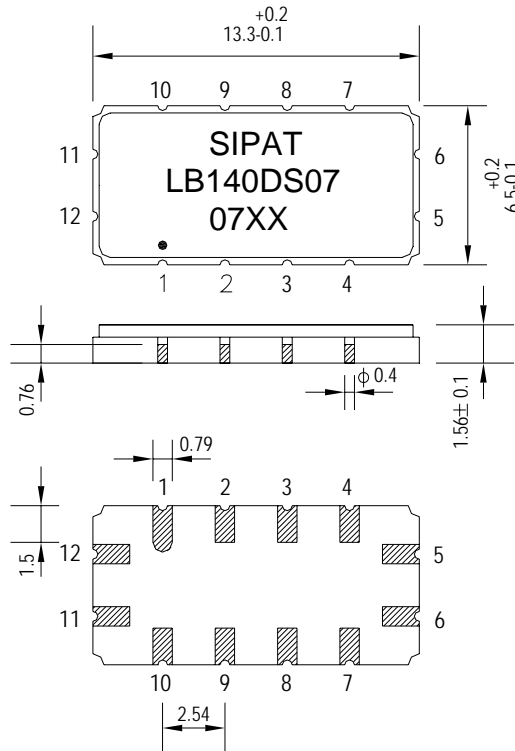
$$L1 = (39 + 56)nH \quad L2 = 82nH$$

$$C1 = C2 = 22pF$$

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) LB140DS07: Part Number
- 4) 07XX: Date Code

Package: SMD13.3*6.5C

Unit: mm

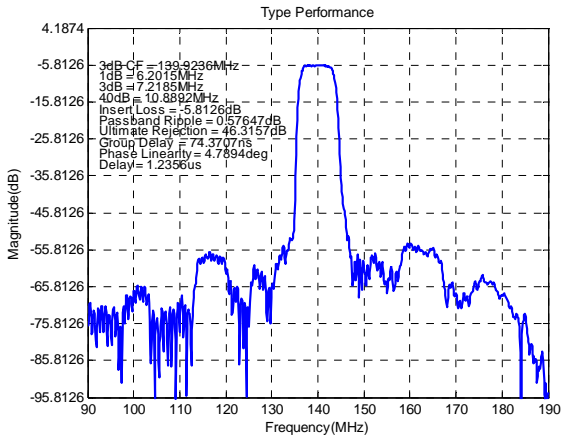


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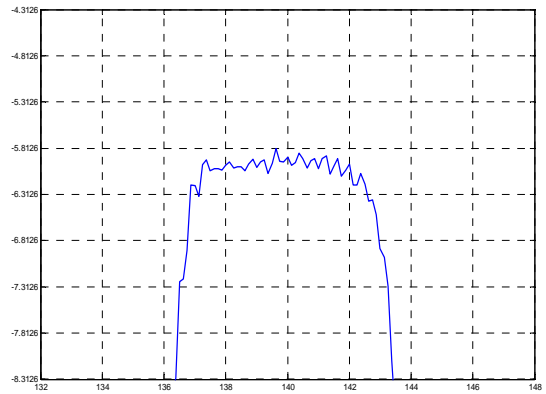
Typical Performance

Frequency Respond



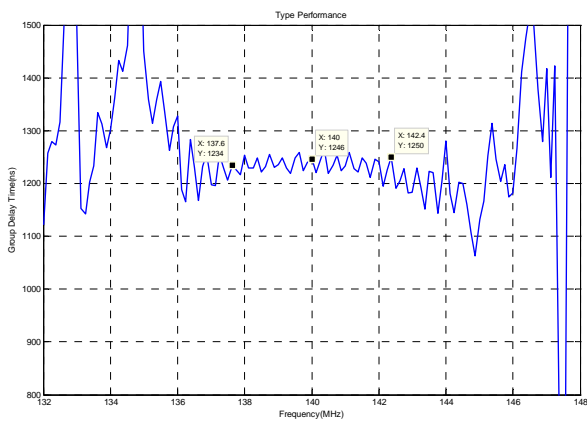
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



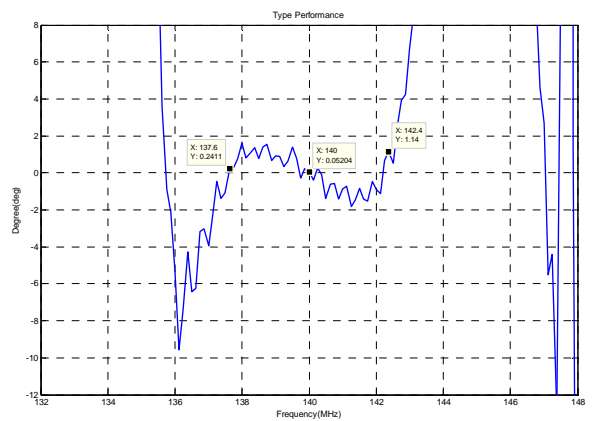
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±2.4MHz)



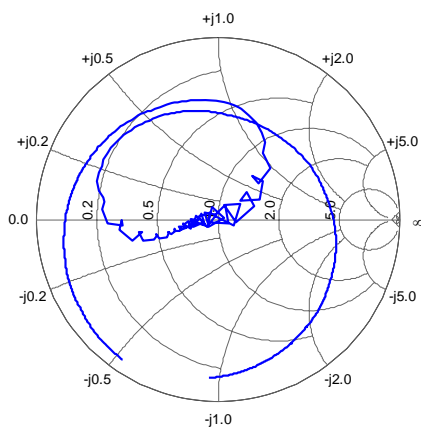
Horizontal: 2MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±2.4MHz)

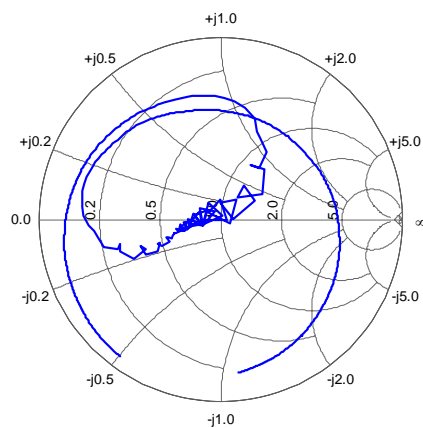


Horizontal: 2MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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