



Features


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

Specifications

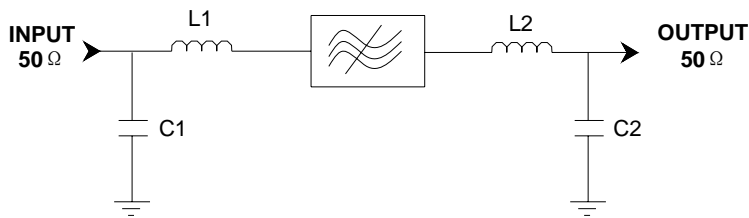
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	139.9	140	140.1	
Insertion Loss	dB	-	10.5	12	
1dB Bandwidth	MHz	0.48	0.61	-	
3 dB Bandwidth	MHz	-	0.9	-	
35 dB Bandwidth	MHz	-	1.94	2.1	
Passband Variation	dB	-	0.1	0.6	
Absolute Delay	usec	-	2.34	-	
Phase Linearity($f_0 \pm 0.2\text{MHz}$)	deg	-	0.5	-	
Group Delay variation($f_0 \pm 0.25\text{MHz}$)	nsec	-	80	200	
Ultimate Rejection	$f_0 \pm 2.5\text{MHz}$	dB	37	55	-
	$f_0 \pm 20\text{MHz}$	dB	40	60	-
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	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	LB140DS30	
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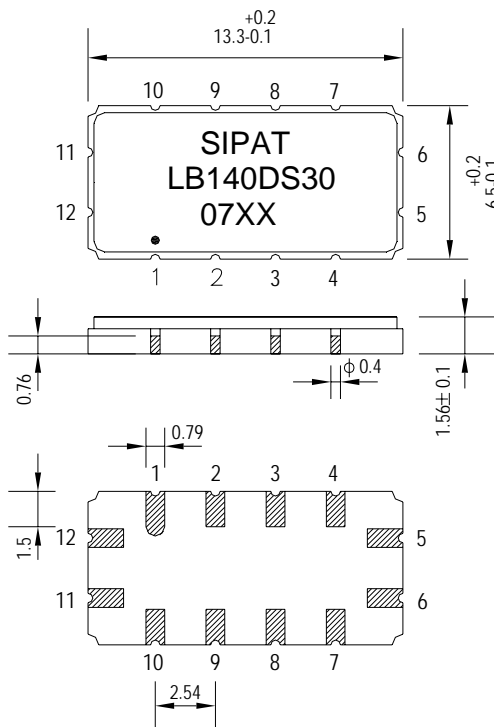
Matching Configuration



L1=82nH L2=68nH
C1=C2=56pF
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) LB140DS30: Part Number
- 4) 07XX: Date Code

Package: SMD13.3*6.5C

Unit: mm

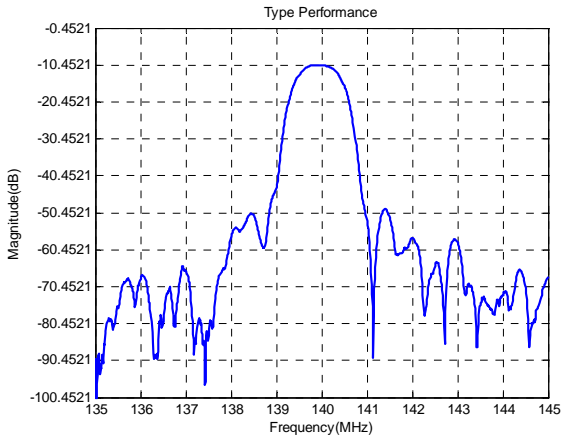


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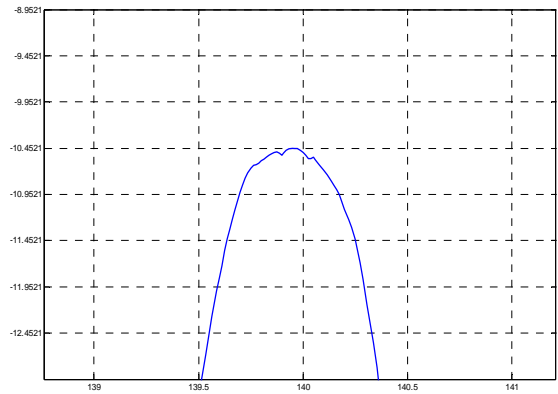
Typical Performance

Frequency Respond



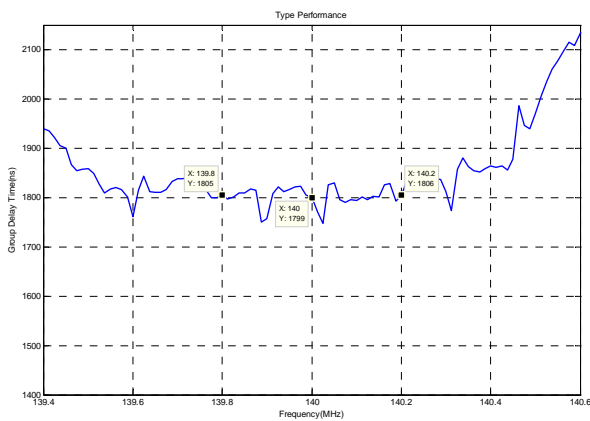
Horizontal: 1MHz/Div Vertical: 10dB/Div

Passband Respond



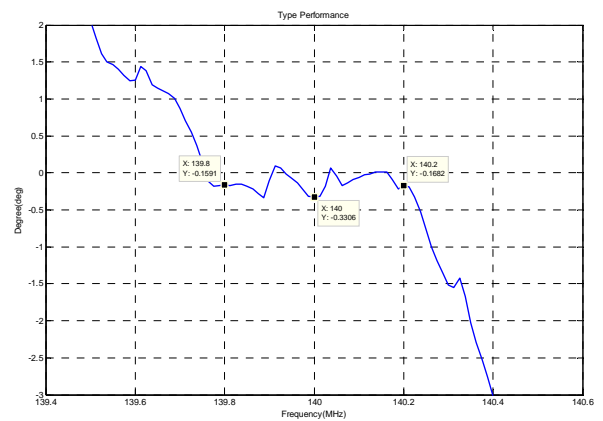
Horizontal: 0.5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±0.2MHz)



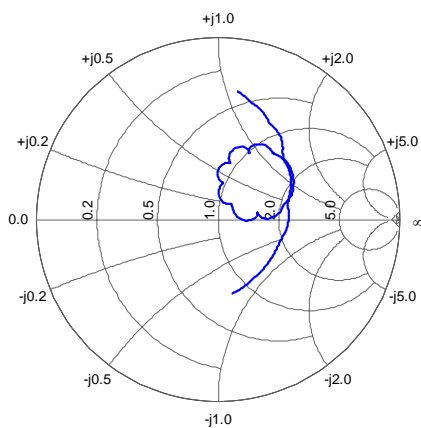
Horizontal: 0.2MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±0.2MHz)

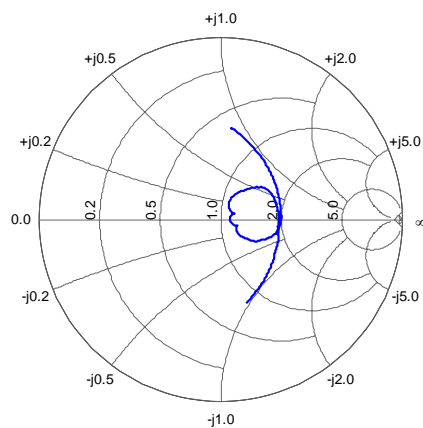


Horizontal: 0.2MHz/Div Vertical: 0.5deg/Div

Smith Chart S11



Smith Chart S22



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