



Features


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

Specifications

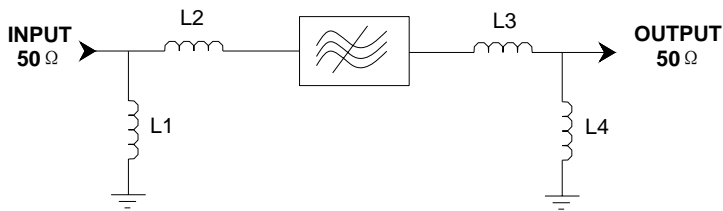
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	139.7	140	140.3
Insertion Loss	dB	-	8.2	13
1 dB Bandwidth	MHz	15	16.03	-
3 dB Bandwidth	MHz	16	16.95	-
35 dB Bandwidth	MHz	-	21.33	21.5
40 dB Bandwidth	MHz	-	23.29	-
Passband Variation($f_0 \pm 6.4\text{MHz}$)	dB	-	0.5	1
Phase Linearity($f_0 \pm 6.4\text{MHz}$)	deg	-	8	14
Group Delay Variation($f_0 \pm 6.4\text{MHz}$)	nsec	-	80	160
Absolute Delay	usec	-	1.02	-
Ultimate Rejection	dB	-	37	-
Material Temperature coefficient	KHz/°C	-13.16		
Substrate Material	-	YZ LN		
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	SMD13.3*6.5			

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	LB140DS13	
		Rev. Date	2008-06-17	
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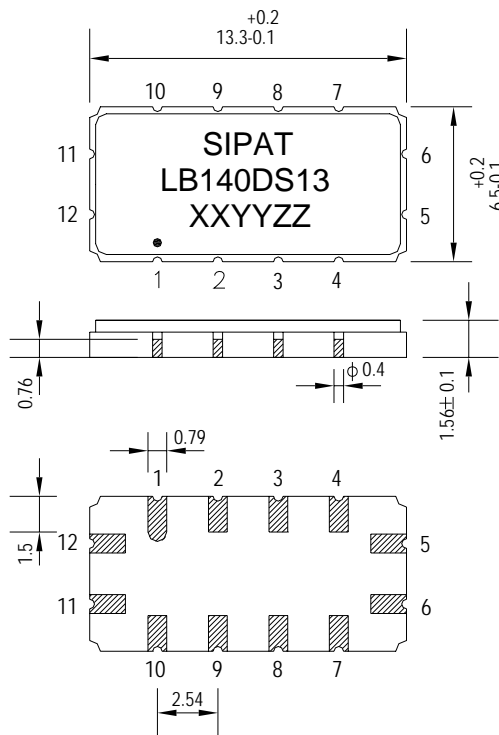
Matching Configuration



L1=L2=47nH
L3=56nH L4=68nH
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) LB140DS13: Part Number
- 4) XXYY: Date(Year/month)
- 5) ZZ: Identified Code

Package: SMD13*6.5

Unit: mm



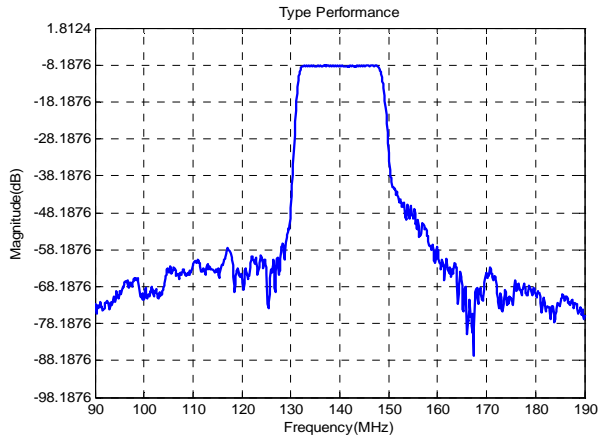
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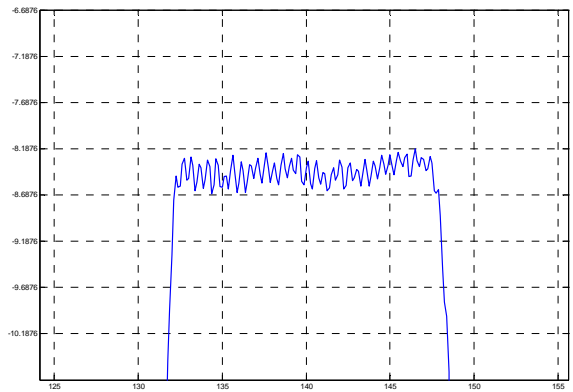
Typical Performance

Frequency Respond



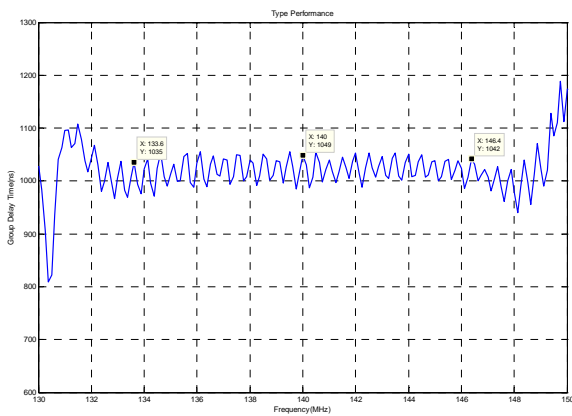
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



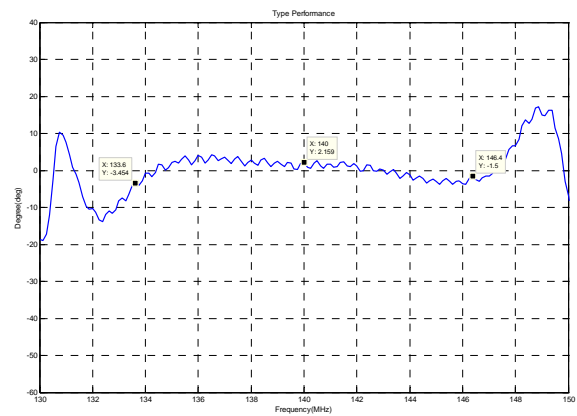
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation($f_0 \pm 6.4\text{MHz}$)



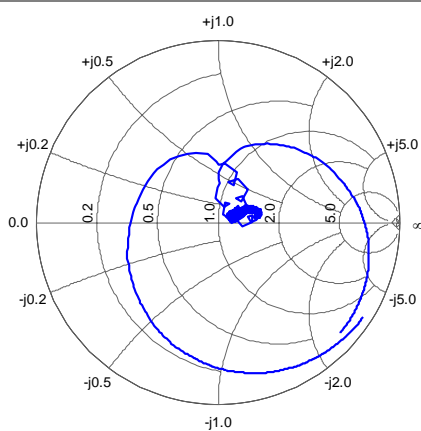
Horizontal: 2MHz/Div Vertical: 100ns/Div

Phase Linearity($f_0 \pm 6.4\text{MHz}$)

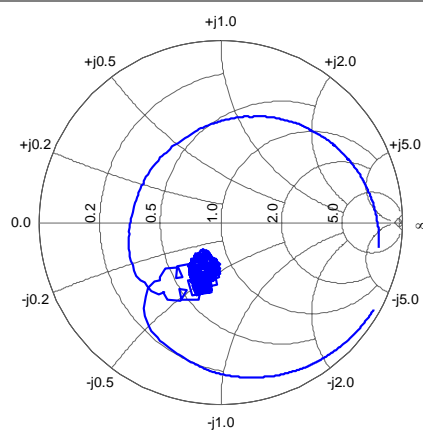


Horizontal: 2MHz/Div Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22



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