



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	-	15.6	16
Passband Variation(139.2~140.8MHz)	dB	-	0.2	1.2
Phase Linearity(139.2~140.8MHz)	deg	-	3	10
Group Delay Variation(139.2~140.8MHz)	nsec	-	70	180
Absolute Delay	usec	-	1.23	-
Ultimate Rejection	10~137MHz	dB	40	-
	143~280MHz	dB	40	-
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	-	1A		
Package Size	SMD13.3*6.5C			

Notes:

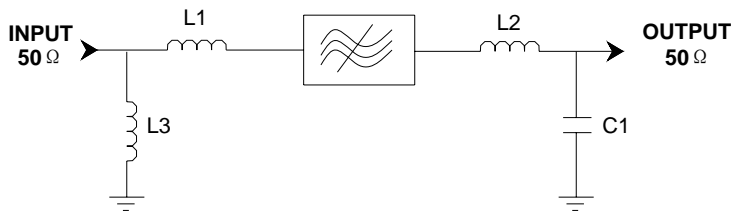
1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
4. This is the optimum impedance in order to achieve the performance show.



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Part Number	LB140DS31		
Rev. Date	2008-03-07		
Ver.	1.0	Page 1/3	

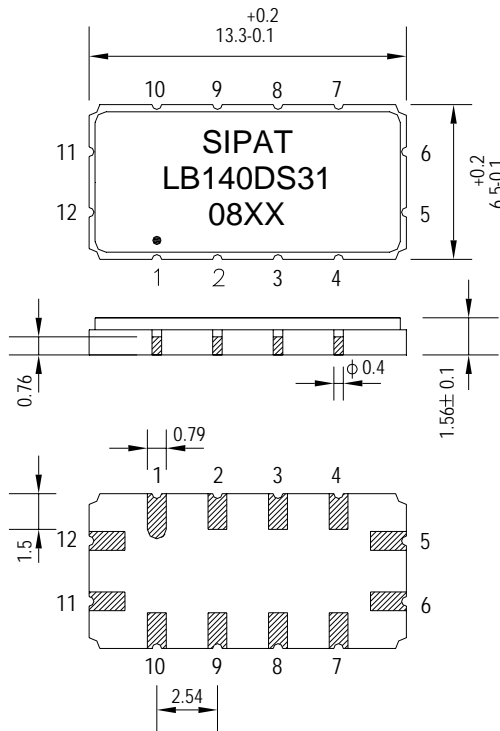
Matching Configuration



L1=120nH L2=(150+18)nH
L1=27nH C1=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) LB140DS31: Part Number
- 4) 08XX: Date Code

Package: SMD13.3*6.5C

Unit: mm



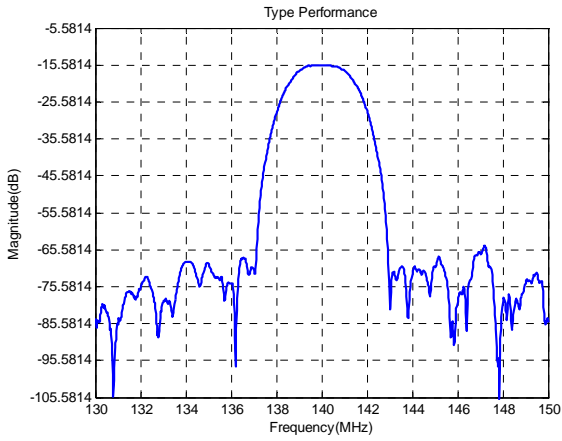
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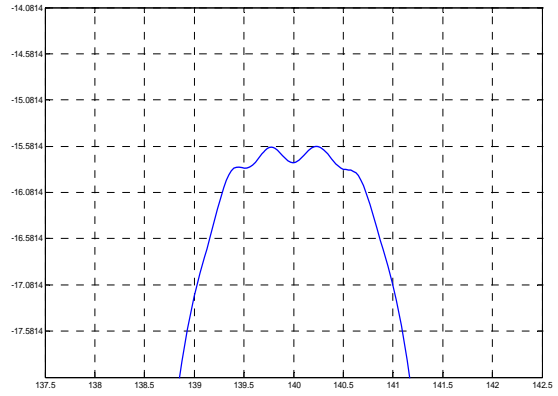
Typical Performance

Frequency Respond



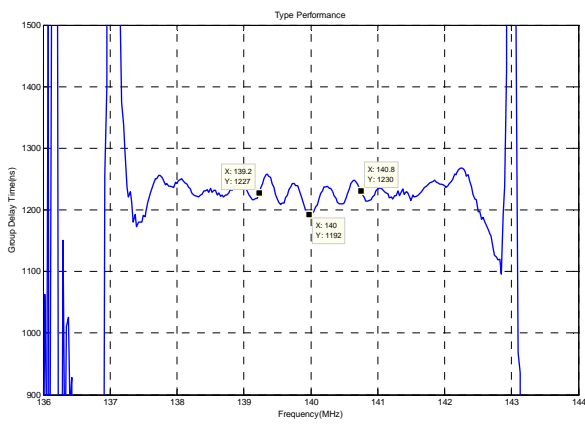
Horizontal: 2MHz/Div Vertical: 10dB/Div

Passband Respond



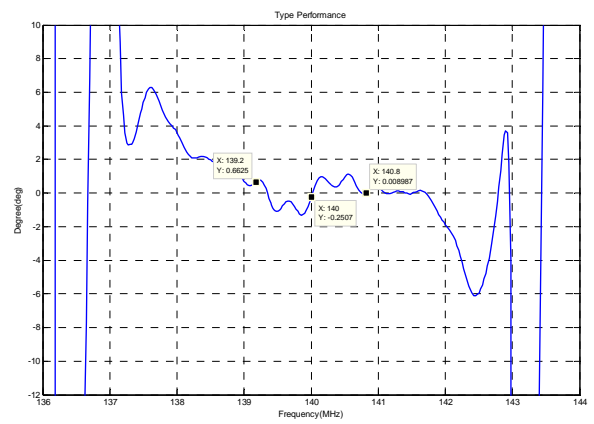
Horizontal: 0.5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±0.8MHz)



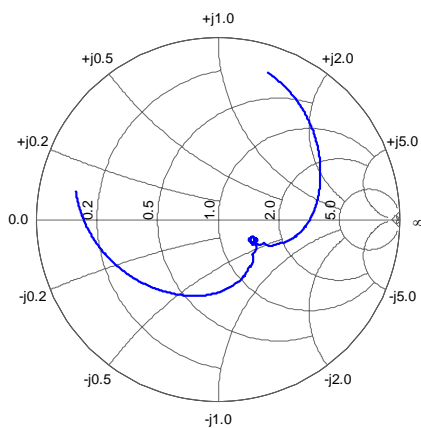
Horizontal: 1MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±0.8MHz)

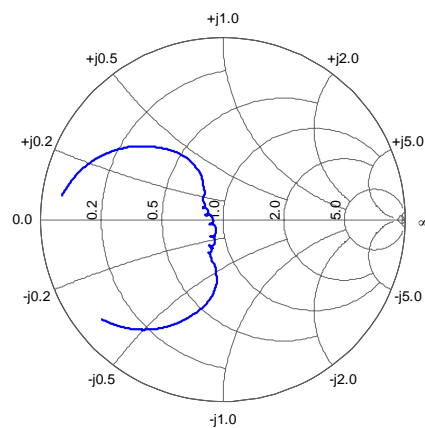


Horizontal: 1MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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