



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	139.8	140	140.2
Insertion Loss	dB	-	16	18
Passband Variation(139.25~140.75MHz)	dB	-	0.5	1.2
Phase Linearity(139.25~140.75MHz)	deg	-	3	10
Group Delay Variation(139.25~140.75MHz)	nsec	-	60	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	SMD9.1*4.8			

Notes:

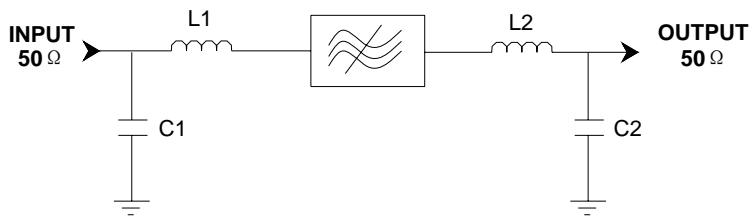
1. All specifications are based on the test circuit shown;
2. In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing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



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Part Number	LB140DS39		
Rev. Date	2008-10-10		
Ver.	1.0	Page 1/3	

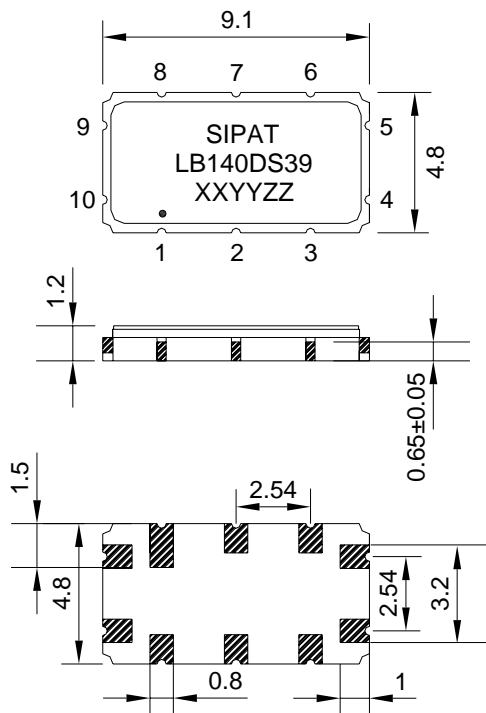
Matching Configuration



L1=150nH L2=(150+10)nH
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) LB140DS39: Part Number
- 4) XXYY: Date(Year/month)
- 5) ZZ: Identified Code

Package: SMD9148

Unit: mm



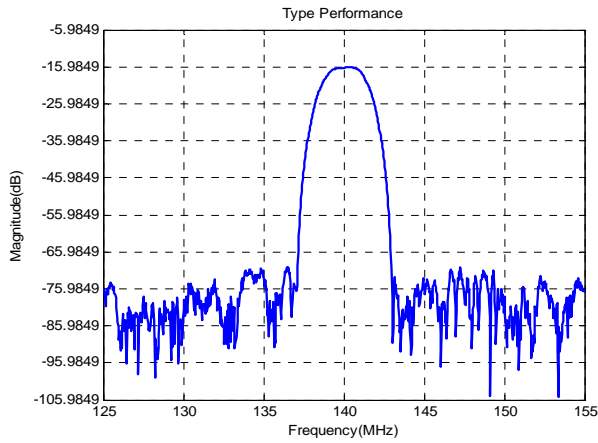
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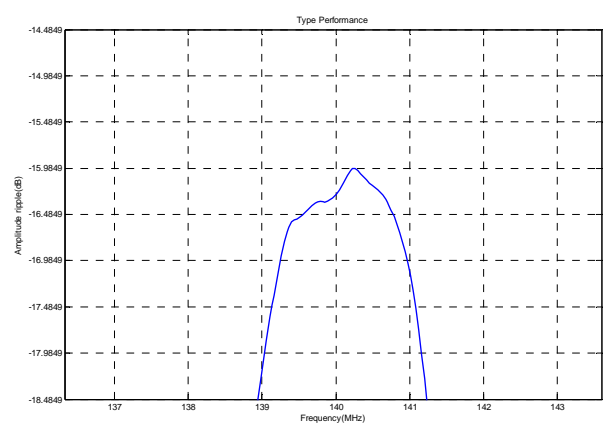
Typical Performance

Frequency Respond



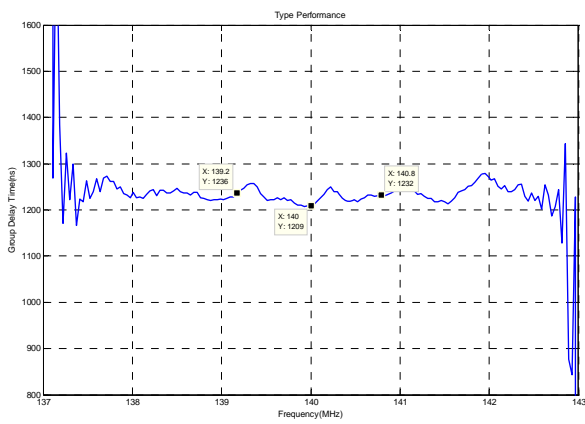
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



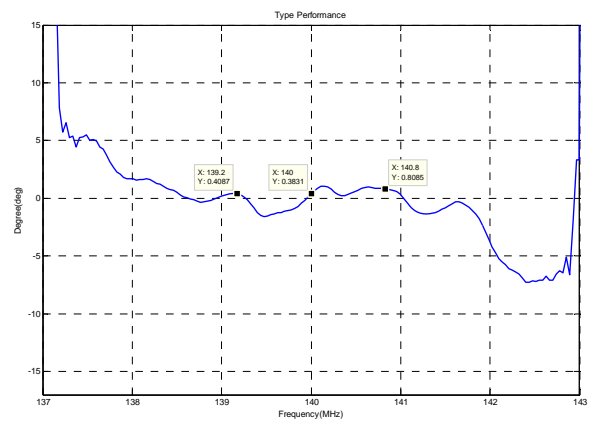
Horizontal: 1MHz/Div Vertical: 0.5dB/Div

Group Delay Variation($f_0 \pm 0.8\text{MHz}$)



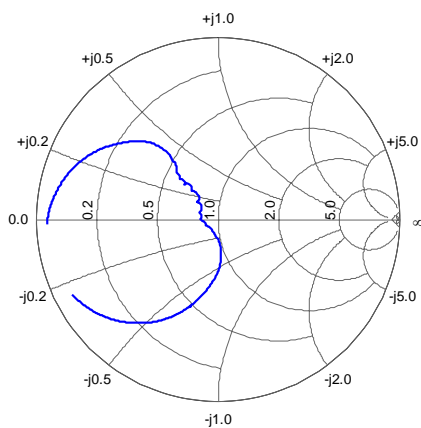
Horizontal: 1MHz/Div Vertical: 100ns/Div

Phase Linearity($f_0 \pm 0.8\text{MHz}$)

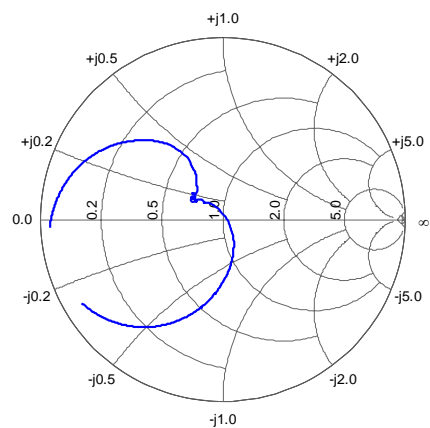


Horizontal: 1MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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