



Features

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

Specifications

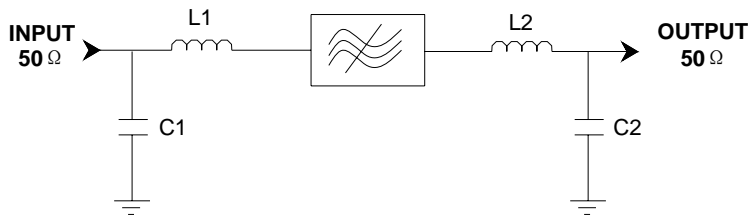
Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	139.8	140	140.2
Insertion Loss	dB	-	10.1	13
1.2 dB Bandwidth	MHz	4.9	5.22	-
3 dB Bandwidth	MHz	-	6.03	-
35 dB Bandwidth	MHz	-	9	9.2
Passband Variation	dB	-	0.9	1.2
Group Delay Variation($f_0 \pm 2$ MHz)	nsec	-	130	200
Absolute Delay	usec	-	1	-
Ultimate Rejection	inside of $f_0 \pm 10$ MHz	dB	37	41
	outside of $f_0 \pm 10$ MHz	dB	40	46
Material Temperature coefficient	KHz/°C	-2.52		
Substrate Material	-	112LT		
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	LB140DS43	
		Rev. Date	2009-05-07	
		Ver.	1.0	Page 1/3

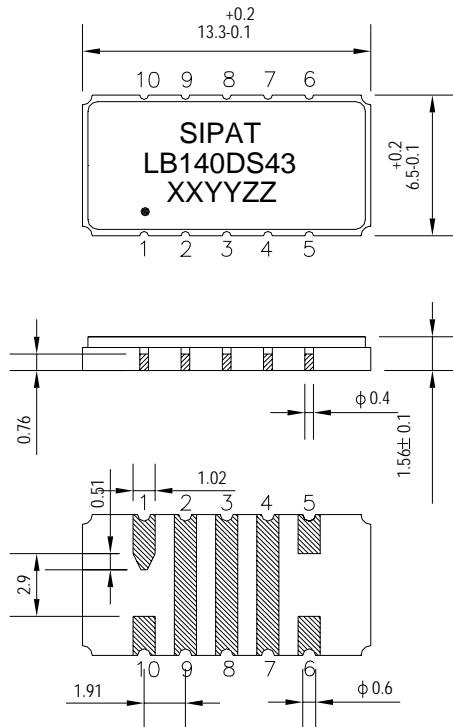
Matching Configuration



L1=(15+68)nH L2=82nH
C1=39pF C2=36pF
Source/Load Impedance=50 ohm

Notes - Component values may change depending on board layout.

Package Dimension



Pad Configuration:

Input: 10
Output: 5
Ground: All Others

Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LB140DS43: Part Number
- 4) XXYY: Date(Year/month)
- 5) ZZ: Identified Code

Package: SMD13.3*6.5

Unit: mm

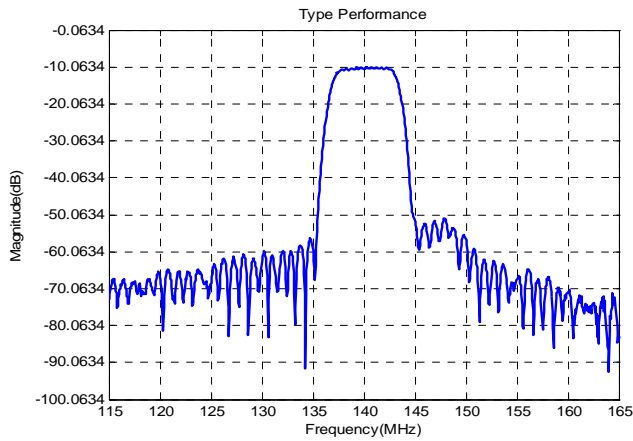


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Typical Performance

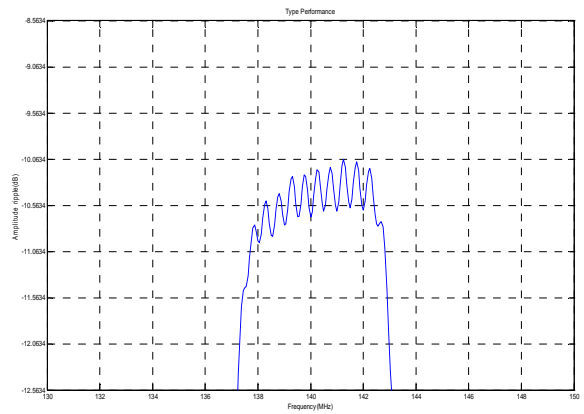
Frequency Respond



Horizontal: 5MHz/Div

Vertical: 10dB/Div

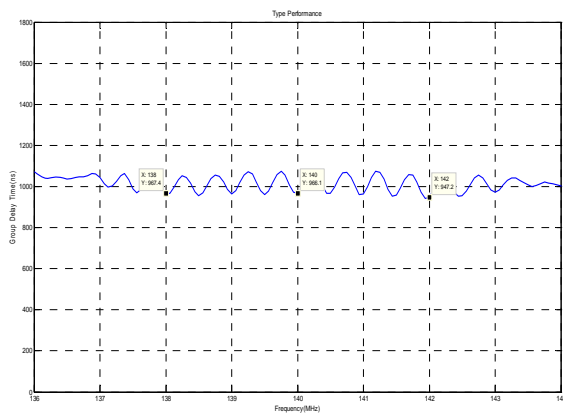
Passband Respond



Horizontal: 2MHz/Div

Vertical: 0.5dB/Div

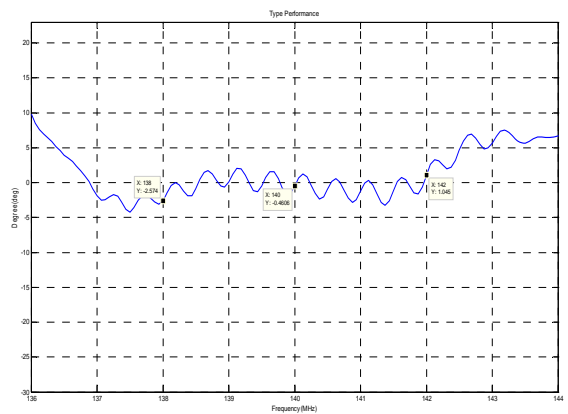
Group Delay Variation($f_0 \pm 2\text{MHz}$)



Horizontal: 1MHz/Div

Vertical: 200ns/Div

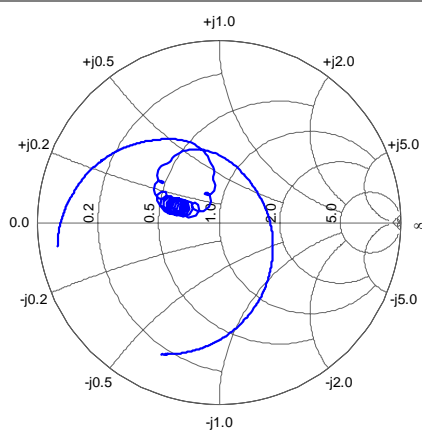
Phase Linearity($f_0 \pm 2\text{MHz}$)



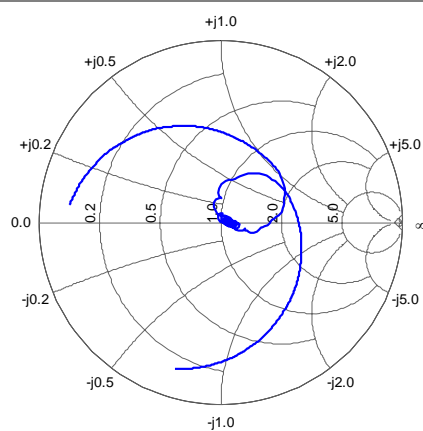
Horizontal: 1MHz/Div

Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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Page 3/3