



Features

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

Specifications

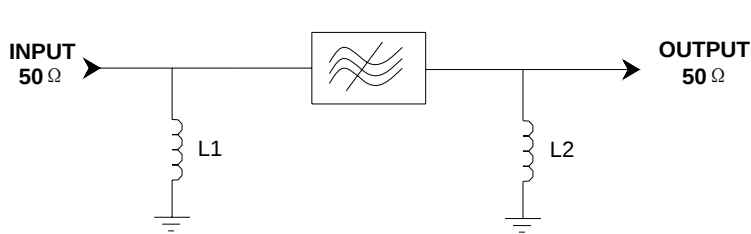
Parameter		Unit	Minimum	Typical	Maximum
Center Frequency		MHz	139.75	140	140.25
Insertion Loss		dB	-	6	8.5
Return Loss		dB	-	-10	-
1 dB Bandwidth		MHz	7.5	8.03	-
3 dB Bandwidth		MHz	8.5	9.04	-
40 dB Bandwidth		MHz	-	12.43	13
Passband Variation(f0±2.6MHz)		dB	-	0.5	1
Group Delay Variation(f0±2.6MHz)		nsec	-	65	150
Absolute Delay		usec	-	0.85	-
Ultimate Rejection	120~132MHz	dB	45	55	-
	148~160MHz	dB	40	42	-
	450~900MHz	dB	35	40	-
	900~1100MHz	dB	25	30	-
	1100~1500MHz	dB	-	20	-
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:

- All specifications are based on the test circuit shown;
- In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
- 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	LB140DS47	
		Rev. Date	2010-04-15	
		Ver.	2.1	Page 1/3

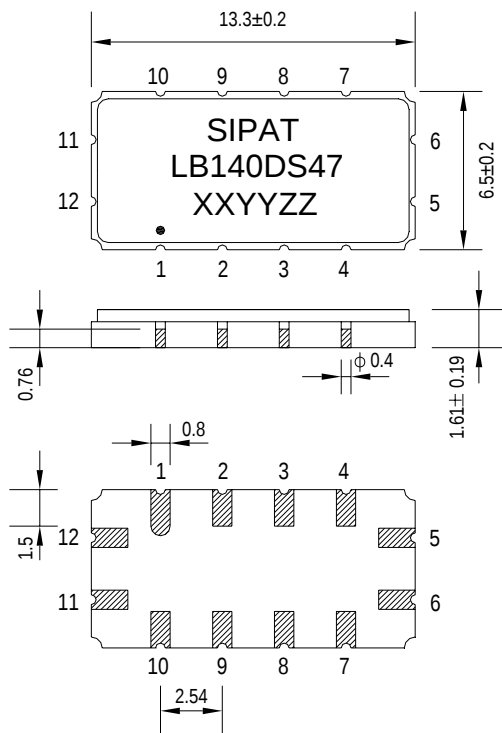
Matching Configuration



L1=47nH L2=39nH
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) LB140DS47: Part Number
- 4) XXYY: Date(Year/month)
- 5) ZZ: Identified Code

Package: SMD13.3*6.5

Unit: mm



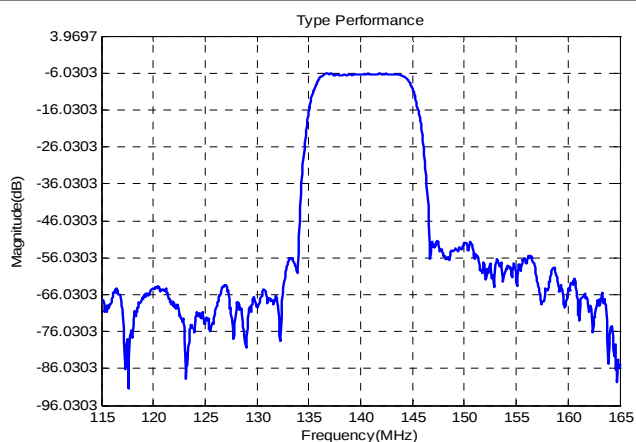
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Typical Performance

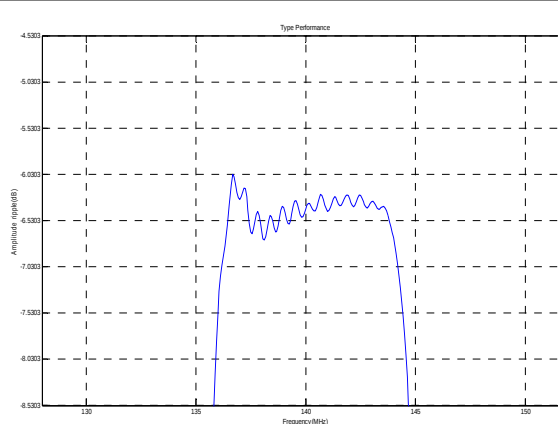
Frequency Respond



Horizontal: 5MHz/Div

Vertical: 10dB/Div

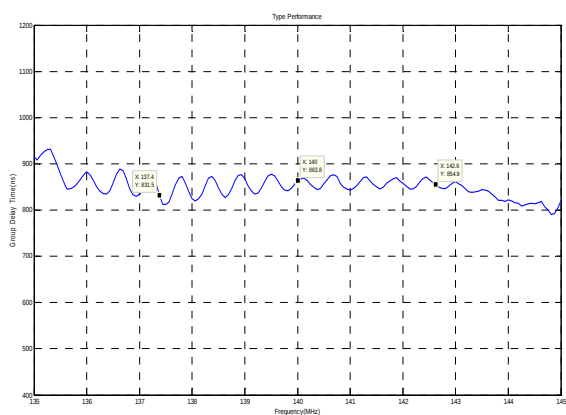
Passband Respond



Horizontal: 5MHz/Div

Vertical: 0.5dB/Div

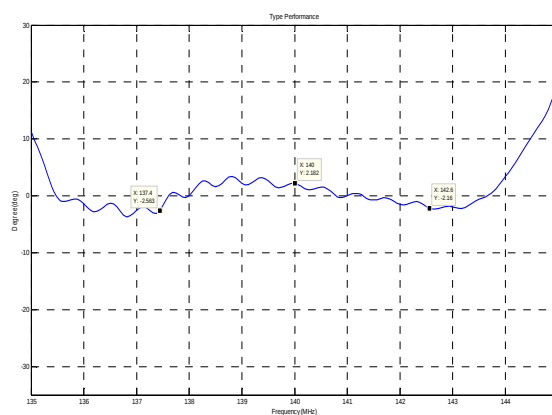
Group Delay Variation($f_0 \pm 2.6$ MHz)



Horizontal: 1MHz/Div

Vertical: 100ns/Div

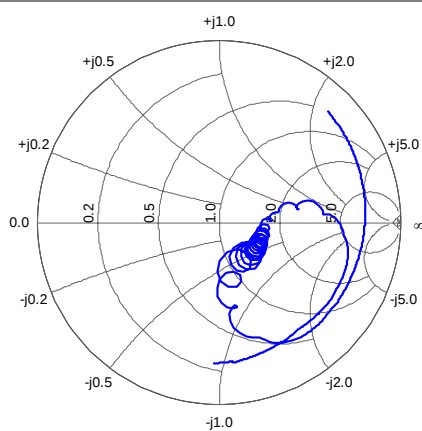
Phase Linearity($f_0 \pm 2.6$ MHz)



Horizontal: 1MHz/Div

Vertical: 10deg/Div

Smith Chart S11



Smith Chart S22

