



Features

- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Dual In-line Package
- ◇ RoHS compliant (2002/95/EC), Pb-free

Specifications

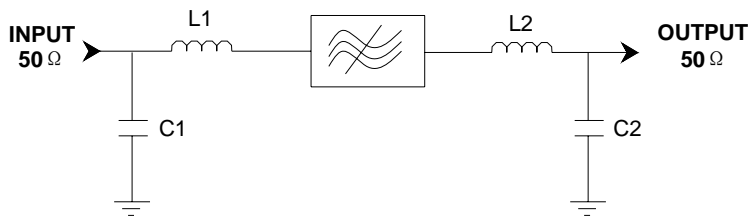
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	139.85	140	140.15	
Insertion Loss	dB	-	30	32	
3 dB Bandwidth	MHz	8.37	8.39	-	
40 dB Bandwidth	MHz	-	9.21	-	
Passband Variation	dB	-	1.1	1.5	
Absolute Delay	usec	-	3.53	4	
Ultimate Rejection	$f_0 \pm 4.65\text{MHz}$	dB	35	47	-
	$f_0 \pm 4.85\text{MHz}$	dB	45	48	-
	$f_0 \pm 5.25\text{MHz}$	dB	45	49	-
	$f_0 \pm 9.25\text{MHz}$	dB	45	48	-
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	DIP3512 (35.0x12.8x4.7mm ³)				

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	LBS140A21	
		Rev. Date	2008-08-27	
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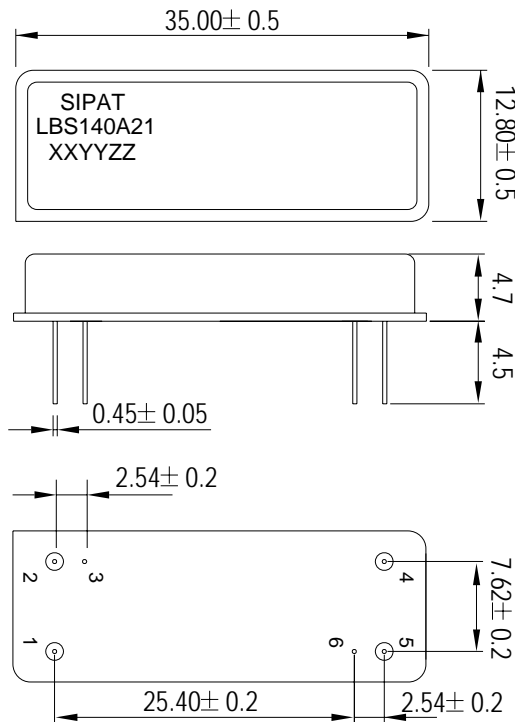
Matching Configuration



L1=120nH L2=82nH
C1=33pF C2=36pF
Source/Load Impedance=50 ohm

Notes - Component values may change depending
on board layout.

Package Dimension



Pad Configuration:

Input 1
Output 5
Ground All Others

Marking Configuration:

- 1) SIPAT: Manufacturer Name
- 2) LBS140A21: Part Number
- 3) XXYY: Date(Year/month)
- 4) ZZ: Identified Code

Package: DIP3512

Unit: mm

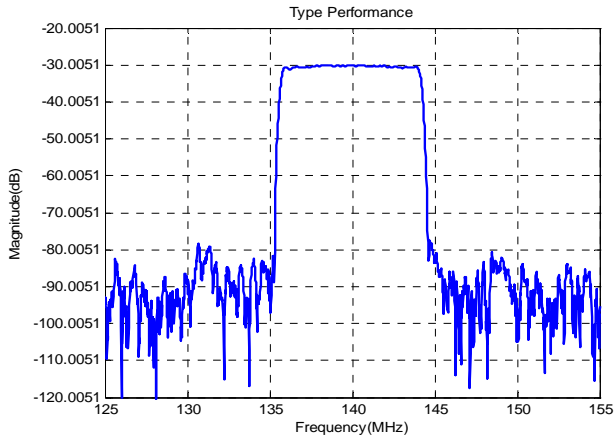


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Typical Performance

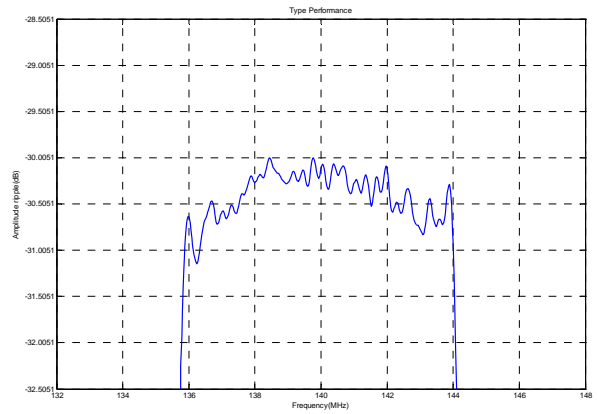
Frequency Respond



Horizontal: 5MHz/Div

Vertical: 10dB/Div

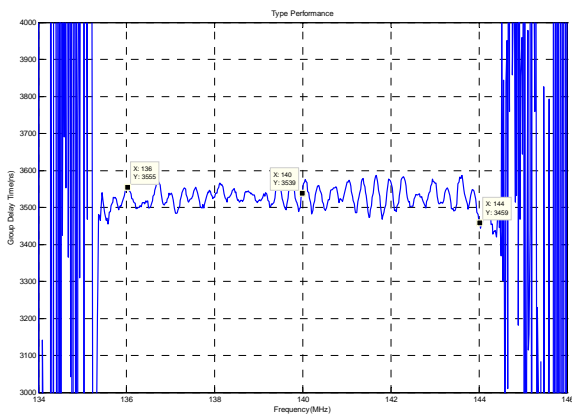
Passband Respond



Horizontal: 2MHz/Div

Vertical: 0.5dB/Div

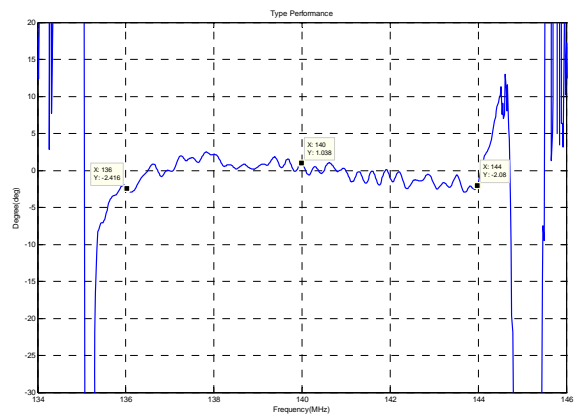
Group Delay Variation($f_0 \pm 4$ MHz)



Horizontal: 2MHz/Div

Vertical: 100ns/Div

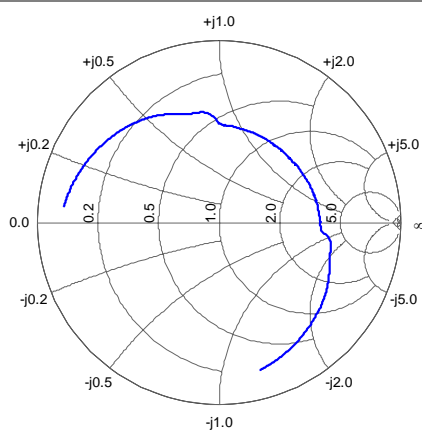
Phase Linearity($f_0 \pm 4$ MHz)



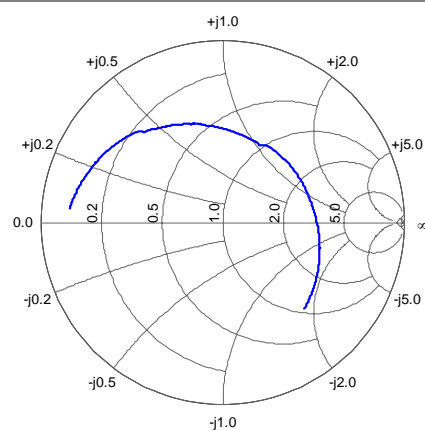
Horizontal: 2MHz/Div

Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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