



### Features


- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ Single-ended operation
- ◇ Ceramic Surface Mount Package
- ◇ Small size

### Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	139.75	140	140.25
Insertion Loss	dB	-	18	26
1 dB Bandwidth	MHz	26.4	26.73	-
3 dB Bandwidth	MHz	28	28.5	-
40 dB Bandwidth	MHz	-	34.33	36
50 dB Bandwidth	MHz	-	34.99	36.4
Passband Variation	dB	-	0.8	1
Phase Linearity( $f_0 \pm 13\text{MHz}$ )	deg	-	9	12
Group Delay Variation( $f_0 \pm 13\text{MHz}$ )	nsec	-	45	50
Absolute Delay	usec	-	0.8	-
Ultimate Rejection	dB	50	56	-
Material Temperature coefficient	KHz/°C	-11.48		
Substrate Material	-	128LN		
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	-	1		
Package Size	SMD13.3*6.5A			

#### 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.

	<b>SIPAT Co., Ltd.</b> ( CETC No.26 Research Institute ) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBN140A04	
		Rev. Date	2007-08-31	
		Ver.	1.0	Page

### Matching Configuration

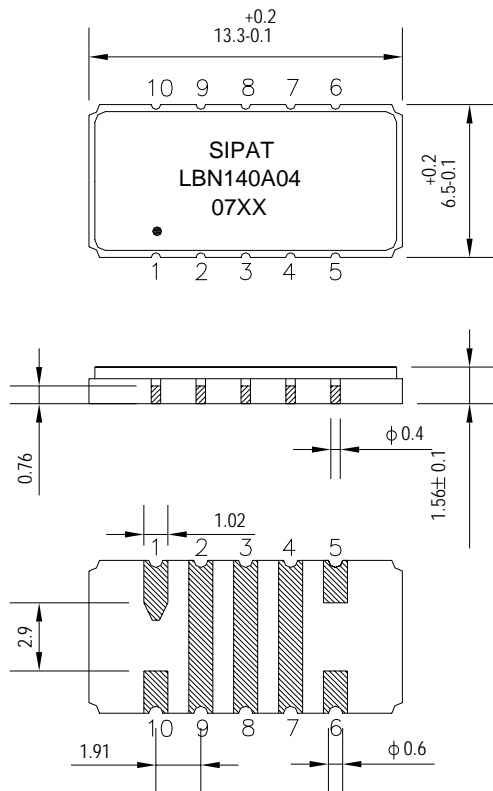


**L1=82nH L2=100nH**

**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) LBN140A04: Part Number
- 4) 07XX: Date Code

**Package: SMD13.3\*6.5A**

**Unit: mm**



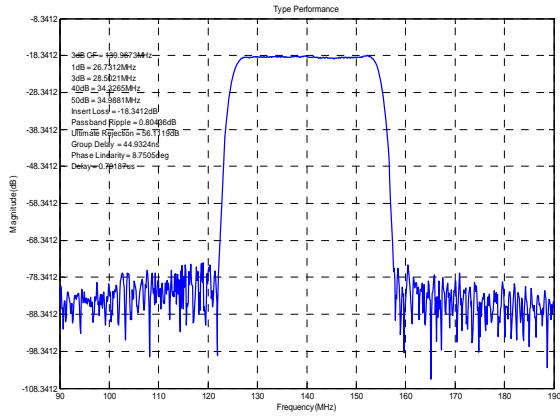
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Part Number	LBN140A04	
Rev. Date	2007-08-31	
Ver.	1.0	Page 2/3



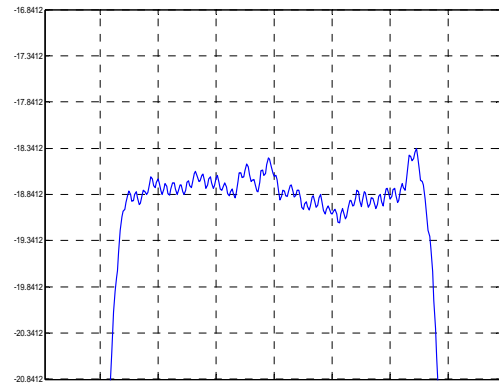
Typical Performance

Frequency Respond



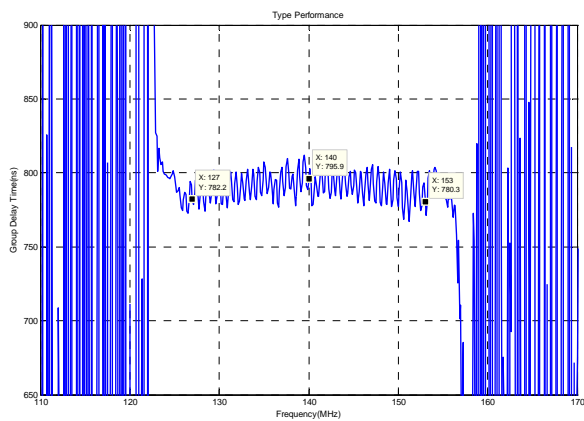
Horizontal: 10MHz/Div Vertical: 10dB/Div

Passband Respond



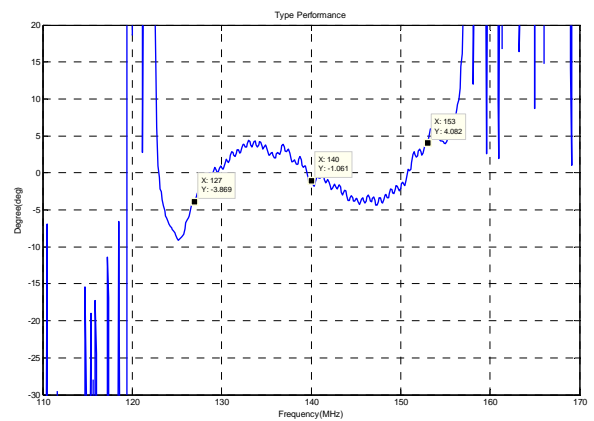
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±13MHz)



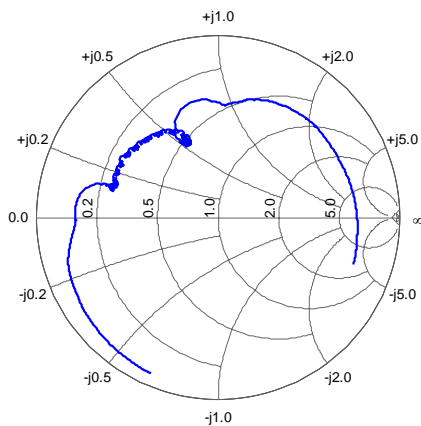
Horizontal: 10MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±13MHz)

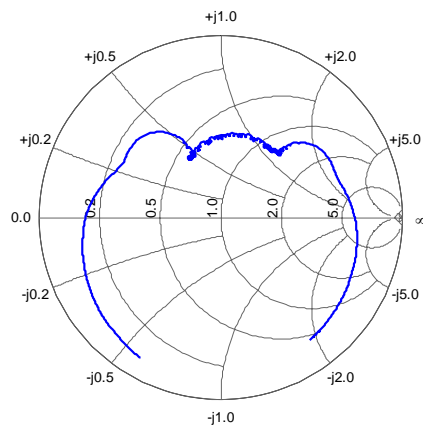


Horizontal: 10MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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Part Number	LBN140A04	
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Ver.	1.0	Page 3/3