



### Features

- ◇ For IF SAW filter
- ◇ High attenuation
- ◇ 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	69.9	70	70.1
Insertion Loss	dB	-	19.6	20
1 dB Bandwidth	MHz	4.8	5.14	5.2
3 dB Bandwidth	MHz	5.5	5.92	5.95
40 dB Bandwidth	MHz	-	8.67	9.3
Passband Variation ( $f_0 \pm 2.4\text{MHz}$ )	dB	-	0.6	0.8
Group Delay Variation ( $f_0 \pm 2.2\text{MHz}$ )	nsec	-	70	100
Absolute Delay	usec	-	1.43	-
Ultimate Rejection	dB	40	45	-
Material Temperature coefficient	KHz/°C	-6.58		
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	-	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	LBN70A44	
		Rev. Date	2007-10-09	
		Ver.	1.0	Page 1/3

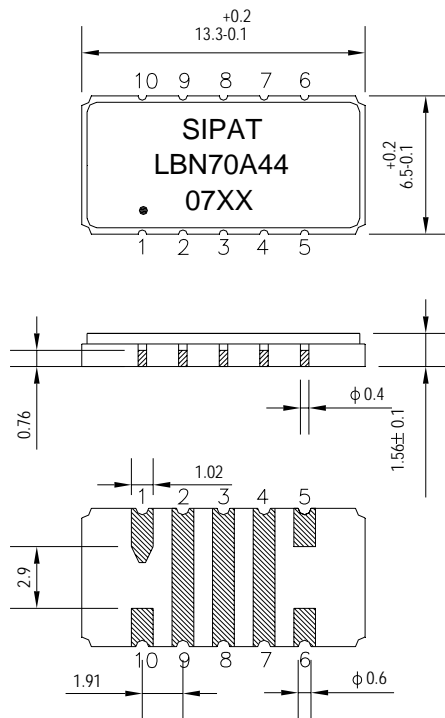
### Matching Configuration



**L1=150nH L2=120nH**  
**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) LBN70A44: Part Number
- 4) 07XX: Date Code

Package: SMD13.3\*6.5A

Unit: mm



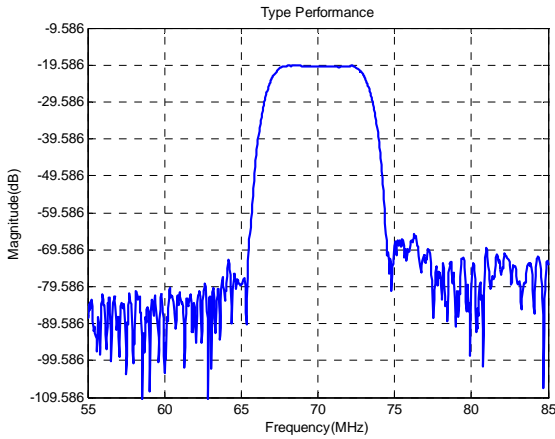
**SIPAT Co., Ltd.**  
( CETC No.26 Research Institute )  
#14 Nanping Huayuan Road,  
Chongqing, China, 400060

Part Number	LBN70A44	
Rev. Date	2007-10-09	
Ver.	1.0	Page 2/3



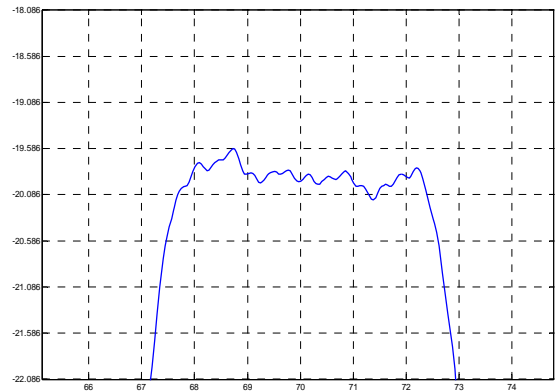
Typical Performance

Frequency Respond



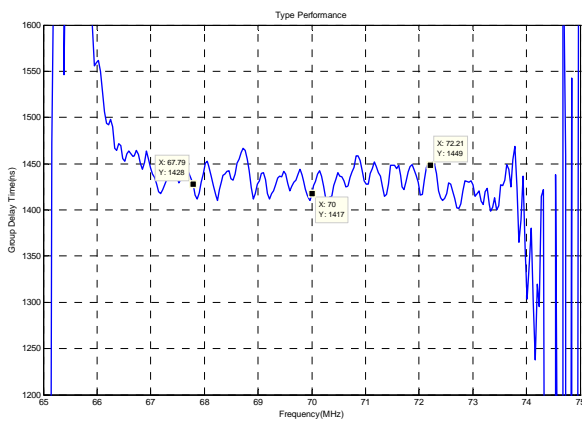
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



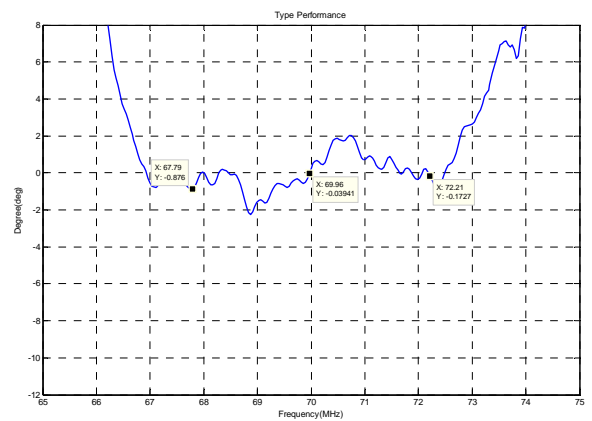
Horizontal: 1MHz/Div Vertical: 0.5dB/Div

Group Delay Variation( $f_0 \pm 2.2$ MHz)



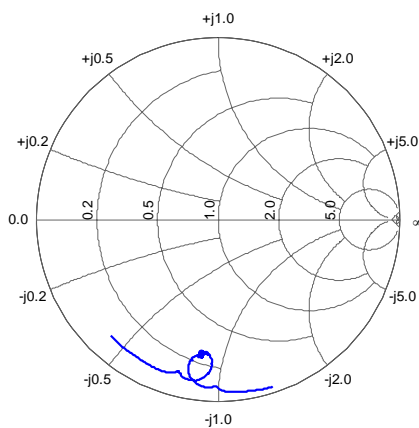
Horizontal: 1MHz/Div Vertical: 50ns/Div

Phase Linearity( $f_0 \pm 2.2$ MHz)

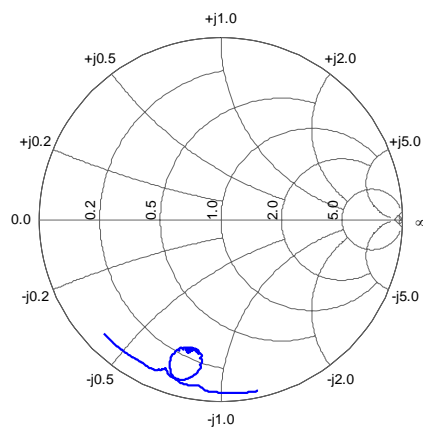


Horizontal: 1MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



SIPAT Co., Ltd.  
( CETC No.26 Research Institute )  
#14 Nanping Huayuan Road,  
Chongqing, China, 400060

Part Number	LBN70A44	
Rev. Date	2007-10-09	
Ver.	1.0	Page 3/3