

## Specifications

Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	69.9	70	70.1	
Insertion Loss	dB	-	19.5	23	
1 dB Bandwidth	MHz	-	5.23	-	
3 dB Bandwidth	MHz	5.3	5.42	5.5	
40 dB Bandwidth	MHz	-	6.16	-	
Passband Variation	dB	-	0.6	1.2	
Absolute Delay	usec	-	3.7	4	
Ultimate Rejection	$f_0 \pm 3.1\text{MHz}$	dB	35	43	-
	$f_0 \pm 3.3\text{MHz}$	dB	45	58	-
	$f_0 \pm 3.7\text{MHz}$	dB	50	55	-
	$f_0 \pm 7.7\text{MHz}$	dB	55	59	-
Material Temperature coefficient	KHz/°C	-6.58			
Ambient Temperature	°C	25			
Package Size	DIP3512 (35.0x12.8x4.7mm <sup>3</sup> )				

### Notes:

1. All specifications are based on the test circuit shown
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over 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

## Matching Configuration

INPUT  
50 Ω



OUTPUT  
50 Ω

Source/Load Impedance=50 ohm

Notes - Component values may change depending  
on board layout.



**SIPAT Co., Ltd.**  
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Nanping Huayuan Road No. 14  
Chongqing, China, 400060

Part Number

LBN70A42

Rev. Date

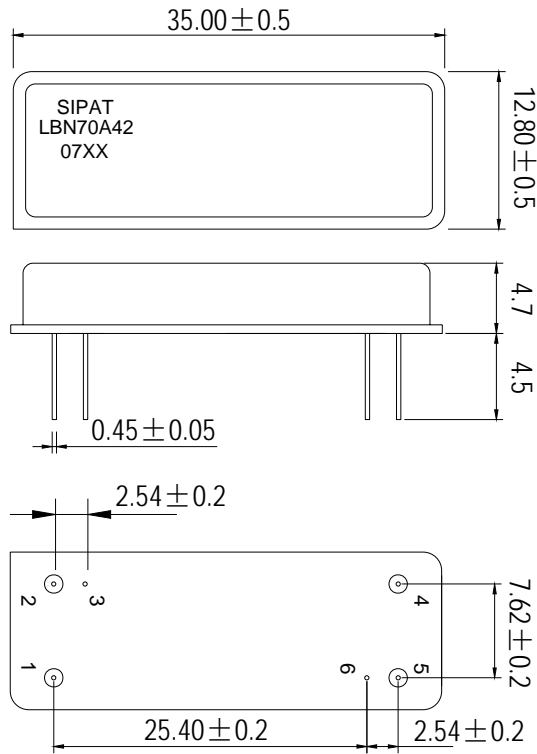
2007-05-24

Ver.

1.0

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Package Dimension



- 1) ∴ Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) LBN70A42: Part Number
- 4) 07XX: Date Code

Input	1
Output	5
Ground	2,3,4,6

Package: DIP3512

Unit: mm

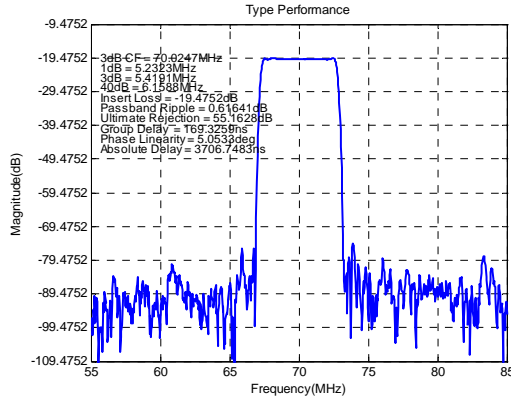


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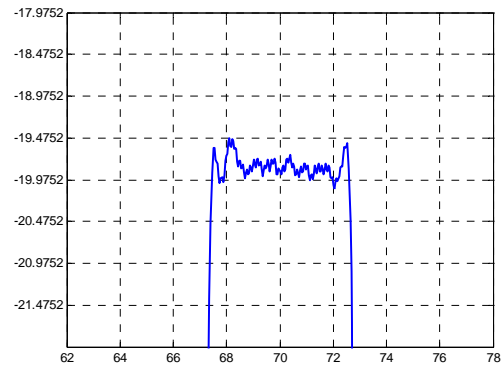
Typical Performance

Frequency Respond



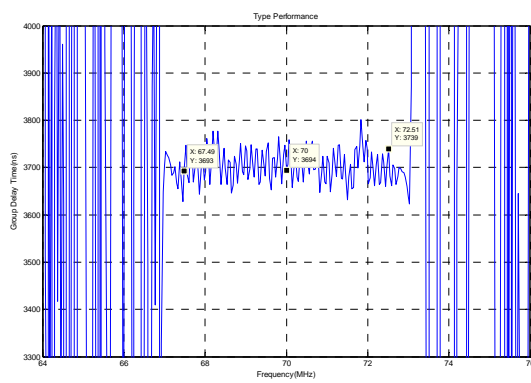
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



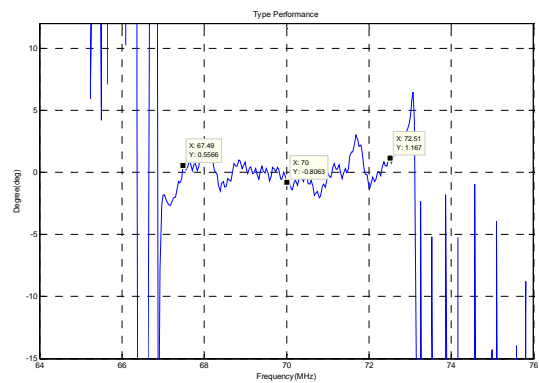
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±2.51MHz)



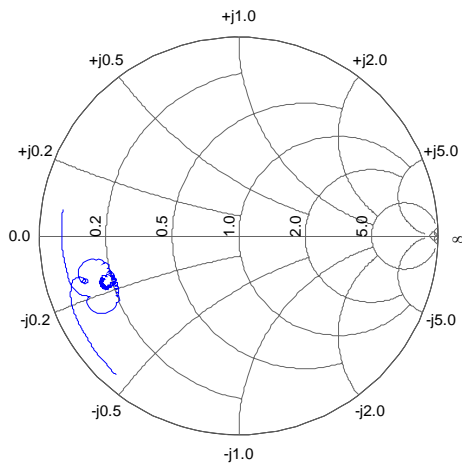
Horizontal: 2MHz/Div Vertical: 100ns/Div

Phase Linearity(f0±2.51MHz)

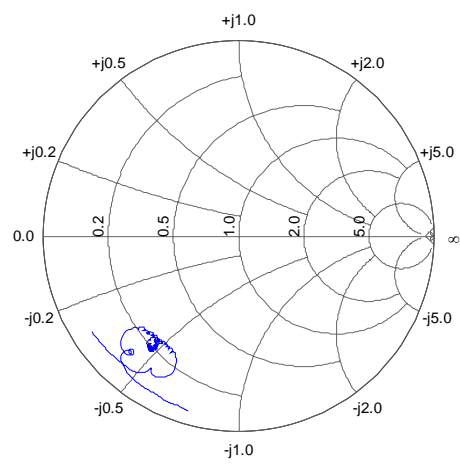


Horizontal: 2MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22




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*Maximum Ratings*

<b>Operating Temperature Range</b>	°C	[-40°C;+85°C]
<b>Storage Temperature Range</b>	°C	[-40°C;+105°C]
<b>DC Voltage</b>	V	0
<b>Input Power</b>	dBm	10 max
<b>ESD Class</b>		1

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