



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	69.96	70	70.04
Insertion Loss	dB	-	25.6	29
1 dB Bandwidth	MHz	17.77	17.82	-
3 dB Bandwidth	MHz	-	18.01	-
40 dB Bandwidth	MHz	-	18.63	18.65
Passband Variation	dB	-	0.9	1
Absolute Delay	usec	-	4	-
Group Delay Variation(f0±8.5MHz)	nsec	-	100	150
Ultimate Rejection	dB	42	45	-
Material Temperature coefficient	KHz/°C	-5.74		
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	-	1A		
Package Size	DIP3512 (35.0x12.8x4.7mm3)			

Notes:

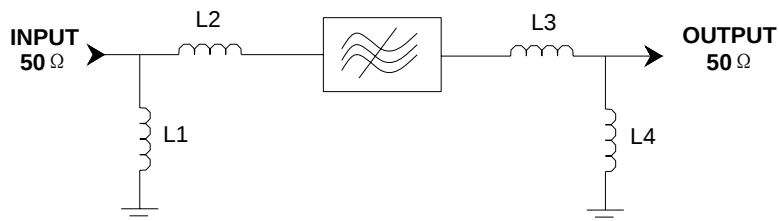
- All specifications are based on the test circuit shown;
- In production, all specifications are measured by Agilent Network analyzer and full 2 port calibration at room temperature;
- Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances;
- This is the optimum impedance in order to achieve the performance show.



SIPAT Co., Ltd.
(CETC No.26 Research Institute)
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Chongqing, China, 400060

Part Number	LBN70A53		
Rev. Date	2008-02-03		
Ver.	1.0	Page 1/3	

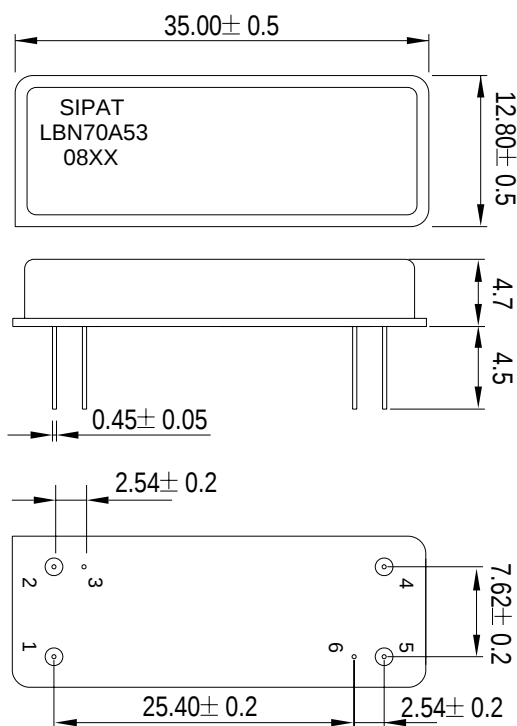
Matching Configuration



L1=L4=220nH
L2=L3=22nH
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) LBN70A53: Part Number
3) 08XX: Date Code

Package: DIP3512

Unit: mm



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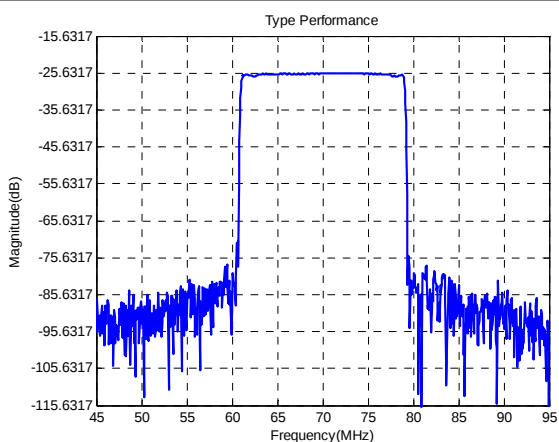
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Typical Performance

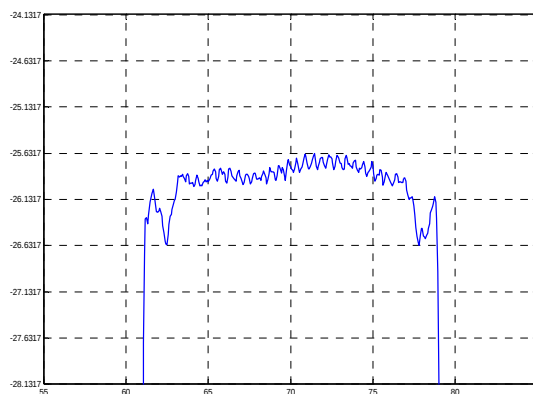
Frequency Respond



Horizontal: 5MHz/Div

Vertical: 10dB/Div

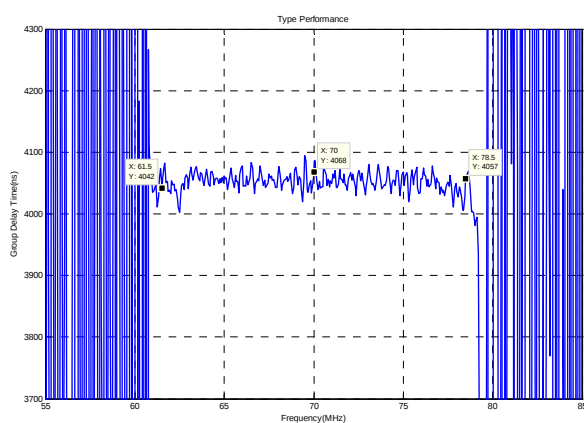
Passband Respond



Horizontal: 5MHz/Div

Vertical: 0.5dB/Div

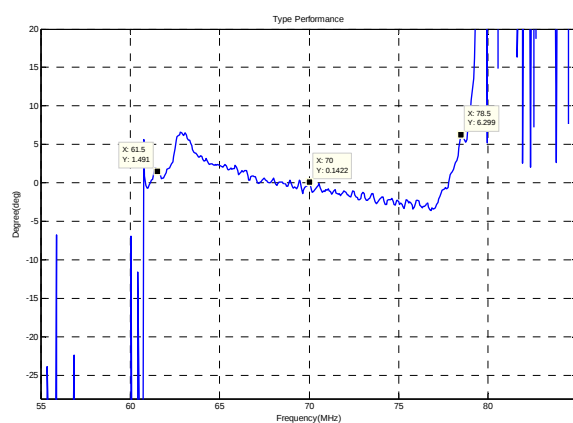
Group Delay Variation($f_0 \pm 8.5\text{MHz}$)



Horizontal: 5MHz/Div

Vertical: 100ns/Div

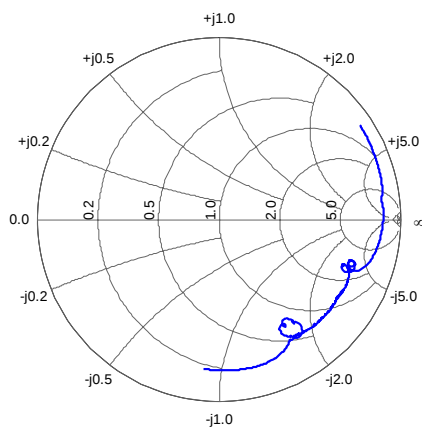
Phase Linearity($f_0 \pm 8.5\text{MHz}$)



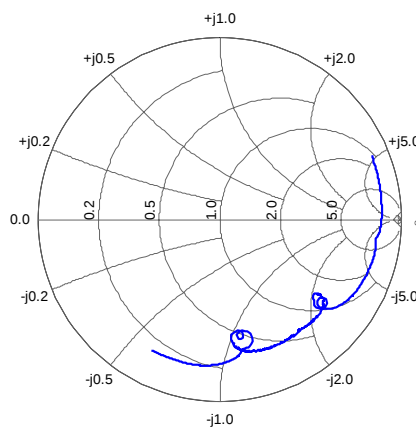
Horizontal: 5MHz/Div

Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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