



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	69.95	70	70.05
Insertion Loss		dB	-	25	27
3 dB Bandwidth		MHz	1.75	1.79	-
Passband Variation		dB	-	0.4	1
Absolute Delay		usec	-	2.76	4
Ultimate Rejection	f0±1.3MHz	dB	35	38	-
	f0±1.5MHz	dB	45	50	-
	f0±1.9MHz	dB	50	54	-
	f0±5.9MHz	dB	50	55	-
	f0±15MHz	dB	55	57	-
Material Temperature coefficient		KHz/°C	0.07		
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		DIP2212 (22.2x12.8x4.7mm3)			

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) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBS70A33	
		Rev. Date	2008-03-18	
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Matching Configuration

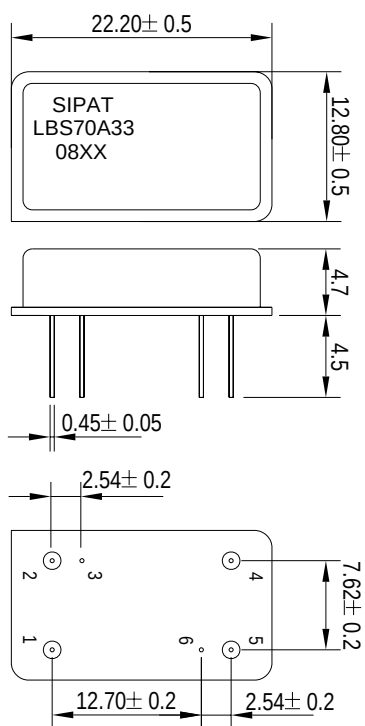


L1=L2=270nH

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) LBS70A33: Part Number
- 3) 08XX: Date Code

Package: DIP2212

Unit: mm



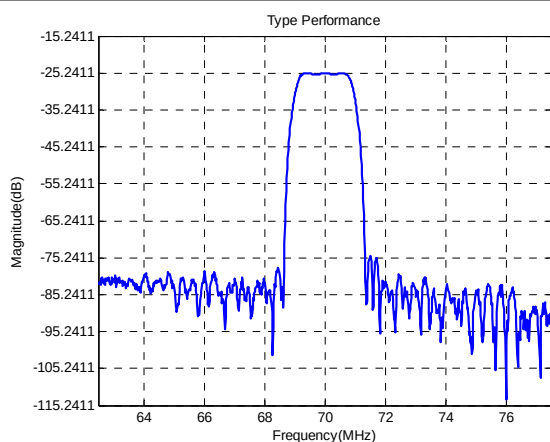
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Typical Performance

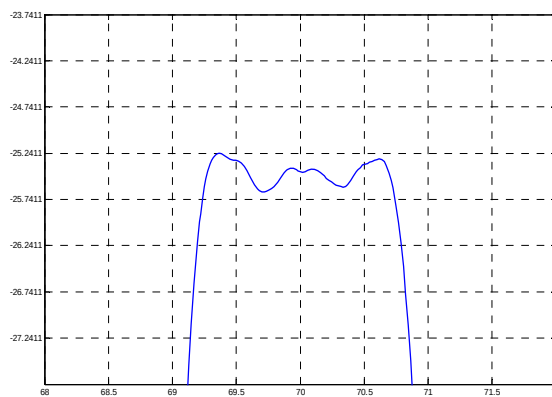
Frequency Respond



Horizontal: 2MHz/Div

Vertical: 10dB/Div

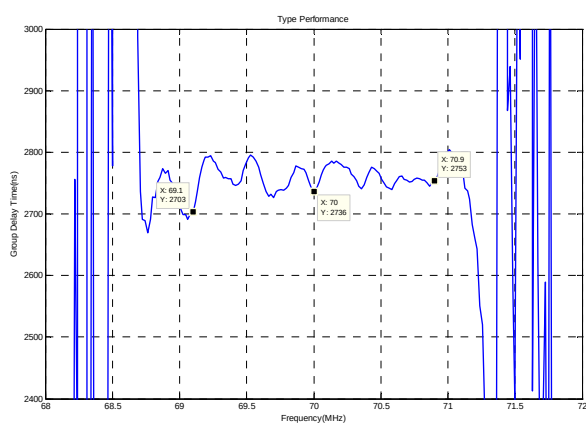
Passband Respond



Horizontal: 0.5MHz/Div

Vertical: 0.5dB/Div

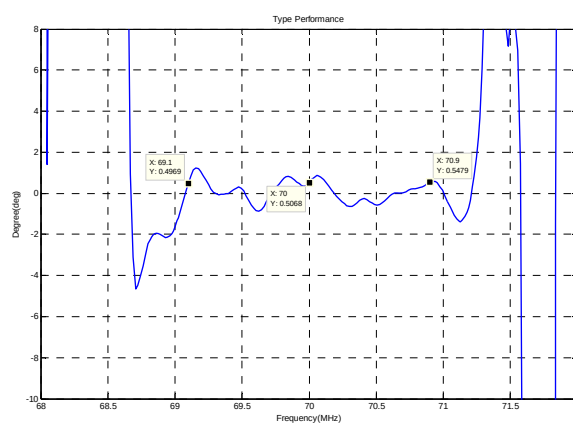
Group Delay Variation($f_0 \pm 0.9\text{MHz}$)



Horizontal: 0.5MHz/Div

Vertical: 100ns/Div

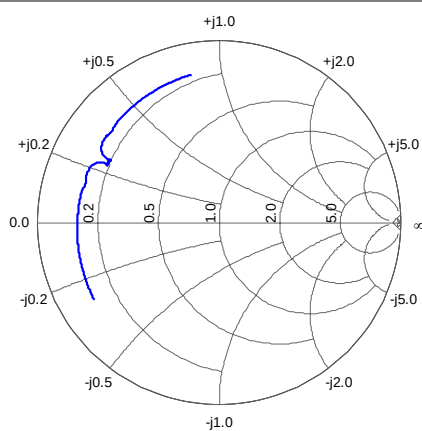
Phase Linearity($f_0 \pm 0.9\text{MHz}$)



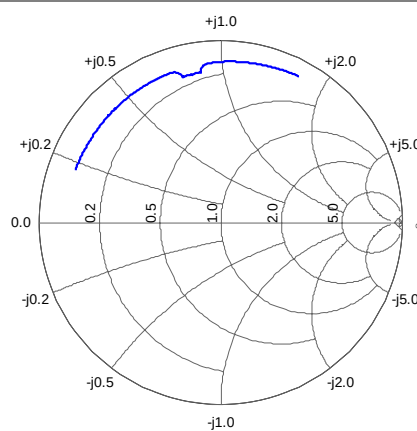
Horizontal: 0.5MHz/Div

Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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