



### Features


- ◇ For IF SAW filter
- ◇ Ceramic Surface Mount Package
- ◇ Small size
- ◇ RoHS compliant (2002/95/EC), Pb-free
- ◇ Single-ended operation

### Specifications

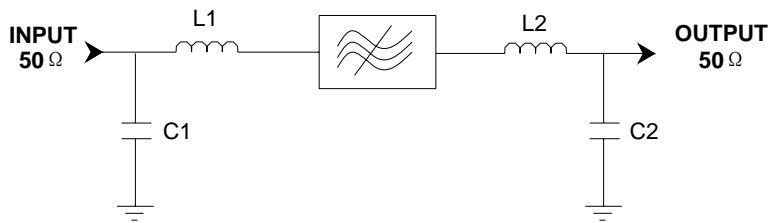
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	-	96	-	
Insertion Loss	dB	-	10.5	15	
1 dB Bandwidth	MHz	25	25.55	-	
3 dB Bandwidth	MHz	-	27.2	-	
12 dB Bandwidth	MHz	-	29.55	35	
30 dB Bandwidth	MHz	-	31.38	40	
Passband Variation	dB	-	0.6	1.2	
Absolute Delay	usec	-	0.58	1	
Phase Linearity( $f_0 \pm 12.5\text{MHz}$ )	deg	-	11	15	
Group Delay Variation( $f_0 \pm 12.5\text{MHz}$ )	nsec	-	60	120	
Ultimate Rejection	10~68.4MHz	dB	45	51	-
	@76.8MHz	dB	40	48	-
	123.6~162.8MHz	dB	50	50	-
	168~1000MHz	dB	35	47	-
Material Temperature coefficient	KHz/°C	-7.87			
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	SMD7.0*5.0				

#### 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	LBN09610	
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		Ver.	1.0	Page

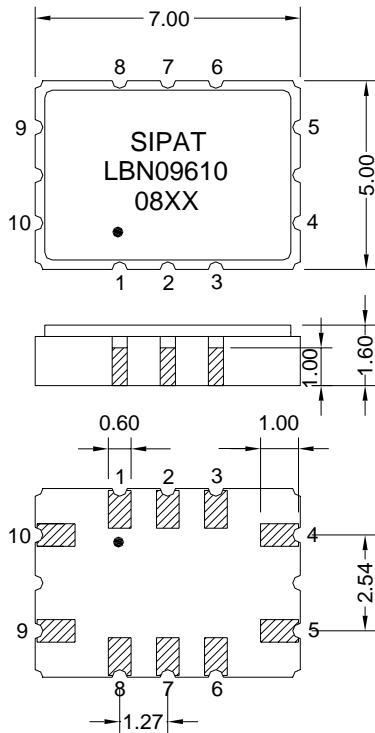
### Matching Configuration



$L1 = (180 + 68) \text{ nH}$     $L2 = 180 \text{ nH}$   
 $C1 = 6.8 \text{ pF}$     $C2 = 22 \text{ pF}$   
 Source/Load Impedance = 50 ohm

Notes - Component values may change depending  
on board layout.

### Package Dimension



#### Pad Configuration:

Input    9  
 Output   4  
 Ground   All Others

#### Marking Configuration:

- 1) •: Pad Number 1 Index
- 2) SIPAT: Manufacturer Name
- 3) LBN09610: Part Number
- 4) 08XX: Date Code

Package: SMD7.0\*5.0

Unit: mm

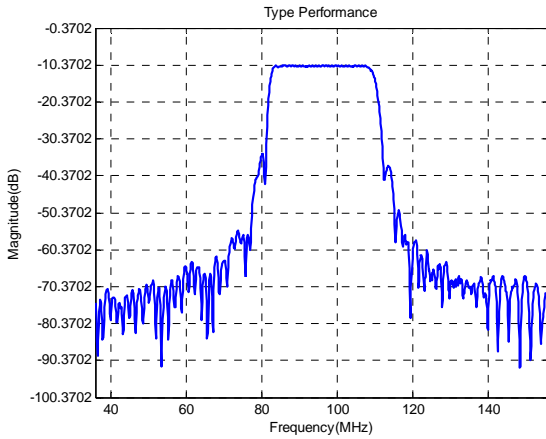


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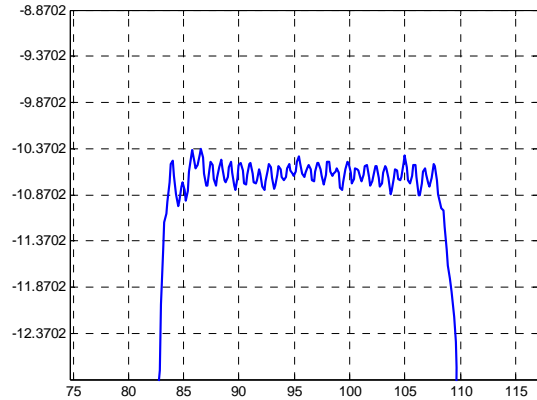
**Typical Performance**

**Frequency Respond**



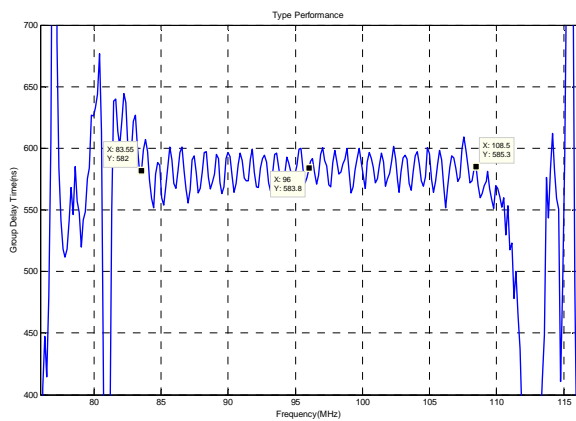
Horizontal: 20MHz/Div Vertical: 10dB/Div

**Passband Respond**



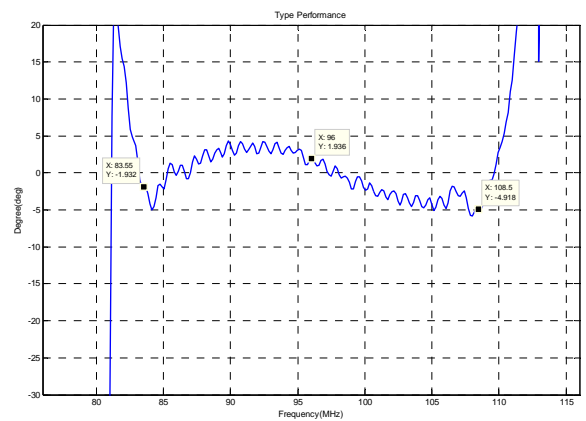
Horizontal: 5MHz/Div Vertical: 0.5dB/Div

**Group Delay Variation(f0±12.5MHz)**



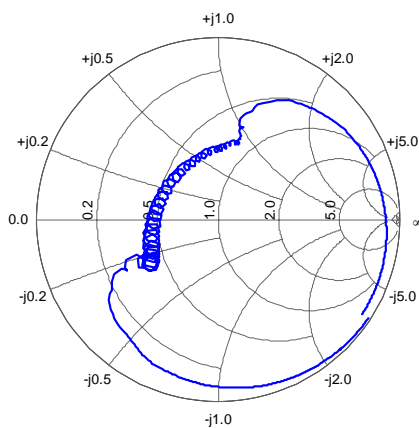
Horizontal: 5MHz/Div Vertical: 50ns/Div

**Phase Linearity(f0±12.5MHz)**

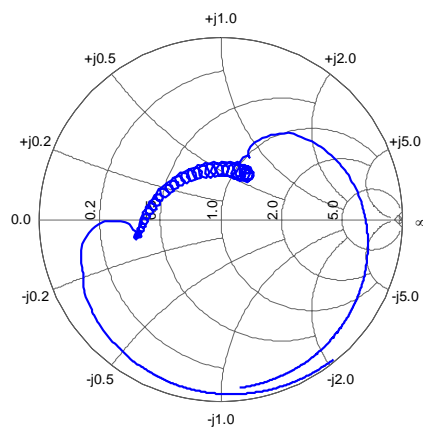


Horizontal: 5MHz/Div Vertical: 5deg/Div

**Smith Chart S11**



**Smith Chart S22**



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