



### Features


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

### Specifications

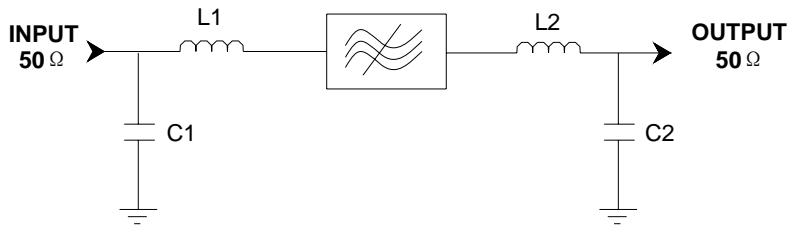
Parameter	Unit	Minimum	Typical	Maximum	
Center Frequency	MHz	203.4	204	204.6	
Insertion Loss	dB	-	10.3	15	
1 dB Bandwidth	MHz	-	5.67	-	
3 dB Bandwidth	MHz	5	5.74	-	
40 dB Bandwidth	MHz	-	11.21	11.5	
Passband Variation	dB	-	0.3	1	
Group Delay Variation( $f_0 \pm 2.5\text{MHz}$ )	nsec	-	50	100	
Phase Linearity( $f_0 \pm 2.5\text{MHz}$ )	deg	-	4	5	
Absolute Delay	usec	-	0.98	-	
Ultimate Rejection	$f_0 - 5.5\text{MHz}$	dB	40	44	-
	$f_0 + 5.5\text{MHz}$	dB	40	42	-
Material Temperature coefficient	KHz/°C	-3.67			
Substrate Material	-	112LT			
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	SMD13.3*6.5				

#### 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	LBT20405	
		Rev. Date	2009-01-22	
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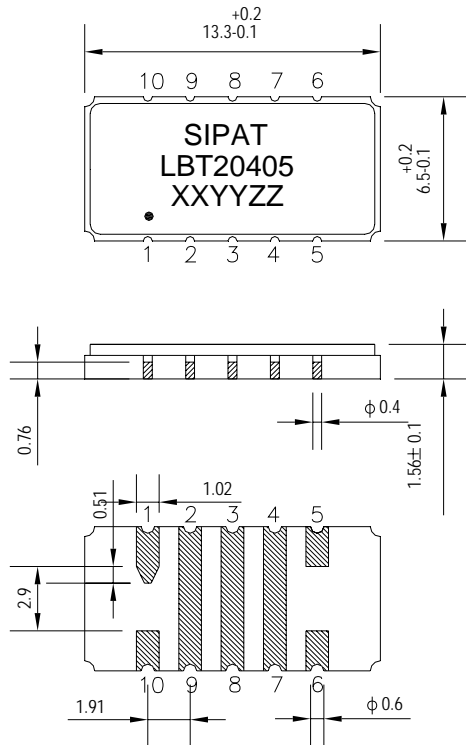
### Matching Configuration



**L1=56nH L2=47nH**  
**C1=36pF C2=33pF**  
**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) LBT20405: Part Number
- 4) XXYY: Date(Year/month)
- 5) ZZ: Identified Code

Package: SMD13.3\*6.5

Unit: mm



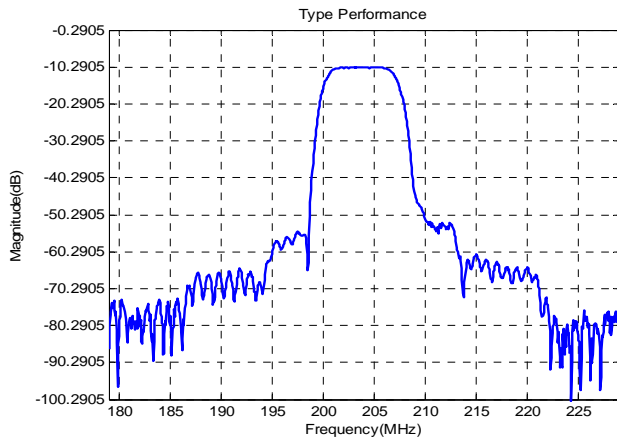
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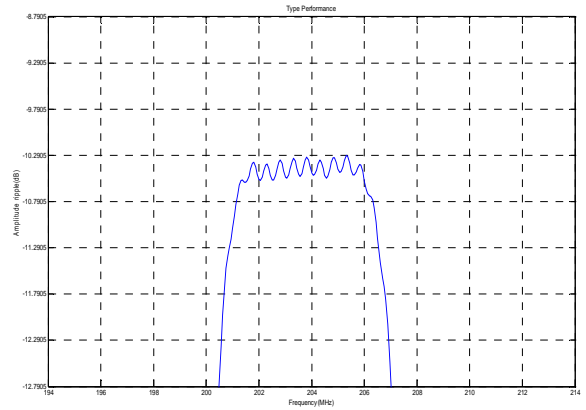
Typical Performance

Frequency Respond



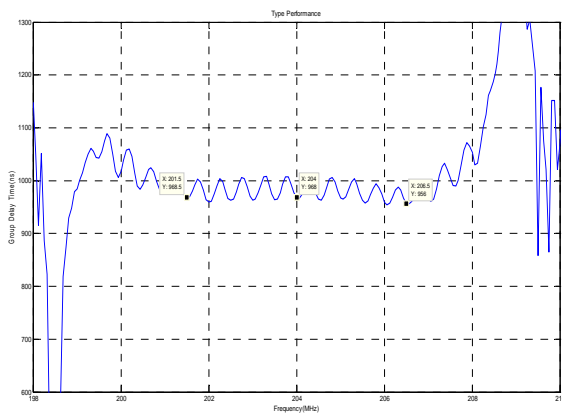
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



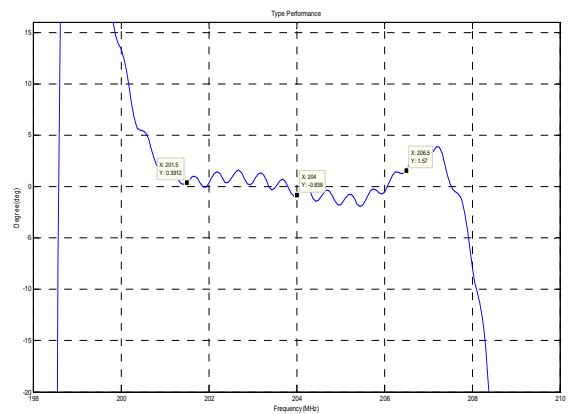
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation( $f_0 \pm 2.5\text{MHz}$ )



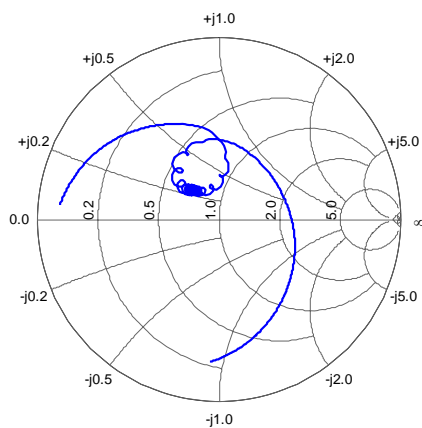
Horizontal: 2MHz/Div Vertical: 100ns/Div

Phase Linearity( $f_0 \pm 2.5\text{MHz}$ )

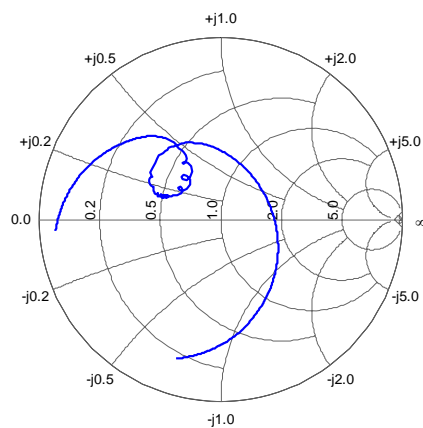


Horizontal: 2MHz/Div Vertical: 5deg/Div

Smith Chart S11



Smith Chart S22



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