

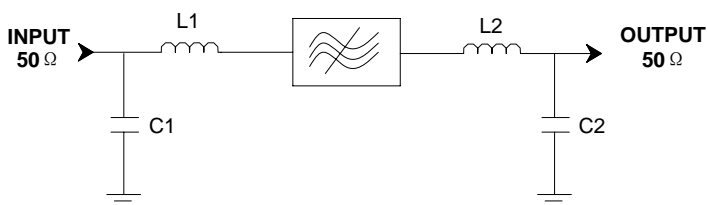
### Specifications

Parameter	Unit	Minimum	Typical	Maximum
Center Frequency	MHz	455.7	456	456.3
Insertion Loss	dB	-	29.5	31
1 dB Bandwidth	MHz	9.3	9.34	-
3 dB Bandwidth	MHz	-	9.73	-
25 dB Bandwidth	MHz	-	10.91	11
40 dB Bandwidth	MHz	-	11.31	11.5
50 dB Bandwidth	MHz	-	12.04	17.6
Passband Variation	dB	-	0.6	1
Group Delay( $f_0 \pm 2.4\text{MHz}$ )	nsec	-	40	100
Absolute Delay	usec	-	1.7	2
Ultimate Rejection	dB	40	45	-
Material Temperature coefficient	KHz/°C	0.456		
Ambient Temperature	°C	25		
Package Size	DIP2212 (22.2x12.8x4.7mm3)			

#### 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

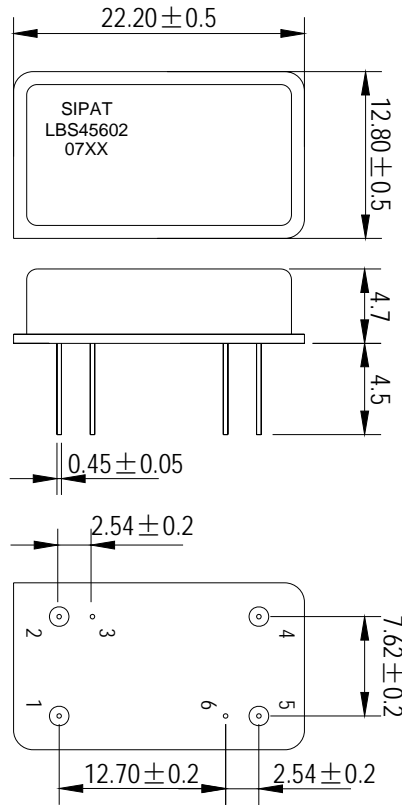


**L1=12nH L2=5nH**  
**C1=C2=10pF**  
**Source/Load Impedance=50 ohm**

Notes - Component values may change depending on board layout.

	<b>SIPAT Co., Ltd.</b> ( CETC No.26 Research Institute ) #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBS45602	
		Rev. Date	2007-06-15	
		Ver.	1.0	Page

*Package Dimension*



- 1) ∙: Pad Number 1 Index
- 2) SIPAT: Manufacturer name
- 3) LBS45602: Part Number
- 4) 07XX: Date Code

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

**Package: DIP2212**

**Unit: mm**

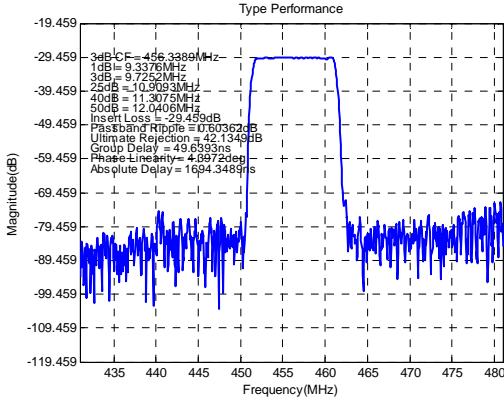


**SIPAT Co., Ltd.**  
( CETC No.26 Research Institute )  
#14 Nanping Huayuan Road,  
Chongqing, China, 400060

Part Number	LBS45602	
Rev. Date	2007-06-15	
Ver.	1.0	Page 2/4

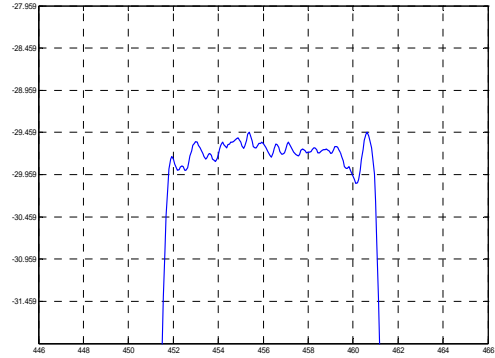
Typical Performance

Frequency Respond



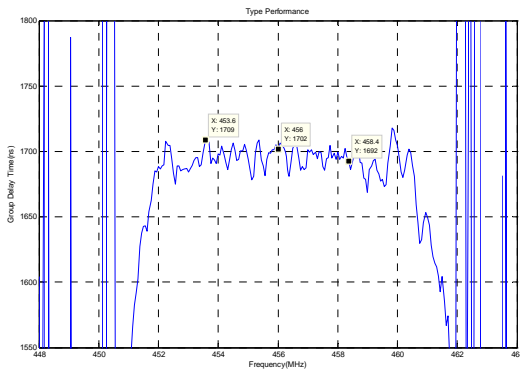
Horizontal: 5MHz/Div Vertical: 10dB/Div

Passband Respond



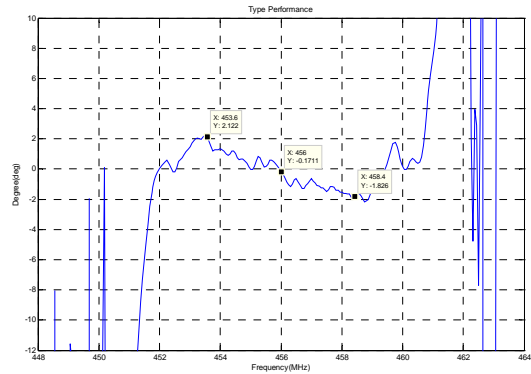
Horizontal: 2MHz/Div Vertical: 0.5dB/Div

Group Delay Variation(f0±2.4MHz)



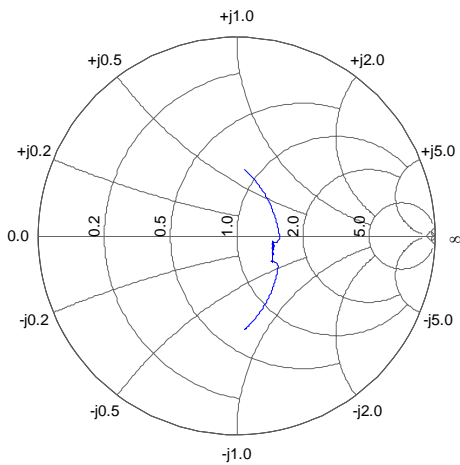
Horizontal: 2MHz/Div Vertical: 50ns/Div

Phase Linearity(f0±2.4MHz)

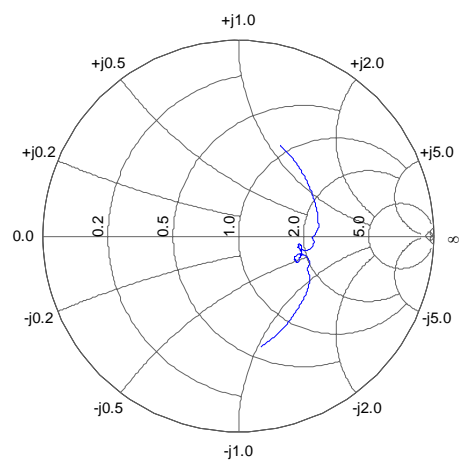


Horizontal: 2MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22




**SIPAT Co., Ltd.**  
( CETC No.26 Research Institute )  
#14 Nanping Huayuan Road,  
Chongqing, China, 400060

Part Number	LBS45602	
Rev. Date	2007-06-15	
Ver.	1.0	Page 3/4

*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

	<b>SIPAT Co., Ltd.</b> <i>( CETC No.26 Research Institute )</i> #14 Nanping Huayuan Road, Chongqing, China, 400060	Part Number	LBS45602	
		Rev. Date	2007-06-15	
		Ver.	1.0	Page 4/4