



### 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
<i>Center Frequency</i>	MHz	178.0	178.1	178.2
<i>Insertion Loss</i>	dB	-	25.3	27
<i>3dB Bandwidth</i>	MHz	1.6	1.69	-
<i>30dB Bandwidth</i>	MHz	-	2.32	2.4
<i>45dB Bandwidth</i>	MHz	-	2.43	2.8
<i>Ultimate Rejection (f0±5.8)</i>	dB	50	53	-
<i>Ultimate Rejection (f0±8.15)</i>	dB	52	53	-
<i>Passband Variation</i>	dB	-	0.5	1.0
<i>Absolute delay</i>	us	-	3.59	-
<i>Material Temperature coefficient</i>	KHz/°C	-	0.17	-
<i>Substrate Material</i>	-	QZ		
<i>Ambient Temperature</i>	°C	25		
<i>Operating Temperature Range</i>	°C	-25	-	+85
<i>Storage Temperature Range</i>	°C	-45	-	+105
<i>Input Power</i>	dBm	-	-	10
<i>ESD Class</i>	-	1C		
<i>Package Size</i>	DIP3512 (35.0x12.8x4.7)			

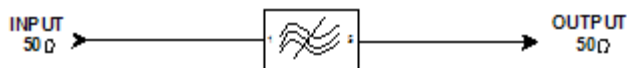
#### Notes:

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	LBS17801	
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		Ver.	1.0	Page 1/3

### Matching Configuration

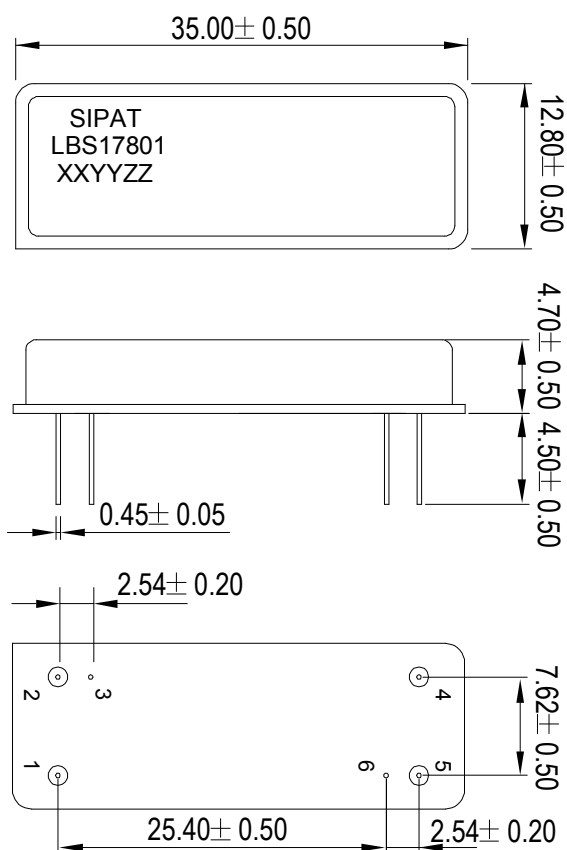
手动测试座



**Source/Load Impedance=50 ohm**

Notes - Component values may change depending on board layout.

### Package Dimension



#### Pad Configuration:

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

#### Marking Configuration:

- 1) SIPAT: Manufacturer Name
- 2) LBS17801: Part Number
- 3) XXYY: Date(Year/month)
- 4) ZZ: Identified Code

**Package: DIP3512**

**Unit: mm**



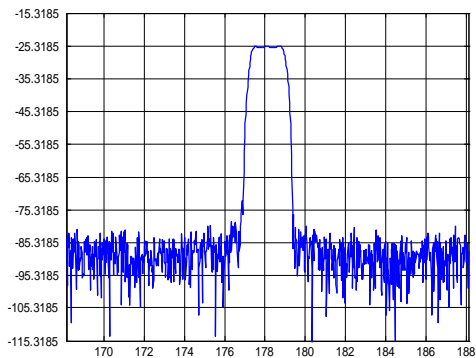
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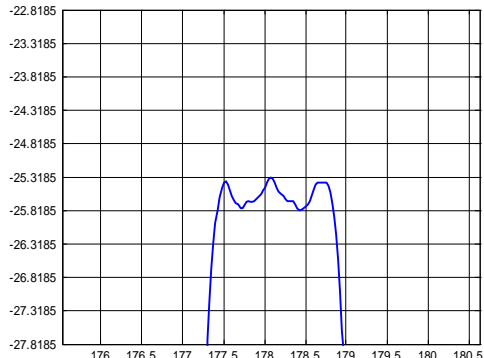
*Typical Performance*

Frequency Response



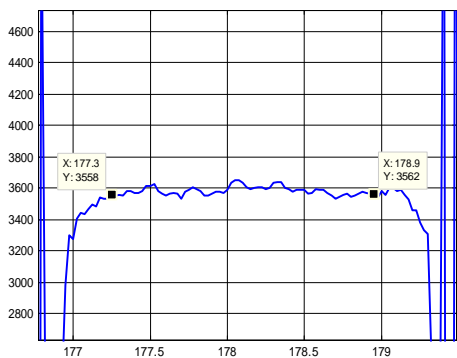
Horizontal: 2MHz/Div Vertical: 10dB/Div

Passband Response



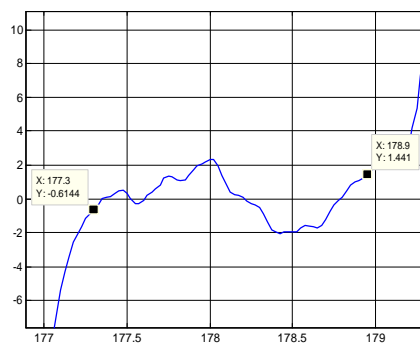
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Group Delay Variation



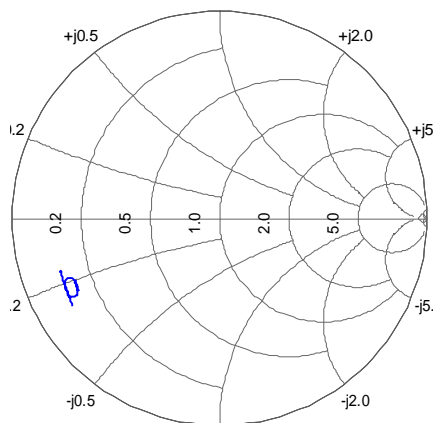
Horizontal: 0.5MHz/Div Vertical: 200ns/Div

Phase Linearity

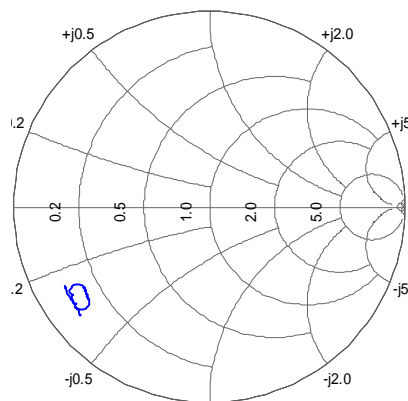


Horizontal: 0.5MHz/Div Vertical: 2deg/Div

Smith Chart S11



Smith Chart S22



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